Calendar

**Summer, 1996**

- Monday, May 13: Thirteen-Week Session begins
- Tuesday, May 14: Residence halls open
- Wednesday, May 15: First Six-Week Session begins
- Monday, May 27: University closed (Holiday)
- Wednesday, June 26: Second Six-Week Session begins
- Tuesday, June 25: University closed (Holiday)
- Thursday, July 4: University closed (Holiday)
- Tuesday, August 6: Second Six-Week Session ends
- Friday, August 9: Thirteen-Week Session ends
- Saturday, August 10: Commencement

**Fall Semester, 1996**

- Sunday, August 25: Residence halls open
- Monday-Tuesday, August 26-27: Late registration
- Wednesday, August 28: Classes begin
- Monday, September 2: University closed (Holiday)
- Thursday, November 28-29: University closed (Holiday)
- Monday, December 9-13: Final exam week
- Saturday, December 14: Commencement

**Spring Semester, 1997**

- Sunday, January 12: Residence halls open
- Monday, January 13: Late registration
- Tuesday, January 14: Classes begin
- Monday, January 20: University closed (Holiday)
- Monday, March 17-21: Spring Break (No classes)
- Monday, May 5-9: Final exam week
- Friday, May 9: Commencement (Graduate)
- Saturday, May 10: Commencement (Undergraduate)

**Summer, 1997**

- Monday, May 12: Thirteen-Week Session begins
- Tuesday, May 13: Residence halls open
- Wednesday, May 14: First Six-Week Session begins
- Monday, May 27: University closed (Holiday)
- Tuesday, June 24: First Six-Week Session ends
- Wednesday, June 25: Second Six-Week Session begins
- Thursday, July 4: University closed (Holiday)
- Tuesday, August 6: Second Six-Week Session ends
- Monday-Friday, March 17-21: Spring Break (No classes)
- Monday, May 5-9: Final exam week
- Friday, May 9: Commencement (Graduate)
- Saturday, May 10: Commencement (Undergraduate)

U.S. POSTMASTER: Send address changes to University of Northern Colorado, News and Publications Office, Greeley, CO 80639-0001.

University of Northern Colorado Series XLVI, June, 1996, No. 2.

The content of this document is provided for the information of the student. It is accurate at the time of printing but is subject to change from time to time as deemed appropriate by the University President or Board of Trustees in order to fulfill the University role and mission or to accommodate circumstances beyond their control. Any such changes may be implemented without prior notice, without obligation and, unless specified otherwise, are effective when made.

The University of Northern Colorado is an AAEEO employer and is committed to fostering diversity in its student body, faculty, and staff. The Affirmative Action Equal Opportunity Office is located in Carter Hall, Room 2011, 970-351-2829

University of Northern Colorado, (USPS 411-510), published four times per year (March, June, August and October) by University News and Publications Office, Carter Hall 2012, Greeley, Colorado 80639. Second Class postage paid at Greeley, Colorado.

The calendar is a projection of the course of events of the 1996-1997 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

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 teaching and administrative personnel of UNC have created a highly prized balance between the personal contact found typically in a small institution and the broad range of cultural, social, and intellectual opportunities found in a large university.

The University offers approximately 2,700 academic courses annually and enrolls approximately 10,500 students.

UNC is located in the city of Greeley, Colorado, approximately one hour north of the city of Denver, and approximately one hour east of Rocky Mountain National Park. Greeley is a mid-sized city of 65,000 people (counting UNC students). Greeley has a symphony, jazz, and rock concerts, community and collegiate theater, as well as America's largest 4th of July rodeo. It has a dry, high desert climate with sunny days and cool nights. There is some snow and very little rain.

The 236-acre 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 UNC Continuing Education Downtown Center serves a growing number of individuals, organizations, business, and industry with quality outreach programs.

The University of Northern Colorado celebrated its 100th birthday during 1889 and 1990. The University was founded in 1889 when a bill was drafted in the Colorado legislature providing for a State Normal School. The law creating the school was signed on April 1, 1889. The citizens of Greeley raised the necessary money for the first building and the cornerstone was laid on June 13, 1890.

Designed to train qualified teachers for the state's public schools, the State Normal School began on October 6, 1890, 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 1915. 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.

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 professional graduate and 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.
• 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 to achieve 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 school and 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 programs, and 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 University.

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 Association of Colleges of Pharmacy: 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 of 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 Colleges for Teacher Education, Teacher Education Council of State Colleges and Universities, the Renaissance Group, the American Council on Education, the Council of Graduate Schools, the United States, the Western Association of Graduate Schools, the American Assembly of Collegiate Schools of Business, and other educational organizations.

Services and Resources

University Libraries

The James A. Michener Library is named for one of America's most popular authors, who was also a former UN student and faculty member. In this modern facility, the library maintains its primary collection of approximately 1.5 million books and periodicals, monographs, government documents, archival materials, flimstrip, slides, maps, software programs, videos, and microforms. The collections and the opportunities to borrow materials are available to all Colorado citizens. Services include bibliographic instruction, interlibrary loan, reference, circulation, reserves, off-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 (CARL). In addition to the holdings of the UNC libraries, CARL provides access to the collections of more than 100 libraries throughout the country, including the major research libraries of Colorado. CARL also provides 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 Information Services 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 Slight Computer System for the blind and visually impaired. The Music Library, with comprehensive holdings (including scores and recordings) selected for music students, is located in Frasier Hall.

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

Information Services

Information Services provides computing resources, telecommunications, software training, technical support, and computer sales to the entire campus community. This includes the design and implementation of the campus network infrastructure (UNCNec) providing connectivity to the Internet. Email accounts for students, faculty, and staff can be obtained through Information Services. The University modern pool provides access to local and Internet resources (SLIP/IPPP).

The central facility houses a large mainframe, several minicomputers, and a micro computer lab. The usual computer languages are provided with statistical packages. Also a computer-assisted/manager-managed instruction package, Phoenix, is available. Additional equipment and student computer labs are strategically placed throughout central and west campuses.

Microcomputers (Apple and IBM) and Phoenix terminals are located in various buildings on campus.

For further information on services provided, please contact the Help Desk at 970-551-4357.

Academic Technology Services

Academic Technology Services (ATS) is the unit in the office of Academic Affairs that supports faculty and staff use of technology for instructional purposes. Professional staff will consult and assist with distance education delivery utilizing compressed video, satellite teleconferencing, and other formats; production of original audio, video, and computer-imaged teaching materials, and design, installation, operation, and maintenance of technology-based teaching facilities. ATS staff provides instruction in the operation of UNC’s “Technology Classrooms” and consults with faculty on the design and utilization of instructional materials and hardware. ATS resources include access to a variety of instructional design and faculty development resources.

ATS is responsible for the operation and management of the University’s media production and distance education facilities. ATS also maintains and operates UNC’s satellite, Instructional Television Fixed Service (ITFS) and cable television systems.

Continuing Education

The College of Continuing Education provides quality educational opportunities by extending the resources of the University. The College offers a variety of programs designed for campus degree programs, professional development programs, independent study courses, special professional programs, certificate programs, Freshman Challenge, on-campus evening programs, and the on-campus summer session.

Degree Programs

The Colorado Legislature designated UNC as Colorado’s primary institution for undergraduate and graduate teacher education. Continuing Education works to satisfy that responsibility by providing access to complete graduate degree programs in education throughout the state. Classes meet during convenient evening and weekend hours. Most students complete programs in 18-24 months of study. Degrees earned off-campus carry full academic recognition and are different from degrees, certifications, and licensures earned on the Greeley campus.

Professional Development Programs

Hundreds of graduate and undergraduate level 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 and evening locations.

Independent Study

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

Special Professional Certification Programs

Workshops focused on skills for working professionals and their practical applications in the workplace are offered both in Greeley and throughout the state. Continuing Education Units (CEU’s) or non credit options.

Evening Division On-Campus

One-sixth of the courses within the UNC curriculum are offered between the hours of 4pm and 10pm, Monday through Thursday and on weekends. Students have an opportunity to take courses, start and/or finish a degree program at convenient times.

A full range of University services is available to evening students including special evening registration, accounting services, student advising, and special bookstore evening hours.
Summer Session On Campus. For more than one hundred years the University has hosted a nationally recognized summer session. It is an integral part of the academic program, allowing students to accelerate completion of degree programs or to come to the Greeley campus for professional development or personal enrichment.

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

Continuing Education's Educational Technology Center extends academic technological capabilities to the community from its Downtown Center at 822 Seventh Street and as a link between the campus and the greater Greeley area.

Continuing Education is committed to providing lifelong learning opportunities. For more information call or write the College of Continuing Education, University of Northern Colorado, Greeley, CO 80639. Call 659-6778 from Metro Denver or 970-351-2944 from other locations.

Laboratory School

The Laboratory School is a comprehensive pre-kindergarten through 12th grade program directed by the Tointon Institute for Educational Change. The total enrollment is approximately 600 students, representing all socioeconomic levels reflected in the Greeley community.

Presently, the school is engaged in numerous activities for the enhancement of its total education program, with the goal of becoming the nation's finest experimental school. The Laboratory School serves as a research and development center and as a teacher development center in support of UNC's teacher education program.

Student 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.

Information about any of these programs may be obtained from the Office of the Vice President for Student Affairs, Carter Hall, phone 970-351-2303.

The Dean of Students serves as a University-wide ombudsman and information and referral service for UNC students. Students who withdraw from all their classes initiate the withdrawal process in the Dean of Students Office. The Dean of Students Office coordinates a recognition and awards program. The dean's office is located in Carter Hall 3005, phone 970-351-2796.

The Admissions Office provides information and assistance to undergraduate students seeking admission to the University. New freshmen and undergraduate students transferring from other institutions should contact this office by calling phone 970-351-2881. Graduate students wishing to start a program or transfer should contact the Graduate School Office, phone 970-351-2424.

The Visitors Center is located in the Admissions Office. Campus tours are available Monday through Friday four times daily. By contacting this center, a student can make arrangements for a visit to a residence hall, make an appointment with an admissions officer, visit the financial aid office, or schedule an appointment with a professor in the student's program of interest (request this two weeks in advance). To reserve a place in the tour van, call 970-351-2097, or toll free from the Denver metro area, 535-6312.

The Office of Student Financial Resources is committed to providing equal educational opportunities to the greatest number of students possible. Financial aid is available to students for non-college costs (tuition, fees, books, food, housing, and transportation). This aid is available through loan, grant, scholarship, and employment programs. Visit this office in Carter Hall, Room 1005 or for additional information phone 970-351-2825 voice response (24 hour access) or call 970-351-2502 between 9am and 4pm Monday through Friday.

The Career Services Office includes the Accounts Receivable, Loans Receivable, and the Cashier's office. These offices are responsible for the billing and collection of student accounts, and other related charges. These offices are located in Carter Hall, Room 1002. or phone 970-351-2201.

The Registrar and Records Office provides tuition classification, registration, maintenance of academic records, transcripts, and performs the graduation check for undergraduate students. This office also answers questions for undergraduates about University policies and procedures. Contact this office in Carter Hall, phone 970-351-2231. Graduate students with questions regarding University policies and procedures should contact the Graduate School in University Hall, phone 970-351-2831.

The Academic Advising Center (AAC) provides the following services to undergraduates: academic and personal counseling and advising for undeclared majors and special populations in their transitions to academic majors; increased academic support and monitoring through the Intensive Advising Program; and the accreditation of academic difficulties; administration of the Fresh Start Programs for Freshmen and Continuing Students; and orientation for new students and their parents. The professional staff and peer advisors also provide students, faculty, and staff with information regarding general education requirements, academic policies and procedures, and resource referral assistance. The AAC monitors the academic standards established by faculty and is responsible for suspending those students who fail to meet those standards. Readmission after suspension is coordinated by the AAC. Contact this office in the University Center (second floor), 970-351-1391.

The Career Services Office provides current students and alumni the opportunity to explore professional work experience while still in school. The intent of the program is to provide academically relevant full- or part-time work experience that complements the student's studies and enhances his/her career potential.

Testing Service — Provides more than 40 career, personality, and national standardized tests that include the SI, MBTI, ACT, ACT-P.EP, NUN, MCAT, SAT, CLEP, GRE, GMAT, and LSAT, to list a few.

Employment Assistance — Includes assisting students with their search for full-time employment. Services include providing a 24-hour job hotline, on-campus interviews, referrals, job fairs, establishment of credential lists, workshops, and literature on job search preparation.

Career Services staff also provide more than 100 workshops and presentations annually on such topics as: career planning, resume writing, interviewing techniques, and other strategies. All students can benefit through the use of Career Services. To further explore the possibilities for yourself, contact Career Services in Repner Hall, Room 0010, or call 970-351-2127 to arrange an appointment with a career counselor.

The Center for Adult Student Services (CASS) has been established to address the complex needs of adult students. Adult students are considered those who have multiple responsibilities (parenting, working, etc.) while attending school and those who are attending UNC after spending a significant period of time out of school. The Center is an encouraging and convenient environment in which information and referral services, problem solving, support, and comprehensive programming are provided. CASS is located in the Johnson House, 1005 10th Avenue, and all students are welcome to drop in. The Center is committed to assist adult students in their educational programs. The Center demonstrates respect for the uniqueness of each member of the educational community and affirms the importance of equal access to educational opportunities. For more information, please call 970-351-2941.

The Center for Human Enrichment (CHE) provides academic advising, skill development classes, tutoring, and personal and career counseling for students. The Center for Human Development, located in Michener L120 offers computers, tutoring, and study skills workshops. Contact this office at Michener L77, phone 970-351-1905.

The Student Health Center provides a variety of medical and nursing services, emphasizing preventive medicine, first aid, and specific referrals for health concerns. Students are strongly encouraged and 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. Contact this office in Decker Hall, phone 970-351-2412.

The University Counseling Center provides psychological services, educational, and testing services. Admission to the counseling center is for individual and group counseling, the Center provides biofeedback training and test-anxiety management programs. These services are confidential and free to students. Contact this office in Gordon Hall, phone 970-351-2496.

Disability Access Center provides access, accommodation, and advocacy for students with documented disabilities. Academic Support includes academic aides (interpreters, note takers, library research assistants, test administrators), information on adaptive test arrangements and exam study area, preregistration and registration assistance, telecommunications device for the deaf (TDD), housing adaptation and accessibility, limited campus transportation, orientation, and mobility training and a reader program. For computer access, adaptive computer hardware and software are available. Training for the adaptive technology is provided in the High Tech Training Center. Procedures of support services for students with disabilities are available for viewing at the Disability Access Center, the AA/EO Office, and Michener Library (as of September 1, 1996). Contact this office in Bishop-Lehr 1520, phone 970-351-2289.

Native American Student Services (NASS) was established in 1977 and serves the Native American student population of the University with cultural, social and academic support services. Through these services, NASS seeks to aid in the recruitment and retention of Native American students at the University and Greeley communities. The office is located in Michener L77, phone 970-351-1125.

Asian/Pacific Islander Student Services is a new service on campus. The main goal is to provide academic and social support to the Asian/Pacific Islander students while sharing with the campus community the history and culture of Asian and Pacific Islander students. Contact this office for information about the customs and traditions of the different Asian/Pacific Islander cultures. The office is located in Michener L77, phone 970-351-1976.
Student Life

Residence Life. The Residence Life administration is housed in Carter Hall. The student residence halls and apartments are managed by professional staff who strive to provide a comfortable living environment conducive to academic success.

Economical and convenient accommodations are provided for more than 3,000 students, including graduate students and those with families. All residence halls and apartments are fully furnished. Phones and local service only are provided in all facilities except Student Family Apartments. All other utilities are included in rental rates. Basic cable hookups are available in all residence halls. Residents provide cooking utensils, linens, blankets, cleaning supplies, and personal items.

Students may bring small furnishings and decorations for their rooms. Recreation rooms, TV lounges, study areas, and laundry facilities are standard in each building. Residence hall government and programming provide an opportunity for involvement for all residents. The Residence Hall Association (RHA) encourages students to take an active role in hall living.

Residence Life offers special services. Residence Life Academic Centers provide 24-hour counseling, tutoring, and study sessions. Theme houses are located on both West and Central campuses. Included are quiet lifestyle, education, performing arts, health enhancement, and professional theme houses (promoting a global perspective of community living) and ADH House (focusing on alcohol and drug-free lifestyles).

A $100 deposit is required to hold housing space for all residence halls and apartments.

Central Campus Residence Life. Belford, Sabin, Snyder, Tobey-Kendel, Wiebking, and Wilson Residence Halls are located within five minutes walking distance from the University Center. These six halls house 750 students and are popular because of the strong sense of community that results from hall-sponsored programs, events, and shared living experiences in a small-scale setting.

Rooms and suites accommodate two, three or four students. Each room contains beds, desk areas, bookshelves, closet, and drawers. Halls are coed-room-to-room or floor-to-floor with the exception of Belford, which is an all female hall. Non-freshmen and freshmen age 20 or more may live in Sabin. In Belford, Sabin, Snyder, Tobey-Kendel, Wiebking or Wilson Halls are required to carry a meal plan.

West Campus Residence Life. Housing over 2,000 students. It includes two large residence halls and two apartment complexes. West Campus classroom and sports buildings are within a five-minute walk.

Harrison and McCown Halls offer four-person suites with two bedrooms. Harrison has private baths connecting bedrooms. McCown has vanity areas connecting bedrooms with community bath facilities on each floor. Both halls are coed.

Harrison Hall has an adjacent activity center for students with disabilities. Residents are required to carry a meal plan. Air-conditioned dining rooms adjoin each facility.

Turner Hall is a coed, conditioned, 13-story coed apartment complex. Most apartments accommodate four students with a living-study room, private bath, two bedrooms and a small kitchen. Necessaries include purchase meal plans for use in any dining room.

Lawrence 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 conditioned complex with one floor reserved for graduate and re-entry (minimum age 25) students. Some efficiency units are available. Two-bedroom units accommodate four students. Each apartment is furnished and has a living-dining area, private bedroom, bathroom(s), and kitchen.

This facility is air-conditioned. Meal plans may be purchased for use in any dining room. Student Family Apartments. Located at 509 18th Street, they are within five minutes walking distance from 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. Residents provide cooking utensils, linens, and a shower curtain. Maintenance is handled by University personnel. For additional information, phone 970-351-2570 or 970-351-2721.

Dining on Campus. The award winning UNC Dining Services provides convenient and economical dining opportunities on campus. Students may choose from a wide variety of meal plans. Three dining locations and Arnie’s Snack Shop offer a variety of selections such as Chinese, Mexican, Indian and Italian. Gourmet To Go is available at all residential units. Freshmen and sophomores 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 for student employees. For more information contact 970-351-2652.

Student Activities. Students can become actively involved at UNC through the Student Activities Office. Located in the University Center, this office provides students the opportunity to gain valuable experiences, meet new and interesting people, and participate in activities that have a lasting effect on both the campus and the individual. Phone 970-351-2871.

Greek. The University recognizes chapters of nine national fraternities and five national sororities. The fraternities are Delta Chi, Delta Tau Delta, Delta Upsilon, Omega Psi Phi, Sigma Alpha Epsilon, Sigma Chi, Sigma Pi, Sigma Phi Epsilon, and Tau Kappa Epsilon. The sororities, Alpha Delta Pi, Alpha Phi, Alpha Sigma Alpha, Delta Zeta, and Sigma Kappa.

Student Government. The Student Representative Council (SRC) is the governing body of the students at UNC. In addition to providing a voice for students on campus, SRC oversees several student services: Center for Personal Education (COPE), Legal Services, Off-Campus Housing, Center for Alcohol Resources and Education for Students (CARES), National Student Exchange (HSC), and Resence Service.

University Program Council. The University Program Council (UPC) provides the majority of the diverse entertainment on campus for students. The UPC sponsors or cosponsors group sponsors lectures, movies, comedians, concerts, and other special events at low or no cost to students.

Student Clubs and Organizations. UNC charters over 100 clubs and organizations for students to participate in. Included are academic societies, international student groups, religious groups, the University House, the University Student Senate, and honorary organizations. A number of clubs including League of United Latin-American Citizens (LULAC), Greeley Gay and Lesbian Student Association (LGBTA), and Residence Hall Association have offices located in the Student Activities Area and each of the 100 clubs has its own mailbox in the area. The Special Projects Office handles a co-curricular transcript, Leadership Conferences, and a New Student Mentor Program.

International Student Exchange. Students have an opportunity to study in another country for up to one full academic year, while paying very affordable rates. The students will be able to make academic progress towards graduation by working with the Exchange Office and their academic advisor.

Graphic Services. The Student Activities Office maintains a graphic arts shop. Students can commission a student artist to develop promotional materials, brochures, and print signs at a nominal cost.

Drug/Prevention Education Program. The UNC Drug Prevention/Education Program recognizes that college students are emerging adults who are faced with the task of making personal choices about the use of alcohol and other drugs. To facilitate healthy lifestyle choices, the staff work with individuals, campus departments and organizations, and the Greeley community to provide programs that educate students about alcohol and other drugs, support healthy choices around alcohol and other drugs and provide resources for information and referrals for assistance.

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 resource as a resource when planning volunteer activities as well.

Student Media Corporation. The Student Media Corporation (SMC) is the organization that operates the UWRA student publications, the UWRA student newspaper, is published three times a week.

Student Centers

The University Center (UC) is the show place of the UNC campus. As the community center of the campus, the UC staff, along with the student leaders, strives to make the Center an extension of the education beyond the classroom, social, leisure, recreational, and co-curricular activities for the campus. The diversity of the UNC student body and the surrounding community is a prime consideration in the programming and services offered.

The UC houses the Academic Advising and Registration Centers and is the home base for over 100 student clubs and organizations.

Located on the lower level is the UC Mall, where twelve merchants serve the campus and community. Zachariah's Food Court, the Walk-Up Window, Taco Bell Express, and Club Bentley provide a variety of food options from upscale dining to fast food. The University Bookstore offers collegiate clothing, gift items, CD's, and supplies in addition to textbooks. A travel center, computer store, convenience store, and hair salon serve the many needs of students.

A full-service coffee shop, ice cream and gourmet coffee shop, and the Campus Technology Center round out the mall.

Lounges, meeting rooms and other facilities are available for special scheduling. The University Center hosts an exceptional range of events and programs throughout the year and attendance at UC events approaches 200,000 annually.

Campus Recreation. The Campus Recreation Department is housed in the Campus Recreation Center, located on the west campus. The center is the focal point for all recreation, intramural, club sports, fitness, and wellness programs that are available to the University community. It houses gymsnasiums, racquetball programs that are available to the University community. The Recreation Center has five basketball courts, four squash courts, four volleyball courts, a climbing room, a running track, a cardio/weight training area, meeting rooms, an aerobics room, locker rooms, and is attached to the swimming pool in Butler-Hancock.

Intramurals support more than 25 sports with hundreds of teams formed by residence halls, fraternities, and sororities, and Independent
General Academic Policies

Academic 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.

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.

The Women's Resource Center provides educational programs, speakers, performers, resources, and opportunities for students interested in women's issues and other social issues. Contact the Women's Resource Center at 225A/B Candelaria, phone 970-351-1492.

Athletics
At the intercollegiate level, 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 is available in all intercollegiate sports. This assistance is based upon athletic ability and academic eligibility.

University Resources
Alumni Relations. House in the Alumni and Foundation Center. Alumni Relations provides a link between the University and its graduates, offering news and information of other graduates and current campus events, coordinating the efforts of local chapters nationally and keeping records on members.

Office of Development. Located in the Alumni and Foundation Center, the Office of Development is responsible for coordinating University efforts to secure financial support from the private sector and to serve as the receiving point for gifts of dollars, securities, works of art, land and equipment.

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. Contact this office at 1855 10th Avenue, phone 970-351-2396.

KUNC-FM. UNC owns and operates a 100,000-watt noncommercial public radio station located at 91.5 on the FM band. KUNC is a member of National Public Radio and broadcasts 24 hours a day, 365 days a year.

University News and Publications. This office exists to communicate effectively and regularly with the University's major constituents. It responds to requests from the media for information on a variety of subjects by calling on the resources and expertise of the faculty and professional staff. The news operation of University News and Publications prepares the UNC Report, a weekly newsletter of events and stories about the faculty and staff, and announcements and events for faculty and staff. Through this office, the Division of University Affairs produces the University of Northern Colorado Spectrum, a magazine that focuses on events, faculty, staff, alumni, and friends of the University.

University Police Department. UNCPD is the campus law enforcement agency, 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. UNCPD is accredited by the Colorado Association of Chiefs of Police on professional standards. UNCPD can be contacted at 970-351-2245 (all hours) or by dialing 911 from any campus telephone.

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.

Basic Skills Courses
These courses are designed to teach academic skills and general competencies necessary to succeed in college.

These courses, numbered 001 through 099, do not count in term, cumulative or total credits and are not calculated into the GPA. Credits earned in these courses count toward meeting financial aid minimum credit hour requirements.

Grade System
The University assigns alphabetical grades. Superior is indicated by "A," above average by "B," average by "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 with "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 grade of "W" indicates an approved withdrawal from the course and is assigned only when the student has completed the official withdrawal processes outlined in this bulletin. 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 attendance including summer term coursework within one calendar year, whichever occurs first. If a student does not complete the academic requirements within these time limitations, the grade will be recorded as "F" or "U" on the academic record. "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, research, 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 premargined for the student to complete 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).

Computing Grade 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 grades 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 the "I/F" grade is recorded on the transcript.

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 and 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 attempted that equals a 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.

The same principles apply when computing the cumulative grade point average. Add the total number of points earned in all classes except basic skills courses numbered 001 through 099 and all courses that carry the grades listed previously. "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 relative grade point average of 2.50.

With the exception of courses numbered 001 through 099 and all courses that carry the grades listed previously, the notation "S," "U," "W," "UW," "NR," and "NC." are not used in computing the grade point average. A "C" or "P" grades are counted toward the cumulative grade point average.

Course Credit

All credit awarded 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. 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 course description. Repeated courses are recorded on the transcript separately for each time the student registered, with all letter grades counting toward the cumulative grade point average. Each course must 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, one-tenth of 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.

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 CM; 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 relationship to the minimum 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 GPA.
- 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 QGOL 398. Courses ending in "98" cannot be used to meet General Education requirements.

Course Load

For all students, nine credit hours is considered a full-time load for health insurance requirements and tuition charges. For financial aid and verification of enrollment purposes, full-time enrollment load is defined as 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 a semester. This information may vary during summer terms; see 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 Expenses). Beginning the first day of class through the drop/add deadline, undergraduate students with a 2.75 or higher cumulative grade point average may enroll for additional courses, with approval from the Academic Advising Center located in the University Center, phone 970-351-1391. Additional requirements are:

- Full or business majors receive overload approval from their department.
- Overloads during the semester of student teaching are approved by 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 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 summer term maximum credit loads may vary. See the Summer Schedule of Classes.

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

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.

Undergraduate Academic Advising

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.

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.

Each advisor has access to a complete summary of a student's academic records. These records 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 on the undergraduate advising system may be obtained from the Academic Advising Center, University Center, phone 970-351-1391.

Off-Campus Activity and Field Trip Disclaimer

Students at the University of Northern Colorado are encouraged to take advantage of the many diverse educational opportunities offered by the
General Academic Policies

University and/or available within the vicinity of the University. As part of the courses and extracurricular activities offered by the University, students will be encouraged to attend campus events and participate 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 destinations. The University may be expected to provide their own transportation to and from such activities, or the University may arrange or otherwise provide transportation. Under any circumstances, however, the University presumes its student to be 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 responsibilities and liability for their actions and conduct while attending, involved in or traveling to and from any off-campus activities, whether for required or voluntary activities.

General Policies

Full-Time and Part-Time Status

The Academic Standing of a student's academic performance is determined by the grade point average. An undergraduate 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:

- **Good Standing** — Having both a term and cumulative grade point average above a 2.00.
- **Academic Probation** — Having both a term and cumulative grade point average at or above a 2.00 but below 2.50.
- **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 average or who are 15 quality points deficient in their cumulative grade point averages.

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, University Center at 970-351-1391. 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 prior to the term the student wishes to re-enter UNC. The appeal form must contain a specific plan of academic and disciplinary actions 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.

Readmission forms are available at the Academic Advising Center, University Center at 970-351-1391.

Fresh Start Programs for Freshmen and 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 all or part of the grades used to calculate their grade point averages without using grades of “D” and “F.”

The Fresh Start Program for Freshmen is for students who have earned less than thirty 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 earn a minimum of 24 semester credits (or 35 quarter credits) of transferable course work to UNC and a 2.50 grade point average for these credits. If the student is readmitted to UNC, they must have at least 12 credits and a 2.50 grade point average for these credits.

The Fresh Start Program for Continuing Students is for individuals who have grades of “D” and/or “F” that are four calendar years old or older based on the most recently completed term at UNC. In both programs, “D” does not use in the recalculation of the grade point average, and the student no longer counts for credit toward graduation.

Students must also complete at least 30 semester credits of UNC course work prior to graduation after the Fresh Start Program has been applied. For more information regarding the Fresh Start Programs, contact the Academic Advising Center, University Center at 970-351-1391.
For academic requirements regarding graduate students, see the Graduate School section of this bulletin.

**Academic Appeals Board**

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, Carter Hall 3005, phone 970-351-2796.

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. Graduate students should contact the Academic Appeals Officer of the Graduate School.

**Insurance**

UNC's Board of Trustees requires that all students registered for 6 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 plan is only financially 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 date. Further information on deadlines and procedures may be obtained from the Student Health Insurance Office, phone 970-351-1915.

The University does not require students registered only for summer session to purchase the University's insurance plan or demonstrate possession of an acceptable insurance plan. However, 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.

**Procedures Registration**

The University publishes the Schedule of Classes listing classes offered each semester. The Schedule of Classes is 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, University Center; the Academic Advising Center, University Center; or the Admissions Office, Carter Hall 3005.

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:

- Distribution of course selection materials and advisors
- Selection of courses
- Receipt of statement of account and change of address form
- Payment (or arrangements for deferral) of student account

Provisions are made for new students to register during this regular process. In addition, since 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.

**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. The Schedule of Classes for the exact date each semester after which new enrollments will not be accepted.

**Schedule Changes — Adds or Drops**

During the beginning of each semester, students may initiate courses from their schedule (see the Schedule of Classes for specific deadlines). This procedure is handled in the Registration Center, University Center, phone 970-351-2921 or by touch-tone telephone registration, 970-351-2825. 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 fees changes. Drop fees differ from withdrawals since they are not recorded on the student's transcript as 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 registration and the Class Schedule Confirmation form printed after registration. The student may drop a class during the "Drop/Add" period, which is normally the first 10 class days of a semester for full term courses. The predetermined dates of the Drop/Add period of each semester are listed in the Schedule of Classes for each semester. 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 so the faculty member is aware of the withdrawal. The form may be obtained in the Registrar's Office, in the Academic Advising Center in the University Center, or from the Registrar's Office in Carter Hall. The first date to withdraw from an individual course is the first class day immediately following 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 published in the Schedule of Classes. The withdrawal deadline for a short-term class occurs when the class has held 50 percent of its meetings. The grade of "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 himself/herself before the first class day and through 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, University Center.

A faculty member may drop a student from a class during the drop/add period if the student has not attended the first two class hours. The student must notify the Class Schedule Office, which will adjust the final examination times or locations before the testing date.

**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 dates or locations before the testing date.

The final examination may be administered by an instructor who considers it unnecessary, with the approval of the department chairperson. If no final examination is given, class will continue through the last week of the semester. In such cases, classes will meet at 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 it 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 must 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.

**Grade Submissions and Corrections**

Faculty must submit grades to the Registrar's Office by 4pm of the third working day following 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 due 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 required only to complete work of the student. Departmental offices. No grade change requests submitted by students will be accepted.

**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 processing each request. Transcripts may be ordered in person or by mail and are mailed out or can be picked up by the student.

**Application for Graduation**

Undergraduate students should apply for graduation upon completion of 90 semester hours of credit applicable to the degree program. The application is evaluated and processed by the Registrar's Office and the major, minor and licensure departments. Applications for graduation are accepted through 4pm Friday of the second week of the semester that the student expects to graduate. There is a graduation fee assessed for graduation prior to the student initially plans to graduate.

After the application is filed, it is the student's obligation to inform the Registrar's Office of any change in the semester of graduation or course substitutions. Graduate students should review graduation requirements and graduation procedures in the Graduate section of this bulletin.
Withdrawal from the University
A student may withdraw completely from the University at any time during the semester. Students who wish to withdraw must start and finish the process at the Dean of Students Office, Carter Hall 3005. 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 University Tuition, Fees and Other Charges 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, Carter Hall 1005, phone 970-351-2502.

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 such cases, two 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 be eligible for a joint degree upon the completion of all major requirements. 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.

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, University Hall, phone 970-351-2500. The student will be accountable for the final examination in the courses taken for the next higher degree.

Second Baccalaureate Degree
To declare an intent to complete a second baccalaureate degree, students must complete a change of major form available in most academic departments. Upon completion of the major change 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 to change, the student must meet the following criteria:

- Pay undergraduate tuition rates rather than the graduate tuition rates.
- Be admitted to the graduate program at the end of the academic year in which they declare the second major.
- Complete a minimum of 120 semester credit hours.
- Complete the requirements for the second major.
- Be in good academic standing.

Other Academic Opportunities
Directed Studies
Directed Studies are available in most disciplines. These are identified within this bulletin by course numbers 422 and 622. The Directed Study course provides a vehicle that a qualified student may use to earn University credit for an Individualized investigation under the direct supervision of a Faculty member. Since Directed Studies with the number 422 are at the undergraduate 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 given 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 critical 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, University Hall 2007, phone 970-351-2831, or the dean of the college in which the Directed Study is to be undertaken.

Credit by Examination
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 normally 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 coursework.

In addition, students may challenge their current academic ability in a specific course to be sufficiently high to earn credit or 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 offers the course.
- The student must enroll in the course and pay the appropriate tuition and fees.
- The student must obtain approval to challenge the course through examination from the course instructor.
- 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 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.

Graduation Requirements
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).
- Complete at least 40 semester hours in courses designated as General Education courses 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. UNC Undergraduate Bulletins expire 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 current bulletin 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 of which the student enrolls and completed his/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/her academic program using the appropriate bulletin. When the bulletin has expired at the end of the six-year limit, the student may request a subsequent bulletin up to and including the current one, providing the student 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 these 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 semester hours 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 must be on file to complete the requirements. A complete transcript of all undergraduate work 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 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 minor is an emphasis in the student's academic field. Emphasis areas for majors and minors 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 40 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 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 40 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 the student first registered for classes at the community college.

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 contribute 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 receive a major from UNC, a student is required to complete one of nine upper division credits (300-400) in that major while in residence on the UNC campus. To receive a minor, a student is required to complete a minimum of two 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 or a minor. These requirements vary and are specifically stated in the section of this bulletin that summarizes each academic department and the major and minor programs offered.

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 Examination

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. There is a fee to retake the examination. Additional information can be obtained from the UNC Writing Center, Michener L73, phone 970-351-2056.

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 years of high school algebra with a grade of C+ or better:
   - To satisfy General Education Category 2 only - MATH 190 or MATH 124-127-131-132.
   - To satisfy Business majors - MATH 175-176 or MATH 124-127-131-132.
   - To satisfy Elementary Education Teacher Licensure majors - MATH 181-181-182-182-190.
   - To satisfy Nursing and some Health Science majors - STAT 250.

2. If you have one year or one-half 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.
   - Other students will need to complete MAT 105 or MAT 105-106 through Aims Community College (taught on the UNC campus) with a grade of C+ or better, then follow 1. above.

General Education Program

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 fostering 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 designed by faculty 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 these areas 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 from these areas shall be taken in content areas four through seven.

Skills

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.
   a. Elementary Composition
      ENG 122 College Composition .................. 3
   b. Intermediate Composition
      ANT 315 Life History and Culture ........... 3
      BA 205 Business Communications ........... 3
      BLS 305 Survey of African-American
         Literature ...................................... 3
      ENG 123 College Research Paper ............. 3
      ENG 223 Writing with Sources ..............  3
      ENG 224 Communications on a Theme ........ 3
      ENG 227 Technical Writing ................  3
      HIST 399 Introduction to Historical
         Research ..................................... 3
      MUS 132 Writing and Scholarship in the 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 .............. 3
   - 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 Statistical Analysis ...............  3

3. Physical Activity (1 hour minimum)
   Lifeline 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
   Lifelong Sports
   - PE 110 Windsports ................................ 1
   - PE 111 Bowling .................................. 1
   - PE 112 Fencing ..................................  1
   - PE 113 Fly Fishing/Trap Shooting ..........  1
   - PE 114 Golf ..................................... 1

General Academic Policies
General Academic Policies

PE 115 Ice Skating ........................................ 1
PE 116 Ice Water Skiing ................................ 1
PE 117 Racquetball ........................................ 1
PE 118 Swimming .......................................... 1
PE 119 Tennis .............................................. 1

Adventurous 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 American Square and Folk Dance ........ 1
 PE 154 Images .......................................... 1
 PE 155 Sociology ...................................... 1
 PE 156 Social Dance .................................. 1

Dance and Movement Activities:
 DNCE 166 Ballet ....................................... 1
 DNCE 167 Ballroom Dance ........................... 1
 DNCE 168 Ethnic Dance .............................. 1
 DNCE 169 Tap Dance ................................... 1
 DNCE 170 Dance ....................................... 1
 DNCE 171 Modern Dance ............................ 1
 DNCE 173 Self-Awareness with Movement ..... 1
 DNCE 175 Tap Dance ................................ 1

Dance and Movement Activities:
 DNCE 166 Ballet ....................................... 1
 DNCE 167 Ballroom Dance ........................... 1
 DNCE 168 Ethnic Dance .............................. 1
 DNCE 169 Tap Dance ................................... 1
 DNCE 170 Dance ....................................... 1
 DNCE 171 Modern Dance ............................ 1
 DNCE 173 Self-Awareness with Movement ..... 1
 DNCE 175 Tap Dance ................................ 1

Content

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 ............................... 1
 ART 182 History of Art II ............................ 1
 ART 190 Art Appreciation ............................ 1
 ART 210 Ceramics for Non-Art Majors .......... 1
 ART 211 Visual Thinking and Visual Images .... 1

b. Performing Arts
 DNCE 454 Dance History and Philosophy .... 1
 ENST 365 Art and the Environment ............... 1
 HUM 101 The Film .................................. 1

MIND 181 Great Traditions of Asia: India, China and Japan
 (may be used to meet the requirement in History or Literature)

MIND 200 Contemporary Arts Connections

MIND 297 Creativity in the Arts

MIND 299 Great Ideas in the History of the Arts

MT 330 History of Musical Theatre ........................ 1
 MUS 140 Introduction to Music ..................... 1
 MUS 204 Music Fundamentals and Experience ...... 1
 MUS 241 Perceiving the Arts .......................... 1
 MUS 243 History of Music I .......................... 1
 MUS 244 History of Music II ........................ 1
 MUS 246 Music in American History and Culture ... 1
 MUS 340 Survey of History & Literature of Jazz ... 1

THEA 130 Introduction to Theatre .................... 1
 THEA 131 History of Theatre I ....................... 1
 THEA 331 History of Theatre II ..................... 1

b. Foreign Language
 CHIN 101 Beginning Chinese ..................... 1
 CHIN 102 Elementary Chinese .................... 1
 CHIN 201 Intermediate Chinese I ............... 1
 CHIN 202 Intermediate Chinese II .............. 1
 FR 100 Beginning French ........................... 1
 FR 101 Intensive Elementary French ............ 1
 FR 102 Elementary French I ....................... 1
 FR 201 Intermediate French I ........................ 1
 FR 202 Intermediate French II ..................... 1

GER 100 Beginning German ............................... 5
 GER 101 Intensive Elementary German I ........... 5
 GER 102 Intermediate German I ................... 5
 GER 201 Intermediate German I ................... 5
 GER 202 Intermediate German II .................. 5
 JAPN 101 Beginning Japanese .................... 5
 JAPN 102 Elementary Japanese II ............... 5
 JAPN 201 Intermediate Japanese I ............... 5
 JAPN 202 Intermediate Japanese II .............. 5
 RUS 101 Elementary Russian I .................... 5
 RUS 102 Elementary Russian II ................... 5
 SPAN 101 Elementary Spanish I ................... 5
 SPAN 102 Elementary Spanish II .................. 5
 SPAN 103 Elementary Spanish III ............... 5
 SPAN 201 Intermediate Spanish I ............... 5
 SPAN 202 Intermediate Spanish II .............. 5

PHL 100 Introduction to Philosophy .............. 5
 PHIL 110 Figures in Western Philosophy ....... 3
 PHIL 205 General Metaphysics (L) .............. 3
 PHIL 209 Introduction to Moral Philosophy .... 3

5. Social Sciences (6 credit hours minimum)
Two courses from two different areas with two different prefixes within the overall category:

a. Anthropology
 ANT 100 Introduction to Anthropology ............ 5
 ANT 120 World Archaeology ....................... 5

b. Economics
 ECON 101 Understanding the Contemporary Economy ... 5
 ECON 103 Introduction to Economics: Macroeconomics ... 5
 ECON 202 Introduction to Economics: Microeconomics ... 5
 MIND 286 Value Issues in Political Economy .... 5

(c. Geography
 GEOG 100 World Geography ....................... 5
 GEOG 110 Geography of the United States and Canada ... 5
 GEOG 200 Human Geography ....................... 5

d. Political Science
 BLS 420 Black Urban Politics ..................... 5
 MIND 286 Value Issues in Political Economy .... 5

(e. Psychology
 PSY 100 Introduction to Psychology ............... 3
 PSY 200 General Psychology ....................... 3
 PSY 250 History of Psychology .................... 3
 PSY 255 Social Psychology ......................... 3

f. Sociology
 CH 105 Issues in Health ........................... 3
 MURS 118 Health Care Systems .................... 3
 SOC 100 Principles of Sociology .................. 3
 SOC 120 Introduction to Family Studies .......... 3
 SOC 141 Introduction to Criminal Justice ....... 3
 SOC 170 Social Problems ............................ 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:

a. Earth Sciences
 AST 100 General Astronomy (L) ..................... 4
 ESCL 265 Earth Science Concepts for Elementary Teachers (L) ... 4
 GEOL 100 Geology (L) ............................... 4
 GEOL 110 Geology and Society ................. 4
 MET 110 Climate and Humans .................... 4
 MET 205 General Meteorology (L) ............... 4

b. Life Sciences
 BIO 100 Exploring Biology ......................... 3
 BIO 110 Principles of Biology (L) ............... 4
 BIO 111 Survey of Organisms (L) ............... 3
 BIO 205 Biological Science Concepts for Elementary Teachers (L) ... 4
 BOT 207 Microbial Diversity ...................... 3

(c. Mathematics
 MATH 132 Calculus and Analytic Geometry II ... 4
7. Interdisciplinary, Multicultural and International Studies (6 credit hours minimum) Two courses, one Multicultural course and one course from either Interdisciplinary Studies or International Cultures:

a. Interdisciplinary Studies:
   - ENST 100 Introduction to Environmental Studies
   - ENST 225 Energy and the Environment
   - QDST 115 Human Development
   - HUM 111 The Classical Period Through the Middle Ages
   - HUM 112 The Renaissance to the Present
   - HUM 121 Early English Literature
   - ID 208 Feminism: An Interdisciplinary Analysis
   - ID 321 Latin Pale Path
   - ID 325 Human Sexuality
   - NURS 200 Women's Health Care
   - SOC 221 Sociology of Gender

b. Multicultural Studies:
   - ANT 317 Contemporary Native American Issues
   - BLS 100 Introduction to Black Studies
   - BLS 101 Crisis of Identity
   - CH 236 Health and Lifestyle Among the Elderly
   - ENO 236 Ethnic American Literature
   - HISP 101 Introduction to Mexican American Studies
   - HISP 102 Hispanic Cultures in the United States
   - HISP 110 Contemporary Chicano Literature
   - HIST 290 American Immigration
   - HRS 290 Introduction to Human Relatibvities
   - MCS 101 Multiculturalism in the United States: Concepts and Issues
   - MIND 182 Confluence of Cultures
   - SOC 237 Sociology of Minorities
   - WS 120 Women and Men in Perspective

C. International Cultures Courses:
   - ANT 110 World Cultures
   - ANT 314 Sex Roles in Cross-Cultural Perspective
   - BA 251 International Business
   - FR 116 Contemporary France
   - GEOG 355 Geography of Middle America
   - GEOG 356 Russia and Eastern Europe
   - GER 116 Contemporary Germany
   - HISP 121 Spanish Civilization and Culture
   - HISP 131 Latin American Civilization and Culture
   - HISP 141 Mexican Civilization and Culture
   - HIST 110 African Civilization
   - HIST 112 Asian Civilization I: From Prehistory to 1500
   - HIST 113 Asian Civilization II: The Modern Transformation
   - HIST 118 History of Mexico
   - HIST 131 Middle East History I
   - HIST 283 Russian Civilization
   - HUM 115 Literature and Arts of the Orient
   - JAPNH 116 Contemporary Japan

MIND 289 Coming of Age in the Twentieth Century
MIND 292 Ideas in Conflict
MUS 247 Music Cultures of the World
SPCO 325 Inter-cultural Communication

Exceptions to Requirements:
- Transfer students who have completed equivalent programs in General Education as determined by the Admissions Office may be exempted from 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 UMC 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 who has earned a liberal-arts based Associate of Arts or Associate of Science degree who has completed equivalent programs 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 UMC English Essay Examination before graduation. This requirement may not be challenged or waived.
- 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 the appropriate department to determine the availability of a challenge examination.
- A student who has earned a liberal-arts based Associate of Arts or Associate of Science degree who has completed equivalent programs 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 UMC English Essay Examination before graduation. This requirement may not be challenged or waived.
- A student who has earned a liberal-arts based Associate of Arts or Associate of Science degree who has completed equivalent programs 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 UMC English Essay Examination before graduation. This requirement may not be challenged or waived.

Life of the Mind Project:
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 twentieth 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 offered only if students are individually taught and tutored by faculty members from 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 and number have done so, with profit to themselves and to the Mind classes.

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 University and the city of Greeley.

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

Category 1: Composition
- a. Elementary Composition ENO 122
- b. Intermediate Composition (course to be chosen from Category 1.b of General Education)

Category 2: Mathematics
- Course to be chosen from Category 2 of General Education

Category 3: Physical Activity
- Course to be chosen from Category 3 of General Education

Category 4: Arts and Letters
- Select two of the following:
  - MUS 204 or ART 190
  - ENGL 131
  - HIST 100 or HIST 110

Category 5: Social Sciences
- Select two of the following:
  - GEOG 100 or GEOG 110
  - PSCI 100
  - PSY 120 or PSY 230

Category 6: Science and Mathematics
- Select two of the following:
  - BIO 265
  - BSM 155
  - SCI 265 (4 hours)

Category 7: Interdisciplinary, Multi-Cultural and International Studies
- Select two of the following:
- One course from Category 7.b of General Education: a. Interdisciplinary or b. International

Category 8: Professional Teacher Preparation Programs that are designed to prepare teacher education candidates for Colorado Licensure:
- One course from Category 7.b of General Education: a. Multicultural

Select five additional credits

Total hours required

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 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 and 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 Office of Professional Services 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 further information about specific Professional Teacher Education Programs may be obtained in the Office of Professional Services in McKee Hall, Room 103.

The minimal requirements for provisional admission to a Professional Teacher Education Program may include:

- Completion of an application form;
- Minimum 2.50 cumulative grade point average established on a minimum of 15 credit hours taken at the University of Northern Colorado. Transfer students, upon entering UNC with 15 semester credit hours, may apply to a PTEP their first semester on campus and have one semester to establish the required GPA. NOTE: Program assessments have specific GPA and/or credit hours which may exceed these minimum requirements;
- Finger printing and background check as required for Colorado teacher licensure (fee approximately $45.00 subject to change);
- Declaration of a major and licensure area;
- Documented evidence of experience (50 hours) working successfully with children or youth, and a recommendation from the supervisor of this experience. Examples of appropriate experience include: teacher aide, camp counselor, recreational activity volunteer, or 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 — fee approximately $50.00. For further information on the PLACE assessment, contact the Office of Professional Services in 103 McKee Hall;
- Upon successful completion of the requirements listed above, a student will be granted provisional admission to a PTEP.

Admission

Full admissions requirements may include:

- Three Letters of Recommendation from any of the following:
  1. a program/major department faculty member;
  2. previous professors;
  3. former educators and/or employers;
- Interview or review by Professional Teacher Education Program 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 (At this time, this requirement may be met with a B or better in SPCO 103. Students enrolled in a non-degree or graduate licensure program who have completed an approved speech course as an undergraduate student who completed SPCO 103 or an equivalent but did not attain a grade of "B" or better may demonstrate competence in oral English by making an oral presentation before a panel of three qualified judges. Special arrangements to demonstrate oral English competency in this manner must be made by contacting the Career Services Test Center in 2025 Kepner Hall);
- Recommendation of the program/major department(s) including compliance with program/major department minimum grade point average(s) and specific course and credit requirements;
- Teacher education candidates are not assured admission solely on the attainment of minimum grade and course requirements or test scores. See the Office of Professional Services for further information.

Standards of Professional Practice

Teacher education candidates seeking admission or having 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. Professional Teacher Education Program Faculty will periodically review the suitability of teacher education candidates for admission to and continuation in the Professional Teacher Education Programs. Teacher education candidates who do not attain or uphold such standards are subject to academic sanctions, including denial, suspension, or dismissal from the program.

Program Continuation

Teacher education candidates must maintain program/major department requirements in their Professional Teacher Education Program. Teacher education candidates 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 Professional Teacher Education Programs and the University to meet this state mandate.

Program for Licensing Assessments for Colorado Educators (PLACE)

The Colorado Department of Education requires teacher education licensure applicants to present scores at or above the passing score established by the State Board of Education on three PLACE assessments in addition to the Basic Skills assessment. Teacher education licensure applicants must also take a Professional Knowledge and Science assessment, Professional Knowledge assessment, and Content Area assessments that have been adopted by the State Board of Education.

The current PLACE assessment fees are as follows:

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

For further information on the state assessment dates and locations for testing, contact the Office of Professional Services, 103 McKee Hall.

Applications for Colorado Provisional License Recommendations for licensure are made when teacher education candidates have successfully completed an approved Teacher Education Program. Such applications for a Professional Teacher Education Program include the following:

1) maintenance of program/major department GPA requirements;
2) completion of the Professional Teacher Education Program requirements;
3) passing the state mandated Basic Skills assessment (see above); and any additional requirements imposed by state law or regulation.

Upon successful completion of these requirements, a teacher education candidate is 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 Professional Teacher Education Program is to be completed. Application forms are available in the Office of Professional Services, 103 McKee Hall. Completed applications are processed as soon as all official transcripts are received from the Registrar. All license applicants must have successfully completed the appropriate PLACE assessments.

Teacher education candidates who successfully complete the approved Professional Teacher Education program may be recommended for licensure in states other than Colorado.

Completion of the UNC program or acquisition of a Colorado license does not assure licensure in other states, as other states may have specific requirements not found in the Colorado requirements. Teacher education candidates expecting to seek licensure in other states may check with the Office of Professional Services or correspond with the respective State Department of Education early in their program to learn of additional requirements.

The 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 the following) Biological Science, Chemistry, Physics; Social Studies: (includes majors in the following) Geography, History, Social Science, Speech, and Theatre Arts (Drama)
- Special Education: Blind, ages 0-21
- Special Education: Deaf, 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:

- Audiology, K-12
- Reading Teacher, K-6, 7-12
- Reading Specialist, K-12
- Principals' license, K-12
- Administrators' license, K-12
- School Counselor, K-12, 7-12
- School Library Media, K-12
- School Nurse, K-12
- School Psychologist, K-12
- Special Education Coordinator, K-12
- Early Childhood Special Education, ages 0-5
- Moderate Needs, ages 5-21
- Severe Needs, Affective, ages 5-21
- Severe Needs, Cognitive, ages 5-21, 12-21
- Severe Needs, Communication, ages 5-21
- Severe Needs, Hearing, ages 0-21
- Severe Needs, Vision, ages 0-21
- Orientation and Mobility, K-12
- Speech/Language Pathology, K-12

Professional Teacher Education Program 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. Additional information can be found within the specific major course or licensure area requirement.

**Elementary Professional Teacher Education Program — Required Courses**

<table>
<thead>
<tr>
<th>Educational Seminar I (courses are to be taken concurrently)</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDF 366 Conceptions of Schooling: Context and Process</td>
</tr>
<tr>
<td>ET 201 Technology in Education</td>
</tr>
</tbody>
</table>

**Educational Seminar II (courses are to be taken concurrently)**

| EPSY 346 Learning and Development for Teachers | 1 |
| 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 Pre-Service Teaching | 6 |
| ET 301 Educational Technology Applications | 1 |

**Educational Seminar IV**

| EDF 460 Elementary Education Integrated Methods I and Preservice Teaching | 9 |
| or EDF 470 Integrated Methods II and Preservice Teaching | 9 |

**Educational Seminar V (courses are to be taken consecutively)**

| EDEL 460 Elementary Education Integrated Methods I and Preservice Teaching | 9 |
| or EDF 470 Integrated Methods II and Preservice Teaching | 9 |

**Middle Grades Professional Teacher Education Program — Required Courses**

<table>
<thead>
<tr>
<th>Pre-Professional Cluster (courses are to be taken concurrently)</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDMD 200 Exploring Teaching: Emphasis in the Middle Grades</td>
</tr>
<tr>
<td>ET 201 Technology in Education</td>
</tr>
</tbody>
</table>

**Intermediate Cluster (courses are to be taken concurrently)**

| EDDM 320 Introduction to Middle Grades Education | 3 |
| EDMD 325 Concepts of Schooling: Context and Process | 4 |
| EDSE 311 Including Exceptional Students in the Middle Grades Classrooms | 1 |
| Intermediate Cluster I (courses are to be taken concurrently) |
| EDDM 420 Middle Grades Teaching and Learning | 3 |
| EED 340 Developing Language and Literacy of Middle Grades Students | 2 |
| EPSY 346 Learning and Development for Teachers | 2 |

**Intermediate Cluster 2 (courses are to be taken concurrently)**

| EDDM 440 Middle Grades Integrated Curriculum and Instruction | 5 |
| EDDM 441 Strategies for Teaching the Exceptional Student at the Middle Grade Level | 2 |
| EDRD 440 Integrating Language and Literacy Across the Middle Grades Curriculum | 1 |
| ET 301 Educational Technology Applications | 1 |

**Middle Grades Internship (courses are to be taken concurrently)**

| EDDM 490 Middle Grades Student Teaching | 12 |
| EDDM 491 Middle Grades Student Teaching Seminar | 1 |

**Secondary Professional Teacher Education Program (STEP) — Required Courses**

**STEP Core**

| EDFE 270 Field Based Experience | 2 |
| EDSE 444 Supervised Teaching | 15 |
| EPSY 346 Learning and Development for Teachers | 2 |
| EDDR 425 Reading in the Content Areas | 2 |

**STEP Methods Block**

| EDDR 425 Reading in the Content Areas | 2 |

**Licensure Program for K-12**

**Music Education**

| EDFE 366 Conceptions of Schooling: Context and Process | 4 |
| EDSE 410 Exceptional Students in the Secondary Schools | 2 |
| EDDM 325 Choral Methods and Literature | 3 |

**Optional Courses**

| EDDM 400 Methods of Teaching Music Education | 2 |
| EDDM 401 Methods of Teaching Music Education | 2 |
| EDDM 402 Methods of Teaching Music Education | 2 |
| EDDM 403 Methods of Teaching Music Education | 2 |
| EDDM 404 Methods of Teaching Music Education | 2 |
| EDDM 405 Methods of Teaching Music Education | 2 |
| EDDM 406 Methods of Teaching Music Education | 2 |

**Outdoor Physical Education — Required Courses**

| EDFE 270 Field Based Experience | 2 |
| EDSE 444 Supervised Teaching | 15 |
| EPSY 346 Learning and Development for Teachers | 2 |
| EDDR 425 Reading in the Content Areas | 2 |

**Additional Pre-Professional Courses**

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

**Vocal/Plano/General Music Education — Required Courses**

| EPSY 346 Learning and Development for Teachers | 2 |
| EDDR 425 Reading in the Content Areas | 2 |

| EPSY 346 Learning and Development for Teachers | 2 |
| EDDR 425 Reading in the Content Areas | 2 |

**Licensure Program for K-12**

| EDFE 366 Conceptions of Schooling: Context and Process | 4 |
| EDSE 410 Exceptional Students in the Secondary Schools | 2 |
| EDDM 325 Choral Methods and Literature | 3 |

**Optional Courses**

| EDDM 400 Methods of Teaching Music Education | 2 |
| EDDM 401 Methods of Teaching Music Education | 2 |
| EDDM 402 Methods of Teaching Music Education | 2 |
| EDDM 403 Methods of Teaching Music Education | 2 |
| EDDM 404 Methods of Teaching Music Education | 2 |
| EDDM 405 Methods of Teaching Music Education | 2 |
| EDDM 406 Methods of Teaching Music Education | 2 |

**Outdoor Physical Education — Required Courses**

| EDFE 270 Field Based Experience | 2 |
| EDSE 444 Supervised Teaching | 15 |
| EPSY 346 Learning and Development for Teachers | 2 |
| EDDR 425 Reading in the Content Areas | 2 |

**Additional Pre-Professional Courses**

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

**Vocal/Plano/General Music Education — Required Courses**

| EPSY 346 Learning and Development for Teachers | 2 |
| EDDR 425 Reading in the Content Areas | 2 |

**Licensure Program for K-12**

| EDFE 366 Conceptions of Schooling: Context and Process | 4 |
| EDSE 410 Exceptional Students in the Secondary Schools | 2 |
| EDDM 325 Choral Methods and Literature | 3 |
Additional Pre-Professional Courses
SPCS 103 Speaking Evaluation .............................1
SPCS 105 Speaking Evaluation .............................2

Licensure Program for K-12
Special Education: Profound Needs
Special Education — Required Courses
SPCP 103 Speaking Evaluation .............................1
SPCS 105 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 push 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 respond?"

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 meet the Physical Education requirement of the student's chosen discipline.

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

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 Program .................17

Students are expected to register for a full-time program and to maintain at least a 3.25 GPA. A student who falls below that level for two successive semesters will be removed from the program.

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.

Recognition of Academic Excellence
Dean's List for Academic Recognition
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 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 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 following graduation. 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.

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.
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. Procedures for Nomination. 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.

Reserve Officer Training Corps (ROTC)

Students may earn a minor in either Aerospace Studies or Military Science. 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 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

<table>
<thead>
<tr>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>General military studies</td>
<td>8</td>
</tr>
<tr>
<td>Professional officer credits</td>
<td>12</td>
</tr>
</tbody>
</table>

Total credits required for this minor: 20

Required Credits — 8 semester hours

<table>
<thead>
<tr>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AS 101 The Air Force Today I</td>
<td>2</td>
</tr>
<tr>
<td>AS 102 The Air Force Today II</td>
<td>2</td>
</tr>
<tr>
<td>AS 101 Development of Air Power I</td>
<td>2</td>
</tr>
<tr>
<td>AS 202 Development of Air Power II</td>
<td>2</td>
</tr>
</tbody>
</table>

Professional Officer Credits — 12 semester hours

<table>
<thead>
<tr>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AS 301 Air Force Leadership and Management I</td>
<td>3</td>
</tr>
<tr>
<td>AS 302 Air Force Leadership and Management II</td>
<td>3</td>
</tr>
<tr>
<td>AS 401 National Security Forces In</td>
<td>3</td>
</tr>
<tr>
<td>Contemporary American Society I</td>
<td>3</td>
</tr>
<tr>
<td>AS 402 National Security Forces In</td>
<td>3</td>
</tr>
<tr>
<td>Contemporary American Society II</td>
<td>3</td>
</tr>
</tbody>
</table>

Notes

Students normally complete a four-week Field Training Course with four semesters remaining for graduation and prior to entering the professional officer program. Students can complete a six-week Field Training Course and receive up to eight hours of transfer credit for the general military course credits.

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

Minor in Military Science

<table>
<thead>
<tr>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required credits</td>
<td>13</td>
</tr>
<tr>
<td>Required elective credits</td>
<td>8</td>
</tr>
<tr>
<td>Additional credits</td>
<td>6-15</td>
</tr>
</tbody>
</table>

Total credits required for this minor: 27-36

Required Credits — 13 semester hours

<table>
<thead>
<tr>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST 250 War in Historical Perspective:</td>
<td>3</td>
</tr>
<tr>
<td>Topics</td>
<td></td>
</tr>
<tr>
<td>MS 311 Leadership Assessment</td>
<td>3</td>
</tr>
<tr>
<td>MS 321 Applied Leadership</td>
<td>3</td>
</tr>
<tr>
<td>MS 401 Staff Functions and Leadership Principles</td>
<td>1</td>
</tr>
<tr>
<td>MS 421 Role and Ethics of the Officer</td>
<td>3</td>
</tr>
</tbody>
</table>

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 111 Contemporary Management Principles      | 2       |
- MS 221 Dynamics of Military Operations         | 8       |
- MS 287 Leadership Development and Introduction to Military Operations | 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 knowledge base for military operations and include current training manuals, techniques, and equipment.

To complete the ROTC 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.

Undergraduate Policies

Office of Admissions

Location: Carter Hall 3006
Telephone: 970-351-2881
Fax: 970-351-2984
Denver Line (no toll): 573-1379

Admissions Philosophy

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.

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.) 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 (690 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 GPA 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.

Notes

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 (690 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 GPA 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
Applications and supporting credentials may be submitted at any time after completion of junior year of high school. However, they should be received at the Admissions Office no later than three weeks before the academic semester that the student intends to enroll. Prospective students are encouraged to submit applications as early as possible.

Send an Application for Admission, the appropriate sections of the school transcripts and a $30 non-refundable processing and evaluation fee to the Office of Admissions, University of Northern Colorado, Carter Hall, Greeley, Colorado 80639.

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 appropriate 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 an additional application to the School of Music. The music application and appropriate instructions are 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 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 970-351-2678.

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 970-351-2454.

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 with less than 24 semester credits earned 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 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: Residence Life Coordinator for Contract Release, 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, phone 970-351-2721.

Transfer Students Transfer Policy
A student who intends to transfer to UNC must submit an official academic transcript of work from each college or university attended. 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 completed 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 SAT/ACT test scores. The admission decision will then be based on freshman admission requirements. Transfer applicants who have completed 12-29 semester hours or 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 completed 30 semester credit hours (45 quarter hours) of transfer credit is required to have earned a cumulative grade 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. All transfer applicants must submit official transcripts from each college attended, along with a high school transcript and SAT/ACT test scores. The Admissions Office will review all previous college records to determine that the student is an appropriate transfer candidate. The decision to commute must be made before the beginning of the contract period.

Prior to a final decision being made on a transfer student's application, meetings are held by the appropriate college department to determine that the student is an appropriate transfer candidate. The decision to commute must be made before the beginning of the contract period.

Transfer students planning to major in music are required to submit an application to the School of Music. Auditions are required of all applicants to the School of Music. Information concerning auditions may be requested from Vance Fulkerson, Coordinator of Musical Theatre Program, University of Northern Colorado, Frasier Hall, Greeley, Colorado 80639, phone 970-351-2678.

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 for the School of Music is obtained by contacting the School of Music, University of Northern Colorado, Frasier Hall, Greeley, Colorado 80639, phone 970-351-2678.

Transfer students planning to major in musical theatre are required to submit a separate application to the Musical Theatre Program. Audition requirements are met by students who have 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. Course requirements for the skills area are evaluated course by course. However, every student must pass the UNC English Essay Examination before graduation. This requirement may not be challenged or waived.

An 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 to 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 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 to the student's academic record at UNC.

New transfer students begin a new grade point average that does not reflect grade point averages earned at other institutions.

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 credits earned from off-campus courses. If a community college program corresponds to the requirements of the first years in a similar program at UNC, graduation after two additional years is possible.

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

Complete 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 Carter Hall, phone 970-351-2881, 573-1379 (toll free from Denver), or from the Denver Admissions office, 303-831-6850.

Transfer Status
Transfer students will utilize the bulletin in the Admissions Office, at the time of their acceptance, for 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 catalog changes for incoming transfer students.

International Students
An international student is a student who is not a citizen of the United States or not classified by U.S. Immigration as a resident alien. There are approximately 200 such students currently enrolled at UNC. International students must meet English proficiency, as well as academic and financial requirements, before being fully admitted. These requirements are met by providing all the information required for admission (see description of admission requirements in the Graduate and Undergraduate sections of this bulletin). In addition, information concerning the ability to meet financial requirements must also be provided.

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 520 on any of the three sections (students applying to the Associate of Arts or Associate of Science degree, or who have 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. This requirement may not be challenged or waived.

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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 520 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 concerning these tests may be obtained from the Educational Testing Service for TOEFL, Box 899, Princeton, New Jersey 08541, or from the University of Michigan Press, Ann Arbor, Michigan 48104, for the Michigan Test of the English Language. Individual schools or departments of the University may have higher proficiency requirements than those stated above. If in doubt about special requirements, International undergraduate students should contact the Admissions Office 970-351-2881; International graduate students should contact the Graduate School, 970-351-2831.

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 sent to the Graduate School, University Hall. International Student Services is the office that administers the University’s relationship to the Immigration and Naturalization Service. Issues student visa applications and provides orientation information to new students.

Requirements for All Students

Insurance

UNC’s Board of Trustees requires that all students registered for 9 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 date. Further information on deadlines and procedures may be obtained from the Student Health Insurance Office, phone 970-351-1915. The University does not require students registered only for summer session to purchase the University’s student health insurance plan or demonstrate possession of an acceptable insurance plan. However, 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.

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 Health Center. For additional information, contact Student Health Services, Decker Hall, phone 970-351-2412.

Immunization Regulation

By Colorado State Statute and University Regulation, all individuals are required to complete and 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 because of medical, religious, or personal reasons will be 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 exemption from immunization will be subject to exclusion from school and subject to quarantine. For additional information, contact Student Health Services, Decker Hall, phone 970-351-2412.

Parking Regulations

If students, faculty, or staff wish to park a vehicle on campus, the University requires that a University Parking Decal be purchased from Parking Services located in Gray Hall. Vehicles parked on campus in violation of UNC parking regulations may be ticketed and/or towed. Parking Services is a self-supporting program that receives no state funds. All funds from decal sales and parking fines are used to build and maintain UNC parking lots. For additional information, students are encouraged to call 970-351-1971 or stop by Gray Hall.

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. See Freshman On-Campus Living Requirements in this chapter. Undergraduate students must be enrolled in a minimum of six semester hours to live on campus.

New Student Orientation

The University offers Discover UNC, an orientation program for entering freshmen and transfer students. This program provides essential information about the University, its academic policies and requirements, academic advising, and assists students in registering for classes. Newly-admitted students are invited to an orientation program by separate mailing. Every new student is strongly encouraged to participate in the orientation program. For information concerning the orientation program contact the Academic Advising Center, phone 970-351-1391. The Graduate School conducts an orientation for graduate students after the semester begins. For information on the Graduate Student Orientation contact the Graduate School at 970-351-2831.

The Evening Division conducts an orientation during evening hours for entering students at the beginning of each semester.

Graduate School Policies

Location: University Hall, 1620 Reservoir Road
Telephone: 970-351-2831
Kyle R. Carter, Dean; William A. Barnard, Associate Dean; Priscilla J. Klimboko, Associate Dean

Graduate Education

The first graduate degree, a master's degree, was offered by UNC in 1913. In 1929 the Doctor of Education was added, and in 1934 the Doctor of Philosophy and the Doctor of Arts were approved. Later, the University added the Doctor of Music Education, and, the most recent degree, the Doctor of Psychology in 1984.
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, the Graduate Faculty are authorized to teach graduate courses, act as Program Advisors for graduate students, serve on doctoral oral and research 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 of the Graduate Faculty 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 appointment 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.

Graduate Degrees
Master’s degrees (M.A., M.M., M.F.E., M.P.H., M.S.) are awarded for a level of academic accomplishment substantially beyond that required for the bachelor’s 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 (Ed.S.) degrees 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 (D.A.) degrees are 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 deemed to support college/university teaching.

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

Doctor of Psychology (Psy.D.) degrees are given in 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

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.

Education
Mathematics, M.A.
Mathematics, Ph.D.
Music, M.A.

English, M.A.

Foreign Languages, M.A.

Spanish Teaching

Graduate Interdisciplinary Degree Program, M.S.

History, M.A.

Human Communication Thesis Option

Human Communication Non-Thesis Option

Mathematics, M.A.

Liberal Arts

Teaching

Psychology, M.A.

Human Neuropsychology

Social Science, M.A.

Clinical Sociology

College of Education

Agency Counseling, M.A.

Counselor Education, Ed.D.

Educational Leadership, M.A.

Educational Leadership, Ed.S.

Educational Leadership, E.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.

Elementary Education: Early Childhood Education, M.A.

Elementary 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: Cognitively

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

Counseling, 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
Graduate School
Graduate Interdisciplinary Degree Program, M.A., M.S., Ed.D., 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 Musical Arts, 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, educational measurement, 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, and post-doctoral admission is granted on an individual basis.

General Graduate Admission
Graduate Application 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 they receive an official letter of admission from the Graduate Dean. Students must meet all the requirements as established by the Graduate Council, for admission to the UNC Graduate School. The UNC 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 policies listed below. It is the responsibility of the applicant to contact the department/division offering the degree or certification program to which he or she is seeking admission to determine what additional materials or procedures will be required.

To apply for admission, the student must:

1. Complete the appropriate application form. This form is included in the Graduate Application packet available from the Graduate School unless otherwise noted.

   - Graduate School Application for Admission, required for all students.
   - Program-specific applications for degree 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 Certification, required of all applicants seeking teacher certification 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 UH C Continuing Education programs. 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 he or she plans to enroll (list available from the College of Education Continuing Education site coordinators or the Greeley office, phone 970-351-2944).

2. Obtain Transcripts. Two official transcripts must be obtained 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 send the two official copies directly to him or her. The student must have the 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 included on the UNC application.

3. Obtain test scores for Graduate Record Examination, as applicable, or other standardized test scores required by the program or the Graduate School (e.g., MAT, GMAT, TOEFL, etc.). The student must request official GRE scores to be sent to the Graduate School from the testing organization. If applying for admission to a doctoral program: NO DOCTORAL STUDENT APPLICATION WILL BE PROCESSED UNLESS IT INCLUDES ONE GRE SCORES LESS THAN FIVE YEARS. The Graduate School may evaluate the completed application from an unofficial copy of the scores, with a written request to do so. A regular admission can occur only if five 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, however, they may have admission decisions delayed until the test scores are available. International applicants must have official copies of their GRE test scores sent to UNC, and 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 admission to a doctoral program. A doctoral applicant must have three letters of recommendation 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. One reference form is included with the Application for Admission. However, many programs have developed their own preferred forms. Be sure that you have your references complete the form required by the program to which you seek admission.

5. Submit ALL of the required application materials with the processing fee to the Graduate School, Greeley, CO 80639. All materials required for admission screening must be collected, and then submitted in a single packet to the Graduate School to ensure timely processing. Application materials include academic history, test scores, and the following categories, such as the Non-Baccalaureate or the Graduate Interdisciplinary Program, must provide all other materials as requested in Graduate School guidelines for each special area of 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 process.

6. Meet program requirements. It is the responsibility of the applicant to contact the chair or graduate coordinator for the program to which he or she is seeking admission. The student must meet the program-level admission standards and application requirements, particularly those in addition to the general Graduate School requirements. The student must wait until he or she has submitted the application packet to the Graduate School to avoid incurring delays in the department/division/school admission screening process.

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.

Submit a Notice of Intent to Apply 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 complete a 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 of the UNC off-campus programs have 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 there are enough applicants to offer the program at the site. The student must contact the College of Continuing Education office at Denver 303-7228 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.

For more information, contact the Graduate School, UNC, Greeley, CO 80639, phone 970-351-2831 or 800-776-4724.

Admission Standards and Requirements

Admission Criteria. The Graduate Council, comprised of representatives from the various 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 minimums. Applicants should consult program brochures, departmental offices or faculty in degree program(s) of interest to obtain any additional admission requirements.

Master's Degree. 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 3.0 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. Undergraduate coursework by the major department/division and approval by the Graduate School, an applicant with a grade point average between 2.70 and 2.99 may be granted regular admission to a master's degree program. At the Master's level, persons with less than a 2.70 may only be admitted under a provisional status.

Specialist Degree. Each applicant must possess a baccalaureate degree from an
include thorough consideration of all information combination of qualifications for a program of the strengths and potential of each applicant. 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 weightings as sole determining factors for quantitative rating systems and standard criteria that they have established with approval of the Graduate Council. The student must check with the department/division/school regarding such alternatives. Admissions 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/school for screening. It is particularly important for programs enrolling 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 met. Admission Expiration Date. Admission to any graduate program remains valid for one calendar year following the first day of the applicant’s proposed semester of enrollment. If a student does not begin attending 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. Conditional Admission. Conditional admission can be granted pending the receipt of application requirements specified by the Graduate School. Exception: 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. Master’s Provisional Admission 1. The department/division/school may recommend any applicant with a GPA below 3.0 for Provisional Admission. The program advisor must specify at least 9 semester hours of coursework for the applicant to complete. These courses must be the first taken by the student and must be completed in no more than two semesters. The student must earn a 3.0 GPA on these courses that may be upper division undergraduate or graduate coursework in the most recently completed degree or on the total master’s degree, whichever is less. UNC doctoral programs do not utilize quantitative rating systems and standard criteria weightings as sole determining factors for doctoral 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. In the specialized nature of doctoral work, it is incumbent on the faculty to use their professional judgment in determining to what extent a student is qualified for entry into a particular program. Thorough 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 student’s qualifications for each applicant. Each application introduces a unique combination of qualifications for a program of doctoral study. Decisions to accept or deny a prospective 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 will extend admission that is based upon supplemental/alternate criteria that they have established with approval of the Graduate Council. The student must check with the department/division/school regarding such alternatives. 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. 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 550 or above or 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; • c. evidence of two or more full-time 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. Applicants should contact their departments/divisions for any additional testing for English proficiency. The applicant is responsible for determining whether or not they will be deferred Conditional Admission pending alternative criteria. Deferral requires UNC to receive 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 Form I-20 will be issued. International applicants should not plan to enter the United States without the Form I-20 and an admission letter from the UPC Graduate School. The admission letter is needed for a visa. Deferred Admission If international students whose academic record is sound, but who have inadequate English language proficiency (less than 500 on the TOEFL) can be granted Deferred Graduation 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 language 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 the English language proficiency standards. After completion of the required English language study, the student must update their application by verifying new TOEFL scores and receiving financial resources
to the Graduate School. A student may not enroll in graduate program courses at UNC until granted a conditional or a regular admission.

Admission to the Non-Baccalaureate Master's Degree

An individual without a baccalaureate degree or 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 program 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 major area, 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 Undergraduate 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 program.

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

General Education. An applicant must present evidence of completion of the current General Education requirements at UNC before applying to become a master's degree program. All applicants should apply as UNC undergraduate transfer students prior to being considered for the Non-Baccalaureate Degree Program in order to receive official transcripts from General Education and the courses required to complete an undergraduate degree in the proposed major. General Education admission 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.

Undergraduate Major Area. An applicant must give evidence of in-depth knowledge of the field in which he or she intends to do graduate work through the completion of an undergraduate degree program in the same or a closely related discipline. This evidence 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 Examinations, publications, performance and external activities. The applicant's course of study must include coursework necessary to alleviate those deficiencies, and these courses must be completed at the earliest possible date or compelling rationale for interdisciplinary studies, the Graduate School will notify the applicant of their concerns. Those applicants may resubmit their 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 considers such status.

Program Criteria. The plan of study must meet the criteria noted below.

1. If the Graduate Faculty advisors determine that the student has any deficiencies in his or her background, the proposal must list the coursework necessary to alleviate those deficiencies, and these courses must be completed at the earliest possible date or compelling rationale for interdisciplinary studies, the Graduate School will notify the applicant of their concerns. Those applicants may resubmit their application materials after addressing the concerns.

2. SMR 600 (master's) or SMR 700 (specialist and doctoral) or one of the research-oriented substitute course 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. Master's degree proposed coursework must equal at least 30 semester hours of graduate-level courses plus any deficiency credits. Doctoral degree proposed 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 the two primary disciplines must equal at least 18 semester hours. Courses numbered 622, 797, and 799 may not be used to meet this requirement.

5. Secondary disciplines (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.

Leading to the desired degree, i.e., M.A., M.S., Ed.D., D.A., or Ed.D. Secondary disciplines also may be included.

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

Admission with Baccalaureate Degree

An applicant holding baccalaureate degrees from non-accredited institutions 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.

Admission to the Graduate Interdisciplinary Degree Program

Program Information. 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 the students, participation, and coordination by all assigned committee members of each discipline concerned. It is imperative that the program be truly interdisciplinary as 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 an application. The completed application will be reviewed by the Non-Baccalaureate Coordinating Committee and, if approved, it 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

Applicants holding baccalaureate degrees from non-accredited institutions 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.

Admission to the Graduate Interdisciplinary Degree Program

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

2. The applicant must follow the student-administered application procedures described earlier under Graduate Application Procedures. The complete application package should include the following items:

3. A current resume that summarizes academic and professional experience, publications, and activities. The applicant's resume must present evidence of work related to the proposed major area of study and ability to pursue graduate study in the selected major as indicated by many years of work experience with progressively increased responsibilities in an area of study closely related to the proposed program. The resume must present 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.

General Education. An applicant must present evidence of completion of the current General Education requirements at UNC before applying to become a master's degree program. All applicants should apply as UNC undergraduate transfer students prior to being considered for the Non-Baccalaureate Degree Program in order to receive official transcripts from General Education and the courses required to complete an undergraduate degree in the proposed major. General Education admission 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.

Undergraduate Major Area. An applicant must give evidence of in-depth knowledge of the field in which he or she intends to do graduate work through the completion of an undergraduate degree program in the same or a closely related discipline. This evidence 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 Examinations, publications, performance and external activities. The applicant's course of study must include coursework necessary to alleviate those deficiencies, and these courses must be completed at the earliest possible date or compelling rationale for interdisciplinary studies, the Graduate School will notify the applicant of their concerns. Those applicants may resubmit their 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 considers such status.

Program Criteria. The plan of study must meet the criteria noted below.

1. If the Graduate Faculty advisors determine that the student has any deficiencies in his or her background, the proposal must list the coursework necessary to alleviate those deficiencies, and these courses must be completed at the earliest possible date or compelling rationale for interdisciplinary studies, the Graduate School will notify the applicant of their concerns. Those applicants may resubmit their application materials after addressing the concerns.

2. SMR 600 (master's) or SMR 700 (specialist and doctoral) or one of the research-oriented substitute course 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. Master's degree proposed coursework must equal at least 30 semester hours of graduate-level courses plus any deficiency credits. Doctoral degree proposed 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 the two primary disciplines must equal at least 18 semester hours. Courses numbered 622, 797, and 799 may not be used to meet this requirement.

5. Secondary disciplines (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 48 semester-hour program. Furthermore, research and library resources must be available to facilitate the fulfillment 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 500, 510, or 522 may be proposed or counted in the degree program. If the master's degree is pursued 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 prefixes 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.,BlockSize.

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, 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 his or her department/division/school chairperson and the Dean of the Graduate School.

Before admission 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 departments/divisions. Until an approved Plan of Study form is filed with the Graduate School, a "hold" is placed on an application.

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 Program Advisory 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 CIDP Coordinating Committee and the Dean of the Graduate School shall be final.

Advising. Together, the Graduate Faculty advisors are the Program Advisory Committee. It is the responsibility of this Committee to assist the student in planning and coordinating the degree program. An approved Plan of Study 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 also 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 by 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 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 will not be released if the student's grade point average is less than 3.00 in any primary discipline (department/division).

Special Admission Policies

On-campus or Off-campus Admission Criteria. Each department/division/school sponsoring on-campus or 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 the 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 permitted).

The Graduate School places "holds" on the registration of such students, and they are not permitted to continue to enroll until an admission decision is made. Thus, the student's application must be complete and the program faculty must recommend either a Regular Admission, a Provisional Admission or a 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. The student 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 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 within the specified time limits defined 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 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 urged 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, he or she must submit 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.

Graduate Program Requirements

A Program Advisor is assigned by the department chair or program coordinator to each student upon being accepted into an academic program. It is the responsibility of the department to submit an Advisor Assignment form to the Graduate School. This completed form is entered into the student database and maintained with all student files. 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 importance of the Program Advisor cannot be underestimated. Program assignments include 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.

1. The Program Advisor is responsible for helping students understand the expectations and requirements of the academic program and plan their programs 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 student in understanding their program.

2. The Program Advisor is responsible for assisting students with questions regarding their 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. The Program Advisor also is responsible for professional advising and guidance including assisting students with planning for their academic and professional futures. 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 him or her to perform satisfactorily in their vocation 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 while in an unclassified status may be used toward a graduate degree program. Unclassified status refers 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. Students who have been provisionally admitted to a graduate program due to a low GPA may not petition any coursework completed before provisional admission until regular admission has been granted. Such petitions should be submitted to the Graduate School so that the appropriate records can be updated. Such work will count as residence credit and will appear on the UNC transcript. Students interested in this arrangement may

Advising. Together, the Graduate Faculty advisors are the Program Advisory Committee. It is the responsibility of this Committee to assist the student in planning and coordinating the degree program. An approved Plan of Study 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 also 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 by 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 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 will not be released if the student's grade point average is less than 3.00 in any primary discipline (department/division).

Special Admission Policies

On-campus or Off-campus Admission Criteria. Each department/division/school sponsoring on-campus or 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 the 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 permitted).

The Graduate School places "holds" on the registration of such students, and they are not permitted to continue to enroll until an admission decision is made. Thus, the student's application must be complete and the program faculty must recommend either a Regular Admission, a Provisional Admission or a 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. The student 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 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 within the specified time limits defined 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 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 urged 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, he or she must submit 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.
obtain the guidelines and the application form in and approved before the term that the student proposes to take the course.

Counting Work Toward Next Higher Degree. Students should be advised that 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

1. have applied for, and been accepted in, the next higher degree program;
2. have applied for graduation in the current degree program;
3. have 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 no more than 12 credits of graduate work applicable to the next higher degree.

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

General Transfer Credit Policies

1. Grades earned in courses transferred into your graduate program from other colleges and universities are not used in the calculation of your graduate grade point average.
2. Graduate credit that you may have 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 cannot be used to meet any residency requirements. 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 is equivalent to an "A" or "B" grade.
5. Transfer courses must be completed within five (master's), six (specialist) or eight (doctoral) calendar years of the completion of the student's current degree program.
6. Transfer courses must be numbered as graduate level according to the course numbering system at the originating institution. Undergraduate numbered courses that are optional credit for graduate or undergraduate programs must be considered to be graduate numbered courses.
7. Transfer courses must be from accredited institutions of higher education that offer equivalent level and work (e.g., doctoral degrees if transferring graduate credit into a doctoral program).

Degree Specific Transfer Policies

Master's and Specialist Degrees: Students must complete a minimum of 30 credits through the University of Northern Colorado as part of their master's degree or post-master's specialist degree. Thus, students should be advised to avoid counting more than six (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 are allowed to 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. Students are encouraged to check department policies regarding transfer of credit.

Doctoral Degree: Students must complete a minimum of 40 semester hours through the University of Northern Colorado of the 64 minimum credit hours required for a doctoral degree. If the program requirements exceed the 64 credit minimum, students are allowed to 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 plan of study will indicate transfer credits to be included in a student's program. Students are encouraged to check department policies regarding transfer of credit.

NOTE: These policy revisions 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. The number of credits through UNC are observed, transfer credit allowances to students will be determined by program faculty and can vary on a case by case basis. The Graduate School will not approve students for graduation with fewer than the required UNC 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. 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 Bulletin.

Credit According to Course Numbers.

Courses at the 500-level 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, and courses numbered 700-799 may be taken for specialist or doctoral credit only.

Up to four 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 500-level courses.

Maximum Course Load.

Course load limitations for graduate students refer to all courses taken while enrolled as a graduate student. A maximum load for a non-degree certification program, a non-degree certification program, or any combination thereof. The maximum load for a graduate student is 18 semester 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.

Requests for course load must be 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 his or her academic program. The student may also provide evidence of noteworthy academic performance to assure continued quality and academic integrity. 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) Masters: A maximum of three semester credits of 513 (Graduate Renewal) or 622 (Special Graduate Renewal) 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/Division, College Dean and the Dean of the Graduate School to be considered for graduate program credit. Courses shall have a defined relationship and applicability to degree and/or certification programs as electives, support courses or courses that fulfill program requirements.

Credit Hour Requirements

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 minimums. 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 bachelor's 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 dissertation 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.
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 the 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.) and only one degree will be reflected on the transcript, but both majors will be noted. The student must specify, therefore, 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 complete either major.

Note that if a student is interested in obtaining two master's degrees, it is recommended that they 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 is urged to consult with his or her 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 he or she 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, he or she 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 within a program area are considered different majors and may not be simultaneously completed.

Grading

Grades. 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,” “W,” “W,” “NC,” and “NR” are not counting 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 any credit 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 in which the student has matriculated at 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 as the academic record as “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 regular grading 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.

“NR” will be recorded for “X” number of hours in a master’s degree 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 recorded for a graduate student 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 Requirement. 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 grade point average 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 ninth 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 External Degree 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/continuation.
2. An overall unsatisfactory evaluation is made of a specialist or doctoral student’s progress.
3. The student fails to meet the prescribed standards/criteria of his or her Provisional Admission.
4. The student fails to maintain the cumulative 3.0 grade point average standard.
5. The student fails the retake of the written comprehensive examination or its approved equivalent.
6. The student fails the oral comprehensive examination.
7. The student submits an unsatisfactory thesis or dissertation.
8. 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, if the student qualifies for a regular masters degree.
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 such 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 course is limited to no more than 4 semester hour credits.
2. The student must complete the department/division/school in which the study was 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 department/division office with the final grade assignment.

Program Time Limits

Master’s Degree. The maximum time allowed for the completion of the Master’s 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 following the earliest work counted in the program.

Specialist Degree. The maximum time allowed for completion of the Specialist in Education 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 a doctoral 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, if the student is permitted to include 21 semester hours of his or her 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 evaluate the course(s) selected in accordance with 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 (HIRS 610), Biological Sciences (BIO 694), Chemistry (CHEM 600), Community Health (HIRS 610), Earth Sciences (ESCI 600), Educational Psychology (SRM 670), English (ENQ 600), Gerontology (HIRS 610), History (HIST 600), Physical Education (PE 602), Mathematics (MATH 510), Mathematics: Teaching (MED 600), Music (MUS 600), Music Education (MUS 610), Nursing (HUS 505), Psychology (SRM 603), Reading (EDRA 645), Recreation (HIRS 610), Speech Communication (SPCO 600), Speech Pathology (HIRS 610), Visual Arts (ART 600).

- Specialt and Doctoral Degrees. All students must register for SRM 700, Advanced Research Methods; 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 equivalent to the Advanced Research course, may be substituted for this requirement. Documentation for the substitute course must be provided for the Graduate Council for approval. The departmental prefix 622 shall not be used as a substitute for the research course.

The research-oriented course, PSY 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 (CHED 694), Elementary Education, Elementary Education: Early Childhood Education and Reading (SRM 602 and SRM 603), Physical Education (PE 703), Kinesiology (KINE 625), Mathematics Education (MATH 701), Music and Music Education (MUS 700).

Doctoral Research Tools. All Ph. D. students must demonstrate competency in two acceptable research tools. 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 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.
and at least two signatures must be obtained to indicate the successful completion of the thesis. If these are not obtained in addition to the comprehensive examinations, 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 supervising 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 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 must appoint at least two departmental representatives (including the chair). The student advisor will serve as the committee chair. Each committee must:

- have a faculty advisor 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.
- have 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.
- have 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 dissertation committee with all the rights and responsibilities of any other member. Recommendations for faculty representatives should be based upon the methodological, theoretical, or content expertise that the faculty member can bring to the faculty.
- select a faculty representative (research advisor) who is an adequate time to take on an additional student. The faculty representative must hold graduate and should be in a tenure track position in a department/division program unit different from that of the student's program. The faculty representative is expected to contribute conceptual, theoretical, methodological, and/or academic expertise from an alternative disciplinary perspective. 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, advisor, or a committee member may request a change in committee membership by presenting a request to the major department/Division. The request must be approved by the Dean of the Graduate School. An alternative disciplinary perspective. 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 will be defined as one who is currently enrolled or is planning a continuous registration fee. Therefore, the doctoral committee load policy is based on the policy that an individual may serve on 10 active doctoral research committees at 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 or may elect to impose these limitations on its faculty with respect to the number of committees on which they may serve.

Exceptions to the committee maximums would be permitted as agreed to as follows:

1. The faculty member involved agrees that his or her 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 programs offered by the department/division.
2. The department/division chairperson approves the additional student. Approval would indicate that the department/division has reviewed the current load of the faculty member and did not feel the additional load would adversely affect the responsibility of the department/division to other students and to programs offered by the department/division.
3. The Graduate Dean has been informed and has approved.

Written Comprehensive Examinations

Master's Degree. Each master's degree student must pass a written comprehensive examination or other assessment as specified by the discipline. The examination is completed department/division specified equivalent that has been approved by the Council (thesis or project in lieu of comprehensive examination). Defense of a project or thesis in lieu of comprehensive examinations 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/divisional requirements at the beginning of his or her program. This examination or its approved equivalent may not be taken until the student has completed the first year of graduate study in the major department and three additional courses in the major field.

Project Requirements. All academic units that desire the alternative of requiring a project in lieu of the comprehensive examination must 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 word maximum) 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 required, the student’s master’s thesis must be copyrightable. University Microfilms requires an abstract of the project. These items are to be submitted to the Graduate School at least 28 calendar days before the student’s anticipated graduation date.

Once the comprehensive examination session begins, it is considered a take of the examination. Students who fail in the examination session and not retaking will be evaluated accordingly.

The Program Advisor must return the signed results form to the Graduate School after the examination is evaluated or the thesis/project is defended indicating that the student passed or failed on or before the published deadline to submit the results of the written comprehensive examination for the semester in which the exam was taken. If applicable, all committee members (minimum of two) must be notified of an approved equivalent of written comprehensive 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, his or her degree program will be terminated. The student will have to fill out a new Permit each semester or she plans to take comprehensive exams.

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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 the thesis is bound, 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.

Specialists Degree. Each specialist degree 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 his or her program. This examination or its approved equivalent may not be taken until the following student:

1. has been granted regular admission to the degree program.
2. has filed an approved plan of study.
3. has completed at least 20 semester hours (50 semester hours if baccalaureate only) of work applicable toward the degree.
Doctoral Degree. Each doctoral student must pass a written comprehensive examination that is designed, administered, and evaluated by the Graduate Faculty of the department/division. 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 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 seven (7) 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 UMC 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, d) fail, e) retake permitted, or f) retake not permitted. 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. Each doctoral 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 was unsatisfactory, the report must be signed and returned to the Graduate School. The student may retake the 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 exam or fail 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.

Practicum for the Specialist Degree. Under the direction of a Supervising Committee, each specialist student is required to complete at least 3 semester hours of 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 his or her 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 and complete the Non-plagiarism Affirmation form. In addition, the student must furnish copies of the approved proposal to his or her Program Advisor and Supervisor Committee. 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.

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 four (4) semester hours. Minimum credit for the doctoral dissertation is 12 semester hours. Registration for 4 semester hours of proposal research for the dissertation, as appropriate, shall be included in the requirements for admission to candidacy. These hours shall be recorded on the transcript as "WR" (no report) until the end of the semester in which the student has been admitted to candidacy. Upon admission to candidacy, the "WR" shall 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 declaration.

The student will be required to register for a doctoral degree, each student must

1. have completed Advanced Research Methods or an approved equivalent;
2. have earned at least 36 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. have a cumulative grade average equal to or greater than 3.00 in the graduate degree program;
4. have passed the written and oral comprehensive examinations;
5. have filed with the Graduate School an approved dissertation proposal containing the signatures of all committee members;
6. have registered for 4 semester hours of departmental prefix 797;
7. have 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 continuous enrollment requirement may be met by enrolling in one or more hours of coursework or by paying a doctoral service fee. The doctoral service fee must be paid in the Accounting Office when billed. Any doctoral student who fails to be continuously enrolled or to pay the doctoral service fee will be subject to doctoral program suspension that includes revocation of candidacy, dissolution of the doctoral Research Committee, and denial of use of University resources, services, and facilities.

Re-instatement. A student who is suspended may request program re-instatement that requires the permission of the department/division chairperson, the appointment of an appropriate Research Committee, and the approval of the Dean of the Graduate School. Availability of sufficient current resources will be the criterion for approving program re-instatement.

Re-instatement to candidacy shall require, in addition to program re-instatement, approval of an acceptable dissertation proposal by the new Research Committee. Upon re-instatement, the student shall be continuously enrolled or pay the doctoral service fee until all degree requirements are satisfied or until his or her program is terminated.

Proposal for Defense of Dissertation. 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 "HR" will be reported on the transcript if 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 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 sent to all Committee members. All Committee members are to arrange for a room and make sure all Committee members are available and aware of the time and place. The faculty representative will chair both the proposal hearing and the final dissertation defense.

The student will meet with the Committee in consultation with the Research Advisor, according to Committee requirements. All Committee members are to meet with the student to discuss the proposal. Under the supervision of the Research Advisor, the Committee will be responsible for making sure that the proposal is approved.

When the research advisor believes the dissertation proposal is ready for defense, the proposal will be distributed to all Committee members. The proposal will be reviewed and critiqued by the Committee, and the Research Advisor will assist the Committee in identifying the major changes that have been incorporated into the revised proposal.

The revised proposal will be distributed to all Committee members for them to review and then sign if they approve the changes. A second Committee meeting will be held for the purpose of identifying the changes that have been incorporated into the revised proposal and to expedite the approval process. If all Committee members sign the proposal, it will be considered approved by the Graduate School.

A minimum of three Committee signatures are required. If one or more Committee members refuse to sign, the Graduate School will attempt to determine the reasons, and the Graduate Dean will review them and the proposal before approving the revised proposal. The student will submit one copy of the approved proposal to the Graduate School. The Graduate School will consider the proposal to be accepted, and the student will be recommended to the Graduate Council for advancement to candidacy (if all other requirements are completed) and, upon approval, the proposal will be forwarded to the appropriate Graduate Review Board (GRB 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 a copy of the final draft of the Research Proposal to the Graduate School along with a confirmed date, time and place for the defense. The Graduate School will request the Research Advisor to submit a copy of the confirmed schedule to the Defense Committee. The Graduate School will send the Research Advisor a copy of the confirmed schedule. The Graduate School will send the Research Committee the form and special grade reports for dissertation hours for which the student previously registered and required "TR" grades. The scheduled defense date must be at least 14 calendar days after the receipt of the proposal and will be submitted to the student to the academic community. Requests for defense submissions must be made two weeks in advance and be welcomed and appreciated.

The student will appear 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 the consent of the Research Advisor.

The final defense manuscript will be reviewed by the Graduate School Dean or designee and any comments or concerns will be communicated to the Research Advisor, all committee members, and the student. The final defense manuscript 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 candidate is responsible for understanding all aspects of the study, including the data analyses even if he or she contracted the service. The candidate should 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 noted that the candidate will be required to bring copies of the signature pages for the dissertation. If the Committee approves the defense and dissertation with no corrections, they can 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 Committee members for their signatures.

If the Research Committee requires that the dissertation and proposal be revised, 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 Committee members for their signatures.

If the candidate subsequently satisfies the stated conditions, the Research Advisor 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 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 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 candidate shall then notify the candidate that the degree program is terminated.

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The student will submit one copy of the dissertation, which is to be submitted to the Graduate School at least one week before the final dissertation defense. The candidate may not graduate until the following semester.

Upon filing the dissertation, the Graduate School will require the 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. A copy 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 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 UMC Codification (2.8.6.2, Ch 2):

"Plagiarism is the act of appropriating the work of another by a process of copy or selection, with or without the 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 proper citation to the work of another must be used to indicate the creation of another's work by another's work, and the acknowledgment by another's work. As long as a student adequately acknowledges his or her 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 work of the acknowledgment may be unacceptable. However, students should be aware that most programs require that he or she use proper forms of acknowledgment and some may evaluate a project on the basis of form.

Doctoral Residency. Although departments/divisions may have their own 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 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,
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 prior to 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

Costs and Financial Aid

Student Billing Procedure

The University is currently in the process of installing a new accounts receivable computer system. Proposed implementation of the new system will be during Fall Semester 1996. Upon completion, there will be a major change in the billing procedures and all students will receive notification in the mail. If you do not receive a letter explaining the new procedures please call the Accounts Receivable Office at (970) 351-2201.

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 25, Article 7, Colorado Revised Statutes 1988 Repl. Vol., 1994 Supplement. A person’s true, fixed and permanent home and place of habitation. It is the place where she or he intends to remain and that she or he expects to return when she or 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 the person is 21 years of age or if the person has been emancipated. Evidence of emancipation is established by the minor’s ability to meet all financial obligations, including the cost of education, along with an affidavit from the 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 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 ten days after the denial decision 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 (Carter Hall 3002, phone 970-351-2251). 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 1995-96
academic year. Rates for the 1995-96 academic year, which begins with fall semester 1996, are not available as of the publication of this document.

Updated information about tuition and fees is available from the Accounts Receivable Office in Carter Hall, phone 970-351-2201, after June 15 of each year.

1995-96 In-State Student Tuition
(Residents of Colorado Status)

<table>
<thead>
<tr>
<th>Per Semester</th>
<th>Credits Taken</th>
<th>Undergraduate</th>
<th>Graduate</th>
</tr>
</thead>
<tbody>
<tr>
<td>8.9 hours or less, tuition per credit hour</td>
<td>$ 104</td>
<td>$ 123</td>
<td></td>
</tr>
</tbody>
</table>

9-18 credit hours, total tuition (full-time enrollment) $ 936 $ 1,107

Surcharge per credit hour for credits above 18 hours $ 104 $ 123

1995-96 Out-of-State Student Tuition
(Not Qualified for Resident Student Status)

<table>
<thead>
<tr>
<th>Per Semester</th>
<th>Credits Taken</th>
<th>Undergraduate</th>
<th>Graduate</th>
</tr>
</thead>
<tbody>
<tr>
<td>8.9 hours or less, tuition per credit hour</td>
<td>$ 448</td>
<td>$ 477</td>
<td></td>
</tr>
</tbody>
</table>

9-18 credit hours, total tuition (full-time enrollment) $ 4,035 $ 4,295

Surcharge per credit hour for credits above 18 hours $ 448 $ 477

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.

1995-96 General Fees
Per Semester

| 8.9 hours or less, per credit hour | $ 25 |

| 9 or more credit hours |

| Student Service Fees | $ 222 |
| Health Insurance Fee | $ 298 |
| Total | $ 497 |

Technology Fee per credit hour $ 5
Recreation Building Center fee $ 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 fees, student fees, 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 he or she makes use of the privileges and activities underwritten by the fee. 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.

For classes taken through the College of Continuing Education, the college will charge a per credit hour fee, subject to the Colorado Commission on Higher Education Extended Studies policies. Fee Information is available from the College of Continuing Education, 822 7th Street, Suite 10, phone 970-351-2944.

Room and Board
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 residents of Central Campus, McCowan 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 1995-96 academic year, which begins with fall semester 1996, 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

<table>
<thead>
<tr>
<th>Plan</th>
<th>Location</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>McCowan, Wilson, Wiberg, Belford, Tobery-Kendel, Sabin, Snyder Halls ($945 room + $1190 board)</td>
<td>$2,155</td>
<td></td>
</tr>
<tr>
<td>Harrison Suites ($972 room + $1190 board)</td>
<td>$2,126</td>
<td></td>
</tr>
<tr>
<td>Turner Apartments ($1,025 room + $1190 board)</td>
<td>$2,215</td>
<td></td>
</tr>
</tbody>
</table>

All Other Student Residents
Breakfast, Lunch and Dinner (Monday through Sunday) Meal Plan

<table>
<thead>
<tr>
<th>Plan</th>
<th>Location</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>McCowan, Wilson, Wiberg, Belford, Tobery-Kendel, Sabin, Snyder Halls ($945 room + $1190 board)</td>
<td>$2,155</td>
<td></td>
</tr>
<tr>
<td>Harrison Suites ($972 room + $1190 board)</td>
<td>$2,126</td>
<td></td>
</tr>
<tr>
<td>Turner Apartments ($1,025 room + $1190 board)</td>
<td>$2,215</td>
<td></td>
</tr>
</tbody>
</table>

Room Only Rates Per Semester — No Meal Plan

<table>
<thead>
<tr>
<th>Plan</th>
<th>Location</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Turner Apartments (per person)</td>
<td>$1,025</td>
<td></td>
</tr>
<tr>
<td>Lawsonson Apartments (per person)</td>
<td>$1,155</td>
<td></td>
</tr>
<tr>
<td>Harper and Warren Graduate Women's Houses (per person)</td>
<td>$724</td>
<td></td>
</tr>
<tr>
<td>Student Family Apartments (per month)</td>
<td>$397</td>
<td></td>
</tr>
</tbody>
</table>

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. UNC Dining Services offers a variety of meal plan choices to residents of Lawsonson, Turner (excluding freshmen under age 20), Student Family Apartments and off-campus students. Students total from their classes during a semester will be assessed room and board charges according to the same pro rata percentage assessment as follows:

<table>
<thead>
<tr>
<th>Time Period</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>First 7 class days</td>
<td>10%</td>
</tr>
<tr>
<td>8-15 class days</td>
<td>15%</td>
</tr>
<tr>
<td>16-22 class days</td>
<td>20%</td>
</tr>
<tr>
<td>23-29 class days</td>
<td>50%</td>
</tr>
<tr>
<td>30-39 class days</td>
<td>75%</td>
</tr>
<tr>
<td>40+ class days</td>
<td>100%</td>
</tr>
</tbody>
</table>

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 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.

Paying Student Account
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. The STUDENT MUST BE PREPARED TO PAY THE FULL AMOUNT AT THE BEGINNING OF THE TERM OR PAY 1/3 OF THE CURRENT TERM CHARGES PLUS ALL OF THE PRIOR TERM BALANCES TO BE DEFERRED AS EXPLAINED BELOW. A student who does early registration is mailed his/her Statement of Account and Change of Address form to the permanent (home) address. A student who registers later is required to pick up his/her Statement in either the Aspen Suite of the Student Account Center or Carter Hall.

Each student's financial obligation to the university must be paid before the end of the tenth day of classes each semester. Failure to meet financial obligations by this deadline results in the cancellation of the selected classes. In addition, the student will be assessed a cancellation fee of 15 percent of the tuition and fees. Those students not planning to attend the university after registering for classes must notify the Registration Center, 970-351-2521, of their intent before the second class day to avoid the assessment. See Schedule of Classes for exact dates.

Payment is the fourth step of the registration procedure as outlined in the Schedule of Classes and 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, drop boxes at various locations around campus).
- Payment through financial aid as approved by the Student Financial Resources (Carter Hall).
- Payment through VISA or MasterCard (Carter Hall).
- Payment through the deferral plan of at least one-third of the total current bill plus a deferment fee on the unpaid balance. A second one-third payment plus deferment fee is due the seventh week of the semester. The final one-third payment is due the fourteenth week of the semester (Carter Hall, University Center, and various drop boxes).
- Payment through CASE-UNC plan. This acronym stands for "Credit Available for Student Employees at UNC." It allows students employed by the university to make arrangements through the Office of Student Employment, a unit of the Department of Student Financial Resources in Carter Hall, 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).

Additionally, the bill for tuition, fees, and other charges developed through the semester registration process, two additional statements of account will be mailed to the student's local address if any additional charges are incurred or

Costs and Financial Aid
35
If payment has been deferred. Note that these bills are not mailed to the parent or guardian. Each student is required to notify the Registrar’s Office promptly of any change in his or her local address or in his or her permanent mailing address.

For further information on the payment process, contact the Accounts Receivable Office in Carter Hall, phone 970-351-2201.

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, WHETHER 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 PAYMENT OF THE DEBT OWED THE UNIVERSITY.

Fee for Late Payment

In each of the academic terms in a calendar year, a date is established after which payment of outstanding tuition, fees, and other charges is considered late. This date is stated in the official University calendar that is included in the Schedule of Classes and on the student’s individual bill.

A student who has not paid his or her tuition, fees, and other charges within the allotted time is assessed a late fee in accordance with the following schedule. This fee is added to the outstanding balance.

Late Payment Fee Based on Past Due Balance

<table>
<thead>
<tr>
<th>Amount Owed</th>
<th>Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td>$25-$199</td>
<td>$6</td>
</tr>
<tr>
<td>$200-$399</td>
<td>$12</td>
</tr>
<tr>
<td>$400-$599</td>
<td>$18</td>
</tr>
<tr>
<td>$600-$799</td>
<td>$24</td>
</tr>
<tr>
<td>$800-$999</td>
<td>$30</td>
</tr>
<tr>
<td>$1,000-$1,199</td>
<td>$36</td>
</tr>
<tr>
<td>$1,200-$1,399</td>
<td>$42</td>
</tr>
<tr>
<td>$1,400-$1,599</td>
<td>$48</td>
</tr>
<tr>
<td>$1,600-$1,799</td>
<td>$54</td>
</tr>
<tr>
<td>$1,800-$1,999</td>
<td>$60</td>
</tr>
<tr>
<td>$2,000 or over</td>
<td>$66</td>
</tr>
</tbody>
</table>

Fee for Deferral of Payment

A student may use the University’s deferral plan by paying 1/3 of the total current term expenses (tuition, fees, and other charges) by the tenth day of classes each semester. A deferral fee on the amount deferred will be assessed based on the table below. A second 1/3 payment or a third payment of the balance is due the 14th and 21st week of the semester. If any amounts remain unpaid after this deadline, a late fee will be assessed. Registration for the subsequent term will be canceled, if the bill is not paid in full or payment arrangements have not been made with Accounts Receivable.

Deferral Fee Based on Amount Deferred

<table>
<thead>
<tr>
<th>Amount Deferred</th>
<th>Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>$25-$199</td>
<td>$2.50</td>
</tr>
<tr>
<td>$200-$399</td>
<td>$5.00</td>
</tr>
<tr>
<td>$400-$599</td>
<td>$7.50</td>
</tr>
<tr>
<td>$600-$799</td>
<td>$10.00</td>
</tr>
<tr>
<td>$800-$999</td>
<td>$12.50</td>
</tr>
<tr>
<td>$1,000-$1,199</td>
<td>$15.00</td>
</tr>
<tr>
<td>$1,200-$1,399</td>
<td>$17.50</td>
</tr>
<tr>
<td>$1,400-$1,599</td>
<td>$20.00</td>
</tr>
<tr>
<td>$1,600-$1,799</td>
<td>$22.50</td>
</tr>
<tr>
<td>$1,800-$1,999</td>
<td>$25.00</td>
</tr>
<tr>
<td>$2,000 or over</td>
<td>$27.50</td>
</tr>
</tbody>
</table>

Fee for Re-Registration of Classes

Students who have not paid tuition, fees, and other charges or made deferral plan arrangements for these charges before the published cancellation date will have their current semester classes dropped. Students may be re-registered, but only into the exact schedule that they were enrolled at the time of cancellation, upon full payment or appropriate payment under the deferral plan (plus payment of an additional re-registration charge). For students enrolled in nine or more credit hours, the fee is one hundred dollars ($100); those students enrolled in zero to less than nine credit hours are assessed a fifty dollar ($50) fee. Payment or arrangements must be made in the Accounts Receivable Office. Re-registration may be made until the 24th class day of the semester. No re-registration requests will be considered after the deadline.

Withdrawing from a Class. Withdrawals from a class are permitted until the midpoint of the course. Withdrawals prior to the 24th class day will be made at the Registration Center. Faculty signatures are required for every withdrawal section.

Withdrawal from ALL Classes. Initiate this process in the Directors Office in Carter Hall, Room 3005 at 970-351-2796.

Fees for Withdrawals, Drops, or Cancellation from Classes. A withdrawal will appear on the student’s schedule with a “W” behind it. This will not affect the grade point average, but tuition will be charged for these courses. Changes in tuition, fees, and other charges can occur 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 or is cancelled from all classes by the residence office in residence hall. In instances, 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, drop, or cancellation. Nonpayment deferral period is as follows:

<table>
<thead>
<tr>
<th>Time Period</th>
<th>Assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-2 class days</td>
<td>0%</td>
</tr>
<tr>
<td>2-5 class days</td>
<td>20-50%</td>
</tr>
<tr>
<td>6-15 class days</td>
<td>40-70%</td>
</tr>
<tr>
<td>16-35 class days</td>
<td>60-90%</td>
</tr>
<tr>
<td>36+ class days</td>
<td>100%</td>
</tr>
</tbody>
</table>

Note that all tuition, fees, and insurance payments will be assessed. Some federally funded aid programs require a warrant review, contact the University Controller, Carter Hall 1002, phone 970-351-2257.

Student Financial Resources

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. URC participates in the following loan programs, including 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 URC 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. URC 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 and is available in November for the upcoming academic year. The scholarship deadline date is March 1 annually.

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

How to Apply

To qualify for “need-based” programs, the student must demonstrate “financial need.” Need is defined as the difference between the cost of education and what the family (both student and parents) can reasonably afford to pay toward the cost of education. The family income and assets are reviewed to calculate a family contribution in a process called “Need Analysis.” URC utilizes the Free Application for Federal Student Aid (FAFSA). When you complete the FAFSA you are applying for all state and federal programs offered at URC with the exception of the scholarship programs.

The FAFSA form can be obtained from all college financial aid offices and high school guidance counselor’s offices. The student must carefully complete the form and mail it to the provided self-addressed envelope. To receive the maximum amount of funding, the application must be received by the need analysis service by
Costs and Financial Aid

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, you must accept the loan on your Award Notification. A preprinted loan application will be sent to you by the Colorado Student Loan Program (CSLP). Complete the application and return it to CSLP in the envelope provided.

To apply for scholarships offered at UNC, complete the University of Northern Colorado Scholarship Application form. The scholarship deadline date is March 1 each year. 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 is awarded on the basis of "need" and may include a package of grants, loans and employment. Federal student aid programs are based on the philosophy that students (and their parents or spouse, if applicable) have the primary responsibility of paying for their postsecondary education.

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 remains at about the same level. Consequently, families must increasingly rely upon their own funds to pay for school. Students and their families need to be aware of this so that they can plan ahead.

Students are expected to arrive on campus with funds they can utilize for books, tuition, housing and utilities deposits and other expenses associated with the beginning of the year.

Funds are normally 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 further 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 your financial aid application may be accessed 24 hours a day by using the Voice Response System at 970-351-2825. Enter Service Code 3 for the financial aid main menu. You may then choose from a variety of options on the 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 or 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 of copies of the UNC Satisfactory Academic Policy statement can be obtained in our office.

Refund Policy

Tuition adjustments resulting from a complete withdrawal from the University may affect the financial aid received. The UNC Refund Policy assesses a percentage of university charges (tuition, fees, room) based upon the date of total withdrawal from the university. The Dean of Students calculates the percentages when the student initiates the withdrawal process. Credit balances are returned to the financial aid accounts as designated in the policy. Refer to Paying Your Account in the Schedule of Classes for further explanation.

Repayment Policy

Any student withdrawing totally from the University who has received his or her financial aid for that semester, may be required to repay the financial aid funds received. For a more detailed explanation of these policies, refer to the Refund/Repayment Policy available in the Office of Student Financial Resources.
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Roger A. Kovar, Dean; John K. Gapter, Associate Dean; Maria E. Lopez, Associate Dean

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. 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, 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 L175, phone 970-351-2056.

Department of Africana Studies
Location: Michener L128; Telephone: 970-351-2685
Anthonia C. Kalu, Chair

Professor — Hermon George, Jr., Ph.D.
Associate professor — Anthonia C. Kalu, Ph.D.
Assistant professors — Osita O. 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, 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 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.

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 Descent people, nationalism, cultural heritage, the effects of racism and the social scientific study of black communities. The cultural studies focus emphasizes literature by authors of African descent, music, religion, identity and the family.

Location: Michener L54; Telephone: 970-351-2707
Department of Anthropology

Location: Candelaria Hall 24; Telephone: 970-351-2021
James Wanner, Chair

Professors — Michael J. Higgins, Ph.D.; James Wanner, Ph.D.
Associate professor — Sally McBeth, Ph.D.
Assistant professor — Robert H. Brunswig, Jr., M.A.

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 bases for culture and society and current problems are stressed.

Department of Biological Sciences

Location: Ross Hall 2280; Telephone: 970-351-2921
Warren R. Buss, Chair

Associate professors — Jennifer Clarke, Ph.D.; April Gardner, Ph.D.; John Moore, Ph.D.
Assistant professors — D. Edward Bebout, Ph.D.; Carolyn A. Denney, Ph.D.; Catherine S. Gardiner, Ph.D.; Stephen P. Mackessy, Ph.D.; Sheryl McClamely, 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 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 research interests of the faculty include taxonomy of plants, animals and microorganisms; genetics; molecular 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 naturally 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 a "D" or "F" grade 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.

Department of Chemistry/Biochemistry

Location: Ross Hall 1380; Telephone: 970-351-2559
David Pringle, Chair

Associate professor — Loretta L. Jones, 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 science 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.

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.

Department of Earth Sciences

Location: Ross Hall 3320; Telephone: 970-351-2647
William D. Nesse, Chair


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.
Department of Economics
Location: Michener L130; Telephone: 970-351-2759
Marie L. Livingston, Chair

Professor — Marie L. Livingston, Ph.D.
Associate professors — Ann J. Garrison, M.A.; John W. Green, Ph.D.; Kelfala Kalion, 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 economic decisions, how governments deal with 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.

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.

Department of English
Location: Michener L50; Telephone: 970-351-2971
John Loftis, Chair


Associate professors — Barbara A. D. Dickinson, Ph.D.; Elizabeth Jane Wall-Hinds, Ph.D.; Joonok Huh, Ph.D.; Ben Vaner, Ph.D.

Assistant professors — Thomas A. Bredehoft, Ph.D.; Marcus Embry, B.A.; Emily Golson, Ph.D.; Dan Miller, Ph.D.; Tracey Sedlinger, Ph.D.

Instructors — Diane Albertini, M.A.; Becky Edgeton, Ed.D.; Mark Leichliler, 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.

Department of Foreign Languages
Location: Candelaria 32; Telephone: 970-351-2040
David Caldwell, Chair

Professors — Glenda Brown, Ph.D.; Kathleen Enszz, 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 also offer study-abroad programs for those students who desire or require additional experience abroad. 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.

Department of Geography
Location: Candelaria 214; Telephone: 970-351-2715
Richard K. Omrod, Chair


Assistant professors — James P. Doerner, Ph.D.; Kay E. Weller, 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.

Department of Hispanic Studies
Location: Candelaria 33; Telephone: 970-351-2811
Alfonso Rodriguez, Chair

Professors — Roberto H. Cordova, Ph.D.; Ester Gimbernet 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.; Lilliana 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.

Department of History
Location: Michener L95; Telephone: 970-351-2905
Barry Rothaus, Chair

Professors — Marshall Clough, Ph.D.; Mathew T. Downey, Ph.D.; Ronald Edgerton, Ph.D.; Stephen Powers, Ph.D.; Barry Rothaus, Ph.D.; Gall Rowe, Ph.D.; Janet Worrall, Ph.D.

Associate professors — Alexander Knott, Ph.D.; Michael Welsh, Ph.D.

Assistant professors — Joan Clinesfelter, Ph.D.; Fritz Fischer, Ph.D.; Jennifer Frost, Ph.D.; Joan A. Pratt, Ph.D.; Nancy Spatz, 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.

Department of Journalism and Mass Communications
Location: Candelaria Hall 123; Telephone: 970-351-2726
Charles H. Ingold, Chair
Associate professors — David L. Anderson, M.A.; Charles H. Ingold, Ph.D.
Assistant professors — Robert A. Hess, M.A.; Anita Fleming-Rife, 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.

Department of Mathematical Sciences
Location: Ross Hall 3220; Telephone: 970-351-2820
Richard M. Grasell, Chair
Professors — William W. Bosch, Ph.D.; J. Wey Chen, Ph.D.; Donald D. Elliott, Ph.D.; Richard M. Grasell, Ph.D.; Robert L. Heiny, Ph.D.; Charles R. McFarney, Ph.D.; Igor Szczyszyba, Ph.D.
Associate professors — Dean Allison, Ph.D.; William L. Blalough, Ph.D.; Ricardo Díaz, Ph.D.; Peter Isaacson, Ph.D.; Steven C. Leth, Ph.D.; Robert Mayes, Ph.D.; Sinal Robins, Ph.D.; Terry A. Scott, Ph.D.
Assistant professors — Cathleen Cravlotto, Ph.D.; Hui Ru Ding, Ph.D.; Jeff D. Farmer, Ph.D.; Lawrence Mark Lesser, Ph.D.
Affiliate professors — Mark A. Constas, Ph.D.; John B. Cooney, Ph.D.; Teresa M. McDevitt, Ph.D.; Dale Shaw, 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.

Department of Philosophy
Location: Weber House; Telephone: 970-351-2572
Thomas K. Trelogan, Chair
Professor — Paul Hodapp, JD, Ph.D.
Associate professors — Richard A. Blanke, Ph.D.; Jack Ternkin, 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.

Department of Physics
Location: Ross Hall 430; Telephone: 970-351-2961
Willard L. Fadner, Chair
Professor — Willard L. Fadner, Ph.D.
Associate professors — Cynthia Galovich, Ph.D.; Kendall Mallory, Ph.D.; Robert A. Walsh, Ph.D.; Courtney Willis, Ph.D.
Assistant professor — Ruwang Sung, Ph.D.

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.

A well-equipped nuclear laboratory features a neutron hohlziter, 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.

Department of Political Science
Location: Weber House; Telephone: 970-351-2058
Steve Mazurana, Chair
Professors — John T. Bookman, Ph.D.; Steve Mazurana, M.A.
Associate professors — Mustapha Dhada, Ph.D.; Stan Luger, Ph.D.
Assistant professors — Kelechi Kalu, M.A.; Susan Kirkpatrick, Ed.M.

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.
Department of Psychology
Location: Candelaria Hall 30; Telephone: 970-351-2957
Eugene P. Sheehan, Chair
Professors — William A. Barnard, Ph.D.; Theodore Bashore, Ph.D.; Grant L. Morris, Ph.D.; Charles S. L. Poston, Ph.D.
Associate professors — Mark B. Alcorn, Ph.D.; Mahlon Dalley, Ph.D.; David Gilliam, Ph.D.; Nancy J. Karlin, Ph.D.; Paul D. Retzlaff, Ph.D.; Eugene P. Sheehan, Ph.D.; Marilyn Welsh, Ph.D.
Assistant professors — Susan Plock Bromley, Psy.D.; Carl Granrud, Ph.D.; Lora Schlewltt, 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 potentials or to help those experiencing problems in living.

Department of Sociology
Location: Candelaria Hall 228; Telephone: 970-351-2315
Jacqueline Stanfield, Chair

Criminal Justice Office
Location: Candelaria Hall 228; Telephone: 970-351-2315

Family Studies Office
Location: Candelaria Hall 233; Telephone: 970-351-2421
Pamela G. Hewitt, Director

Sociology of Education Office
Location: Candelaria Hall 245; Telephone: 970-351-2592
James Marshall, Director

Social Issues Office
Location: Candelaria Hall 243; Telephone: 970-351-2100
Daniel O'Connor, Director
Professors — John Fox, Ph.D.; Pamela G. Hewitt, Ph.D.; David Musick, Ph.D.; Richard G. Trahan, Ph.D.; John A. Vonk, Ph.D.
Associate professors — Karen Jennison, Ph.D.; James Marshall, Ph.D.; Jacqueline Stanfield, Ph.D.
Assistant professors — Ned Red Dexter, Ph.D.; Gilbert Gutierrez, J.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 — 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.”

Department of Speech Communication
Location: Candelaria Hall 121; Telephone: 970-351-2045
Dennis Warnemunde, Chair
Professor — Idahlynn Karre, Ph.D.
Associate professors — Patricia Arneson, Ph.D.; Dennis Warnemunde, Ph.D.
Assistant professors — Linda Allen, Ph.D.; 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
Rita Kiefer, Coordinator
Professor — Rita Kiefer, M.A.
Assistant Professor — Ned Red Dexter, Ph.D.

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

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

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.
Minor in Multicultural Anthropology

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

Required Elective Credits — 15 semester hours
Select one of the following:
BLS 102 The Black Woman in America ..................................................3
BLS 240 Dynamics of Racism .................................................................3
EDP 201 Introduction to Multicultural ....................................................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

Required Elective Credits .................................................................!!! is

Required Anthropology Credits — 13 semester hours

Required Elective Credits — 13 semester hours

Minor in Physical Anthropology

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.
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

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 191 Biology as a Profession Seminar .................................. 0.5
BIO 220 Genetics ................................................................. 3
BIO 351 Microbiology ........................................................... 3
BIO 425 Molecular Genetics .................................................... 3
BIO 450 Cell Physiology ........................................................ 4
BIO 465 Evolution ................................................................. 3
BIO 491 Senior Seminar ......................................................... 0.5

Required Supporting Credits — 41-42 semester hours

Chemistry Credits
CHEM 111 Principles of Chemistry I ......................................... 5
CHEM 112 Principles of Chemistry II ....................................... 5
CHEM 302 Theory and Use of Analytical Instruments ............... 1
CHEM 321 Chemical Analysis .................................................. 4
CHEM 351 Organic Chemistry .................................................. 5
CHEM 481 General Biochemistry .............................................. 1
CHEM 483 Experimental Biochemistry .................................... 1

Physics Credits — 10 semester hours (select one group from the following):

PHYS 220 Introductory Physics I .............................................. 5
PHYS 221 Introductory Physics II ............................................. 5
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

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
BIO 465 Economic Botany ........................................................ 5
BOT 353 Morphogenesis of Algae and Fungi ............................ 4
BOT 350 General Plant Physiology .......................................... 4
BOT 440 Anatomy and Morphogenesis of Plants ..................... 4
ZOO 332 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

Botanical Science-Organismal Credits — 10 semester hours (minimum)

BIO 351 Microbiology ........................................................... 4
BIO 380 Aquatic Biology ........................................................ 4
BOT 353 Morphogenesis of Algae and Fungi ............................ 4
ZOO 330 Ornithology ............................................................. 3
ZOO 351 General Entomology .................................................. 4
ZOO 353 Invertebrate Zoology .................................................. 3
ZOO 354 General Parasitology .................................................. 4
ZOO 354 Mammalogy ............................................................. 4
ZOO 355 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

Note that some of the required courses in Biological Science will apply toward the General Education requirements.

Required Elective Credits — 26 semester hours

BIO 110 Principles of Biology .................................................. 4
BIO 111 Survey of Organismal Biology .................................... 5
BIO 191 Biology as a Profession Seminar ............................... 0.5
BIO 220 Genetics ................................................................. 3
BIO 465 Evolution ................................................................. 3
BIO 491 Senior Seminar ......................................................... 0.5
BOT 350 Plant Taxonomy ........................................................ 4
ENST 265 Conservation of Natural Resources ......................... 2

 Bachelor of Arts in Biological Sciences
 Emphasis in Field Biology

Program Requirements

Required Biological Science credits ........................................... 26
Required supporting credits ....................................................... 9
Required elective credits (minimum) .......................................... 31

General Education credits:
10 credits already included in requirements above

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 Science Credits — 26 semester hours

BIO 110 Principles of Biology .................................................. 4
BIO 111 Survey of Organismal Biology .................................... 5
BIO 191 Biology as a Profession Seminar ............................... 0.5
BIO 220 Genetics ................................................................. 3
BIO 465 Evolution ................................................................. 3
BIO 491 Senior Seminar ......................................................... 0.5
BOT 350 Plant Taxonomy ........................................................ 4
ENST 265 Conservation of Natural Resources ......................... 2
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) ..................................................21
General Education credits:
10 credits already included in requirements above............................30
Elective credits ..................................................................................15
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 with a broad preparation in the biological sciences with skill needed to enter some professional programs, or for entry into some professional programs, or for entry into paramedical professions, this program meets the minimal requirements of the University. It will meet the entrance requirements of most of the allied health professions such as physical therapy or chiropractic medicine.

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 191 Biology as a Professional Seminar .......................................0.5
BIO 220 Genetics ..................................................................................4
BIO 351 Microbiology ..........................................................................4

Required Supporting Credits — 30 semester hours
Chemistry Credits — 20 semester hours
CHEM 111 Principles of Chemistry I ....................................................5
CHEM 112 Principles of Chemistry II ....................................................5
CHEM 331 Organic Chemistry .............................................................5
CHEM 332 Organic Chemistry .............................................................5
CHEM 465 Evolution ..............................................................................3
BIO 491 Senior Seminar .......................................................................0.5
BIO 460 Ecology ..................................................................................4
BIO 450 Cell Physiology .......................................................................4
ZOO 341 Human Anatomy ....................................................................5
ZOO 350 Human Physiology ..............................................................4

Bachelor of Arts in Biological Sciences
Emphasis in Liberal Arts

Program Requirements
Required Biological Science credits ..................................................20
Required Computer Science credits — 7 semester hours .................14
Required elective credits (minimum) ..................................................21
General Education credits:
10 credits already included in requirements above............................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 191 Biology as a Professional Seminar .......................................0.5
BIO 220 Genetics ..................................................................................4
BIO 460 Ecology ..................................................................................4
BIO 465 Evolution ................................................................................3
BIO 491 Senior Seminar .......................................................................0.5

Required Supporting Credits — 25 semester hours
Chemistry Credits — 9 semester hours
CHEM 111 Principles of Chemistry I ....................................................5
CHEM 131 Introductory Organic Chemistry .......................................4

Physics Credits — 5 semester hours
PHYS 220 Introductory Physics I ........................................................5

Mathematics/Computer Science Credits — 5 semester hours (minimum) 
MATH 124 College Algebra .................................................................4
MATH 125 Plane Trigonometry .............................................................3
SCI 391 Computer Applications in Science .........................................2

Earth Sciences Credits — 4 semester hours
QEOI 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 — 21 semester hours
Biological Science-Organismal — 10 semester hours (minimum)
BIO 351 Microbiology ..........................................................................4
BOT 330 Plant Taxonomy ......................................................................4
ZOO 350 Ornithology ............................................................................4
ZOO 333 General Parasitology .............................................................4
ZOO 334 Mammalogy ..........................................................................4
ZOO 335 Survey of Fishes, Amphibians and Reptiles ............................4

Biological Science-Anatomy/Physiology — 7 semester hours (minimum)
BIO 450 Cell Physiology ......................................................................4
BOT 350 General Plant Physiology .......................................................4
BIO 440 Anatomy and Morphogenesis of Plants ...............................4
ZOO 341 Human Anatomy ....................................................................3
ZOO 350 Human Physiology ..............................................................4

Note that credit not allowed for both ZOO 245 and ZOO 350.

Biological Science (select from BIO, BOT, or ZOO prefixes) 4
Bachelor of Arts in Biological Sciences
Emphasis in Teaching-Secondary Biology

Program Requirements

Required credits ................................................. 43
Required supporting credits (minimum) ..................... 26
Required elective credits (minimum) ......................... 9

General Education credits:
10 credits already included in requirements above

Remaining .......................................................... 30

PTEP program ..................................................... 37-39

Total credits required for this degree ...................... 145-147

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 — 43 semester hours

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>BIO 110</td>
<td>Principles of Biology</td>
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</tr>
<tr>
<td>BIO 111</td>
<td>Survey of Organismal Biology</td>
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</tr>
<tr>
<td>BIO 191</td>
<td>Biology as a Professor Seminar</td>
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<tr>
<td>BIO 220</td>
<td>Genetics</td>
<td>3</td>
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<td>BIO 270</td>
<td>Biology and Behavior of Human Sexuality</td>
<td>2</td>
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<tr>
<td>BIO 351</td>
<td>Microbiology</td>
<td>4</td>
</tr>
<tr>
<td>BIO 371</td>
<td>Teaching Strategies for Biology Teachers</td>
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</tr>
<tr>
<td>BIO 460</td>
<td>Ecology</td>
<td>4</td>
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<tr>
<td>BIO 465</td>
<td>Evolution</td>
<td>3</td>
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<tr>
<td>BIO 491</td>
<td>Senior Seminar</td>
<td>0.5</td>
</tr>
<tr>
<td>BOT 270</td>
<td>Economic Botany</td>
<td></td>
</tr>
<tr>
<td>BOT 350</td>
<td>General Plant Physiology</td>
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<td>SCED 441</td>
<td>Methods of Teaching Secondary School Science</td>
<td>3</td>
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<tr>
<td>SCI 391</td>
<td>Computer Applications in Science</td>
<td></td>
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<tr>
<td>ZOO 245</td>
<td>Introduction to Human Anatomy and Physiology</td>
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</table>

Required Supporting Credits — 26 semester hours

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<thead>
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<tr>
<td>CHEM 111</td>
<td>Principles of Chemistry I</td>
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</tr>
<tr>
<td>CHEM 131</td>
<td>Introductory Organic Chemistry</td>
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<tr>
<td>PHYS 220</td>
<td>Introductory Physics I</td>
<td>5</td>
</tr>
<tr>
<td>PHYS 221</td>
<td>Introductory Physics II</td>
<td></td>
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<tr>
<td>MATH 124</td>
<td>College Algebra</td>
<td>3-4</td>
</tr>
<tr>
<td>GEOL 100</td>
<td>General Geology</td>
<td></td>
</tr>
</tbody>
</table>

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

<table>
<thead>
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<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>AST 100</td>
<td>General Astronomy</td>
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<td>GEOL 201</td>
<td>Physical Geology</td>
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<tr>
<td>MET 205</td>
<td>General Meteorology</td>
<td>4</td>
</tr>
<tr>
<td>MATH 125</td>
<td>Plane Trigonometry</td>
<td>3</td>
</tr>
<tr>
<td>STAT 150</td>
<td>Introduction to Statistical Analysis</td>
<td>3</td>
</tr>
</tbody>
</table>

Note
Completion of PTEP is necessary for this program.
# Master of Arts in Biological Sciences

**Emphasis: Non-Thesis**

## Program Requirements
Complete the required credits specified here .............................. 6
Complete program electives specified here ............................... 24

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, including Biology section scores).

### 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 555 Advanced Microbiology** ............................................................ 4
- **BIO 562 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
- **BIO 595 Special Topics in Botany** ......................................................... 2
- **BIO 622 Directed Study in Botany (non-scheduled)** ............................. 1-3
- **SCED 508 Workshop** ..................................................................... 1-16
- **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 advisor ................................................................. 3

**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

Emphasis: Thesis

Program Requirements
Complete the required credits specified here .................................................. 3
Complete program electives specified here ......................................................... 27

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 Science .............................................. 0.5
BIO 691 Seminar in Biological Science .......................................................... 0.5
BIO 694 Foundations of Biological Research ............................................... 2

Required Elective Credits — 27 semester hours
Basic Electives — 7 semester hours minimum
- BIO 525 Molecular Genetics ........................................................................... 3
- BIO 550 Cell Physiology .................................................................................. 4
- BOT 550 Plant Taxonomy ................................................................................ 4
- BOT 553 Morphogenesis of Algae and Plants ................................................ 4
- BOT 540 Anatomy and Morphogenesis of Plants .......................................... 4
- ZOO 533 General Parasitology ....................................................................... 4
- ZOO 525 General Parasitology ...................................................................... 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 required
- BIO 545 Cytology ............................................................................................ 3
- BIO 546 Conceptual Issues in Evolution ....................................................... 2
- BIO 655 Advanced Genetics .......................................................................... 3
- BIO 655 Advanced Microbiology .................................................................. 4
- BIO 662 Human Ecology ................................................................................ 3
- BOT 550 Plant Ecology ................................................................................... 4
- BOT 575 Fungal Diseases of Plants ................................................................. 4
- ZOO 545 Advanced Plant Physiology ............................................................... 3
- ZOO 547 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 585 Special Topics in Botany ................................................................. 2
- ZOO 622 Directed Study in Zoology (non-scheduled) ................................... 1-3

SCED 508 Workshop ......................................................................................... 1-6
SCED 513 Professional Renewal ....................................................................... 1-12
ZOO 595 Special Topics in Zoology ................................................................. 1-2
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 690 Thesis ............................................................................................... 1-6
- BOT 699 Thesis ............................................................................................... 1-6
- ZOO 699 Thesis ............................................................................................... 1-6

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 ........................................23-35
Complete program pedagogical electives specified here ......................11-19
Complete program content electives specified here .................................23-35
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 (GRE scores optional)

Required Research Core — 23-35 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
*May be waived depending on course background of the student.

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
BIO 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 630 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** ................................................................................. 40-43  
**Total credits required for this degree** .................................................. 120  

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 focus: 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 black people. 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.

**Required Black Studies Credits — 25-28 semester hours**

- BLS 100 Introduction to Black Studies .................................................. 3  
- BLS 104 African and Afro-American History I ...................................... 3  
- BLS 202 Afro-American History II ....................................................... 3  
- BLS 240 Dynamics of Racism ............................................................... 3  
- BLS 340 The Black Family .................................................................... 3  
- BLS 356 Modern African World ................................................................ 3  
- BLS 395 Aspects of the African-American Experience ........................... 3  
- BLS 396 African and Afro-American Worldviews ................................... 3  
- BLS 456 Leadership and the Black Church ........................................... 3  
- BLS 399 Community Study Project ...................................................... 1-4  
- BLS 490 Seminar in Black Studies ......................................................... 3  

**Required Elective Credits — 12 semester hours**

**Social and Behavioral Studies (select two of the following):**

- BLS 102 The Black Woman In America ............................................... 3  
- BLS 222 Black Nationalism in America ............................................... 3  
- BLS 320 The Economic Experience of Black America ......................... 3  
- BLS 332 Pan-Africanism ....................................................................... 3  
- BLS 395 Aspects of the African-American Experience ........................... 3  
- BLS 420 Black Urban Politics ............................................................... 3  
- BLS 456 Leadership and the Black Church ........................................... 3  

**Cultural Studies (select two of the following):**

- BLS 101 Crisis of Identity ..................................................................... 3  
- BLS 204 Introduction to African Literature ......................................... 3  
- BLS 230 Black Women In Literature .................................................... 3  
- BLS 340 The Black Family .................................................................... 3  
- BLS 360 Music and the Black Experience ............................................ 3  
- BLS 395 Aspects of the African-American Experience ........................... 3  
- BLS 396 African and Afro-American Worldviews ................................... 3  
- BLS 466 Current Issues in Multicultural Education ............................... 3  
- ID 308 Interpersonal Growth Workshop .............................................. 3  

**Notes**

Electives are chosen with the approval of the chair.

BLS 395, Aspects of the African-American Experience, is a variable subject 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 subject 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, BLS 399 must always be taken at 3 semester hours.

## 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** .................................................................................... 37-39  
**Elective credits** ................................................................................. 2-4  
**Total credits required for this degree** .................................................. 120  

**Required Black Studies Credits — 18 semester hours**

- BLS 100 Introduction to Black Studies .................................................. 3  
- BLS 102 The Black Woman In America ............................................... 3  
- BLS 240 Dynamics of Racism ............................................................... 3  
- BLS 340 The Black Family .................................................................... 3  
- BLS 396 African and Afro-American Worldviews ................................... 3  
- BLS 406 Current Issues in Multicultural Education ............................... 3  

**Required Supporting Credits — 3 semester hours**

- EDF 201 Introduction to Multiculturalism .............................................. 3  

**Required Elective Credits — 18 semester hours**

**Cultural Issues In American Society (select three of the following):**

- ENGL 256 Ethnic American Literature ................................................. 3  
- HIST 220 American History  ............................................................... 3  
- HIST 220 American History  ............................................................... 3  
- M 182 Confluence of Cultures ............................................................. 3  
- PSY 367 Psychology of Prejudice ......................................................... 3  
- SOC 450 Sociology of Minority Groups ............................................... 3  
- SOC 553 Social Class and Inequality .................................................... 3  

**Cultural Groups In American Society (select three of the following):**

- ANT 317 Contemporary Native American Issues ............................... 3  
- HIS 102 Hispanic Cultures In the United States ................................. 3  
- HIST 220 American 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  

**Notes**

This program is specifically designed for elementary or middle 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.
Bachelor of Arts in Chemistry
Emphasis in Biochemistry (ACS Certified)

Program Requirements
Required Chemistry Core Credits — 24-26 semester hours
Select one of the following groups:

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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<td>CH EM 111</td>
<td>Principles of Chemistry I</td>
<td></td>
</tr>
<tr>
<td>or</td>
<td>CH EM 114 General Chemistry I</td>
<td></td>
</tr>
<tr>
<td>CH EM 321</td>
<td>Chemical Analysis</td>
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<td>CH EM 331</td>
<td>Organic Chemistry I</td>
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<td>Organic Chemistry II</td>
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<tr>
<td>CH EM 441</td>
<td>Inorganic Chemistry I</td>
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<td>or</td>
<td>CH EM 442 Inorganic Chemistry II</td>
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<td>or</td>
<td>CHEM 451 Physical Chemistry I Laboratory</td>
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<td>or</td>
<td>CHEM 452 Physical Chemistry II</td>
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<td>or</td>
<td>CHEM 455 Physical Chemistry I Laboratory</td>
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<tr>
<td>CH EM 481</td>
<td>General Biochemistry I</td>
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<td>CH EM 482</td>
<td>General Biochemistry II</td>
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<tr>
<td>CH EM 483</td>
<td>Experimental Biochemistry I</td>
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<tr>
<td>CH EM 484</td>
<td>Experimental Biochemistry II</td>
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Required Chemistry Credits — 25 semester hours

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>MATH 132</td>
<td>Calculus and Analytic Geometry I</td>
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<tr>
<td>MATH 233</td>
<td>Calculus and Analytic Geometry III</td>
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<tr>
<td>PHYS 240</td>
<td>General Physics I</td>
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<td>PHYS 241</td>
<td>General Physics II</td>
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<td>BIO 110</td>
<td>Principles of Biology</td>
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<tr>
<td>BIO 450</td>
<td>Cell Physiology</td>
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<tr>
<td>BIO 220</td>
<td>Genetics</td>
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General Education Credits — 22 semester hours

<table>
<thead>
<tr>
<th>Category</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>Category 1b</td>
<td>Intermediate Composition</td>
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</tr>
<tr>
<td>Category 2</td>
<td>Mathematics</td>
<td></td>
</tr>
<tr>
<td>Category 6</td>
<td>Sciences and Mathematics</td>
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</tr>
</tbody>
</table>

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.

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 432 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
Mathematics
MATH 132 Calculus and Analytic Geometry II ....................... 4
MATH 233 Calculus and Analytic Geometry III ...................... 4
Physics
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 463 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
Category 2 — Mathematics
MATH 131 Calculus and Analytic Geometry I ......................... 4
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
(SPC 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 221 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
Select one of the following groups:
CHEM 111 Principles of Chemistry I ..................................................5
CHEM 112 Principles of Chemistry II ..................................................5
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 465 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 151 Calculus and Analytic Geometry I ....................................4

Category 5 — Social Science
ECOM 103 Introduction to Economics: Macroeconomics ...............3

Notes
Chemistry majors, minors and other well-qualified students are
recommended to take CHEM 111 and CHEM 112.

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
(SFCO 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 152, 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 ............................................. 5
CHEM 112 Principles of Chemistry II ......................................... 5
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 ............................................ 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 one 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 (SPC 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 to 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

Select one of the following groups:

- CHEM 111 Principles of Chemistry I ............................................... 5
- CHEM 112 Principles of Chemistry II ........................................... 5
- 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

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.

For information, contact the Advisory Committee for pre-professional studies in the health sciences, Department of Chemistry and Biochemistry, Ross Hall 1380, 970-351-2559.

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.

Required Chemistry Credits — 8 semester hours

CHEM 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 431 Instrumental Analysis ..................................................... 4
CHEM 441 Inorganic Chemistry Laboratory ...................................... 1

Required Credits for Science Licensure — 23 semester hours

BIO 110 Principles of Biology ........................................................ 4
BIO 111 Survey of Organismal Biology .......................................... 5
Earth Sciences
- GEOL 201 Physical Geology ....................................................... 4
- PHYS 220 Introductory Physics I ................................................. 4
- PHYS 221 Introductory Physics II ............................................ 5
Secondary Licensure
- 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.

Category 2 — Mathematics
- MATH 151 Calculus and Analytical 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:

It is recommended that students have a fundamental background in computers. SCI 395 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 programs in the health sciences include programs in human medicine and its related fields (e.g., allopathic, osteopathic, podiatric medicine), dentistry, veterinary medicine, veterinary technology, optometry, optometry technology, pharmacy, pharmacy technology, and chiropractic. Students interested in careers in professional schools in these areas should consult the index of this Bulletin for more information.

Professional schools in these careers generally require that students have a strong liberal arts foundation. Pre-professional programs are available at UNC that will allow students to prepare for admission to professional schools. These programs are designed to provide students with the necessary knowledge and skills required for success in professional schools.

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 area.

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. Tomasik.

*Medical and 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 here 8-12
Complete program electives specified here 18-22

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
CHED 600 Seminar in Chemistry 2
CHED 682 Problems in Teaching Chemistry 3

Master of Arts in Chemistry
Emphasis in Research

Program Requirements
Complete the required credits specified here 12
Complete program electives specified here 18

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 satisfied by completing designated undergraduate coursework in the appropriate subdiscipline with a minimum grade of "B."

Required Credits — 12 semester hours
CHED 600 Seminar in Chemistry 2
CHEM 695 Thesis Proposal 1
CHEM 699 Thesis 6

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 — 15 semester hours
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 556 Physical Chemistry of Atomic & Microscopic Systems 3
CHEM 557 Physical Chemistry of Macroscopic Systems 3
CHEM 560 Environmental Chemistry 2
CHEM 581 General Biochemistry I 4
CHEM 582 General Biochemistry II 4
CHEM 590 Special Topics in Chemistry 3

Electives — 4-8 semester hours
Courses may be taken with the approval of the candidate's graduate advisor 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.

Select one of the following:
CHEM 622 Directed Studies 3
CHEM 695 Thesis Proposal 1
CHEM 699 Thesis 6

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 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
Qualifying 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 a required area. 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

Select one of the following sequences:
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
CHEN 520 Theory and Use of Analytical Instruments ................................1
CHEN 523 Chemical Spectroscopy ..........................................................3
CHEN 533 Organic Synthesis and Stereochemistry ...............................3
CHEN 534 Theory and Mechanisms of Organic Reactions ....................3
CHEN 543 Organometallic Chemistry ....................................................3
CHEN 551 Physical Chemistry I .............................................................4
CHEN 552 Physical Chemistry II ............................................................4
CHEN 555 Chemical Kinetics ...............................................................3
CHEN 558 Chemical Thermodynamics ................................................3
CHEN 559 Quantum Chemistry ............................................................3
CHEN 560 Environmental Chemistry ....................................................2
CHEN 581 General Biochemistry I .......................................................4
CHEN 582 General Biochemistry II ......................................................4
CHEN 586 Biochemical Techniques .......................................................3
CHEN 587 Toxicology ........................................................................3
CHEN 590 Advanced Topics In Chemistry ...........................................3
CHEN 622 Directed Studies ................................................................3
CHEN 654 Statistical Thermodynamics ...............................................2

Pedagogy Component — minimum 12 hours
Required — 6 semester hours
CHEN 753 Supervised Practicum In College Teaching ............................3
EPSY 682 Cognition and Instruction ....................................................3

Electives — 6 semester hours
SCED 680 Science Curriculum 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 — 20-30 semester hours
7 credits already included in above requirements
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 OCM 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, OCM).

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.

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
OCM 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 305 Dynamic Meteorology .................................................... 3
MET 360 Physical Oceanography ................................................... 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 ................. 4
BIO 380 Aquatic Biology .............................................................. 4
BIO 460 Ecology ........................................................................ 4
CG 105 Personal Computer Applications ...................................... 3
CHEM 103 Introductory 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 ............................................................... 5
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 OCM courses must be numbered 300 or above. No more than 8 credit hours of AST, ESCI, GEOL, MET and OCM 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.

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.
Bachelor of Arts in Earth Sciences
Emphasis in Geology

Program Requirements

Required Geology credits ..............................................................39
Required supporting credits ............................................................33
Elective Geology credits ............................................................... 3

General Education credits:
7 credits already included in above requirements
Specified .......................................................................................4
Remaining ....................................................................................20
Elective credits ...............................................................................5
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
QEOL 201 Physical Geology ...............................................................4
QEOL 202 Historical Geology ...........................................................4
QEOL 230 Mineralogy ........................................................................4
QEOL 240 Mineralogy ........................................................................4
QEOL 401 Optical Mineralogy and Petrography .........................4
QEOL 420 Sedimentology and Stratigraphy ..................................4
QEOL 421 Optical Mineralogy and Petrography .........................4
QEOL 422 Physical Geology ............................................................ 5
QEOL 423 Structural Geology ...........................................................5
QEOL 424 Geologic Field Techniques .............................................2
QEOL 425 Geologic Field Techniques .............................................2

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
Specified .......................................................................................4
Remaining ....................................................................................20
Elective credits ...............................................................................5
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 206 Dynamic Meteorology ......................................................3
MET 315 Meteorological Instruments and Codes ..........................2
MET 350 Physical Meteorology ..................................................... 3
MET 407 Dynamic Meteorology .....................................................4

Required Supporting Credits — 33 semester hours
CHEM 111 Principles of Organismal Biology ................................. 5
CHEM 112 Principles of Chemistry ................................................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 Meteorology Credits — 6 semester hours selected from the following:
MET 465 Radar Meteorology ......................................................... 3
MET 470 Satellite Meteorology .......................................................3
MET 491 Special Topics in Meteorology ....................................... 3

Electives must be selected with the approval of the student's advisor.

Required Supporting Credits — 30 semester hours
CHEM 111 Principles of Chemistry ................................................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
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.
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
Remainder .............................................................................. 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 ...................................................... 5
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
CHM 111 Principles of Chemistry I ............................................ 5
CHM 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 351.

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 here ........................................ 8-16
Complete program electives specified here ........................................ 14-22

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

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESCI 599 Seminar in Earth Sciences</td>
<td>2</td>
</tr>
<tr>
<td>ESCI 600 Introduction to Earth Science Research</td>
<td>2</td>
</tr>
<tr>
<td>ESCI 695 Special Topics in Earth Science</td>
<td>2</td>
</tr>
<tr>
<td>ESCI 699 Thesis</td>
<td>6-10</td>
</tr>
</tbody>
</table>

### 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

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESCI 599 Seminar in Earth Sciences</td>
<td>2</td>
</tr>
<tr>
<td>ESCI 600 Introduction to Earth Science Research</td>
<td>2</td>
</tr>
<tr>
<td>ESCI 695 Special Topics in Earth Science</td>
<td>2</td>
</tr>
<tr>
<td>ESCI 697 Graduate Research</td>
<td>2-6</td>
</tr>
</tbody>
</table>

### Non-Thesis Option Elective Credits — 18-22 hours

Courses with AST, ESCI, GEOL, MET, OCN and SCED prefixes, selected from the list below:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AST 500 Survey of Astronomy</td>
<td>3</td>
</tr>
<tr>
<td>AST 589 Special Topics in Astronomy</td>
<td>1-4</td>
</tr>
<tr>
<td>AST 622 Directed Studies</td>
<td>1-4</td>
</tr>
<tr>
<td>ESCI 550 Strategies in Teaching Earth Science</td>
<td>1</td>
</tr>
<tr>
<td>ESCI 584 Earth Science Field Experience</td>
<td>1-15</td>
</tr>
<tr>
<td>GEOL 510 Groundwater Hydrology</td>
<td>1</td>
</tr>
<tr>
<td>GEOL 521 Optical Mineralogy and Petrography</td>
<td>4</td>
</tr>
<tr>
<td>GEOL 525 Economic Geology</td>
<td>3</td>
</tr>
<tr>
<td>GEOL 532 Igneous and Metamorphic Petrology</td>
<td>2</td>
</tr>
<tr>
<td>GEOL 533 Sedimentary Petrology</td>
<td>2</td>
</tr>
<tr>
<td>GEOL 535 Tectonics</td>
<td>2</td>
</tr>
<tr>
<td>GEOL 540 Paleontology</td>
<td>4</td>
</tr>
<tr>
<td>GEOL 550 Sedimentology and Stratigraphy</td>
<td>4</td>
</tr>
<tr>
<td>GEOL 560 Geomorphology</td>
<td>3</td>
</tr>
<tr>
<td>GEOL 564 Glacial and Quaternary Geology</td>
<td>3</td>
</tr>
<tr>
<td>GEOL 567 Volcanic Geology</td>
<td>3</td>
</tr>
<tr>
<td>GEOL 570 Structural Geology</td>
<td>4</td>
</tr>
<tr>
<td>GEOL 581 Geologic Field Techniques</td>
<td>2</td>
</tr>
<tr>
<td>GEOL 582 Geology Field Camp</td>
<td>6</td>
</tr>
<tr>
<td>GEOL 590 Rocky Mountain Geology Seminar</td>
<td>2</td>
</tr>
<tr>
<td>GEOL 595 Special Topics in Geology</td>
<td>1-4</td>
</tr>
<tr>
<td>GEOL 622 Directed Studies</td>
<td>1-4</td>
</tr>
<tr>
<td>MET 500 Survey of Meteorology</td>
<td>3</td>
</tr>
<tr>
<td>MET 507 Dynamic Meteorology II</td>
<td>4</td>
</tr>
<tr>
<td>MET 521 Climatology</td>
<td>3</td>
</tr>
<tr>
<td>MET 536 Biometeorology</td>
<td>3</td>
</tr>
<tr>
<td>MET 541 Synoptic Meteorology</td>
<td>3</td>
</tr>
<tr>
<td>MET 542 Synoptic Meteorology Laboratory</td>
<td>3</td>
</tr>
<tr>
<td>MET 570 Satellite Meteorology</td>
<td>3</td>
</tr>
<tr>
<td>MET 595 Special Topics in Meteorology</td>
<td>1-4</td>
</tr>
<tr>
<td>MET 622 Directed Studies</td>
<td>1-4</td>
</tr>
<tr>
<td>OCN 500 Survey of Oceanography</td>
<td>3</td>
</tr>
<tr>
<td>OCN 595 Special Topics in Oceanography</td>
<td>1-4</td>
</tr>
<tr>
<td>OCN 622 Directed Studies</td>
<td>1-4</td>
</tr>
<tr>
<td>SCED 671 Elementary and Middle School Science Curriculum</td>
<td>1-2</td>
</tr>
<tr>
<td>SCED 678 Science Education Seminar</td>
<td>3</td>
</tr>
<tr>
<td>SCED 680 Science Curricula in Secondary/College Settings</td>
<td>3</td>
</tr>
</tbody>
</table>

Note: Some 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**

<table>
<thead>
<tr>
<th>Required Economics credits</th>
<th>32</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required supporting credits</td>
<td>15-18</td>
</tr>
<tr>
<td>Required elective credits</td>
<td>12</td>
</tr>
<tr>
<td>General Education credits: 3 credits already included in above requirements</td>
<td></td>
</tr>
<tr>
<td>Remaining</td>
<td>37</td>
</tr>
<tr>
<td>Elective credits</td>
<td>19-21</td>
</tr>
<tr>
<td>Total credits required for this degree</td>
<td>120</td>
</tr>
</tbody>
</table>

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**

<table>
<thead>
<tr>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON 103 Introduction to Economics: Macroeconomics</td>
<td>3</td>
</tr>
<tr>
<td>ECON 105 Introduction to Economics: Microeconomics</td>
<td>3</td>
</tr>
<tr>
<td>ECON 280 Money and Banking</td>
<td>3</td>
</tr>
<tr>
<td>ECON 303 Intermediate Macroeconomics</td>
<td>3</td>
</tr>
<tr>
<td>ECON 345 International Trade</td>
<td>3</td>
</tr>
<tr>
<td>ECON 400 Managerial Economics</td>
<td>3</td>
</tr>
<tr>
<td>ECON 402 Contemporary Economic Problems</td>
<td>3</td>
</tr>
<tr>
<td>ECON 452 Introduction to Econometrics</td>
<td>3</td>
</tr>
<tr>
<td>ECON 470 History of Economic Thought</td>
<td>3</td>
</tr>
<tr>
<td>ECON 499 Assessment Review</td>
<td>1</td>
</tr>
</tbody>
</table>

**Bachelor of Arts in Economics Emphasis in Business Economics**

**Program Requirements**

<table>
<thead>
<tr>
<th>Required Economics credits</th>
<th>25</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required supporting credits</td>
<td>16</td>
</tr>
<tr>
<td>Required elective credits</td>
<td>9</td>
</tr>
<tr>
<td>General Education credits: 3 credits already included in above requirements</td>
<td></td>
</tr>
<tr>
<td>Remaining</td>
<td>37</td>
</tr>
<tr>
<td>Required Business Administration Minor (33-46) 9 credits already included in required supporting credits</td>
<td></td>
</tr>
<tr>
<td>Total credits required for this degree</td>
<td>120-121</td>
</tr>
</tbody>
</table>

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**

<table>
<thead>
<tr>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON 103 Introduction to Economics: Macroeconomics</td>
<td>3</td>
</tr>
<tr>
<td>ECON 105 Introduction to Economics: Microeconomics</td>
<td>3</td>
</tr>
</tbody>
</table>

**Required Supporting Credits — 15-18 semester hours**

<table>
<thead>
<tr>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 124 College Algebra</td>
<td>4</td>
</tr>
<tr>
<td>MATH 131 Calculus and Analytic Geometry I</td>
<td>4</td>
</tr>
<tr>
<td>or MATH 175 Topics in Finite Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>MATH 176 Topics in Calculus</td>
<td>3</td>
</tr>
</tbody>
</table>

**Statistics Credits — 6-7 semester hours**

<table>
<thead>
<tr>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BACS 291 Business Statistics I</td>
<td>3</td>
</tr>
<tr>
<td>BACS 390 Business Statistics II</td>
<td>3</td>
</tr>
<tr>
<td>or STAT 311 Basic Statistical Methods</td>
<td>4</td>
</tr>
</tbody>
</table>

**Computer Proficiency Credits — 3 semester hours**

<table>
<thead>
<tr>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BA 101 Business Computing</td>
<td>5</td>
</tr>
</tbody>
</table>

**Required Elective Credits — 12 semester hours**

Eligible electives include all ECON prefix courses, ENST 355 and MIND 286.

**Recommended Electives — not required**

<table>
<thead>
<tr>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BAAF 329 Introduction to Income Tax</td>
<td>3</td>
</tr>
<tr>
<td>BAFN 231 Legal Environment of Business</td>
<td>3</td>
</tr>
<tr>
<td>BAFN 340 Principles of Risk and Insurance</td>
<td>3</td>
</tr>
<tr>
<td>BAFN 370 Business Finance</td>
<td>4</td>
</tr>
<tr>
<td>BAFN 572 Introduction to Real Estate</td>
<td>4</td>
</tr>
<tr>
<td>BAMQ 354 Organizational Behavior</td>
<td>3</td>
</tr>
<tr>
<td>BAMR 360 Marketing</td>
<td>3</td>
</tr>
<tr>
<td>BAMR 361 Consumer Behavior</td>
<td>3</td>
</tr>
<tr>
<td>BAMR 366 Market Analysis and Research I</td>
<td>3</td>
</tr>
</tbody>
</table>

**Notes**

Students planning to attend Graduate School should take the MATH 124-131 sequence.

To qualify for graduation, economics majors must achieve a minimum 2.00 GPA in all economics (ECOM) courses taken at the University of Northern Colorado.

For purposes of required electives, minimum grades and calculation of minimum GPA, MIND 286 and ENST 355 will be counted as ECON courses.

<table>
<thead>
<tr>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON 280 Money and Banking</td>
<td>3</td>
</tr>
<tr>
<td>ECON 303 Intermediate Macroeconomics</td>
<td>3</td>
</tr>
<tr>
<td>ECON 345 International Trade</td>
<td>3</td>
</tr>
<tr>
<td>ECON 400 Managerial Economics</td>
<td>3</td>
</tr>
<tr>
<td>ECON 453 Business and Economic Forecasting</td>
<td>3</td>
</tr>
<tr>
<td>ECON 499 Assessment Review</td>
<td>1</td>
</tr>
</tbody>
</table>

**Required Supporting Credits — 16 semester hours**

<table>
<thead>
<tr>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 175 Topics in Finite Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>MATH 176 Topics in Calculus</td>
<td>3</td>
</tr>
<tr>
<td>MATH 178 Topics in Calculus II</td>
<td>3</td>
</tr>
<tr>
<td>BA 101 Business Computing</td>
<td>3</td>
</tr>
<tr>
<td>BACS 291 Business Statistics I</td>
<td>3</td>
</tr>
<tr>
<td>STAT 311 Basic Statistical Methods</td>
<td>4</td>
</tr>
</tbody>
</table>

**Required Elective Credits — 9 semester hours**

<table>
<thead>
<tr>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON 250 Comparative Economic Systems</td>
<td>3</td>
</tr>
<tr>
<td>ECON 277 Industrial Organization</td>
<td>3</td>
</tr>
<tr>
<td>ECON 315 Labor/Management Economics</td>
<td>3</td>
</tr>
<tr>
<td>ECON 341 Public Finance</td>
<td>3</td>
</tr>
<tr>
<td>ECON 346 International Finance</td>
<td>3</td>
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<tr>
<td>ECON 360 Economics of Growth and Development</td>
<td>3</td>
</tr>
<tr>
<td>ECON 402 Contemporary Economic Problems</td>
<td>3</td>
</tr>
<tr>
<td>ECON 455 Regional Theory and Methods</td>
<td>3</td>
</tr>
<tr>
<td>ENST 355 Environmental and Resource Economics</td>
<td>3</td>
</tr>
<tr>
<td>MIND 286 Value Issues in Political Economy</td>
<td>3</td>
</tr>
</tbody>
</table>
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 American Literature ............................. 3
ENG 319 Advanced Expository Techniques .................................. 3
ENG 320 Advanced Expository Techniques .................................. 3
ENG 419 Language and the History of English ............................. 3
ENG 430 The Folktale ............................................................ 3
ENG 440 Modern and Contemporary American Literature ............... 3
ENGO 441 Comparative Literature ........................................... 3
SPCO 323 Intercultural Communication ...................................... 3
SPCO 330 Small Group Communication .................................... 3

Notes
English majors pursuing teacher licensure must complete Professional Teacher Education (PTEP) requirements listed separately in this Bulletin.

Bachelor of Arts in English
Emphasis in Liberal Arts

Program Requirements
Required English credits .......................................................... 50
Required elective credits ......................................................... 60
General Education credits ....................................................... 18
Required minor with minimum credits ....................................... 18
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.

Required English Credits — 50 semester hours
Lower Division Core
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

Upper Division Core
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, 225, 227 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.

Notes
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 ......................... 145-145

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
EN 131 Introduction to Literature .............................................. 3
EN 219 Traditional and Modern Grammars ................................. 3
EN 240 Introduction to Creative Writing ..................................... 3
EN 260 Masterpieces of English Literature ................................. 3
EN 261 Masterpieces of American Literature ............................... 3
EN 262 Masterpieces of World Literature .................................... 3

Upper Division Courses
EN 319 Advanced Expository Techniques .................................. 3
EN 419 Language and the History of English ............................. 3
Period courses (EN 351-372): two from English and one from American Literature .................................................. 9

Required Elective Credits — 6 semester hours
EN 122, 123, 223, 225 and 227 may NOT be counted toward the English major. All other courses with an EN 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 EDLS 363 Clinical Experience)
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 EN 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
Required credits for secondary licensure ................................. 9

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
EN 600 Introduction to Graduate Study .................................... 3

Required Elective Credits — 33 semester hours
A minimum of six courses must be selected from EN 600-level offerings ....... 27

Additionally, all students must choose one of the following options:
a) a traditional thesis;
b) a creative project, such as a novel or a collection of poetry;
c) an additional six semester hours (two EN 600-level seminars).

The thesis or creative projects may be written under ENG 699 for 6 semester hours credit .......................................................... 6

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

**Social Processes (select two of the following):**
- **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** .................................. 5
- **GEOG 315 Resource Management** ............................................................. 3

**Physical Resource Science (select two of the following):**
- **ENST 225 Energy and the Environment** .................................................. 5
- **ENST 235 Chemistry and the Environment** ............................................. 2
- **ENST 245 Nuclear, Solar and Alternative Power** ....................................... 5
- **ENST 255 Atmospheric Environment of Humans** ..................................... 2
- **ENST 265 Conservation of Natural Resources** ......................................... 2
- **ENST 355 Introduction to Environmental Health** .................................... 3

**Sensory Perception (select one of the following):**
- **ENST 375 Literature and the Environment** ............................................. 3
- **ENST 385 Art and the Environment** ....................................................... 2

**Special Problems**
- **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

<table>
<thead>
<tr>
<th>Required French credits</th>
<th>31 semester hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required elective credits</td>
<td>3</td>
</tr>
<tr>
<td>General Education credits</td>
<td>40</td>
</tr>
<tr>
<td>Required minor with minimum credits</td>
<td>18</td>
</tr>
<tr>
<td>Elective credits</td>
<td>28</td>
</tr>
<tr>
<td>Total credits required for this degree</td>
<td>120</td>
</tr>
</tbody>
</table>

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 and the French Study Abroad Program can further expand cultural knowledge and language proficiency.

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

<table>
<thead>
<tr>
<th>Required Elective Credits — 3 semester hours (minimum)</th>
</tr>
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<tbody>
<tr>
<td>FR 150 Practicum in Contemporary Culture ... 1</td>
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<tr>
<td>FR 500 Intermediate French Readings ................ 1-3</td>
</tr>
<tr>
<td>FR 350 Practicum in Teaching French ................. 2</td>
</tr>
<tr>
<td>FR 401 Intensive French ................................... 4</td>
</tr>
<tr>
<td>FR 402 Contemporary Life in France ................. 3</td>
</tr>
<tr>
<td>FR 403 France of the Ancient Regime .................. 4</td>
</tr>
<tr>
<td>FR 404 Modern France .................................... 4</td>
</tr>
<tr>
<td>FR 405 Business French .................................... 3</td>
</tr>
<tr>
<td>FR 450 Studies in French Literature .................. 3</td>
</tr>
</tbody>
</table>

### 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) ..................................................5
General Education credits: .................................................................3

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 abilities necessary for foreign language teaching and the French Study Abroad Program. Further development of cultural knowledge and language proficiency enables students to 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

Advanced Literature Credits .........................................................8
FR 300 Intermediate French Readings ...............................................3
FR 311 French Civilization and Literature Survey I ...........................3
FR 312 French Civilization and Literature Survey II ..........................3
FR 314 Methods of Teaching in the Secondary School ........................3
FR 341 Methods of Teaching in the Secondary School ........................3
FR 350 Practicum in Teaching French ...............................................2
FR 407 French for Oral Proficiency ................................................3

Required Elective Credits — 3 semester hours (minimum)
FR 150 Practicum in Contemporary Culture .....................................1
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 ...............................................5
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 the French culture to teaching situations. Students who successfully pass the department oral proficiency exam (consult advisor) and have successfully completed the academic year only or by combining summer work with regular academic year offerings.

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 Language Teaching must have obtained a grade of B or better in 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 Credits — 10 semester hours
FL 508 Workshop ...........................................................2
FL 551 Teaching of Foreign Languages ........................................2
FR 503 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

The department offers a spring semester Study Abroad Program in France. 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 French language, literature, and civilizations and Foreign Language teaching methodology.
Bachelor of Arts in Geography

Emphasis in Applied Geography

Required Geography credits ................................. 24
Required elective credits ........................................ 15

General Education credits:
Specified .................................................................. 3
Remaining .................................................................. 87
Required minor with minimum credits ....................... 18
Elective credits .......................................................... 23
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 liberal arts emphasis in conjunction with their career goals.

Required Geography Credits — 24 semester hours
GEOG 110 Geography of the United States and Canada .......... 3
GEOG 200 Human Geography ........................................ 3
GEOG 225 Physical Geography ........................................ 3

GEOG 264 Maps and Imagery .............................................. 3
GEOG 302 Cartography........................................................ 3
GEOG 312 Economic Geography ........................................ 3
GEOG 475 Quantitative Techniques in Geography ............... 3
GEOG 492 Senior Seminar ............................................... 3

Required Elective Credits — 15 semester hours
GEOG 300 Advanced Human Geography: Topics ................. 3
GEOG 315 Resource Management ........................................ 3
GEOG 325 Advanced Physical Geography: Topics ............... 3
GEOG 360 Political Geography ........................................... 3
GEOG 370 Urban Geography .............................................. 3
GEOG 422 Directed Studies ............................................. 1-5
GEOG 492 Internship .................................................... 1-6

General Education, Specified — 3 semester hours
Category 2 — Mathematics
STAT 150 Introduction to Statistical Analysis ...................... 3

Note that students may take 3 of the above hours in related electives from outside the department with advisor approval. GEOG 300 and GEOG 325 may be taken for credit more than once. GEOG 492 may be taken for credit more than once, but only 3 hours will count toward the major.

Bachelor of Arts in Geography

Emphasis in Liberal Arts

Program Requirements
Required Geography credits ........................................ 18
Required elective credits ............................................. 21

General Education credits ........................................... 40
Required minor with minimum credits ............................. 18
Elective credits ............................................................ 23
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 — 18 semester hours
GEOG 110 Geography of the United States and Canada .......... 3
GEOG 200 Human Geography ........................................... 3
GEOG 225 Physical Geography ........................................... 3
GEOG 264 Maps and Imagery .............................................. 3
GEOG 302 Cartography........................................................ 3
GEOG 492 Senior Seminar ............................................... 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 ............................................. 1-5
GEOG 492 Internship .................................................... 1-6

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 453 is also offered for graduate credit under the numbers GEOG 538 and GEOG 539. 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 ............................................. 1-5
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 credits ................................................. 18
Required supporting credits ................................... 18
Required elective credits ...................................... 18
General Education credits:
Specified ......................................................... 13
Remaining ......................................................... 27
Secondary PTEP program ..................................... 39-40
Total credits required for this degree ...................... 133-134

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 — 18 semester hours

GEOQ 100 World Geography ...................................... 3
GEOQ 200 Human Geography .................................. 3
GEOQ 225 Physical Geography .................................. 3
GEOQ 264 Maps and Imagery ..................................... 3
GEOQ 495 Senior Seminar ...................................... 3
SOSC 470 Theory and Research in Social Science ........ 3

Required Elective Credits — 18 semester hours

Regional Credits — 9 semester hours (minimum)
GEOQ 110 Geography of the United States and Canada ... 3
GEOQ 318 Australia ................................................. 3
GEOQ 335 Geography of Middle America .................. 3
GEOQ 340 Europe .................................................... 3
GEOQ 344 Asia: Special Topics ................................. 3
GEOQ 350 Colorado .................................................. 3
GEOQ 365 Russia and Eurasia ..................................... 3
GEOQ 458 South America .......................................... 3
GEOQ 453 Geography of the Great Plains ................. 3

Systematic Credits — 9 semester hours (minimum)
GEOQ 300 Advanced Human Geography: Topics ... 3
GEOQ 312 Economic Geography ................................ 3
GEOQ 315 Resource Management ............................... 3
GEOQ 325 Advanced Physical Geography: Topics .... 3
GEOQ 360 Political Geography .................................. 3
GEOQ 370 Urban Geography .................................... 3

Required Supporting Credits — 18 semester hours

ECON 103 Introduction to Economics: Macroeconomics 3
HIST 101 Survey of American History — 1877 to Present 3
HIST 110 African Civilization ..................................... 3
or HIST 115 Asian Civilization II: the Modern Transformation 3
HIST 120 Western Civilization to 1689 ......................... 3
or HIST 121 Western Civilization — 1689 to Present .......... 3
PSCI 100 United States National Government ............... 3
SOC 100 Principles of Sociology ................................ 3

General Education, Specified — 13 semester hours

Category 4 — Arts and Letters
HIST 100 Survey of American History to 1877 ............... 3

Category 5 — Social Science
ANT 100 General Anthropology ................................ 4

Category D — Multicultural - Select one of the following:
BLS 101 Crisis of Identity ......................................... 3
HISP 102 Hispanic Cultures in the United States ............ 3
WS 120 Women and Men in Perspective ..................... 3

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 GEOQ prefix.

Before taking EDLS 363 and SOSC 341, the student must have completed EPSY 345 and EDSE 364.

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 ....................... 4
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 ........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 creative 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 501 German Conversation and Composition I ..........3
GER 302 German Composition and Conversation 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 .......................................4

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

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 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 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.

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

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 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 ................10
Courses from outside of the department in the areas of pedagogy and civilization and culture .........................10

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

<table>
<thead>
<tr>
<th>Required credits</th>
<th>21</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required elective credits</td>
<td>15</td>
</tr>
<tr>
<td>General Education credits</td>
<td>40</td>
</tr>
<tr>
<td>Complete a minor with minimum hours</td>
<td>21</td>
</tr>
<tr>
<td>Elective credits</td>
<td>23</td>
</tr>
<tr>
<td>Total credits required for this degree</td>
<td>120</td>
</tr>
</tbody>
</table>

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 320 LaChicana — 3
- HISP 325 History of the Chicano in the Southwest — 3
- HISP 414 Contemporary Chicano Issues — 3

Required Elective Credits — 3-4 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 328 Historical, Philosophical, Legal, & Cultural Dimensions of Bilingual Education — 3
- HISP 400 Bilingual and English as a Second Language Methods — 3
- HISP 410 Religion in the Chicano/a Society — 3
- HIST 118 History of Mexico — 3
- ANT 311 Ethnology of Hispanic Peoples — 3
- PSY 467 Psychology of Prejudice — 3
- SPCO 323 Intercultural Communication — 3

Notes
ENG 258, 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

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
Select one of the following:

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 500 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.

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 will include 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 and are qualified to do graduate study in history. The University has designated the Department of History as a Center of Excellence.

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 500 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 ............................................................................. 18
Required supporting credits ..................................................................... 24
Required elective credits ......................................................................... 18

General Education credits:
6 credits already included in requirements above
Remaining .................................................................................................... 34
PTEP requirements ................................................................................... 37-39
Total credits required for this degree ......................................................... 137-139

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 — 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
Select one of the following:
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.

Professional Teacher Education (PTEP) is required of this program.

The History Secondary Education major must have completed EPSY 345 and EDF 364 before taking EDLS 363 and SOSC 341.

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 here ........................................3
Complete program electives specified here ........................................27

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 Study ..................................3

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 and submitted to the graduate school. 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 fifteen hours of coursework in addition to the six thesis hours, must be concentrated in one of the following areas: American history; European history; African/Asian/Latin American history. The remaining six hours in history that round out the candidate's program should be taken 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 of study, 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 falling 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 falling grade on the second examination will eliminate the student from the master's degree program in history.

Comprehensive and Thesis Fields in History

<table>
<thead>
<tr>
<th>European</th>
<th>United States</th>
<th>Africa/Asia/Latin America</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ancient</td>
<td>Colonial Period to Medieval the Present</td>
<td>Comprehensice or thesis to be developed with candidate's graduate advisor and committee.</td>
</tr>
<tr>
<td>Early Modern Modern</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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 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
(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

<table>
<thead>
<tr>
<th>Required Core Credits</th>
<th>45</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required Concentration Area Elective Credits</td>
<td>18</td>
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<tr>
<td>General Education Credits</td>
<td>40</td>
</tr>
<tr>
<td>Elective Credits</td>
<td>17</td>
</tr>
<tr>
<td>Total Credits Required for This Degree</td>
<td>120</td>
</tr>
</tbody>
</table>

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 400 Intermediate Microeconomics
- ECON 345 International Trade
- or
- ECON 346 International Finance
- ECOF 320 Intermediate Macroeconomics
- GEOQ 200 Human Geography
- HIST 240 Modern America, 1914 to Present
- PSCI 220 Introduction to International Relations
- PSCI 318 The Politics of Developing States
- SPCC 323 Intercultural Communication

Select one of the following groups:

- MATH 175 Topics In Finite Mathematics
- MATH 176 Topics In Calculus
- ECON 452 Econometrics
- or
- SOC 352 Contemporary Social Theory
- SOC 360 Computer Applications In the Social Sciences
- SOC 362 Social Statistics
- Foreign Language Credits at the intermediate level

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 310 World Cultures
- ANT 310 World Area Study (Africa)
- BLS 104 Survey of Africa
- BLS 352 Pan-Africanism
- BLS 362 Social Statistics
- ECON 250 Comparative Economic Systems
- ECON 360 Economics of Growth and Development
- GEOQ 200 Human Geography
- GEOQ 368 Africa
- GEOQ 368 Field Course In Geography (Africa)
- HIST 100 African Civilization
- HIST 100 Middle East History I
- HIST 100 Middle East History II
- HIST 100 Modern Africa
- PSCI 325 Conflict In the Middle East
- PSCI 328 International Law and Organization

Concentration Area: Asian

- ANT 110 World Cultures
- ANT 315 Modernization and Development
- ECON 250 Comparative Economic Systems
- ECON 360 Economics of Growth and Development
- GEOQ 344 Asia — Topics
- HIST 112 Asian Civilization I
- HIST 113 Asian Civilization II
- HIST 300 Modern Southeast Asia

HIST 310 Modern China
HIST 311 Modern Japan
HIST 315 India
HUM 115 Literature and Arts of the Orient
HUM 225 Studies in Asian Humanities
MIND 101 Great Traditions Of Asia
PSCI 328 International Law and Organizations
SOC 270 World Population Problems

Concentration Area: European

ANT 315 Comparative Cultural Studies
ANT 325 Comparative Cultural Studies
ECON 250 Comparative Economic Systems
ECON 360 Economics of Growth and Development
FR 116 Contemporary France
GEOQ 340 Europe
GEOQ 365 Russia and Eurasia
GEOQ 392 Field Course In Geography (Europe)
GER 116 Contemporary Germany
HIST 120 Western Civilization from Ancient Greece to 1689
HIST 121 Western Civilization from 1689 to the Present
HIST 216 History of Spain and Portugal
HIST 263 European Intellectual History
HIST 369 Britain in the Modern Age: 1689 to the Present
HIST 376 France from 1848
HIST 385 History of the Holocaust: 1933 to the Present
HIST 386 Soviet History: 1917 to the Present
HIST 389 Modern Europe
PSCI 210 Politics In the European Community
PSCI 310 Politics of Central and East European States
PSCI 328 International Law and Organizations

Concentration Area: Latin American

ANT 315 Comparative Cultural Studies
ANT 325 Comparative Cultural Studies
ECON 250 Comparative Economic Systems
ECON 360 Economics of Growth and Development
GEOQ 392 Field Course In Geography (Latin America)
GEOQ 438 South America
HISP 131 Latin American Civilization and Culture
HISP 141 Mexican Civilization and Culture
HISP 220 Women In Hispanic Society
HIST 118 History of Mexico
HIST 314 History of Latin America to 1855
HIST 315 History of Latin America: 1855 to the Present
PSCI 328 International Law and Organizations

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 151 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.

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 UM C 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 in 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, ChemEd; 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

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 end of the sophomore year or the beginning of the junior 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. The application is a five-step process.

1. As a pre-major:
   a. complete at least 40 credit hours of university-level coursework.
   b. receive a grade of "C" or better in either GEOG 100 or GEOG 110.
   c. receive a grade of "C" or better in PSCI 100, PSCI 203, or PSCI 220.
   d. receive a grade of "C" or better in ENG 122, HIST 101, JMC 100 and JMC 210.
   e. pass the English Essay Examination.

2. Fill out the following two forms:
   a. an “Application to Journalism and Mass Communications Major.”
   b. a “General Education Checklist.”
   Both forms are available from the department in Candelaria Hall 123.

3. Write a letter of application. The letter should address your reasons for wishing to major in JMC and should state what qualities you possess that will contribute to your success as a major. Letters must be typewritten and must not exceed one page, single-spaced.

4. Secure copies of transcripts from all colleges and universities attended, other than UNC.

5. Mail or deliver all of the material noted above to the Department of Journalism and Mass Communications, Candelaria, Room 123, University of Northern Colorado, Greeley, CO 80639.

All of your materials must reach the Department Office by the deadlines indicated below:
- Fall semester admission - October 15
- Spring semester admission - October 15
No admission decisions are made during the summer.

The JMC department is committed to liberal arts education. For this reason, students majoring in the department may apply no more than 50 hours with a JMC prefix toward meeting the required 120 semester hours for graduation.

A JMC committee admits new majors based on eligibility, completeness and quality of application materials and space available in required courses. Should the number of qualified applicants exceed available space, the department may accept only those students ranking highest in their eligibility and in the quality of their application materials. The applicant’s cumulative grade point average may be considered.

JMC students are also expected to take 65 of the total 120 hours needed for graduation in liberal arts courses outside the JMC department.

Bachelor of Arts in Journalism
Emphasis in News-Editorial

Program Requirements

Required Journalistic credits ..................................................24
Required elective credits ..........................................................6
General Education credits: .........................................................12
JMC pre-major requirements specified .................................28
Remaining .................................................................32
Elective credits .................................................................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 new 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 — 24 semester hours
JMC 100 Introduction to Journalism and Mass Communications ......3
JMC 210 Newswriting ..............................................................3
JMC 310 Feature Writing for News Media ....................................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 ........................................................3
JMC 497 Mass Communications Law .....................................3

Required Elective Credits — 6 semester hours
Group A — News-Editorial Elective Credits (select one of the following):
JMC 340 Broadcast Newswriting ..............................................3
JMC 380 Public Relations ........................................................3
JMC 422 Journalism and Mass Communications Directed Study ......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 one additional course with a JMC prefix ..........................3
Bachelor of Arts in Journalism
Emphasis in Public Relations and Advertising Media

Program Requirements
Required Journalism credits .................................................................24
Required elective credits ........................................................................6
General Education credits: 
12 credits specified in JMC pre-major requirements
Remaining ................................................................................................28
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
capabilities 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 — 24 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 481 Public Relations Techniques .....................................................3
JMC 497 Mass Communications Law .....................................................3

Bachelor of Arts in Journalism
Emphasis in Telecommunications

Program Requirements
Required Journalism credits .................................................................23
Required elective credits ........................................................................6-7
General Education credits: 
12 credits specified in JMC pre-major requirements
Remaining ................................................................................................28
Required minor with minimum credits ..................................................18
Elective credits .........................................................................................32-35
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 Elective Credits — 6 semester hours
Group A — Select one of the following:
JMC 390 Impact of Mass Communications on Society ............................3
JMC 397 Journalism History .................................................................3
Group B — Select one of the following:
JMC 310 Feature Writing for News Media .............................................3
JMC 387 Advertising Copywriting ........................................................3
JMC 484 Advertising and Society .........................................................3
JMC 492 Internship ..............................................................................3
(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
ECOM 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

Required Elective Credits — 6-7 semester hours
Take additional hours in courses with JMC prefixes. (An Internship is
strongly recommended)
### Bachelor of Arts in Mathematics

**Emphasis in Actuarial Science**

<table>
<thead>
<tr>
<th>Required Mathematics credits</th>
<th>50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required supporting credits</td>
<td>26</td>
</tr>
<tr>
<td>General Education credits</td>
<td>40</td>
</tr>
<tr>
<td>Elective credits</td>
<td>24</td>
</tr>
<tr>
<td>Total credits required for this degree</td>
<td>120</td>
</tr>
</tbody>
</table>

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 1 .......................................................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

**Required Supporting Credits — 26 semester hours**

<table>
<thead>
<tr>
<th>Required Statistics Credits — 8 semester hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>STAT 311 Basic Statistical Methods: 4</td>
</tr>
<tr>
<td>STAT 205 Topics in Applied Statistics: 4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Required Finance Credits — 6 semester hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BAFN 231 Legal Environment of Business: 3</td>
</tr>
<tr>
<td>BAFN 340 Principles of Risk and Insurance: 3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Required Economics Credits — 6 semester hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON 103 Introduction to Economics: 3</td>
</tr>
<tr>
<td>ECON 105 Introduction to Economics: 3</td>
</tr>
</tbody>
</table>

**Required Computer Science Credits — 6 semester hours**

| CS 115 FORTRAN 77 Programming: 3 |
| CS 205 Special Topics in Computer Science: 3 |

### Bachelor of Arts in Mathematics

**Emphasis in Applied Statistics**

<table>
<thead>
<tr>
<th>Program Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required Mathematics credits</td>
</tr>
<tr>
<td>Statistics Core credits</td>
</tr>
<tr>
<td>Required elective credits (minimum)</td>
</tr>
<tr>
<td>General Education credits</td>
</tr>
<tr>
<td>Elective credits</td>
</tr>
<tr>
<td>Total credits required for this degree</td>
</tr>
</tbody>
</table>

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 Mathematics Credits — 24 semester hours**

<table>
<thead>
<tr>
<th>Required Mathematics Credits — 24 semester hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 131 Calculus and Analytic Geometry I: 4</td>
</tr>
<tr>
<td>MATH 132 Calculus and Analytic Geometry II: 4</td>
</tr>
<tr>
<td>MATH 221 Elementary Linear Algebra: 3</td>
</tr>
<tr>
<td>MATH 233 Calculus and Analytic Geometry III: 4</td>
</tr>
<tr>
<td>MATH 305 Mathematics of Finance: 3</td>
</tr>
<tr>
<td>MATH 350 Elementary Probability Theory: 3</td>
</tr>
<tr>
<td>MATH 351 Elementary Statistics Theory: 3</td>
</tr>
</tbody>
</table>

**Statistics Core Credits — 10 semester hours**

<table>
<thead>
<tr>
<th>Statistics Core Credits — 10 semester hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>STAT 311 Basic Statistical Methods: 4</td>
</tr>
<tr>
<td>STAT 406 Multiple Linear Regression: 3</td>
</tr>
<tr>
<td>STAT 409 Sampling Techniques: 3</td>
</tr>
</tbody>
</table>

**Required Elective Credits — 5 semester hours (minimum)**

<table>
<thead>
<tr>
<th>Required Elective Credits — 5 semester hours (minimum)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 335 Differential Equations: 3</td>
</tr>
<tr>
<td>STAT 495 Topics in Applied Statistics: 1-4</td>
</tr>
<tr>
<td>MATH 437 Mathematical Modeling: 3</td>
</tr>
</tbody>
</table>

**Note**

Other elective courses may be taken with the approval of the advisor.
# Bachelor of Arts in Mathematics

## Emphasis in Computer Science

**Program Requirements**

<table>
<thead>
<tr>
<th>Credits</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>27</td>
<td>Required Mathematics credits</td>
</tr>
<tr>
<td>30</td>
<td>Required Computer Science credits</td>
</tr>
<tr>
<td>30</td>
<td>General Education credits</td>
</tr>
<tr>
<td>23</td>
<td>Elective credits</td>
</tr>
</tbody>
</table>

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**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 131 Calculus and Analytic Geometry I</td>
<td>4</td>
</tr>
<tr>
<td>MATH 221 Elementary Linear Algebra</td>
<td>3</td>
</tr>
<tr>
<td>MATH 226 Discrete Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>MATH 233 Calculus and Analytic Geometry III</td>
<td>4</td>
</tr>
<tr>
<td>MATH 350 Elementary Probability Theory</td>
<td>3</td>
</tr>
<tr>
<td>MATH 351 Elementary Statistics Theory</td>
<td>3</td>
</tr>
<tr>
<td>MATH 375 Elementary Numerical Analysis</td>
<td>3</td>
</tr>
</tbody>
</table>

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## Bachelor of Arts in Mathematics

## Emphasis in Elementary/Middle School Teacher Education

**Program Requirements**

<table>
<thead>
<tr>
<th>Credits</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>38</td>
<td>Required Mathematics credits</td>
</tr>
<tr>
<td>40</td>
<td>General Education credits</td>
</tr>
<tr>
<td>37-39</td>
<td>PTEP Requirements</td>
</tr>
<tr>
<td>21</td>
<td>Other Licensure credits</td>
</tr>
</tbody>
</table>

Total credits required for this degree: 156-158

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 — 38 semester hours**

Select one of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CG 110 BASIC Programming</td>
<td>3</td>
</tr>
<tr>
<td>CG 120 Pascal Programming</td>
<td>3</td>
</tr>
<tr>
<td>CG 125 LOGO Programming</td>
<td>3</td>
</tr>
<tr>
<td>MATH 131 Calculus and Analytic Geometry I</td>
<td>4</td>
</tr>
<tr>
<td>MATH 132 Calculus and Analytic Geometry II</td>
<td>4</td>
</tr>
<tr>
<td>MATH 181 Fundamentals of Mathematics I</td>
<td>3</td>
</tr>
<tr>
<td>MATH 182 Fundamentals of Mathematics II</td>
<td>3</td>
</tr>
<tr>
<td>MATH 221 Elementary Linear Algebra</td>
<td>3</td>
</tr>
<tr>
<td>MATH 228 Discrete Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>MATH 233 Calculus and Analytic Geometry III</td>
<td>4</td>
</tr>
<tr>
<td>MATH 241 Introduction to Modern Geometry</td>
<td>3</td>
</tr>
<tr>
<td>MATH 395 Topics in Mathematics for Teachers</td>
<td>3</td>
</tr>
<tr>
<td>MATH 464 Introduction to History of Mathematics</td>
<td>2</td>
</tr>
<tr>
<td>STAT 150 Introduction to Statistical Analysis</td>
<td>3</td>
</tr>
</tbody>
</table>

**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 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 through trigonometry 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 certified 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

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 131</td>
<td>Calculus and Analytic Geometry I</td>
<td>4</td>
</tr>
<tr>
<td>MATH 132</td>
<td>Calculus and Analytic Geometry II</td>
<td>4</td>
</tr>
<tr>
<td>MATH 221</td>
<td>Elementary Linear Algebra</td>
<td>3</td>
</tr>
<tr>
<td>MATH 228</td>
<td>Discrete Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>MATH 233</td>
<td>Calculus and Analytic Geometry III</td>
<td>4</td>
</tr>
<tr>
<td>MATH 321</td>
<td>Introduction to Abstract Algebra</td>
<td>4</td>
</tr>
<tr>
<td>MATH 341</td>
<td>Introduction to Modern Geometry</td>
<td>4</td>
</tr>
<tr>
<td>MATH 350</td>
<td>Elementary Probability Theory</td>
<td>3</td>
</tr>
<tr>
<td>MATH 351</td>
<td>Elementary Statistics Theory</td>
<td>3</td>
</tr>
<tr>
<td>MATH 437</td>
<td>Mathematical Modeling</td>
<td>3</td>
</tr>
<tr>
<td>MATH 464</td>
<td>Introduction to History of Mathematics</td>
<td>2</td>
</tr>
<tr>
<td>MED 441</td>
<td>Methods of Teaching Mathematics</td>
<td>3</td>
</tr>
</tbody>
</table>

Notes

Students must meet all requirements for Professional Teacher Education as specified in this Bulletin, including EDLS 363 Clinical Experience: Secondary, 2 hours.

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 MATH 441 and EDLS 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 MATH 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**

<table>
<thead>
<tr>
<th>Required Credits — 17 semester hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 523 Modern Algebra I ..................</td>
</tr>
<tr>
<td>MATH 525 Linear Algebra I ..................</td>
</tr>
<tr>
<td>MATH 540 Introduction to Topology ..........</td>
</tr>
<tr>
<td>MATH 545 Introductory Analysis ............</td>
</tr>
<tr>
<td>MATH 560 Introduction to Complex Variables</td>
</tr>
<tr>
<td>MATH 510 Seminar in Mathematics ..........</td>
</tr>
</tbody>
</table>

**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).

**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.

**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.

---

**Master of Arts in Mathematics**

**Emphasis in Teaching**

**Program Requirements**

<table>
<thead>
<tr>
<th>Required Credits — 15 semester hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 528 Discrete Mathematics ..........</td>
</tr>
<tr>
<td>MATH 534 Continuous Mathematics ..........</td>
</tr>
<tr>
<td>MATH 543 Modern Geometry ................</td>
</tr>
<tr>
<td>STAT 550 Applied Probability and Statistics</td>
</tr>
</tbody>
</table>

Note that MED 600 satisfies the Graduate School requirements, Introduction to Graduate Studies.

<table>
<thead>
<tr>
<th>Elective Credits — 15 semester hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 520 Functions and Equations ........</td>
</tr>
<tr>
<td>MATH 521 Vectors and Matrices ..........</td>
</tr>
<tr>
<td>MATH 529 Mathematical Problem Solving ....</td>
</tr>
<tr>
<td>MATH 537 Mathematical Modeling ..........</td>
</tr>
<tr>
<td>MATH 591 Abstract Algebra and Number Theory</td>
</tr>
</tbody>
</table>

**Group A**

- MATH 523 Modern Algebra I
- MATH 525 Linear Algebra I
- MATH 540 Introduction to Topology
- MATH 545 Introductory Analysis
- MATH 560 Introduction to Complex Variables
- MATH 510 Seminar in Mathematics

**Group B**

- MATH 528 Discrete Mathematics
- MATH 534 Continuous Mathematics
- MATH 543 Modern Geometry
- STAT 550 Applied Probability and Statistics
- MATH 591 Abstract Algebra and Number Theory
- MED 673 Preparation of Mathematics Specialists in Grades K-8

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 .........................................................19
Complete dissertation work ..........................................................................................................16
Additional electives .........................................................................................................................6
Complete research tool requirements to total .................................................................................67

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
A. Minimum of 18 hours from the following —

Students will select courses with these restrictions:
  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 756 Topics in Analysis .......................................................3
and
MATH 633 Geometric Analysis ....................................................3
and
MATH 644 Differential Geometry ...............................................3
and
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
B. MATH 700 Seminar .........................................................2
C. Additional 6 hours selected from the courses listed above; and from the following

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 504 Topics in History of Mathematics .................................3

Educational Core — minimum 19 semester hours
A. Required Courses — 9 hours

MATH 600 Survey of Research in Mathematics Education .................3
MATH 700 Advanced Seminar: Cognitive Processes ..........................2
MATH 701 Mathematical Research Design and Analysis ....................3
MATH 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 ..........................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 600 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
A. Applied Statistics and Research Methods — 10 hours

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 EFRE 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 ..........................................1
- 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 I .............1

**Required Supporting Credits — 45-46 semester hours**

**Biology Credits: 16 semester hours**
- 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

**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

**Category 6 — Science and Mathematics**
- BIO 110 Principles of Biology ................................................................4

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 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 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 ................................................................. 5
PHIL 241 Formal Logic II ................................................................. 5
PHIL 260 History of Ancient Philosophy ........................................... 5

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 training and retraining 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
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.

Pre-Law 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.

Eligible electives include all other PHIL prefix courses.

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.

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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
Remaining: 22
Total credits: 122

Program Requirements, Middle School Education
Required Physical Science credits: 33
Required supporting credits: 21-22
PTEP program: 40
General Education credits:
Specified: 3
Remaining: 22
Elective credits: 0-1
Total credits: 120

Program Requirements, Secondary Education
Required Physical Science credits: 33
PTEP program: 37
General Education credits:
Specified: 3
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 501, or by taking NON 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
CHEM 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
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
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
MATH 132 Calculus and Analytic Geometry II: 4
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 credits ........................................................................................ 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 ...................................................................... 5
PHYS 320 Mathematics Applications ............................................................ 3
PHYS 321 Elementary Modern Physics ......................................................... 3
PHYS 340 Mechanics I ................................................................................ 3
PHYS 341 Electricity and Magnetism I .......................................................... 3
PHYS 342 Alternating Current and Electronics ............................................. 4
PHYS 343 Atomic and Quantum Physics ..................................................... 5
PHYS 347 Optics ......................................................................................... 4
PHYS 440 Mechanics II .............................................................................. 2
PHYS 442 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

CS 222 Computer Architecture/Organization .............................................. 3
CS 200 Object-Oriented Analysis Design and Programming ...................... 3
CS 222 Computer Architecture/Organization .............................................. 3
CS 347 Graphics ....................................................................................... 3
MATH 131 Calculus and Analytic Geometry I ............................................. 4
MATH 132 Calculus and Analytic Geometry II ............................................ 4
MATH 235 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 CS 115 or CS 120 before CS 102.

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 342 Alternating Current and Electronics ........................................... 4
PHYS 343 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 443 Electronic Systems and Controls .............................................. 4
PHYS 445 Nuclear and Condensed Matter Physics .................................... 4
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
- 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 235 Calculus and Analytic Geometry III .................................. 4
- MATH 355 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

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**

<table>
<thead>
<tr>
<th>Required program/major credits</th>
<th>48</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required supporting credits</td>
<td>20</td>
</tr>
<tr>
<td>Required upper division elective credits</td>
<td>12</td>
</tr>
</tbody>
</table>

**General Education credits:**

- 13 credits already included in requirements above
- Remaining | 27 |
- Elective credits | 15 |
- 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**

<table>
<thead>
<tr>
<th>PHYS 240 General Physics I</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYS 241 General Physics II</td>
<td>5</td>
</tr>
<tr>
<td>PHYS 301 Seminar In Physics</td>
<td>1</td>
</tr>
<tr>
<td>PHYS 320 Mathematical Applications</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 321 Elementary Modern Physics</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 340 Mechanics I</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 341 Electricity and Magnetism I</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 343 Alternating Current and Electronics</td>
<td>4</td>
</tr>
<tr>
<td>PHYS 345 Atomic and Quantum Physics</td>
<td>5</td>
</tr>
<tr>
<td>PHYS 347 Optics</td>
<td>4</td>
</tr>
<tr>
<td>PHYS 420 Thermodynamics and Statistical Physics</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 440 Mechanics II</td>
<td>2</td>
</tr>
<tr>
<td>PHYS 441 Electricity and Magnetism II</td>
<td>2</td>
</tr>
<tr>
<td>PHYS 445 Nuclear and Condensed Matter Physics</td>
<td>5</td>
</tr>
</tbody>
</table>

**Required Supporting Credits — 20 semester hours**

<table>
<thead>
<tr>
<th>CHEM 111 Principles of Chemistry I</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>CG 115 FORTRAN 77 Programming</td>
<td>3</td>
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<td>or CG 120 Pascal Programming</td>
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<td>MATH 131 Calculus and Analytic Geometry I</td>
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</tr>
<tr>
<td>MATH 233 Calculus and Analytic Geometry III</td>
<td>4</td>
</tr>
</tbody>
</table>

**Upper Division Required Elective Credits — 12 semester hours**

| PHYS 449 Quantum Mechanics II | 6 |
| Elective Credits in Physics (consent of advisor) | 6 |
| Elective Credits in Mathematics (consent of advisor) | 6 |

**General Education, Specified (recommended)**

<table>
<thead>
<tr>
<th>Category 7a — Interdisciplinary</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENS 225 Energy and the Environment</td>
</tr>
</tbody>
</table>

**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.

### Bachelor of Arts in Physics

**Emphasis in Mathematical Physics**

**Program Requirements**

<table>
<thead>
<tr>
<th>Required Physics credits</th>
<th>47</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required supporting credits</td>
<td>36</td>
</tr>
<tr>
<td>Required elective credits</td>
<td>10</td>
</tr>
<tr>
<td>General Education credits</td>
<td>10</td>
</tr>
<tr>
<td>10 credits already included in requirements above</td>
<td></td>
</tr>
<tr>
<td>Remaining</td>
<td>30</td>
</tr>
<tr>
<td>Total credits required for this degree</td>
<td>123</td>
</tr>
</tbody>
</table>

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**

<table>
<thead>
<tr>
<th>PHYS 240 General Physics I</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYS 241 General Physics II</td>
<td>5</td>
</tr>
<tr>
<td>PHYS 301 Seminar In Physics</td>
<td>1</td>
</tr>
<tr>
<td>PHYS 320 Mathematical Applications</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 321 Elementary Modern Physics</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 340 Mechanics I</td>
<td>5</td>
</tr>
<tr>
<td>PHYS 341 Electricity and Magnetism I</td>
<td>5</td>
</tr>
<tr>
<td>PHYS 345 Atomic and Quantum Physics</td>
<td>5</td>
</tr>
<tr>
<td>PHYS 347 Optics</td>
<td>4</td>
</tr>
<tr>
<td>PHYS 420 Thermodynamics and Statistical Physics</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 440 Mechanics II</td>
<td>2</td>
</tr>
<tr>
<td>PHYS 441 Electricity and Magnetism II</td>
<td>2</td>
</tr>
<tr>
<td>PHYS 445 Nuclear and Condensed Matter Physics</td>
<td>5</td>
</tr>
<tr>
<td>PHYS 449 Advanced Quantum Mechanics</td>
<td>3</td>
</tr>
</tbody>
</table>

**Required Supporting Credits — 36 semester hours**

<table>
<thead>
<tr>
<th>CHEM 111 Principles of Chemistry I</th>
<th>5</th>
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</thead>
<tbody>
<tr>
<td>CG 115 FORTRAN 77 Programming</td>
<td>3</td>
</tr>
<tr>
<td>or CG 120 Pascal Programming</td>
<td>3</td>
</tr>
<tr>
<td>MATH 131 Calculus and Analytic Geometry I</td>
<td>4</td>
</tr>
<tr>
<td>MATH 132 Calculus and Analytic Geometry II</td>
<td>4</td>
</tr>
<tr>
<td>MATH 233 Calculus and Analytic Geometry III</td>
<td>4</td>
</tr>
<tr>
<td>MATH 335 Differential Equations I</td>
<td>3</td>
</tr>
<tr>
<td>MATH 221 Elementary Linear Algebra</td>
<td>3</td>
</tr>
<tr>
<td>MATH 321 Introduction to Abstract Algebra</td>
<td>3</td>
</tr>
<tr>
<td>MATH 440 Introduction to Complex Analysis</td>
<td>3</td>
</tr>
<tr>
<td>MATH 495 Topics in Mathematics (Math Meth Phy)</td>
<td>3</td>
</tr>
</tbody>
</table>

**Upper Division Required Elective Credits — 10 semester hours**

| PHYS 449 Quantum Mechanics II | 6 |
| Elective Credits in Physics (consent of advisors) | 6 |
| Elective Credits in Mathematics (consent of advisors) | 6 |
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:
- Required elective credits ......................................................... 8
- Required supporting credits ...................................................... 28
- Required Physics credits .......................................................... 38

Total credits required for this degree ........................................ 136-138

PTEP program ................................................................. 37-39

The B.A. in Physics-Teaching prepares the candidate to teach physics and other sciences at the junior and senior high school levels. 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.

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

PTEP is required for this program. 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 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

Recommended course
- MATH 235 Calculus and Analytical Geometry III .......................... 4

General Education, Specified (recommended)

Category 7a — Interdisciplinary
- 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.

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
- ENGR 122 College Composition ................................................. 3
- MATH 131 Calculus & Analytic Geometry I ................................... 4

Some engineering fields require a second semester of chemistry.

Elective courses should be carefully selected in consultation with one's advisor. Consult for optimum transfer of credits to an engineering school.

Students in this program register under a physics major with a pre-engineering emphasis 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

#### 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
- Select one of the following:
  - 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.
- CO 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
- ENSF 205 Environment, Politics and Law ...................................... 2
- PSCI 207 Women and Politics ...................................................... 2
- PSCI 208 Political Science Internship Program ............................... 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
- PSCI 401 Public Policy in the United States ..................................... 3
- PSCI 405 Problems in American Politics ....................................... 3
- PSCI 422 Directed Studies ........................................................... 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

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

Total credits required for this degree ...........................................120

General Education credits:

94

Post-Q4-5

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:

Foundation Group

PSY 230 Human Growth and Development ....................................... 4
PSY 265 Social Psychology ................................................................. 3
PSY 271 Psychological Tests and Measurements .................................. 3

Clinical/Counseling Group

PSY 342 Cognitive and Behavioral Change: Theory, Assessment and Application ..................................................... 3
PSY 407 Introduction to Counseling Theories ..................................... 3
PSY 455 Abnormal Psychology .......................................................... 3

Diversity Group

PSY 370 Chicano Psychology ............................................................ 3
PSY 467 Psychology of Prejudice ......................................................... 3
PPSY 468 Psychology of Women .......................................................... 2

Experimental Group

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 for questions.

Qualified students are invited to apply for membership in 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 here .................. 35
- Complete program electives specified here .................. 3

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**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SRM 603</td>
<td>Statistical Methods II</td>
<td>3</td>
</tr>
<tr>
<td>SRM 610</td>
<td>Statistical Methods III</td>
<td>3</td>
</tr>
<tr>
<td>PSY 550</td>
<td>Cognitive Development</td>
<td>3</td>
</tr>
<tr>
<td>PSY 590</td>
<td>Seminar in History and Systems</td>
<td>3</td>
</tr>
</tbody>
</table>

**Elective Credits — 3 semester hours (to complete a minimum of 38 semester hours in the program)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EPSY 530</td>
<td>Life Span Development Psychology</td>
<td>3</td>
</tr>
<tr>
<td>EPSY 630</td>
<td>Child and Adolescent Psychology</td>
<td>3</td>
</tr>
<tr>
<td>EPSY 631</td>
<td>Psychology of Youth, Adult and Aging</td>
<td>3</td>
</tr>
<tr>
<td>EPSY 684</td>
<td>Advanced Seminar in Human Development</td>
<td>3</td>
</tr>
<tr>
<td>EPSY 685</td>
<td>Advanced Seminar in Learning and Cognition</td>
<td>3</td>
</tr>
<tr>
<td>EPSY 558</td>
<td>Abnormal Psychology</td>
<td>3</td>
</tr>
<tr>
<td>EPSY 607</td>
<td>Theories of Counseling</td>
<td>2</td>
</tr>
<tr>
<td>EPSY 657</td>
<td>Legal and Ethical Aspects of Counseling and Psychology</td>
<td>3</td>
</tr>
<tr>
<td>EPSY 660</td>
<td>Psychological Consultation: Theory and Practice</td>
<td>2</td>
</tr>
<tr>
<td>EPSY 582</td>
<td>Behavioral Genetics</td>
<td>2</td>
</tr>
</tbody>
</table>

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### Master of Arts in Psychology

#### Emphasis in Human Neuropsychology

**Program Requirements**

- Complete the required courses specified here .................. 38

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**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SRM 603</td>
<td>Statistical Methods II</td>
<td>3</td>
</tr>
<tr>
<td>SRM 610</td>
<td>Statistical Methods III</td>
<td>3</td>
</tr>
<tr>
<td>PSY 550</td>
<td>Cognitive Development</td>
<td>3</td>
</tr>
<tr>
<td>PSSY 600</td>
<td>Graduate Research Methodology</td>
<td>3</td>
</tr>
<tr>
<td>PSY 620</td>
<td>Assessment and Interviewing</td>
<td>2</td>
</tr>
<tr>
<td>PSY 625</td>
<td>Principles of Neuropsychology</td>
<td>3</td>
</tr>
<tr>
<td>PSY 627</td>
<td>Psychometrics</td>
<td>3</td>
</tr>
<tr>
<td>PSY 643</td>
<td>Theories of Motivation</td>
<td>3</td>
</tr>
<tr>
<td>PSY 664</td>
<td>Advanced Social Psychology</td>
<td>3</td>
</tr>
<tr>
<td>PSY 697</td>
<td>Master's Project in Psychology</td>
<td>6</td>
</tr>
<tr>
<td>or PSY 699</td>
<td>Thesis</td>
<td>6</td>
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</table>

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EPSY 680</td>
<td>Neuroscience Seminar</td>
<td>3</td>
</tr>
<tr>
<td>EPSY 643</td>
<td>Theories of Motivation</td>
<td>3</td>
</tr>
<tr>
<td>EPSY 664</td>
<td>Advanced Social Psychology</td>
<td>3</td>
</tr>
<tr>
<td>EPSY 680</td>
<td>Neuroscience Seminar</td>
<td>3</td>
</tr>
<tr>
<td>or PSY 697</td>
<td>Master's Project in Psychology</td>
<td>5</td>
</tr>
</tbody>
</table>
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
AMT 100 Introduction to Anthropology ................................3
QEOQ 100 World Geography .................................................3
or
QEOQ 110 Geography of the United States and Canada ..........3
PSY 120 Principles of Psychology ............................................4
SOC 100 Principles and 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, sociology, or political science. The minor chosen must include a research course. If the 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 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 ........................3

Category 4 — Arts and Letters
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

Category 5 — Social Sciences
ECOT 103 Introduction to Economics: Macroeconomics ............3

Category 7b — Multicultural
One of the following:
BLS 100 Introduction to Black Studies .................................3
BLS 101 Crisis of Identity .....................................................3
HISP 102 Hispanic Cultures in the United States ......................3
MCS 101 Multiculturalism in the United States: Concepts and Issues .................................3
SOC 237 Sociology of Minorities .........................................3
WS 120 Women and Men In Perspective ..............................3

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 Teaching-Secondary Licensure Program

Program Requirements

Required credits .............................................................. 27
Required elective credits ..................................................... 18
General Education credits:
Specified ................................................................. 13
Remaining ......................................................... 27
PTEP program .............................................................. 37-39
Total credits required for this degree .........................................122-124

The study of the social sciences gives students a basis for thinking analytically about human behavior and the environment. Courses in the program provide students with the broad background necessary for teaching social studies at the secondary (grades 7-12) level.

Upon successful completion of this program and the requirements of the Professional Teacher Education program, students will qualify to be certified to teach social studies at the secondary level.

Required Courses — 27 semester hours
ECON 103 Introduction to Economics: Macroeconomics .................3
GEOQ 100 World Geography ..............................................3
HIST 101 Survey of American History from 1877 to Present .............3
HIST 110 African Civilization to 1885 .....................................3
or
HIST 112 Asian Civilization I from Pre-History to 1600 ....................5
or
HIST 113 Asian Civilization II—The Modern Transformation .............3
HIST 120 Western Civilization from Ancient Greece to 1689 .............3
or
HIST 121 Western Civilization from 1689 to Present ......................3
PSCI 100 U.S. National Government ........................................3
SOC 100 Principles of Sociology ...........................................3
SOSC 341 Teaching Secondary Social Studies ..................................3
SOSC 470 Theory and Research in Social Science ..........................3

Elective Courses — 18 semester hours
Elective hours will be distributed as follows:
9 hours from one of the following disciplines, 6 hours of which must be at the 300-400 level: anthropology, economics, geography, history, political science, psychology, sociology.
9 hours distributed among the disciplines listed above, 6 hours of which must be at the 300-400 level.

General Education
Category 4 — Arts and Letters
HIST 100 Survey of American History from its Beginnings to 1877 .................................................................3
Category 3 — Social Sciences
ANT 100 General Anthropology ...............................................3
PSY 120 Principles of Psychology .............................................4
Category 7 — Interdisciplinary, Multicultural, and International Studies
HISP 102 Hispanic Cultures in the United States ..............................3
or
WS 120 Women and Men in Perspective ....................................3
or
BLS 101 Crises of Identity ......................................................3

Notes
All requirements for the Professional Teacher Education Program, as described in this Bulletin, must be met.

No social science 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 2.5 grade point average in those courses counting toward his or her major that were taken at UNC and must have taken courses in at least four different major disciplines.

Before taking SOSC 341, the student should have completed the Methods Block of the Secondary Professional Teacher Education Program.

Before being permitted to apply for student teaching, a social science major must have successfully completed at least 27 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 36 hours in the major including SOSC 341 and SOSC 470.

To be recommended for teacher licensure, the student must have at least a 2.75 grade point average at the completion of his or her program in those courses counting toward the major and that were taken at UNC.
# Bachelor of Arts in Sociology

## Emphasis in Criminal Justice

### Program Requirements

<table>
<thead>
<tr>
<th>Required Sociology credits</th>
<th>27</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required elective credits</td>
<td>12</td>
</tr>
<tr>
<td>General Education credits: Specified</td>
<td>6</td>
</tr>
<tr>
<td>Remaining</td>
<td>34</td>
</tr>
<tr>
<td>Required minor with minimum credits</td>
<td>18</td>
</tr>
<tr>
<td>Elective credits</td>
<td>23</td>
</tr>
<tr>
<td>Total credits required for this degree</td>
<td>120</td>
</tr>
</tbody>
</table>

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 knowledge 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

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOC 141 Introduction to Criminal Justice</td>
<td>3</td>
</tr>
<tr>
<td>SOC 340 Juvenile Delinquency</td>
<td>3</td>
</tr>
<tr>
<td>SOC 346 Criminology</td>
<td>3</td>
</tr>
<tr>
<td>SOC 347 Sociology of Corrections</td>
<td>3</td>
</tr>
</tbody>
</table>

### 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

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOC 312 Introduction to Sociology</td>
<td>3</td>
</tr>
<tr>
<td>SOC 351 Classical Social Theory</td>
<td>3</td>
</tr>
<tr>
<td>SOC 352 Contemporary Social Theory</td>
<td>3</td>
</tr>
<tr>
<td>SOC 361 Social Research</td>
<td>3</td>
</tr>
<tr>
<td>SOC 362 Social Statistics</td>
<td>3</td>
</tr>
<tr>
<td>SOC 444 Sociology of Criminal Law</td>
<td>3</td>
</tr>
</tbody>
</table>

### 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.

## Bachelor of Arts in Sociology

### Emphasis in Family Studies

### Program Requirements

<table>
<thead>
<tr>
<th>Required Sociology credits</th>
<th>30</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required elective credits</td>
<td>9</td>
</tr>
<tr>
<td>General Education credits: Specified</td>
<td>6</td>
</tr>
<tr>
<td>Remaining</td>
<td>34</td>
</tr>
<tr>
<td>Required minor with minimum credits</td>
<td>18</td>
</tr>
<tr>
<td>Elective credits</td>
<td>23</td>
</tr>
<tr>
<td>Total credits required for this degree</td>
<td>120</td>
</tr>
</tbody>
</table>

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 internship 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

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOC 120 Introduction to Family Studies</td>
<td>3</td>
</tr>
<tr>
<td>SOC 221 Sociology of Gender</td>
<td>3</td>
</tr>
<tr>
<td>SOC 324 Issues in the Family</td>
<td>3</td>
</tr>
<tr>
<td>SOC 326 Sociology of Childhood and Adolescence</td>
<td>3</td>
</tr>
<tr>
<td>SOC 351 Classical Social Theory</td>
<td>3</td>
</tr>
<tr>
<td>SOC 352 Contemporary Social Theory</td>
<td>3</td>
</tr>
<tr>
<td>SOC 361 Social Research</td>
<td>3</td>
</tr>
<tr>
<td>SOC 362 Social Statistics</td>
<td>3</td>
</tr>
<tr>
<td>SOC 423 Violence and the Family</td>
<td>3</td>
</tr>
<tr>
<td>SOC 493 Practicum in Family Studies</td>
<td>3</td>
</tr>
</tbody>
</table>

### 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

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>STAT 150 Introduction to Statistical Analysis</td>
<td>3</td>
</tr>
</tbody>
</table>

### Category 5f — Sociology

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOC 100 Principles of Sociology</td>
<td>3</td>
</tr>
</tbody>
</table>

### 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

<table>
<thead>
<tr>
<th>Program Requirements</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Required Sociology credits</strong></td>
<td>12</td>
</tr>
<tr>
<td><strong>Required elective credits</strong></td>
<td>27</td>
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<td><strong>General Education credits:</strong></td>
<td></td>
</tr>
<tr>
<td>Specified</td>
<td>6</td>
</tr>
<tr>
<td>Remaining</td>
<td>34</td>
</tr>
<tr>
<td><strong>Required minor with minimum credits</strong></td>
<td>18</td>
</tr>
<tr>
<td><strong>Elective credits</strong></td>
<td>23</td>
</tr>
<tr>
<td><strong>Total credits required for this degree</strong></td>
<td>120</td>
</tr>
</tbody>
</table>

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 — 12 semester hours

- 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 two 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
- SOC 333 Social Class and Inequality .......................... 3

Additional electives from sociology courses .......................... 18

### General Education, Specified — 6 semester hours

- **Category 2 — Mathematics**
  - STAT 150 Introduction to Statistical Analysis .................. 3
- **Category 5F — Sociology**
  - SOC 100 Principles of Sociology .............................. 3

### Notes

- 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 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 Sociology of Education

<table>
<thead>
<tr>
<th>Program Requirements</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Required Sociology credits</strong></td>
<td>30</td>
</tr>
<tr>
<td><strong>Required elective credits</strong></td>
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</tr>
<tr>
<td><strong>Required minor with minimum credits</strong></td>
<td>18</td>
</tr>
<tr>
<td><strong>Elective credits</strong></td>
<td>23</td>
</tr>
<tr>
<td><strong>Total credits required for this degree</strong></td>
<td>120</td>
</tr>
</tbody>
</table>

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 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

- **Category 2 — Mathematics**
  - STAT 150 Introduction to Statistical Analysis .................. 3
- **Category 5F — Sociology**
  - 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 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 — 27 semester hours

SOC 530 Social Organization ............................................................ 3  
SOC 632 Seminar in Social Psychology ........................................... 3  
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 699 Thesis .................................................................................. 6  
QERO 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 — 9 semester hours

At least two of the courses taken must be in disciplines other than Sociology.

PPSY 655 Community Psychology and Social Systems ....................... 3  
WS 510 Philosophy of Feminism ....................................................... 3  
WS 520 Women in History ............................................................. 3  
SOC 508 Sociology of Occupations ................................................. 3  
SOC 525 Violence and the Family ..................................................... 3  
SOC 571 Sociology of Aging ............................................................ 3  
PPSY 565 Psychology of Prejudice .................................................... 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  
QERO 655 Program Planning and Evaluation in Gerontology .............. 3  
EPSY 530 Lifespan Developmental Psychology ................................. 3  
SOC 544 Sociology of Criminal Law ............................................... 3  
SOC 554 Criminological Theories .................................................... 3  
PPSY 624 Assessment and Treatment of Substance Abuse ................. 3  
PSY 620 Assessment and Interviewing ............................................. 2  
PPSY 627 Psychometrics .................................................................. 2  
SOC 602 Perspectives In Applied Sociology .................................... 3  
QERO 578 Seminar in Research Methodology ................................. 3  
QERO 590 Advanced Research Seminar ........................................ 3  
SOC 565 Qualitative Research ....................................................... 3  
SRM 570 Evaluation: Models and Designs ....................................... 3  
SRM 671 Evaluations: Advanced Methods ....................................... 3  
MATH 535 Introductory Analysis I ................................................... 3  
SRM 512 Mathematical Statistics with Applications II .................... 4  
SRM 605 Multivariate Analysis I ..................................................... 3  
SRM 609 Sampling Methods ......................................................... 4
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.

Notes
- Students must successfully pass the department's Oral Proficiency Exam.
- All Spanish language courses to be counted for the major must be beyond the first year level.
- Students must have at least a 2.5 GPA for admission to this major and emphasis.
- All Spanish language courses to be counted for the major must be beyond the first year level.
- 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 exam.

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 of the civilization and culture of the Hispanic world.

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 SPAM 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 Exam.
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 413 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

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 exam.

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 here ........................................ 10
Complete program electives specified here ........................................ 20

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 consists 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
PL 508 Workshop ................................................................. 2
PL 551 Teaching of Foreign Languages ........................................ 2

Civilization (select one of the following):
SPAN 521 Spanish Civilization and Culture .................................. 3
SPAN 531 Latin American Civilization and Culture .......................... 3
SPAN 560 Spanish Civilization and Culture .................................. 2
SPAN 561 Latin American Civilization and Culture .......................... 2
SPAN 562 Mexico and United States Hispanic Civilization and Culture ........................................ 2

Required Elective Credits outside the Department — 10 semester hours
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.

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.

Civilization
SPAN 560 Spanish Civilization and Culture .................................. 2
SPAN 561 Latin American Civilization and Culture .......................... 2
SPAN 562 Mexico and United States Hispanic Civilization and Culture ........................................ 2
SPAN 563 Hispanic Cultural Topics .......................................... 3

Literature
SPAN 570 Readings in United States Hispanic Literature ............... 3
SPAN 571 Readings in Spanish Literature ..................................... 3
SPAN 572 Readings in Latin American Literature ........................... 2
SPAN 573 National Literatures .................................................. 2
SPAN 574 Masterpieces of 20th Century Spain .............................. 2
SPAN 575 Masterpieces of 20th Century Latin America .................. 2
SPAN 576 Mexican Literature .................................................. 2

Skill Development
SPAN 580 Grammar Topics ..................................................... 3
SPAN 581 Advanced Spanish Grammar ......................................... 2
SPAN 582 Spanish for Oral Proficiency ....................................... 2
SPAN 583 Oral and Written Discourse ....................................... 2
SPAN 584 Spanish Pronunciation and Dialects ............................. 2

Workshops
HISP 508 Workshop ............................................................... 6
HISP 513 Professional Renewal ................................................ 6
SPAN 508 Workshop ............................................................... 6
SPAN 513 Professional Renewal ................................................ 6

Note
Students must successfully complete written and oral comprehensive examinations. No thesis is required.

Elementary Education
Emphasis in Bilingual Bicultural Endorsement

Total credits required for this endorsement ........................................ 18

Courses for a Bilingual Bicultural Education Endorsement will be provided by the Department of Hispanic Studies to Elementary Education students who wish to be licensed to teach in 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. This program can be combined with a major in other Arts and Sciences subjects or realized within our Spanish major.

Requirements
Students must have completed the Intermediate Spanish courses or equivalent before enrolling in SPAN 411. Competency in the Spanish language must be demonstrated after completion of SPAN 411, before licensure is granted.

Note
Administered by the Department of Hispanic Studies.
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 |
| 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 UH, 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 10 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 .......................................................... 1-5
SPCO 461 Seminar in Speech Communication ................................. 3
SPCO 480 Research in Speech Communication ............................... 3
SPCO 492 Undergraduate Internship ............................................. 1-5

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

Required Elective Credits — 12 semester hours
Select at least one course from each category:
Interpersonal Communication
SPCO 221 Non-Verbal Communication .................................. 3
SPCO 321 Interpersonal Theory .......................................... 3
SPCO 323 Intercultural Communication ............................... 3
SPCO 324 Family Communication ...................................... 3

Small Group and Organizational Communication
SPCO 330 Small Group Communication ................................ 3
SPCO 331 Organizational Communication ............................. 3

Communication and Influence
SPCO 341 Courtroom Communication ................................ 3
SPCO 343 Persuasion ..................................................... 3

Communication and Influence
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.
Grant/Financial Aid

Financial Aid

Your major appears to be Communication. The Communication major is offered by the College of Arts and Sciences - Speech Communication.

Although the specific details of the program requirements vary, the core requirements typically include:

- **Required Credits — 24 semester hours**
  - Communication Core
  - SPCO 600 Graduate Study in Communication
  - SPCO 601 Qualitative Methods in Communication Research
  - SPCO 602 Quantitative Methods in Communication Research
  - SPCO 605 Rhetorical Criticism
  - SPCO 504 Rhetorical Theory
  - SPCO 514 Interpersonal Communication
  - SPCO 515 Group Communication

- **Required Elective Credits — 6 semester hours**
  - Select any electives with SPCO prefixes. One elective course may be from another discipline with the approval of your advisor.

**Notes**

- 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.

**Graduation Requirements**

- Complete the required credits specified here: 24
- Complete program electives specified here: 6

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 for a Ph.D. program in speech communication.

**Structured Programs**

The program includes structured programs designed to meet the needs of various students:

- **Emphasis in Human Communication**
  - **Non-Thesis Option**
  - **Thesis Option**

**Thesis Option**

- **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 another discipline with the approval of your advisor.

**Non-Thesis Option**

- **Required Elective Credits — 6 semester hours**
  - 500- and/or 600-level coursework

- **Notes**
  - Select any electives with SPCO prefixes. One elective course may be from another discipline with the approval of your advisor.

**Additional Information**

- Graduates are required to have a minimum of 48 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.

- 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 48 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.

**Notes**

- A student in this program must pass an oral examination over his or her thesis.

- 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.
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 Studying Cultures ......................................................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 does not lead to teacher licensure.
Minor in Women's Studies

**Required Women's Studies credits** ......................................................... 9
**Required elective credits** ................................................................. 12
**Total credits required for this minor** ................................................. 21

Major goals of the Women's Studies Program are to understand and overcome social myths and sex-role stereotypes that adversely affect the status, rights and aspirations of women and the individual abilities of women and men. The program utilizes a feminist perspective to challenge the prejudices of sexism, racism and classism. It also fosters appreciation of the contributions of women of all races, classes, ages, sexual orientations and physical abilities. The interdisciplinary program is administered by the faculty coordinator, the core faculty with joint appointments, and a committee of Women's Studies faculty teaching cross-listed courses and student representatives involved in the program.

Students learn concepts and techniques by which they can understand and enhance personal and professional goals and relationships. The minor also provides important preparation for students planning careers in social services, business, teaching, school administration, law, medicine and a wide variety of other professions.

**Required Women's Studies Credits — 9 semester hours**
- WS 120 Women and Men in Perspective ................................................ 3
- WS 148 Introductory Seminar in Women's Studies: Women in Crisis ...... 3
- WS 448 Women's Studies Senior Seminar ............................................ 3

**Required Elective Credits — 12 semester hours**
*Courses should be chosen from among the following and other courses subsequently approved by the Women's Studies Committee.*
- ART 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
- BLS 102 The Black Woman in America ............................................... 3
- BLS 212 The Black Woman 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 331 Images of Women in Literature and the Arts ......................... 3
- ID 208 Feminism: An Interdisciplinary Analysis ................................... 3
- MRS 200 Women's Health Care ........................................................... 3
- PE 251 Women in Sport .......................................................................... 2
- PSCI 207 Women and Politics ............................................................. 2
- PSY 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 310 Philosophy of Feminism .......................................................... 3
- WS 320 Women in United States History ............................................ 3
- WS 375 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.

Additional College of Arts and Sciences minors may be found under the following headings: Anthropology, Environmental Studies, Teaching English as a Second Language and Women's Studies.
<table>
<thead>
<tr>
<th>Minor in Applied Statistics</th>
<th>Required credits</th>
<th>13</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required elective credits</td>
<td>8-10</td>
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</tr>
<tr>
<td>Total credits required for this minor</td>
<td>21</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Required Credits — 13 semester hours</th>
<th>Select one of the following:</th>
</tr>
</thead>
<tbody>
<tr>
<td>STAT 150 Introduction to Statistical Analysis</td>
<td>3</td>
</tr>
<tr>
<td>STAT 250 Statistics for Health Sciences</td>
<td>3</td>
</tr>
<tr>
<td>STAT 311 Basic Statistical Methods</td>
<td>3</td>
</tr>
<tr>
<td>STAT 406 Multiple Linear Regression</td>
<td>3</td>
</tr>
<tr>
<td>STAT 409 Sampling Techniques</td>
<td>3</td>
</tr>
</tbody>
</table>

| Required Elective Credits — 5-8 semester hours | STAT courses numbered 300 or higher or MATH 350, MATH 351 with approval of advisor. |

<table>
<thead>
<tr>
<th>Minor in Biological Sciences/Liberal Arts</th>
<th>Required credits</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required elective credits</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>Total credits required for this minor</td>
<td>18</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Required Credits — 9 semester hours</th>
<th>BIO 110 Principles of Biology</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 111 Survey of Organismal Biology</td>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>

| Required Elective Credits — 9 semester hours | Select from BIO, BOT or ZOO prefix |

<table>
<thead>
<tr>
<th>Minor in Biological Sciences/Teaching Secondary Biological Science</th>
<th>Required credits</th>
<th>20</th>
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</thead>
<tbody>
<tr>
<td>General Education, Specified</td>
<td>5</td>
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</table>

| Total credits required for this minor | 25 |

<table>
<thead>
<tr>
<th>Required Credits — 20 semester hours</th>
<th>BIO 110 Principles of Biology</th>
<th>4</th>
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<tbody>
<tr>
<td>BIO 111 Survey of Organismal Biology</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>BIO 220 Genetics</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>BOT 350 General Plant Physiology</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>ZOO 245 Introduction to Human Anatomy and Physiology</td>
<td>4</td>
<td></td>
</tr>
</tbody>
</table>

| General Education, Specified — 5 semester hours | CHEM 111 Principles of Chemistry I | 5 |

| Notes | 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. |

<table>
<thead>
<tr>
<th>Minor in Black Studies</th>
<th>Required credits</th>
<th>9</th>
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</thead>
<tbody>
<tr>
<td>Required elective credits</td>
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<td></td>
</tr>
<tr>
<td>Total credits required for this minor</td>
<td>18</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Required Credits — 9 semester hours</th>
<th>BLS 100 Introduction to Black Studies</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>BLS 104 Survey of Africa</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>BLS 240 Dynamics of Racism</td>
<td>3</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Required Elective Credits — 9 semester hours</th>
<th>BLS 305 Survey of African-American Literature</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>BLS 320 Economic Experience of Black America</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>BLS 332 Pan-Africanism</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>BLS 340 The Black Family</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>BLS 350 Music and the Black Experience</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>BLS 386 Modern African World</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>BLS 395 Aspects of the African-American Experience</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>BLS 396 African and Afro-American Worldviews</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>BLS 399 Community Study Project</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>BLS 420 Black Urban Politics</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>BLS 422 Directed Studies</td>
<td>1</td>
<td></td>
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<tr>
<td>BLS 456 Leadership and the Black Church</td>
<td>1</td>
<td></td>
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<tr>
<td>BLS 490 Seminar In Black Studies</td>
<td>1</td>
<td></td>
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<tr>
<td>BLS 508 Workshop</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>BLS 513 Professional Renewal</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>ID 308 Interpersonal Growth Workshop</td>
<td>1</td>
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</tr>
</tbody>
</table>

| Notes | BLS 395, Aspects of the African-American Experience, is a variable subtitle course that students may take more than once under different subtitles. BLS 399, 422, 508 or 513, when taken by minors, must always be taken for three semester hours. |

<table>
<thead>
<tr>
<th>Minor in Chemistry/Liberal Arts</th>
<th>Required credits</th>
<th>8-10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required elective credits</td>
<td>11-15</td>
<td></td>
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<tr>
<td>Total credits required for this minor</td>
<td>21</td>
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</table>

<table>
<thead>
<tr>
<th>Required Credits — 8-10 semester hours</th>
<th>Select one of the following groups:</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 111 Principles of Chemistry I</td>
<td>5</td>
</tr>
<tr>
<td>CHEM 112 Principles of Chemistry II</td>
<td>5</td>
</tr>
<tr>
<td>or</td>
<td></td>
</tr>
<tr>
<td>CHEM 114 General Chemistry I</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 115 General Chemistry II</td>
<td>4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Required Elective Credits — 11-15 semester hours (to total 21 credits in the minor)</th>
<th>CHEM 131 Introductory Organic Chemistry</th>
<th>4</th>
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</thead>
<tbody>
<tr>
<td>CHEM 109 Fundamentals of Chemistry II</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>CHEM 320 Theory and Use of Analytical Instruments</td>
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<td></td>
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<tr>
<td>CHEM 321 Chemical Analysis</td>
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<td></td>
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<tr>
<td>CHEM 331 Organic Chemistry I</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>CHEM 332 Organic Chemistry II</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>CHEM 441 Inorganic Chemistry I</td>
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<td></td>
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<tr>
<td>CHEM 442 Inorganic Chemistry II</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>CHEM 461 General Biochemistry I</td>
<td>3</td>
<td></td>
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<tr>
<td>CHEM 463 Experimental Biochemistry</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

| Required Elective Credits — 11-15 semester hours | at least half the credit hours for the minor must be at the 300-level or above. |

<table>
<thead>
<tr>
<th>Minor in Chemistry/Teaching</th>
<th>Required credits</th>
<th>9-11</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required supporting credits</td>
<td>9-11</td>
<td></td>
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<td>Total credits required for this minor</td>
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<td></td>
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</table>

<table>
<thead>
<tr>
<th>Required Credits — 10-12 semester hours</th>
<th>Select one of the following groups:</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 111 Principles of Chemistry I</td>
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</tr>
<tr>
<td>CHEM 112 Principles of Chemistry II</td>
<td>5</td>
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<tr>
<td>or</td>
<td></td>
</tr>
<tr>
<td>CHEM 114 General Chemistry I</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 115 General Chemistry II</td>
<td>4</td>
</tr>
<tr>
<td>CHED 405 Seminar in Teaching Chemistry</td>
<td>2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Required Elective Credits — 9-11 semester hours (to total 21 credits in the minor)</th>
<th>CHEM 131 Introductory Organic Chemistry</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 109 Fundamentals of Chemistry II</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>CHEM 320 Theory and Use of Analytical Instruments</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>CHEM 321 Chemical Analysis</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>CHEM 331 Organic Chemistry I</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>CHEM 332 Organic Chemistry II</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>CHEM 441 Inorganic Chemistry I</td>
<td>2</td>
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<tr>
<td>CHEM 442 Inorganic Chemistry II</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>CHEM 481 General Biochemistry I</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>CHEM 483 Experimental Biochemistry</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

| Required Elective Credits — 9-11 semester hours | at least half the credit hours for the minor must be at the 300-level or above. |

| Notes | 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. |

<table>
<thead>
<tr>
<th>Minor in Computer Science</th>
<th>Required credits</th>
<th>15</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required elective credits</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>Total credits required for this minor</td>
<td>21</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Required Credits — 15 semester hours</th>
<th>Select one of the following courses:</th>
</tr>
</thead>
<tbody>
<tr>
<td>CS 101 Introduction to Computer Science</td>
<td>3</td>
</tr>
<tr>
<td>CS 102 Structured Analysis, Design and Programming</td>
<td>3</td>
</tr>
<tr>
<td>CS 200 Object-Oriented Analysis Design and Programming</td>
<td>3</td>
</tr>
<tr>
<td>CS 222 Computer Architecture/Organization</td>
<td>3</td>
</tr>
<tr>
<td>CS 301 Algorithms and Data Structures</td>
<td>3</td>
</tr>
</tbody>
</table>

| Required Elective Credits — 6 semester hours | Two upper-division CS courses |


### Minor in Earth Sciences
- Required elective credits .................................................. 20
- Total credits required for this minor ........................................ 20

### Required Elective Credits — 20 semester hours
Courses with AST, ESCI, GEOG, 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
- Required Economic credits .................................................. 15
- Required elective credits ....................................................... 9
- Total credits required for this minor ........................................ 24

### Required Economic Credits — 15 semester hours
- ECON 103 Introduction to Economics: Macroeconomics .......... 3
- ECON 105 Introduction to Economics: Microeconomics .......... 3
- ECON 202 Money and Banking ............................................. 3
- ECON 300 Intermediate Microeconomics .................................... 3
- ECON 350 Intermediate Macroeconomics .................................... 3

### Required Elective Credits — 9 semester hours
Eligible electives include all ECON prefix courses, ENST 335 and MIND 286.

### Note
At least 12 credit hours must be taken at the 300- or 400-level.

### Minor in English
- 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
- 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 .................................. 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 ....................................................... 3
- 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.

### Minor in History
- 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 Geography
- Required credits ................................................................. 9
- Required elective credits ....................................................... 9
- Total credits required for this minor ........................................ 18

### Required Credits — 9 semester hours
- GEOG 200 Human Geography ............................................. 3
- GEOG 225 Physical Geography ............................................. 3
- GEOG 264 Maps and Imagery ............................................. 3

### Required Elective Credits — 9 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
- 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 .............................. 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.

### Minor in History
- 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
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 ..................5
HUM 112 The Renaissance to the Present ........................................3
HUM 410 Advanced Seminar in the Humanities 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
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):
BART 251 Legal Environment of Business .........................................3
BART 252 Business Administration and the Law ................................3
ELPS 305 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 487 Mass Communications Law ..............................................3
PSCI 306 Constitutional Law ..........................................................3
SOC 141 Introduction to Criminal Justice .........................................3
SOC 444 Sociology of Criminal Law .................................................3
SOC 545 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
PSCI 351 Introduction to Political Philosophy ....................................3
PSCI 352 Political Philosophy I .......................................................3
PSCI 353 Political Philosophy II ......................................................3
PSCI 355 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 352 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.

Minor in Mathematics Education for Elementary Education Teachers
Required credits .............................................................................3
Required supporting credits ...........................................................15
Total credits required for this minor .................................................18

Required Credits — 3 semester hours
MATH 283 Informal Geometry .........................................................3

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,
• check with the instructor to see if the prerequisite(s) may be waived, if you are capable of doing the work for the course.

This minor does not lead to teacher licensure.

Minor in Mathematics/Liberal Arts
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 ....................................4
MATH 431 Basic Analysis I ............................................................4
MATH 432 Basic Analysis II ..........................................................4
MATH 464 Introduction to History of Mathematics .........................2
MATH 350 Elementary Probability Theory .....................................4
MATH 351 Elementary Statistics Theory ........................................4

Note
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,
• check with the instructor to see if the prerequisite(s) may be waived, if you are capable of doing the work for the course.

Minor in Mathematics/Secondary Mathematics Teaching, Grades 7-12
Required credits .............................................................................27
Total credits required for this minor .................................................27

Required Credits — 27 semester hours
EDLS 303 Clinical Experience, Secondary .........................................4
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
Required credits .............................................................................9
Required elective credits ...............................................................10
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

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 113 Introduction to Hispanic Literature ........................................... 3
HISP 225 History of the Chicano in the Southwest ................................. 3
HISP 300 Social Striatification in the Mexican-American Community .... 3
HIST 118 History of Mexico ......................................................... 3

Required Elective Credits — 5 semester hours
ART 383 Pre-Columbian Art ...................................................... 4
ENGL 236 Introduction to Folklore: Hispanic .................................... 3
GOV 335 Geography of Middle America .......................................... 3
HISP 220 Women in Hispanic Society .............................................. 3
HISP 370 Chicano Psychology ...................................................... 3
SOC 257 Sociology of Minorities ................................................... 3
SPAN 205 Music of the Hispanic World .......................................... 3
SPAN 452 Mexican Literature ..................................................... 3

Notes
ENGL 236 will fulfill the elective requirement only if taken when the Hispanic folklore is being taught in the series of Introduction to Folklore courses.
Coursed with the SPAN prefix are taught in Spanish and courses with the HISP prefix are taught in English.

Minor in Philosophy

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 310 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 .............................................................. 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 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

Required credits ................................................................. 13
Required supporting credits .................................................... 12
Required elective credits ...................................................... 8-68
Total credits required for this minor .......................................... 31-35

Required Credits — 13 semester hours
PHYS 240 General Physics I ......................................................... 5
PHYS 241 General Physics II ............................................................. 5
PHYS 521 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 235 Calculus and Analytic Geometry III ................................. 4
(PHYS 320 Mathematical Applications (3) may be substituted for MATH 235)

Required Elective Credits — 6-8 semester hours
Select one course from the following:
PHYS 340 Mechanics ................................................................. 3

Minor in Political Science

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
EIST 205 Environmental Politics and Law ......................................... 3
PSCI 203 Colorado Politics .............................................................. 3
PSCI 207 Women and Politics .......................................................... 2
PSCI 306 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 310 Constitutional Law ............................................................ 3
PSCI 302 Internship ........................................................................ 3
PSCI 401 Public Policy in the United States ...................................... 3
PSCI 405 Problems in American Politics ........................................ 3
PSCI 422 Directed Studies .............................................................. 1-5

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 326 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 355 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 315 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 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

Required credits ................................................................. 10-11
Total credits required for this minor .......................................... 18

Required Credits — 10-11 semester hours
PSY 120 Principles of Psychology .................................................. 4
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 355 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
Required credits ................................................................. 3
Required elective credits .................................................. 14
Total credits required for this minor ................................. 18

Required Credits — 3 semester hours
SOC 100 Principles of Sociology ......................................... 3

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 ....................... 9
Note that nine hours of the minor must be 300- or above-level courses.

Minor in Spanish
Required credits ................................................................. 21
Required elective credits .................................................. 5
Total credits required for this minor ................................. 26

Required Credits — 21 semester hours
SPA 201 Intermediate Spanish I .............................................. 3
SPA 202 Intermediate Spanish II ........................................... 3
SPA 301 Spanish Grammar .................................................... 3
SPA 302 Spanish Composition .............................................. 3
SPA 303 Spanish Conversation ............................................ 3
SPA 304 Introduction to Hispanic Literature ......................... 3
Select one of the following:
SPA 301 Spanish Civilization and Culture ............................ 3
SPA 351 Latin American Civilization and Culture .................... 3

Required Elective Credits — 5 semester hours
SPA 350 Masterpieces of Latin American Literature ............... 3
SPA 351 Masterpieces of Latin American Literature ............... 3
SPA 405 Spanish Phonetics and Dialects .............................. 3
SPA 406 Introduction to Translation ............................ 3
SPA 407 Spanish for Oral Proficiency .................................... 3
SPA 452 Mexican Literature ................................................ 3
SPA 453 Spanish Literature of the 20th Century .................... 3
SPA 454 Latin American Literature of the 20th Century ........... 3
SPA 455 Readings in Spanish Literature ............................... 3
SPA 456 Spanish and Latin American Short Story .................. 3
SPA 457 Literature of United States Hispanics ..................... 3
SPA 458 Cervantes ............................................................. 3
SPA 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
Required credits ................................................................. 6
Required elective credits .................................................. 12
Total credits required for this minor ................................. 18

Required Credits — 6 semester hours
SPCO 100 Introduction to Speech Communication ................. 3
SPCO 102 Introduction to Speech Communication ................. 3
SPCO 105 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 Directed 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
Required credits ................................................................. 6
Required elective credits .................................................. 12
Total credits required for this minor ................................. 18

Required Elective 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

Educational Technology
ET 504 Instructional Materials Design ................................. 3

Communication and Influence
Arts
JMC 210 Newswriting ......................................................... 3
JMC 310 Feature Writing for News Media ............................. 3
JMC 410 Advanced News ................................................... 3

Journalism and Mass Communications
JMC 210 Newswriting ......................................................... 3
JMC 310 Feature Writing for News Media ............................. 3
JMC 410 Advanced News ................................................... 3

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 ................................................................. 114
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Location: Kepner 2053; Telephone: 970-351-2764
Robert M. Lynch, Dean; Joe F. Alexander, Associate Dean

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 UMC (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
Robert Elton, Director, COBA Advising Center and Chair, General Business; Lynn Karowsky, Director, Monfort Executive Professor Program and COBA Honors Program; Margaret Rusch, Student Specialist

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 and Executive Professor Program for the College and also provides students with information on graduate study in Business Administration.

Accounting Department
Location: Kepner 2090; Telephone: 970-351-2855
Martha Lilly, Chair

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
Steve Teglovic, Jr., Chair

Professors — William Duff, Jr., Ph.D.; Robert Lynch, Ph.D.; Steve Teglovic, Jr., Ph.D.
Associate professors — Charmayne Cullom, Ph.D.; R. John Freese, Ph.D.; Jay Lightfoot, Ph.D.; Tod Sedbrook, Ph.D.

Finance Department
Location: Kepner 1090; Telephone: 970-351-2275
John Clinebell, Chair

Associate professors — Garth Allen, J.D., CPCU; John Clinebell, D.B.A.; Don Droegemueller, J.D.; Christine McClatchey, Ph.D.
Assistant professors — David Johnson, Ph.D.; Lynn Karowsky, J.D.; Rutillo Martinez, Ph.D.

Monfort Distinguished Professor — Junius Peake

Management Department
Location: Kepner 1090; Telephone: 970-351-2088
Sharon Clinebell, Chair

Professor — James Clinton, Ph.D.; Karen Fowler, Ph.D.; Daniel Rowley, Ph.D.
Associate professors — Sharon Clinebell, D.B.A.; D. Lynn Hoffman, Ph.D.

Colorado Business Executive Professor — Gerald Shadwick, J.D.

Marketing Department
Location: Kepner 2090; Telephone: 970-351-2366
Nathan D. Kling, Chair

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.

Instructor — Nancy D’Albergaria, M.B.A.

General Business Department
Location: Kepner 1055; Telephone: 970-351-1233
Robert Elton, Chair

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 (CCHE) requirement for admission to a level II Colorado institution. This admission requirement is presently set at a CCHE composite index of 92.

The CCHE 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
College of Business Administration

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 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.

UTC 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 UTC.

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:
   a. At least 50 percent of the credit hours in Business Administration required for the degree must be earned at UMC.
   b. At least a "C" grade in each course in the Business Administration Core. To graduate with a Business minor, a student must maintain 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 baccalaureate 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, McLane 520, 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 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 CCHS 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 2.25 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, Keiper 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 transcript 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:

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 its 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, Keiper 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 course work 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.

<table>
<thead>
<tr>
<th>Student Club</th>
<th>Faculty Advisor</th>
<th>Department Affiliation</th>
<th>National Affiliation</th>
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</thead>
<tbody>
<tr>
<td>Professional Accounting Association of UNC</td>
<td>Dr. Joseph Donelan</td>
<td>Accounting</td>
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<tr>
<td>Computer Management Association</td>
<td>Dr. Charmayne Cullom</td>
<td>CIS</td>
<td>Data Processing Management Association</td>
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<tr>
<td>Financial Management Association of UNC</td>
<td>Dr. John Clinebell</td>
<td>Finance</td>
<td>Financial Management Association</td>
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<tr>
<td>UNC Management Club</td>
<td>Dr. Karen Fowler</td>
<td>Management</td>
<td>Society for Advancement of Management</td>
</tr>
<tr>
<td>Marketing Association</td>
<td>Dr. Denny McCorkle</td>
<td>Marketing</td>
<td>American Marketing</td>
</tr>
<tr>
<td>Delta Sigma Pi</td>
<td>Dr. William Duff</td>
<td>College of Business Administration</td>
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<tr>
<td>Beta Alpha Psi</td>
<td>Dr. Joseph Donelan</td>
<td>Accounting Chapter</td>
<td>Petitioning</td>
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<tr>
<td>Beta Gamma Sigma</td>
<td>Dr. Bill Cox</td>
<td>College of Business Administration</td>
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<tr>
<td>Alpha Kappa Psi</td>
<td></td>
<td>College of Business Administration</td>
<td>National Chapter</td>
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</table>

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 ............................................................. 19
Required elective credits ..................................................... 3

General Education credits:
Specified ............................................................................ 18-19
Remainder ............................................................................ 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
BAAC 220 Principles of Accounting I .............................................. 3
BAAC 221 Principles of Accounting II ............................................ 3
BAAC 291 Business Statistics I ...................................................... 3
BACS 300 Information Systems .................................................. 3
BACS 395 Production Management ............................................. 3
BAPN 251 Legal Environment of Business .................................. 3
BAPN 370 Business Finance ........................................................ 3
BAMG 350 Management of Organizations ................................... 3
*BAMG 456 Strategic Management and Business Policy .............. 3

BA MK 500 Marketing .................................................................. 3

*BAAC 420, 421, 328, 321, 320, and 324 are required for the Accounting emphasis. The prerequisites for this course are: BAAC 221, BACS 291, BACS 395, BAPN 370, BAMG 350 and BAMK 360. Only BACS 395 may be taken concurrently.

Required Credits — 24 semester hours
BAAC 220 Principles of Accounting I .............................................. 3
BAAC 221 Principles of Accounting II ............................................ 3
BAAC 323 Cost and Managerial Accounting I .............................. 3
BACS 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 .............................. 3
MATH 176 Topics in Calculus ...................................................... 4

Required Elective Credits — 5 semester hours
BAAC 324 Cost and Managerial Accounting II ............................ 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 ............................................. 3

Category 2 — Mathematics
MATH 124 College Algebra ....................................................... 3
or MATH 175 Topics in Finite Mathematics ............................... 3

Category 5 — Social Sciences

The following courses are required for the Accounting emphasis:
ECON 105 Introduction to Economics; Microeconomics ............ 3

One of the following two courses:
SOC 100 Principles of Sociology ................................................ 3
or 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 sit for 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 ENS 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 (BA prefix). Students taking ENS 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 .......................................................... 53
- 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 mangement 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
- BAFM 231 Legal Environment of Business ............................................ 3
- BAFM 370 Business Finance ................................................................. 3
- BAMQ 350 Management of Organizations .......................................... 3
- BAMS 455 Strategic Management and Business Policy ...................... 3
- BAMS 360 Marketing ......................................................................... 3

*BAMS 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, BAFM 370. Only BACS 395 may be taken concurrently.

Required Credits — 21 semester hours

Take two of the following:

- BACS 285 Business COBOL Programming ........................................... 3
- BACS 288 Structured Programming and Applications for Business .......... 3
- BACS 287 Graphical Interface Programming ........................................ 3

(If all three are taken one will count toward 3 hours of required electives.)

- BACS 390 Business Statistics II .......................................................... 3
- BACS 485 Database Management Systems ......................................... 3
- BACS 487 Systems Analysis and Design .............................................. 3
- BACS 488 Senior CIS Project .............................................................. 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 ......................................... 3
- MATH 176 Topics in Calculus ............................................................... 3

(MATH 176 is recommended)

Required Elective Credits — 6 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 495 Special Topics in CIS ......................................................... 3-6

General Education Credits, Specified — 18-19 semester hours

Category 1b — Intermediate Composition

- BA 205 Business Communications or ENGL 123 College Research Paper ......................................................... 3

Category 2 — Mathematics

- MATH 124 College Algebra or MATH 175 Topics in Finite Mathematics ......................................................... 3

Category 3 — 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: 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 the 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 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 355 Production Management ........................................... 3
BAFN 251 Legal Environment of Business .............................. 3
BAFN 370 Business Finance ....................................................... 3
BAMG 350 Management of Organizations ............................... 3
*BAMG 456 Strategic Management and Business Policy ........ 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 355, BAFN 370, BAMG 350 and BAMK 360.
Only BACS 355 may be taken concurrently.

Required Credits — 18 semester hours
BAAC 320 Intermediate Accounting I ....................................... 3
BACS 390 Business Statistics I ................................................. 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 .................................................... 34
(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 ................................. 3
or ENQ 125 College Research Paper ....................................... 3

Category 2 — Mathematics
MATH 124 College Algebra ...................................................... 3
or MATH 175 Topics in Finite Mathematics ............................ 34

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 .......................................... 3
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 .................................................................18
Supporting credits .............................................................6-7
Required elective credits .........................................................9

General Education credits

Specified .................................................................18-19
Remaning .................................................................22
Elective credits .........................................................18-20

Total credits required for this degree ........................................126

Students complete coursework 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 305 Production Management ............................................3
BAPF 231 Legal Environment of Business .................................3
BAPF 370 Business Finance .......................................................3
BAMQ 350 Management of Organizations ...................................3
*BAMG 456 Strategic Management and Business Policy ...............3
BAMK 360 Marketing ...............................................................5
*BAMK 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, BAPF 370, BAMQ 350 and BAMK 360. Only BACS 395 may be taken concurrently.

Required Credits — 27 semester hours

BAAC 327 Managerial Accounting ..............................................3
BACS 390 Business Statistics II ................................................3
BAPF 332 Business Administration and the Law .........................3
BAPF 340 Principles of Risk and Insurance ..................................3
BAMH 470 Financial Management ............................................3
BAMQ 353 Human Resources Management
or BAMQ 357 Managing New Business Ventures ..........................3
BAMQ 354 Organizational Behavior ...........................................3
BAMK 362 Marketing Strategy ..................................................3
BAMK 368 Marketing Analysis and Research ..............................3

Supporting Credits — 6 or 7 semester hours

Supporting Credits, Specified — 18-19 semester hours

Category 1b — Intermediate Composition

BA 205 Business Communications
or MATH 124 College Algebra

Category 2 — Mathematics

MATH 124 College Algebra
MATH 175 Topics in Finite Mathematics ...................................3

Category 5 — Social Sciences

ANT 100 General Anthropology ...................................................3
ECON 103 Introduction to Economics: Macroeconomics ...............3
ECON 105 Introduction to Economics: Microeconomics ...............3
QEOQ 100 World Geography ....................................................3
PSCI 103 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.

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 BAMQ/BAMK 407 Small Business Counseling for the BAMQ 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
- 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

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BAAC 220</td>
<td>Principles of Accounting I</td>
<td>3</td>
</tr>
<tr>
<td>BAAC 221</td>
<td>Principles of Accounting II</td>
<td>3</td>
</tr>
<tr>
<td>BACS 291</td>
<td>Business Statistics I</td>
<td>3</td>
</tr>
<tr>
<td>BACS 300</td>
<td>Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>BACS 395</td>
<td>Production Management</td>
<td>3</td>
</tr>
<tr>
<td>BAFN 251</td>
<td>Legal Environment of Business</td>
<td>3</td>
</tr>
<tr>
<td>BAFN 370</td>
<td>Business Finance</td>
<td>3</td>
</tr>
<tr>
<td>BAMQ 350</td>
<td>Management of Organizations</td>
<td>3</td>
</tr>
<tr>
<td>*BAMQ 456</td>
<td>Strategic Management and Business Policy</td>
<td>5</td>
</tr>
</tbody>
</table>

*BAMQ 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, BAMQ 350 and BAMQ 360. Only BACS 350 may be taken concurrently.

Required Credits — 12 semester hours

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BACS 390</td>
<td>Business Statistics II</td>
<td>3</td>
</tr>
<tr>
<td>BAMQ 353</td>
<td>Human Resources Management</td>
<td>3</td>
</tr>
<tr>
<td>BAMA 354</td>
<td>Organizational Behavior</td>
<td>3</td>
</tr>
<tr>
<td>BAMQ 457</td>
<td>Managing Complex Organizations</td>
<td>3</td>
</tr>
</tbody>
</table>

Supporting Credits — 6 to 7 semester hours

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPCO 100</td>
<td>Basics of Public Speaking</td>
<td>1</td>
</tr>
<tr>
<td>SPCO 105</td>
<td>Speaking Evaluation</td>
<td>2</td>
</tr>
<tr>
<td>MATH 131</td>
<td>Calculus and Analytic Geometry I</td>
<td>3</td>
</tr>
<tr>
<td>or MATH 176</td>
<td>Topics in Calculus</td>
<td>3-4</td>
</tr>
</tbody>
</table>

(MATH 176 is recommended)

Required Elective Credits — 15 semester hours

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BAAC 327</td>
<td>Managerial Accounting</td>
<td>3</td>
</tr>
<tr>
<td>BAFN 470</td>
<td>Financial Management</td>
<td>3</td>
</tr>
<tr>
<td>BAMQ 355</td>
<td>Managing New Business Ventures</td>
<td>3</td>
</tr>
<tr>
<td>BAMQ 452</td>
<td>Business, Government and Society</td>
<td>3</td>
</tr>
<tr>
<td>BAMQ 453</td>
<td>Advanced Topics in Human Resource Management</td>
<td>3</td>
</tr>
<tr>
<td>BAMQ 455</td>
<td>Industrial Relations</td>
<td>3</td>
</tr>
<tr>
<td>BAMQ 458</td>
<td>International Management</td>
<td>3</td>
</tr>
<tr>
<td>BAMQ 459</td>
<td>Seminar in Organizational Development</td>
<td>3</td>
</tr>
<tr>
<td>BAMQ 407</td>
<td>Small Business Counseling</td>
<td>3</td>
</tr>
<tr>
<td>or BAMQ 407</td>
<td>Small Business Counseling</td>
<td>3</td>
</tr>
</tbody>
</table>

General Education Credits, Specified — 18-19 semester hours

Category 1b — Intermediate Composition

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BA 205</td>
<td>Business Communications</td>
<td>3</td>
</tr>
<tr>
<td>or ENG 123</td>
<td>College Research Paper</td>
<td>3</td>
</tr>
</tbody>
</table>

Category 2 — Mathematics

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 124</td>
<td>College Algebra</td>
<td>3</td>
</tr>
<tr>
<td>or MATH 175</td>
<td>Topics in Finite Mathematics</td>
<td>3-4</td>
</tr>
</tbody>
</table>

Category 5 — Social Sciences

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANT 100</td>
<td>General Anthropology</td>
<td>3</td>
</tr>
<tr>
<td>ECON 103</td>
<td>Introduction to Economics: Macroeconomics</td>
<td>3</td>
</tr>
<tr>
<td>ECON 105</td>
<td>Introduction to Economics: Microeconomics</td>
<td>3</td>
</tr>
<tr>
<td>GEOQ 100</td>
<td>World Geography</td>
<td>3</td>
</tr>
<tr>
<td>PSCI 100</td>
<td>United States Government</td>
<td>3</td>
</tr>
<tr>
<td>PSCI 105</td>
<td>Introduction to Political Science</td>
<td>3</td>
</tr>
<tr>
<td>PSY 120</td>
<td>Principles of Psychology</td>
<td>3</td>
</tr>
<tr>
<td>SOC 100</td>
<td>Principles of Sociology</td>
<td>3</td>
</tr>
</tbody>
</table>

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.

BAMQ 453, BAMQ 455 and BAMQ 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

Total credits required for this degree ..................................... 126

General Education credits:
Specified ............................................................................. 18-19
Elective credits ...................................................................... 18-20

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
BAPM 231 Legal Environment of Business ............................ 3
BAPM 370 Business Finance .................................................. 3

*BAAC 456 Strategic Management and Business Policy ...... 3

BAMS 360 Marketing ............................................................. 3

*BAAC 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, BAAC 291, BACS 395, BAPM 231, BAMS 360 and BAMS 365. Only BACS 395 may be taken concurrently.

Required Credits — 12 semester hours
BAMS 361 Consumer Behavior ........................................... 3
BAMS 362 Marketing Strategy ............................................... 3
BAMS 368 Marketing Analysis and Research ......................... 3
BAMS 462 Marketing Problems ........................................... 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 ........................ 3
MATH 176 Topics in Calculus ............................................. 3-4

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 two courses (6 hours) from the 300-level Marketing courses listed above and three courses (9 hours) from the 400-level Marketing courses listed above.

Students are strongly advised to complete BAMS 362: Marketing Strategy before enrolling in 400-level Marketing courses whether it is listed as a prerequisite or not.

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.

Required Elective Credits — 15 semester hours
Take any two 300-level courses.
BAMS 353 Promotions Strategy ........................................... 3
BAMS 364 Selling and Sales Management ............................. 3
BAMS 365 Advertising ....................................................... 3
BAMS 366 Retailing ............................................................ 3

Take any three 400-level courses.
BAMS 407 Small Business Counseling
or BAMS 407 Small Business Counseling
BAMS 461 Advertising Campaigns ...................................... 3
BAMS 464 International Marketing ...................................... 3
BAMS 468 Business-to-Business Marketing .......................... 3
BAMS 469 Distribution Logistics ........................................ 3
BAMS 470 Direct Marketing ................................................. 3
BAMS 495 Special Topics in Marketing .................................. 3

Note that BAMS 495 may be used only once to satisfy the 400-level elective requirement.

General Education Credits, Specified — 18-19 semester hours

Category 1 — 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
ECO 103 Introduction to Economics: Macroeconomics .................................................. 3
ECO 105 Introduction to Economics: Microeconomics .................................................. 3
GEOG 100 World Geography .................................................. 3
PSY 100 United States Government ........................................ 3
PSY 102 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.
Bachelor of Arts in Interdisciplinary Studies
Emphasis in International Trade and Commerce

Program Requirements

Required Program/Major credits:
International Trade and Commerce core ....................................................33
Business Administration credits .................................................... 33-34
Recommended electives ................................ 3-9
General Education credits: Specified .................................................9-10
Remaining recommended electives ..................................................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
ECOM 300 Microeconomics
and ECON 345 International Trade ....................................................3
or
ECOM 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
BFIN 231 Legal Environment In Business ................................................3
BFIN 370 Business Finance ................................................................. 3
BAMK 350 Management of Organizations .................................................3
BAMK 360 Marketing ...............................................................................3
MATH 131 Calculus and Analytic Geometry I ........................................ 3
or MATH 176 Topics in Calculus ..............................................................3
(MATH 176 is recommended)

Recommended Elective Credits — 3-9 semester hours
BAMK 464 International Marketing ..........................................................3
BAMK 456 International Management ......................................................3
BFIN 475 Multinational Financial Management ........................................3

General Education Credits, Specified — 9-10 semester hours
Category 2 — Mathematics
MATH 124 College Algebra ....................................................................3
or MATH 175 Topics in Finite Mathematics ............................................3
Category 5 — Social Sciences
ECOM 103 Introduction to Economics: Macroeconomics ....................3
ECOM 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

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
BAPH 231 Legal Environment of Business ................................... 3
BASH 370 Business Finance ....................................................... 3
BAMS 350 Management of Organizations .................................... 3
BARK 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 (BAPH 370) and MATH 175 or MATH 124 (MATH 176 or MATH 131).

Minor in Computer Information Systems

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
College of Education

Agencies and Programs

Agency Counseling .......................................... 128
Applied Statistics and Research Methods ............ 142
College Student Personnel Administration .......... 137
Counseling Psychology ..................................... 134
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Educational Media ............................................ 145
Educational Psychology ...................................... 143
Educational Technology ...................................... 146

Elementary Professional Teacher Education ........ 149
Middle Grades Professional Teacher Education .... 150
Reading .......................................................... 154
School Counseling ............................................ 130
School Psychology ............................................ 135
Secondary Professional Teacher Education .......... 151
Special Education ............................................. 156
Endorsements and Licensure Programs ............... 164
Minors ............................................................... 169

Location: McKee Hall 125; Telephone: 970-351-2817
Gary R. Gullue, Dean; Michael J. Gilmestad, Associate Dean; Harvey Rude, Associate Dean

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: the School for the Study of Teaching and Teacher Education: the Division of Educational Leadership and Policy Studies; the Division of Professional Psychology: the Division of Special Education; and the Division of Educational Psychology and Technology. In addition, the College operates the Office of Professional Services, which 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 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 Hall 418; Telephone: 970-351-2861
Director: Bruce G. Barnett

Educational Leadership Program
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 G. Gavin, Ph.D.

College Student Personnel Administration Program
Professors — Bernard C. Kinnick, Ed.D.; Sue E. Spooner, Ph.D.; Douglas L. Stutler, Ph.D.
Associate professors — Gerald E. Tanner, Ph.D.; Joyce Washington, Ed.D.
Assistant professors — Stephen T. Hulbert, Ed.D.; Judy Jones, Ph.D.

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 and national 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

The School for the Study of Teaching and Teacher Education (SSTTE)
Location: McKee Hall 215; Telephone: 970-351-2908
Harvey Rude, Associate Dean/Director; Sandra Welsel, Director, Office of Professional Services

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, Secondary Level Education and Reading. The School for the Study of Teaching and Teacher Education provides specialized resources and support through the Office of Professional Services.

Early Childhood Education Program (SSTTE)
Location: McKee Hall 215; Telephone: 970-351-2702
Professor — Phillip Wishon, Ph.D.
Assistant professors — Harcia 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 (SSTTE)
Location: McKee Hall 215; Telephone: 970-351-2702
Professors — Fredrick Silverman, Ed.D.; Elaine V. Vilscek, Ph.D.

25
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 (SSTTE)
Location: McKee Hall 213; Telephone: 970-351-2702

Professors — Michael Jacobs, Ed.D.; David Roat, Ph.D.

Professor — John Halcón, 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 (SSTTE)
Location: McKee 213; Telephone: 970-351-2702

Assistant professors — Elizabeth Dore, Ed.D.; 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 (SSTTE)
Location: McKee 213; Telephone: 970-351-2702


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 (SSTTE)
Location: McKee 213; Telephone: 970-351-2702

Professor — David Roat, Ph.D.

Assistant professors — Linda Brookhart, Ph.D., Lucius Drake, Ed.D.

Instructor — Camille Rhodes, B.A.

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.

The Division of Professional Psychology
Location: McKee Hall 24B; Telephone: 970-351-2751
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.

Counselor Education and Professional Counseling Programs

Assistant professors — Tracy D. Baldo, Ph.D.; David M. Gonzalez, Ph.D.

Assistant professor — Basilia Softas-Nall, Ph.D.

Counseling Psychology Program
Professor — I. David Welch, Ed.D.

Associate professors — David M. Gonzalez, Ph.D.; M. Sean O'Halloran, Ph.D.

School Psychology
Professors — Ellis F. Copeland, Ph.D.; Rik Carl D'Amato, Ph.D.

Associate professor — Achilles H. Bards, Ph.D.

The Division of Educational Psychology, Statistics and Technology
Location: McKee Hall 518; Telephone 970-351-2807
Director: Jeanne E. Ormrod

Applied Statistics and Research Methods Program
Location: McKee Hall 518; Telephone 970-351-2807

Professors — Don Sears, Ph.D.; Dale Shaw, Ph.D.

Associate professor — Ann Thomas, Ph.D.

Assistant professor - Daniel Mundfrom, 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 Hall 518; Telephone 970-351-2807

Professors — Kyle R. Carter, Ph.D.; John B. Cooney, Ph.D.; Rando J. Lennon, Ph.D.; Jeanne E. Ormrod, Ph.D.

Associate professors — Kathryn F. Cochran, Ph.D.; Teresa McDevitt, 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 research on basic learning mechanisms and theory.

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.
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 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.

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: Office of Professional Services in McKee 103. 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: Office of Professional Services in McKee 103 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 Specialist, K-12
School Counselor, K-6, 7-12
School Librarian, 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 Direct Support, 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: Office of Professional Services in McKee 103.

The Division of Special Education
Location: McKee Hall 318; Telephone: 970-351-2691
Director: Allen Huang


Associate professors — George Betts, Ed.D.; Lewis Jackson, Ed.D.; David Kappan, 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 (PTPP) 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), 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 Office of Professional Services 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.
Master of Arts in Agency Counseling

Program Requirements
Complete the required credits specified here ...........................................52

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
for 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 candidate 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 referees 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 ....................................3

Additional Requirements
PSY 558 Abnormal Psychology ..............................................................3
PSY 565 Psychology of Prejudice ..............................................................3
PPSY 624 Substance Abuse ....................................................................3
PPSY 653 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 ......................2
PPSY 692 Externship .............................................................................8

Note
Comprehensive examination required.
College of Education – Agency Counseling

Master of Arts in Agency Counseling
Emphasis in Marriage and Family Therapy

Program Requirements
Complete the required credits specified here ......................................52
Complete emphasis area credits specified here ...............................16

This program emphasis is accredited by the Council for Accreditation of Counseling and Related 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
Master of Arts in Elementary School Counseling

**Program Requirements**

Complete the required credits specified here ..................................52

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 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.

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:

- Explore career development as it relates to young children.
- Evaluate cognitive and affective characteristics of learning.
- Coordinate and manage guidance services appropriate to elementary and middle school settings.
- 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.

**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: Office of Professional Services in McKee 103 for information.

**Required Credits — 52 semester hours**

**Core Requirements**

- SRM 600 Introduction to Graduate Research ................................3
- EPSY 630 Child and Adolescent Psychology ..........................3
- EPSY 607 Theories of Counseling ........................................3
- EPSY 610 Theories of Personality .........................................2
- EPSY 627 Legal and Ethical Aspects of Counseling and Psychology ..........................3
- EPSY 670 Psychological Testing and Measurement .................3

**Requirements for Elementary School Counseling**

- EPSY 565 Psychology of Prejudice .........................................2
- EPSY 602 Foundations of School Guidance ..........................3
- EPSY 604 Career Development and Occupational Systems ...................2
- EPSY 605 Group Laboratory Experience ....................................1
- EPSY 606 Theories and Practices in Group Guidance ..................2
- EPSY 608 Organization, Administration and Consultation in Guidance Services .............................................3
- EPSY 611 Externship in Guidance Services .........................5
- EPSY 612 Practicum in Individual Counseling .......................5
- EPSY 613 Externship in Counseling with Children ....................5
- EPSY 624 Substance Abuse ...................................................3
- EPSY 671 Testing: Analysis and Interpretation .......................2

Elective ...............................................................................2

**Note**

Comprehensive examination required.
Master of Arts in Secondary and Post-Secondary School Counseling

Program Requirements
Complete the required credits specified here ...........................................52

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 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.

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 personal 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 consultants 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: Office of Professional Services in McKee 103 for information.

Required Credits — 52 semester hours

Core Requirements

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<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>SRM 600 Introduction to Graduate Research</td>
<td>3</td>
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<tr>
<td>EPSY 630 Child and Adolescent Psychology</td>
<td>3</td>
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<tr>
<td>PPSY 607 Theories of Counseling</td>
<td>3</td>
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<tr>
<td>PPSY 610 Theories of Personality</td>
<td>2</td>
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<tr>
<td>PPSY 657 Legal and Ethical Aspects of Counseling and Psychology</td>
<td>3</td>
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<td>PPSY 670 Psychological Testing and Measurement</td>
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Additional Requirements

<table>
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<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>PPSY 565 Psychology of Prejudice</td>
<td>2</td>
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<tr>
<td>PPSY 602 Foundations of School Guidance</td>
<td>3</td>
</tr>
<tr>
<td>PPSY 604 Career Development and Occupational Systems</td>
<td>2</td>
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<tr>
<td>PPSY 605 Group Laboratory Experience</td>
<td>1</td>
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<tr>
<td>PPSY 606 Theories and Practices in Group Guidance</td>
<td>2</td>
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<tr>
<td>PPSY 608 Organization, Administration and Consultation in Guidance Services</td>
<td>3</td>
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<td>PPSY 611 Externship in Guidance Services</td>
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<td>PPSY 612 Practicum in Individual Counseling</td>
<td>5</td>
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<tr>
<td>PPSY 614 Externship in Counseling with Youth and/or Adults</td>
<td>5</td>
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<td>PPSY 624 Substance Abuse</td>
<td>3</td>
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<tr>
<td>PPSY 671 Testing: Analysis and Interpretation</td>
<td>2</td>
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</tbody>
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Elective ................................................................................. 2

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 here ........................................54

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 those 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 54 hours required for the degree.

Required Credits — 54 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 ..................................3

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 .............................................5
- CSPA 658 Management and Administration in Student Affairs ................4
- 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 Theories
- 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

Counseling Core
- PPSY 702 Practicum in Counseling ........................................4
- PPSY 707 Seminar in Personality and Counseling Theories ........3

Supervision Core
- 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 ..........5

Group Core
- PPSY 693 Practicum in Group Facilitation .............................4

Instruction and Consultation Core
- PPSY 655 Community Psychology and Social Systems .................3
- PPSY 657 Legal and Ethical Aspects of Counseling and Psychology ....3
- PPSY 660 Systems Analysis and Consultation Theory ................2
- PPSY 668 Sexuality Counseling ............................................5
- PPSY 681 Systems Intervention Practicum ..............................6
- PPSY 755 Supervised Practicum in College Teaching (taken twice) ..6
- PPSY 792 Internship in Counselor Education ........................12

Research and Evaluation
- 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 735 Research Apprenticeship .....................................2
- PPSY 781 Evaluation of Psychological Services ......................3

Special Populations (choose one of the following courses)

- 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

Dissertation
- 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

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

Required Core (All Required) — 25 semester hours

PSY 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 666 Sexuality Counseling ........................................................................ 3
PPSY 707 Seminar in Personality and Counseling Theories ............................ 3
PPSY 758 Advanced Psychopathology ............................................................... 3
PPSY 777 Applied Neuropsychology ................................................................. 3

Elective Core (Supervision Courses not Included) — 3 semester hours .... 3

Practica (All Required) — 22 semester hours

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 .......................................... 5
PPSY 793 Intake Practicum ............................................................................... 1
PPSY 794 Clinic Practicum ............................................................................... 2

Supervision — 2 semester hours

PPSY 715 Seminar in Counselor Supervision and Theory .............................. 2

Statistics and Research (All Required) — 11 semester hours

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

Elective Supervision Practica (one required)

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 777 Practicum in Supervision of Family Therapy ................................. 3

Special Populations (choose one of the following courses)

PPSY 555 Psychology of Prejudice .................................................................. 2
PPSY 625 Counseling Diverse Populations ...................................................... 2

Assessment (All required) — 10 semester hours

PPSY 675 Intelligence Assessment .................................................................... 3
PPSY 676 Practicum in Personality and Clinical Assessment ....................... 5
PPSY 782 Introduction to Rorschach Administration and Scoring ............... 2

Internship
PPP 791 Internship in Counseling Psychology .............................................. 15

Dissertation

PPSY 797 Doctoral Proposal Research .............................................................. 4
PPSY 799 Doctoral Dissertation ...................................................................... 12
Educational Specialist in School Psychology

Program Requirements

Complete the required credits specified here ..................................................... 72-85

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 3.5 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

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>*EPSY 630</td>
<td>Childhood and Adolescent Psychology</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td>*PSY 550 Cognitive Development</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td>*EPSY 607 Theories of Counseling</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td>*EPSY 650 Theories and Principles of Learning</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td>*PSY 638 Behavioral Applications to Professional Psychology</td>
<td>3</td>
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<tr>
<td>or</td>
<td>*PSY 655 Community Psychology and Social Systems</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td>*PSY 657 Legal and Ethical Aspects of Counseling and Psychology</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td>*PSY 660 Psychological Consultation: Theory and Practice</td>
<td>2</td>
</tr>
<tr>
<td>or</td>
<td>*PSY 781 Evaluation of Psychological Services</td>
<td>3</td>
</tr>
</tbody>
</table>

Required credits for State of Colorado School Psychologist licensure are 72-85 semester hours. 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 that they desire licensure.

Assessment for Intervention

*EPSY 612 Practicum in Individual Counseling .................................................. 5
*EPSY 674 Intellectual and Cognitive Assessment .................................................. 5
*EPSY 678 Practicum in Personality and Clinical Assessment .................................. 5
*EPSY 779 Practicum in School Psychology ......................................................... 5

Choose two of the following:

*EPSY 617 Play Therapy: Theory and Practicum .................................................. 5
*EPSY 676 Infant and Toddler Neuropsychology .................................................. 5
*EPSY 681 Systems Intervention Practicum ......................................................... 4
*EPSY 694 Practicum in Family Therapy .............................................................. 4

Choose one of the following three options:

*EPSY 665 Family Systems ...................................................................................... 5

or

*EPSY 585 Family Counseling and Education in School Settings .................................. 2
*EPSY 605 Group Laboratory Experience .................................................................. 1
*EPSY 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
*EPSY 569 Violence Against Women and Children ............................................... 2
*EPSY 654 Child Abuse and Neglect ....................................................................... 2
*EPSY 580 Computer Applications to Professional Psychology ............................ 2
*EPSY 672 Neuropsychology of LD and TBI ......................................................... 3
*EPSY 603 Counseling Children and Adolescents .................................................. 3

Note

Written comprehensive examinations are required in 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. 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: Office of Professional Services in McKee 103 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 that they desire licensure.

Near the end of the semester that the licensure program is to be completed, the candidate should complete application forms in the Office of Professional Services. 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 50 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

• PSY 603 Childhood and Adolescent Psychology ......................................... 3
• PSY 758 Advanced Psychopathology .............................................................. 3
• PSY 654 Child Abuse and Neglect ................................................................. 2
• PSY 799 Practicum in School Psychology ..................................................... 3
• PSY 674 Intellectual and Cognitive Assessment ........................................... 5
• PSY 678 Practicum in Personality and Clinical Assessment .......................... 5
• PSY 775 Supervision of Psychological Testing ............................................. 2
• PSY 799 Practicum in School Psychology ..................................................... 3
• PSY 612 Practicum in Individual Counseling .............................................. 5
• PSY 702 Practicum in Counseling ................................................................. 4

Choose two of the following:
• PSY 550 Cognitive Development ................................................................. 3
• PSY 684 Advanced Seminar in Human Development ..................................... 3
• PSY 607 Theories of Counseling ................................................................. 3
• PSY 707 Seminar in Personality and Counseling Theories .............................. 3
• PSY 655 Community Psychology and Social Systems .................................. 3
• PSY 657 Legal and Ethical Aspects of Counseling and Psychology .............. 3
• PSY 660 Systems Analysis and Consultation Theory .................................... 3
• EPSY 504 Theories and Principles of Learning ............................................ 3
• PSY 638 Behavioral Applications to Professional Psychology ....................... 3
• PSY 590 Seminar in History and Systems.................................................... 3
• PSY 777 Applied Neuropsychology ............................................................ 4

Assessment for Intervention

• PSY 674 Intellectual and Cognitive Assessment ........................................... 5
• PSY 678 Practicum in Personality and Clinical Assessment .......................... 5
• PSY 775 Supervision of Psychological Testing ............................................. 2
• PSY 799 Practicum in School Psychology ..................................................... 3
• PSY 612 Practicum in Individual Counseling .............................................. 5
• PSY 702 Practicum in Counseling ................................................................. 4

Choose two of the following:
• PSY 559 Introduction to Clinical Hypnosis ................................................... 2
• PSY 617 Play Therapy: Theory and Practicum .............................................. 3
• PSY 676 Infant and Toddler Neuropsychology ............................................ 3
• PSY 681 Systems Intervention Practicum ...................................................... 3

*PSY 694 Practicum in Family Therapy ............................................................ 4
*PSY 626 Introduction to Neuropsychological Assessment .................................... 1
*PSY 605 Group Laboratory Experience ......................................................... 1
*PSY 606 Theories and Practice in Group Guidance ......................................... 2
PSY 755 Supervised Practicum in College Teaching ....................................... 1
PSY 654 Seminar in College Teaching ............................................................ 1
PSY 778 Clinical Neuropsychology Practicum ................................................. 2

Multicultural Understanding
Choose one of the following:
• PSY 365 Psychology of Prejudice ................................................................. 2
• PSY 723 Counseling Diverse Populations ...................................................... 2

Research

• SRM 700 Advanced Research Methods ...................................................... 3
• PSY 797 Doctoral Proposal Research ........................................................... 4
• PSY 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 ................................................................. 3
   • SRM 502 Applied Statistics II ................................................................. 3
   • SRM 605 Multivariate Analysis ................................................................. 3
   or
   • SRM 606 Multiple Linear Regression Models ............................................ 3
   or
   • SRM 610 Statistical Methods III ............................................................... 3

2. Applied Research
   • PSY 580 Computer Applications to Psychology ........................................ 2
   • PSY 663 Research Apprenticeship: School Psychology ................................ 2
   • PSY 781 Evaluation of Psychological Services ........................................... 3
   • SRM 675 Measurement II: Advanced Techniques ...................................... 3
   or
   • SRM 680 Qualitative Research Methods ................................................... 3

Supervised Field Work

• PSY 789 Internship in School Psychology (3 semesters) ............................ 12
• Professional Education — (minimum of 6 hours required)
  • PSY 569 Violence Against Women and Children ...................................... 2
  • PSY 654 Child Abuse and Neglect ............................................................ 2
  • PSY 672 Neuropsychology of LD and TBI ............................................... 3
  • EDRD 617 Evaluation and Correction of Individual Reading Problems ............ 4
  • PSY 568 Psychology of Women ............................................................... 2
  • PSY 603 Counseling Children and Adolescents ........................................... 3

Elective in Professional Education

With advisor approval and/or other courses from EDAD, 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: Office of Professional Services in McKee 103 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 that they desire 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: Office of Professional Services in McKee 103. 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 here ..................................67
Complete program elective credits specified here ......................8

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

<table>
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<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>ELPS 751</td>
<td>Doctoral Core I</td>
<td>6</td>
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<tr>
<td>ELPS 752</td>
<td>Doctoral Core II</td>
<td>6</td>
</tr>
<tr>
<td>CSPA 650</td>
<td>College Student Development Theory and Research</td>
<td>3</td>
</tr>
<tr>
<td>CSPA 750</td>
<td>College Environments and Student Characteristics</td>
<td>3</td>
</tr>
<tr>
<td>CSPA 651</td>
<td>Philosophical, Historical and Cultural Foundations of Student Affairs in Higher Education</td>
<td>3</td>
</tr>
<tr>
<td>CSPA 655</td>
<td>Multiculturalism In Higher Education</td>
<td>3</td>
</tr>
<tr>
<td>CSPA 662</td>
<td>Legal Issues In Student Affairs</td>
<td>3</td>
</tr>
<tr>
<td>CSPA 758</td>
<td>Seminar In College Student Personnel Administration</td>
<td>1</td>
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Choose one of the following:

<table>
<thead>
<tr>
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<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CSPA 652</td>
<td>Directed Studies (variable credit and title)</td>
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<tr>
<td>CSPA 653</td>
<td>Services for Environmental and Student Development</td>
<td>3</td>
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Theory to Practice

<table>
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<tbody>
<tr>
<td>CS 622</td>
<td>Directed Studies (variable credit and title)</td>
<td>1</td>
</tr>
<tr>
<td>PPSY 601</td>
<td>Practicum (variable credit)</td>
<td>1</td>
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</table>

Note that at least 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

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CSPA 661</td>
<td>Practicum in College Teaching</td>
<td>2</td>
</tr>
<tr>
<td>CSPA 670</td>
<td>Internship in Student Affairs</td>
<td>6</td>
</tr>
<tr>
<td>CSPA 675</td>
<td>Field Experience in Student Affairs</td>
<td>2</td>
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</table>

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

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
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<tbody>
<tr>
<td>SRM 602</td>
<td>Statistical Methods I</td>
<td>3</td>
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<tr>
<td>SRM 603</td>
<td>Statistical Methods II</td>
<td>3</td>
</tr>
<tr>
<td>Plus one additional applied statistics course</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>CSPA 753</td>
<td>Evaluation In Student Affairs</td>
<td>2</td>
</tr>
<tr>
<td>CSPA 755</td>
<td>Advanced Research Methods</td>
<td>3</td>
</tr>
<tr>
<td>CSPA 757</td>
<td>Doctoral Proposal Research</td>
<td>1</td>
</tr>
<tr>
<td>CSPA 799</td>
<td>Doctoral Dissertation</td>
<td>12</td>
</tr>
</tbody>
</table>

Note that SRM 600 or equivalent is prerequisite to admission and 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;
- 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 individually designed 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

**Additional Requirements — 12-15 semester hours**
- SRM 600 Introduction to Graduate Research .................................................. 3
- Electives Appropriate for Concentration Area .................................................. 9-12

**Total** ........................................................................................................45-36 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 UNCO 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

**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

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 individuals 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:

- An emphasis on being a student/scholar of leadership;
- 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 course work, 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, typically receive 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, CSAS 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. The 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, 503, 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 final 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 ............ 3
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
Emphasis in Operations Research

Program Requirements
Complete the required credits specified here ........................................ 58
Complete program electives specified here ........................................ 12

This program is designed to acquaint professional career personnel with concepts, skills and experiences essential to operations research and management science processes. This program concentrates on a mixture of theoretical foundations and applications of statistical techniques to fields such as education, physical sciences, social sciences and business. A particular emphasis in the area of operations research will be provided.

Completion of this degree will enable a student to seek employment in a career field requiring operations research and management science expertise, to teach in a community or junior college, or to enter a Ph.D. program in a related area.

Admission
In addition to meeting the admission requirements of the Graduate School, the student must have the following:
• A working knowledge of a programming language or a course in statistical software.
• An essay of approximately 500 words addressing their interest in the master of Science in Applied Statistics and Research Methods degree program and their educational goals.
• A bachelor's degree in mathematics or its equivalent.

Required Credits — 22 semester hours
SRM 501 Applied Statistics I ............................................................... 4
SRM 502 Applied Statistics II ............................................................... 4

Doctor of Philosophy in Applied Statistics and Research Methods
Emphasis in Measurements

Program Requirements
Complete the required credits specified here .................................. 70
Complete program electives specified here .................................... 12

The Doctor of Philosophy degree program is designed to produce the critical thinker with expertise to do scholarly research and/or to teach in advanced academic programs. This degree will focus on measurement and research methods to solve problems in other fields with particular emphasis on educational research.

The graduate will be qualified to serve as a statistical analyst in fields of application depending on the student's background. The graduate will have expertise in the field of educational testing and measurements and will be able to seek employment as a professor in institutions of higher education in areas that require knowledge of research methods applied to other disciplines such as education.

Admission
In addition to meeting the admission requirements of the Graduate School, the student must have the following:
• A master's degree in statistics or its equivalent.
• An essay of approximately 500 words addressing their interest in the Doctor of Philosophy in Applied Statistics and Research Methods degree program and their educational goals.

Required Credits — 58 semester hours
SRM 610 Statistical Methods III ......................................................... 3
SRM 700 Advanced Research Methods ............................................... 3
SRM 502 Applied Statistics II ............................................................... 4
SRM 611 Advanced Theory of Statistics I ............................................. 4

Required Elective Credits — 8 semester hours
SRM 501 Applied Statistics I ............................................................... 4
SRM 502 Applied Statistics II ............................................................... 4
SRM 604 Advanced Experimental Design ........................................... 3
SRM 606 Multiple Linear Regression Models .................................. 3
Note that students may substitute another approved course to fulfill the Graduate School requirement for Introduction to graduate studies.

Notes
Other electives may be taken with approval of the advisor.

Three-hour written comprehensive examinations are required in each of the following areas:
• A dissertation that demonstrates an original contribution to the field of applied statistics and research methods.
• A two-hour oral defense of the dissertation.

Comprehensive written and/or oral examination and dissertation defenses are scheduled only during the academic year.
Master of Arts in Educational Psychology

Program Requirements
Complete the required credits specified here .................................. 20
Complete program elective credits specified here ................................ 10

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 conducted within four weeks of receipt of the program. All complete applications received by mid-semester 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 University Graduate School. Upon meeting the admission criteria for the Graduate School, the candidate’s application is forwarded to the program faculty for review. Reviews by the program faculty are typically completed within four weeks of receipt of the application. All complete applications received by midterm are processed. 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 sequencers of courses. Minimum criteria for acceptance include:

- GRE combined score of 1650 on the verbal and quantitative 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, 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
Learning and Cognitive Processes
EPSY 662 Cognition and Instruction .................................................................3
EPSY 662 Advanced Seminar in Learning and Cognition ...............................3

Human Development
EPSY 630 Childhood and Adolescence ...........................................................3
EPSY 631 Youth, Adulthood and Aging ............................................................3

Research, Statistics, and Measurement
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

Professional Development
EPSY 661 Trends and Issues in Educational Psychology ................................3
EPSY 663 Apprenticeship .............................................................................2

Dissertation
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
Required Credits — 9 semester hours
PSY 625 Principles of Neuropsychology .....................................................3
EPSY 635 Individual Differences in Cognition .............................................3
EPSY 665 Advanced Seminar in Learning and Cognition ............................3

Required Elective Credits — 9 semester hours
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
Required Credits — 11-12 semester hours
EPSY 684 Advanced Seminar in Human Development ................................3
EPSY 694 Practicum .......................................................................................3
PSY 664 Advanced Social Psychology ........................................................3
PSY 625 Principles of Neuropsychology .......................................................3
or
EPSY 524 Behavioral Genetics ....................................................................2

Required Elective Credits — 6-7 semester hours
EPSY 685 Advanced Seminar in Learning and Cognition ............................3
EPSY 654 Seminar in College Teaching .......................................................3

Research, Statistics, and Measurement Concentration — 18 semester hours
Required Credits — 9 semester hours
EPSY 675 Measurement II: Advanced Techniques ........................................3
SRM 680 Qualitative Research Methods .......................................................3

Required Elective Credits — 9 semester hours
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 Electives
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/Statistical Analysis — Students must complete the requirements in the Research, Statistics, and Measurement concentration with grades of B or better (directed research studies and research-related projects 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.

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.

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 research focus and dissertation 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. Specialty competencies in the core and specialty areas are measured 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 here ........................................... 36-39

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 Educational Media Specialist (K-12) 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) following midterm exams. All complete applications received by midterm are processed that term. 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

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>EPSY 540</td>
<td>Theories and Principles of Learning</td>
<td>3</td>
</tr>
<tr>
<td>SRM 600</td>
<td>Introduction to Graduate Research</td>
<td>3</td>
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<tr>
<td>ET 500</td>
<td>Introduction to Performance Technology</td>
<td>3</td>
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<tr>
<td>ET 502</td>
<td>Instructional Development</td>
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<td>ET 503</td>
<td>Computers In Education</td>
<td>3</td>
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<td>ET 504</td>
<td>Instructional Materials Design</td>
<td>3</td>
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<tr>
<td>ET 530</td>
<td>Media Cataloging and Classification</td>
<td>3</td>
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<tr>
<td>ET 533</td>
<td>Reference and Information Management</td>
<td>3</td>
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<tr>
<td>ET 535</td>
<td>Administration of Instructional Resources</td>
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<tr>
<td>EDFE 610</td>
<td>Field Experience (K-6)</td>
<td>3</td>
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<tr>
<td>EDFE 610</td>
<td>Field Experience (7-12)</td>
<td>3</td>
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<tr>
<td>EDRD 614</td>
<td>Children's and Adolescent's Literature</td>
<td>3</td>
</tr>
</tbody>
</table>

### 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 time of transfer.

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 Office of Professional Services in McKee Hall 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 here ................................................. 21
Complete program elective credits specified here ........................................... 9

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. 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 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 here ........................................ 55
Complete program elective credits (approved in plan of study) .............. 12

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 and if needed during the summer. 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. 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 — 55 semester hours

Since the program of study builds upon the requirements for the M.A. degree in educational technology, students must complete a 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

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ET 524</td>
<td>Design of Computer Assisted Instruction</td>
<td>3</td>
</tr>
<tr>
<td>ET 602</td>
<td>Instructional Analysis and Design</td>
<td>3</td>
</tr>
<tr>
<td>ET 604</td>
<td>Advanced Design of Instructional Materials</td>
<td>3</td>
</tr>
<tr>
<td>ET 692</td>
<td>Internship</td>
<td>3</td>
</tr>
<tr>
<td>ET 693</td>
<td>Practicum</td>
<td>3</td>
</tr>
<tr>
<td>ET 784</td>
<td>Doctoral Seminar in Educational Technology</td>
<td>3</td>
</tr>
<tr>
<td>ET 797</td>
<td>Doctoral Proposal Seminar</td>
<td>3</td>
</tr>
<tr>
<td>EPSY 682</td>
<td>Cognition and Instruction</td>
<td>3</td>
</tr>
<tr>
<td>EPSY 685</td>
<td>Seminar in Learning in Adulthood</td>
<td>3</td>
</tr>
</tbody>
</table>

Research Methodology Core

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SRM 602</td>
<td>Statistical Methods I</td>
<td>3</td>
</tr>
<tr>
<td>SRM 603</td>
<td>Statistical Methods II</td>
<td>3</td>
</tr>
<tr>
<td>SRM 610</td>
<td>Statistical Methods III</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SRM 680</td>
<td>Qualitative Research Methods</td>
<td>3</td>
</tr>
<tr>
<td>SRM 700</td>
<td>Advanced Research Methods</td>
<td>3</td>
</tr>
</tbody>
</table>

Dissertation

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ET 799</td>
<td>Doctoral Dissertation</td>
<td>12</td>
</tr>
</tbody>
</table>

Each student will complete 6 semester hours of coursework in one of the four emphasis areas.

Emphasis Area: Instructional Development/Design

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ET 650</td>
<td>Corporate Course Design</td>
<td>3</td>
</tr>
<tr>
<td>ET 702</td>
<td>Instructional Design Theory</td>
<td>3</td>
</tr>
</tbody>
</table>

Emphasis Area: Interactive Technologies

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ET 627</td>
<td>Computer Assisted Instruction Authoring Systems</td>
<td>3</td>
</tr>
<tr>
<td>ET 628</td>
<td>Interactive Video Technologies</td>
<td>3</td>
</tr>
</tbody>
</table>

Continue on next page
**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."

   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.
### Program Requirements

Complete General Education Program .................................................. 40
Complete the required courses for the Elementary PTEP .......................... 42
Complete a liberal arts major ................................................................. 39-70
Total (minimum hours) ............................................................................ 121-152

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 II. Students will be assigned an elementary education advisor beginning with Educational Seminar I.

### Required Courses — Elementary PTEP

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDF 366</td>
<td>Conceptions of Schooling</td>
<td>4</td>
</tr>
<tr>
<td>ET 201</td>
<td>Technology in Education</td>
<td>1</td>
</tr>
<tr>
<td>EPSY 346</td>
<td>Learning and Development for Teachers</td>
<td>2</td>
</tr>
<tr>
<td>EDSE 430</td>
<td>Exceptional Students in the Elementary Classroom</td>
<td>2</td>
</tr>
</tbody>
</table>

Educational Seminar II (courses are to be taken concurrently)

Educational Seminar III (courses are to be taken concurrently)

Educational Seminar IV

Educational Seminar V (courses are to be taken consecutively)

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.

### 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

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDEL 601</td>
<td>Practicum in Elementary Education</td>
<td>3</td>
</tr>
<tr>
<td>EDEL 612</td>
<td>Elementary School Curriculum</td>
<td>3</td>
</tr>
<tr>
<td>EDEL 619</td>
<td>Pluralism in Education</td>
<td>3</td>
</tr>
<tr>
<td>EDRD 612</td>
<td>Reading in the Elementary School</td>
<td>3</td>
</tr>
<tr>
<td>SRM 600</td>
<td>Introduction to Graduate Research</td>
<td>3</td>
</tr>
</tbody>
</table>

Note that EDEL 601, EDRD 612 must be taken and completed at UNC.

### Elective Credits — 6 semester hours

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDEL 620</td>
<td>Researched Applications for Instruction in Mathematics, K-9</td>
<td>3</td>
</tr>
<tr>
<td>EDEL 640</td>
<td>Researched Applications for Instruction in the English Language Arts, K-9</td>
<td>3</td>
</tr>
<tr>
<td>EDEL 650</td>
<td>Supervision of Teaching in the Elementary and Middle School</td>
<td>3</td>
</tr>
<tr>
<td>EDEL 679</td>
<td>Researched Applications for Instruction in Social Studies, K-9</td>
<td>3</td>
</tr>
<tr>
<td>EDEL 679</td>
<td>Researched Applications for Appraisal, Evaluation and Clinical Supervision of Teaching in the Elementary and Middle School</td>
<td>3</td>
</tr>
<tr>
<td>SCED 671</td>
<td>Science Curriculum in the Elementary School</td>
<td>3</td>
</tr>
</tbody>
</table>

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 ............................................. Complete the required courses for the Middle Grades PTEP .......... Complete the liberal arts major ..................................................... Required Support Teaching Field ..............................................

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.

Pre-Professional Cluster (courses are to be taken concurrently)
- EDMG 200 Exploring Teaching: Emphasis Middle Grades ............
- ET 201 Technology in Education .............................................

Master of Arts in Elementary Education
Emphasis in Middle School

Program Requirements ................................................................ Complete the required credits specified here ......................... Complete program elective credits specified here ....................... 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
Middle School Education Core
- EDM 601 Practicum ................................................................
- EDM 669 Theory, Philosophy and Curriculum in Middle School ...
- EDM 667 Assessment, Design and Evaluation of Elementary and Middle School Curriculum ...................................
- EDM 669 Integrated Curriculum for the Middle School ...........
- EDFS 670 Instructional Practices in Middle Grades .................
- SRM 600 Introduction to Graduate Research ..........................
- EDLE 619 Pluralism in Education ...........................................

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 ...

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 ...
EDEL 620 Research Application for Instruction in Math K-9 ...........
EDEL 640 Research Application for Instruction in Language Arts K-9 ...
EDEL 650 Research Application for Instruction in Social Studies K-9 ...
EPSY 530 Lifespan Developmental Psychology ...........................
EPSY 562 Teacher Effectiveness ................................................
SCED 671 Science Curriculum in the Elementary Schools ...........

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 ............................................................................. 37-40
Total (minimum hours) .................................................................................. 120-177

The Secondary Professional Teacher Education Program is designed to meet the licensure requirements for teaching at the secondary levels (grades 7-12).

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 three 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

The following course should be taken prior to the Methods Block:
EPSY 346 Learning and Development for Teachers ........................................... 2

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 ................................................................. 5
and
EED 402 Methods and Materials for Teaching Literature in the Secondary Schools ........................................................................................................... 3
PL 341 Methods of Teaching in the Secondary School ..................................... 3
GEOG 410 Teaching Geography in the Secondary School .............................. 1
and
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.
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 559 Parent Education and Involvement in Early Childhood/Primary ........ 3
*EDEC 648 Psycholinguistics in Early Childhood and Primary Education .......... 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
*EDRD 612 Reading in the Elementary Grades .............................................. 3
SMR 600 Introduction to Graduate Research ................................................ 3

**Elective Credits — 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 ................ 5
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

(Other courses accepted with the approval of the academic advisor.)

**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 213 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 here: 46-48
Complete program elective credits specified here: 21
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
EDM 502 Statistical Methods I .......................................................3
EDM 503 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 EDM 710. SRM 603 must be taken concurrently with EDM 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 - 21-25 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 .....................5
*EDRD 745 Topical Seminar in Reading .........................................2
*EDRD 750 The Contributing Professional in Reading .................2-4
EDF 742 Philosophical Foundations of Education ............................2
EDF 765 Sociological Foundations of Education .............................2
EDF 775 Educational 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

*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 School .....................................3
*EDEL 620 Research Applications for Instruction in Mathematics, K-9 ....3
*EDEL 645 Research Applications for Instruction in the English Language Arts, K-9 .................................................................3
*EDEL 650 Research Applications for Instruction in Social Studies, K-9 .3
*EDEL 679 Research 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
EDDEC 663 Educational Assessment, Evaluation and Prescription for the Young Child .................................................................3
EDDEC 664 Seminar in Early Childhood and Primary Education ........3
EDDEC 675 Play and Psychosocial Development In Early Childhood ....3
EDEL 508 Elementary Education Workshops (maximum 4) .............4
EDEL 622 Directed Studies .............................................................1-3
EDEL 676 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, EDM S, 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, McKe 213 to obtain detailed information regarding 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 complete courses 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. 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
*Required for Elementary Teacher Endorsement
**Only 3 hours of 500-level EDRD courses will apply toward degree.
- 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 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 Research Applications for Instruction in the English Language Arts K-9 ..............................................................2

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 to develop the student's career in reading. Prefixes of suggested related fields are EDAD, EDEC, EDEL, EDSE, ENQ/ED, EPSY, ET, MATH/ED, FPSY, 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 complete a four hour written comprehensive examination. Prefixes of suggested related fields are EDAD, EDEC, EDEL, EDSE, ENQ/ED, EPSY, ET, MATH/ED, FPSY, 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.

Required Reading Credits, Secondary — 10 semester hours
*Required for Elementary Teacher Endorsement
**Only 3 hours of 500-level EDRD courses will apply toward degree.
- 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 619 Pluralism in Education ............................................................3
- EDRD 620 Reading in the Middle and Secondary School .........................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 Research 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 in reading. Prefixes of suggested related fields are EDAD, EDEC, EDEL, EDSE, ENQ/ED, EPSY, ET, MATH/ED, FPSY, 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.

Applications 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: Office of Professional Services in McKee 105 for information.
Doctor of Education in Reading

Program Requirements

Complete the required credits specified here .................................................. 51
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 Reading ................................................................. 3
EDRD 745 Topical Seminar in Reading (can be repeated) ......................... 2-4
EDEL 745 Seminar in Elementary English ......................................................... 2
EDRD 795 Supervised Practicum in College Teaching ........................................ 3
or
EDRD 701 Advanced Practicum in Literacy .................................................. 3
EDRD 799 Doctoral Dissertation ........................................................................ 1-4
EDRD 797 Doctoral Proposal Research .............................................................. 3
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 I ................................................................. 3
SRM 603 Statistical Methods II ................................................................. 3
SRM 680 Qualitative Research Methods ......................................................... 3

SRM 670 Evaluation: Models and Designs ......................................................... 3
SRM 700 Advanced Research Methods ............................................................ 1

Required Professional Development Credits — 9 semester hours

Choose from the following:

EDEL 612 The Elementary School Curriculum .................................................. 3
EDEL 678 Outcomes-Based Education ................................................................. 3
EDEL 679 Researched Application in Appraisal, Evaluation and Clinical Supervision of Teaching in the Elementary and Middle School .................................................. 3
EDF 640 Psychological Foundations of Education ................................................. 3
EDF 665 Sociological Foundations of Education .................................................. 3
EDF 667 Modern Curriculum Trends and Issues ................................................ 2
EDF 685 Philosophical Foundations of Education ................................................ 3
EDMS 665 Middle School Theory, Philosophy and Curriculum ......................... 3
EDMS 667 Assessment, Design and Evaluation of Middle School Curriculum ................................................................. 3
EDRD 750 The Contributing Professional in Reading ........................................... 3
EPSY 630 Child and Adolescent Psychology .................................................... 3

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 213 for information.
Master of Arts in Special Education
Emphasis in Early Childhood Special Education

Program Requirements
Complete the required credits specified here ........................................39-48

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 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 — 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

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 ........................................5
Practicum
EDSE 535 Practicum in Early Childhood Special Education .................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 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 an Teacher Education: Office of Professional Services in McKee 103 for information.
Master of Arts in Special Education
Emphasis in Moderate Needs

Program Requirements
Complete the required credits specified here ...........................................33-42
Complete the elective credits specified .......................................................4

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: Research 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: Office of Professional Services in McKee 103 for information.

Required Credits — 33-42 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

Special Education Moderate Needs
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

Graduate Study
SRM 600 Introduction to Graduate Research ...........................................3
Practicum with Students with Moderate Needs
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

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 here ...........................................39-48

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 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 — 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

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 ..........................................................3
EDSE 524 Seminar in Education of Learners with Profound Needs ............3
EDSE 525 Research and Policy for Learners with Profound Needs .............3

Graduate Study
SRM 600 Introduction to Graduate Research .........................................3

Practicum
EDSE 526 Practicum with the Severely/Profoundly Handicapped ............5-12

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 here ...........................................36-45

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 — 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 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
EDSE 623 Methods of Teaching Learners with Severe Affective Needs Birth to 8 Years .......................................................3
EDSE 624 Methods of Teaching Learners with Severe Affective Needs, 9 to Adult ..........................................................3
EDSE 625 Research and Policy for Learners with Severe Affective Needs ....3

Practicum
EDSE 612 Practicum with Students with Severe Affective Needs, Ages 5-21 .............................................................................5-12

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 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: Office of Professional Services in McHee 103 for information.
Master of Arts in Special Education
Emphasis in Severe Needs: Cognitive

Program Requirements
Complete the required credits specified here .......................... 39-45

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 — 39-45 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 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
EDSE 620 Psycho-Social Aspects of Students with Severe Cognitive Needs ....................................................... 3
EDSE 621 Seminar in Severe Cognitive Needs ......................... 3

Master of Arts in Special Education
Emphasis in Severe Needs: Communication

Program Requirements
Complete the required credits specified here .......................... 39-45

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 — 39-45 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 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
EDSE 620 Psycho-Social Aspects of Students with Severe Cognitive Needs ....................................................... 3
EDSE 621 Seminar in Severe Cognitive Needs ......................... 3

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: Office of Professional Services in McKee 103 for information.

Graduate Study
SRM 600 Introduction to Graduate Research .......................... 3
Practicum (6 hours minimum required)
EDSE 623 Practicum with Severe Cognitive Needs, Ages 5-21 .......... 3
EDSE 624 Practicum with Severe Cognitive Needs, Ages 5-12 .......... 3
EDSE 625 Practicum with Severe Cognitive Needs, Ages 13-21 .......... 3

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 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 & Teacher Education: Office of Professional Services in McKee 103 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 ....................................47-56

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: Research 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
CM DS 370 Basic Audiology ..........................................................4
CM DS 370 Basic Audiology ..........................................................4
EDSE 450 Introduction to Hearing Impaired ...............................3
EDSE 451 Basic Sign Language ..................................................4

Required Credits — 47-56 semester hours

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

Practicum
EDSE 657 Practicum, Severe Needs: Hearing .........................6-12

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: Office of Professional Services in McKee 103 for information.
Master of Arts in Special Education
Emphasis in Severe Needs: Vision

Program Requirements
Complete the required credits specified here .................................47-62

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 the field and, if possible, arrange for a personal interview.

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

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

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: Office of Professional Services in McKee 103 for information.
**Master of Arts in Special Education**  
**Emphasis in Teaching the Gifted and Talented**

**Program Requirements**
- Complete the required credits specified here .......... 38-44
- Complete the program elective credits specified here .......... 3-12

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 .................................................. 3

**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
- PPSP 627 Counseling Interventions and Techniques for Talented and Gifted Students .................................................. 3

**Graduate School Requirements**
- SRM 600 Introduction to Graduate Research ........................................... 3

**Practicum**
- EDSE 584 Practicum in Teaching the Gifted and Talented ................... 6-12

**Note**
- Practicum: EDSE 584 Practicum in Teaching the Gifted and Talented

**Elective Credits — 3-12 semester hours**

Electives will be selected with the approval of the major advisor.

**Notes**
- 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 and professional experience, 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 — 36 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

Exterships — 4 semester hours (minimum)
Exterships 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

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

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 — 18 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 English as a Second Language

The program in 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 will lead to Colorado endorsement in Linguistically Different: ESL. The program must be completed in conjunction with, or after the completion of the Elementary or Middle School Licensure Program. Courses can be completed at the undergraduate and graduate levels.

Elementary Education and Middle School Education

Endorsement in Bilingual Education

The program in Bilingual Education emphasizes the study of the structures of English and Spanish, second language acquisition, and methodology related to teaching in a bilingual classroom. This program will lead to Colorado endorsement in Linguistically Different: Bilingual. The program must be completed in conjunction with, or after the completion of the Elementary or Middle School Licensure Program. Courses can be completed at the undergraduate and graduate levels.

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 Bachelor's 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 here: 18-22

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 in 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 Children ..........2

or

EDEC 648 Psycholinguistics in Early Childhood .........................................3

EDEC 559 Parent Education and Involvement in Early Childhood/Primary ........3

EDEC 660 Critical Issues in Early Childhood and Primary Education ............3

EDEC 664 Seminar in Early Childhood and Primary Education ....................3

EDEC 670 Curriculum and Instruction in Early Childhood and Primary Education ..........................................................5

EDEC 675 Play and Psychosocial Development in Early Childhood .............3

EDEC 601 Practicum in Early Childhood ..................................................1-4

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 here ....................................... 35-45

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 a 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.

Licensure in Reading
Reading Teacher Endorsements

Endorsement 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 answer 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 accredited 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
EDRD 670 Directing A School Wide Reading/Writing Program (3) or EDRD 642, Teaching the Writing Process in Schools (3) are the recommended courses for an elective.

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

*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.

Required Credits — 35-45 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

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 Internship 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 213 for information.
Licensure in Reading

Reading Specialist Endorsement

Reading Specialist Endorsement Requirements .............................. 18-27
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 credits ...................................................... 39-70
(recommended by advisor)
Pre-professional Courses (SPCD 100, 103) ........................................... 3
Required PTEP core credits ................................................................. 21
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
At least one of the following:
SRM 602 Elements of Statistics ............................................................. 3
SRM 605 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 213 for information.
### School Library Media Endorsement

| 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

### 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;
- 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 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.

#### Required Credits — 21 semester hours (minimum)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELPS 747</td>
<td>Leadership at the School District Level</td>
</tr>
<tr>
<td>ELPS 665</td>
<td>Policy Analysis and Development</td>
</tr>
<tr>
<td>ELPS 650</td>
<td>School Finance and Budgeting</td>
</tr>
<tr>
<td>ELPS 651</td>
<td>School Business Management</td>
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<td>ELPS 654</td>
<td>Supervision of Curricular and Instructional Programs</td>
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<tr>
<td>SRM 670</td>
<td>Evaluation: Models and Designs</td>
</tr>
<tr>
<td>EPSY 674</td>
<td>Measurement I: Educational Testing</td>
</tr>
</tbody>
</table>

#### 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 (41B McKeen 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;
- Leadership encompasses a learned set of knowledge, skills, and attitudes;
- Effective leadership in 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

Total credits required for this minor ............................................18

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
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

Total credits required for this minor ............................................20

Required Credits — 3-9 semester hours
*EDRD 410 Achieving Effective Instruction in Developmental Reading ........3
*EDRD 411 Reading Diagnosis and Individualization ..................................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

Total credits required for this minor .....................................................18

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 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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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, Mischen L50, phone 970-351-1576.

Department of Communication Disorders
Audiology and Speech-Language Pathology
Location: Gunter 1400; Telephone: 970-351-2734
R. Steven Ackley, Chair

Professors — R. Steven Ackley, Ph.D.; Donna J. Bottenberg, Ph.D.; Francis A. Griffith, Ph.D.
Associate professors — John Baumgartner, Ph.D.; Kathryn Bright, Ph.D.; Linda Cleeland, M.A., M.Ed.; Ellen Meyer Gregg, Ph.D.; Dennis R. Ingrisano, Ph.D.
Assistant professors — Kathleen Faehey, Ph.D.
Instructors — Julie Hanko, M.A.; Linda Jelden, M.A.; Susan Morrison, M.A.
Research associate — H. Gustav Mueller, Ph.D.
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 (FSSB) of the Boards of Examiners in Speech-Language Pathology and Audiology (RESPA) 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 BESPA.
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 do 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 BESPA. 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 BESPA. Career opportunities include positions in schools; hospitals; ear, nose and throat medical practices; rehabilitation centers; and private practice.

Department of Community Health and Nutrition

Public Health and Food, Nutrition and Dietetics

Location: Gunter 2280; Telephone: 970-351-2755

Larry R. Harrison, Chair

Community Health

Professors — Bryan E.M. Cooke, Ph.D., M.P.H., CHES; William G. Parkos, Ph.D.

Associate professor — 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:

1. Bachelor of Science: Community Health Education
2. Bachelor of Science: Dietetics
3. Bachelor of Science: Nutrition Education
4. Bachelor of Science: Community Health Education
5. Bachelor of Science: Dietetics
6. Bachelor of Science: Nutrition Education
7. Master of Public Health
8. Master of Science in Community Health Education
9. Master of Science in Dietetics
10. Master of Science in Nutrition Education

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 students have opportunities through practicums 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

Administered by the Department of Community Health and Nutrition

Location: Gunter 2280; Telephone: 970-351-2755

Larry R. Harrison, Chair; Sherrie Frye, Program Coordinator

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, professional 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.

Department of Human Services

Gerontology, Human Rehabilitative Services and Recreation

Location: Gunter 1250; Telephone: 970-351-2403

Dennis A. Gay, Chair

Gerontology

Administered by the Department of Human Services

Karen A. Roberto, Coordinator

Professor — Priscilla J. Himboko, Ph.D.; Karen Roberto, Ph.D.

Associate professor — Robbyn R. Wacker, Ph.D.

The Gerontology program provides the student with the opportunity to study the aging human 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

Administered by the Department of Human Services

Dennis A. Gay, Chair


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 practicums 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:

1. Region VIII Rehabilitation Continuing Education Program
2. Rehabilitative Services Clinic — Roger Grimm, M.A., Director, Vocational Evaluator

Recreation

Administered by the Department of Human Services

R. R. Van Dinter, Coordinator

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 1,500 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 held 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 subscribing 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**

Kinesiology and Physical Education

Location: Butler-Hancock Hall 223; Telephone: 970-351-1712

David Stotlar, Director

**Kinesiology**

Administered by the School of Kinesiology and Physical Education

Location: Gunter 2590; Telephone: 970-351-1712

**Professors** — Catherine G. Ratzin Jackson, Ph.D.

Associate professors — Robert J. Brustad, Ph.D.; Steven P. Hooker, Ph.D.; Daniel Libera, M.A.; Carole M. Schneider, Ph.D.

Assistant professors — Shannon Courtney, M.A.; Gary D. Helse, Ph.D.

- 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**

Administered by the School of Kinesiology and Physical Education

Location: Butler-Hancock Hall 223; Telephone: 970-351-2565


Associate professors — Juan Miguel Fernandez-Balboa, Ed.D.; Dianna P. Gray, Ph.D.

Assistant professors — Elizabeth Bate, Ph.D.; Scott Hall, Ed.D.; Christy Howard, M.S.; J. Kevin Taylor, Ph.D.; Marcia Walker, 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.
Bachelor of Arts in Communication Disorders: Audiology

Program Requirements
- Required program/major credits: 43 semester hours
- Elective credits: 37 semester hours
- General Education credits: 40 semester hours
- Total credits required for this degree: 120 semester hours

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
- CMD 160 Introduction to Human Communication and its Disorders: 3
- CMD 260 Introduction to Phonetics: 2
- CMD 265 Fundamentals of Physiological and Biological Acoustics: 2
- CMD 267 Anatomy and Physiology of the Speech and Hearing Mechanism: 3
- CMD 360 Articulation and Voice Disorders: 3
- CMD 365 Language Disorders in Children I: 3
- CMD 370 Basic Audiology: 3
- CMD 386 Basic Clinical Strategies in Speech-Language Pathology/Audiology: 2
- CMD 474 Clinical Practicum in Audiology: 1
- CMD 478 Aural Rehabilitation and Amplification: 3
- CMD 483 Entry/Primary Speech-Language Pathology Practicum: 2
- CMD 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: CMD 370, CMD 474, and CMD 483.

Bachelor of Arts in Communication Disorders: Speech-Language Pathology

Program Requirements
- Required program/major credits: 44 semester hours
- Elective credits: 35 semester hours
- General Education credits: 40 semester hours
- Total credits required for this degree: 120 semester hours

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
- CMD 160 Introduction to Human Communication and its Disorders: 3
- CMD 260 Introduction to Phonetics: 2
- CMD 265 Fundamentals of Physiological and Biological Acoustics: 2
- CMD 266 Normal Speech and Language Development: 3
- CMD 360 Articulation and Voice Disorders: 3
- CMD 365 Language Disorders in Children I: 3
- CMD 370 Basic Audiology: 3
- CMD 386 Basic Clinical Strategies in Speech-Language Pathology/Audiology: 2
- CMD 431 Organically-Based Communication Disorders: 3
- CMD 467 Diagnostic Methods and Observation: 3
- CMD 474 Clinical Practicum in Audiology: 1
- CMD 478 Aural Rehabilitation and Amplification: 3
- CMD 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

Note: Laboratory material fees are assessed for the following credits: CMD 370, CMD 474, and CMD 483.
Master of Arts in Communication Disorders: Audiology

Certifying Master's Degree

Program Requirements
Complete the required credits specified here ........................................53-56

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.

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 ..............3
or its equivalent)

Notes
In addition to the required courses shown above CMDS 675, Practicum in School Audiology, is required for licensure as an Educational Audiolist 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.

Master of Arts in Communication Disorders: Audiology

Non-Certifying Degree

Program Requirements
Complete the required credits specified here ............................................31

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 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 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 ..............3
or its equivalent)

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 Master's Degree

Program Requirements
Complete the required credits specified here .......................64-70

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 (NESA) 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/c 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 Neuropsychology 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 .........................................................5
CMDS 572 Speech and Language Services in the Public Schools ................1
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 externships, 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 here ..................................................32

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 Research Writing .................................................1
CMDS 555 Neuroanatomy and Neuropsychology 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 .........................................................5
CMDS 583 Entry/Primary Speech-Language Pathology Practicum ..................2
CMDS 585 Advanced Graduate Practicum in Speech-Language Pathology ..........4
CMDS 602 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
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
FHD 210 Medical Terminology ....................................................... 2
FHD 250 Principles of Nutrition .................................................... 3
FHD 252 Nutrition in the Life Cycle .............................................. 3
FHD 342 Food Science ................................................................. 4
FHD 410 Professional Development Seminar ............................. 3
FHD 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
Sciences — 13 semester hours
BIO 351 Microbiology ................................................................... 4
CHEM 109 Fundamentals of Chemistry II ................................. 5
ZOO 245 Introduction to Human Anatomy-Physiology .............. 4
Business — 9 semester hours
BA 101 Business Computing ...................................................... 3
BAAC 220 Principles of Accounting I ......................................... 3
BAMQ 350 Management of Organizations ................................... 3

General Education, Specific Credits — 21 semester hours
Skills — Intermediate Composition
SCI 291 Scientific Writing ......................................................... 3
Skills — Mathematics
STAT 250 Statistics for Health Sciences ...................................... 3
Category 5 — Social Sciences
ECON 105 Introduction to Economics Microeconomics ............. 3
PSY 120 Principles of Psychology ............................................... 4
Category 6 — Science and Mathematics
CHEM 108 Fundamentals of Chemistry I .................................... 5
Category 7c — International Cultures
ART 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 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 ..............................5
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

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 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 ..............................5
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 694 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 .......................................................4

Category 2 — Mathematics
STAT 250 Statistics for Health Sciences ...........................................3

Category 6 — Science and Mathematics
ZOO 115 Human Biology (L) ..............................................................3

The following course requires a laboratory materials fee: HRS 694.
### Master of Arts in Gerontology

#### Emphasis General Studies

**Program Requirements**

Complete the required credits specified here ...........................................46

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 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**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GERO 560 Community Resources for the Elderly</td>
<td>4</td>
</tr>
<tr>
<td>GERO 565 Management Concepts In Aging Services</td>
<td>3</td>
</tr>
<tr>
<td>GERO 625 Psychosocial Aspects of Aging</td>
<td>3</td>
</tr>
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<tr>
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<td>3</td>
</tr>
<tr>
<td>GERO 640 Health Aspects of Gerontology</td>
<td>3</td>
</tr>
<tr>
<td>GERO 692 Graduate Internship In Gerontology</td>
<td>12</td>
</tr>
<tr>
<td>HRS 610 Interpretation and Evaluation of Behavioral Research</td>
<td>3</td>
</tr>
<tr>
<td>BIO 415 or 515 Biology of Aging</td>
<td>2</td>
</tr>
<tr>
<td>GERO 655 Program Planning and Evaluation in Gerontology</td>
<td>3</td>
</tr>
<tr>
<td>NURS 505 Nursing Research</td>
<td>3</td>
</tr>
<tr>
<td>Advisor-approved courses</td>
<td>7</td>
</tr>
</tbody>
</table>

**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.

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### Master of Arts in Gerontology

#### Emphasis in Management/Administration

**Program Requirements**

Complete the required credits specified here ...........................................49

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 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 — 49 semester hours**

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<tr>
<th>Course</th>
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<tr>
<td>GERO 560 Community Resources for the Elderly</td>
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<tr>
<td>GERO 630 Intervention Strategies with the Elderly</td>
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</tr>
<tr>
<td>GERO 635 Social Policies of Aging</td>
<td>3</td>
</tr>
<tr>
<td>GERO 640 Health Aspects of Gerontology</td>
<td>3</td>
</tr>
<tr>
<td>GERO 655 Program Planning and Evaluation in Gerontology</td>
<td>3</td>
</tr>
<tr>
<td>GERO 660 Financial Management and Budgeting for Aging Programs</td>
<td>3</td>
</tr>
<tr>
<td>GERO 665 Grant Development and Administration</td>
<td>3</td>
</tr>
<tr>
<td>GERO 692 Graduate Internship In Gerontology</td>
<td>12</td>
</tr>
<tr>
<td>HRS 610 Interpretation and Evaluation of Behavioral Research</td>
<td>3</td>
</tr>
<tr>
<td>Advisor-approved courses</td>
<td>7</td>
</tr>
</tbody>
</table>

**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 ................................................. 9
- Required elective credits .......................................................... 18
- General Education credits:
  - Specified .............................................................................. 18
  - Elective credits .................................................................... 22
- 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 — 49 semester hours
- BA 101 Business Computing .......................................................... 3
- CH 209 Foundations of Health Promotion/Education ...................... 3
- CH 293 Sophomore Practicum in Community Health ...................... 3
- CH 218 Health, Issues and Policy .................................................. 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.

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.

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 .................................... 3
- CH 620 Epidemiology ................................................................ 3
- CH 625 Public Health Administration and Policy ...................... 3
- CH 662 Graduate Internship in Health Education ....................... 3
- SRM 602 Statistical Methods I .................................................... 3
- SRM 603 Statistical Methods II ................................................... 3
- SRM 610 Interpretation and Evaluation of Behavioral Research ...... 3
- or SRM 660 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**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HRS 290</td>
<td>Introduction to Human Rehabilitative Services</td>
<td>3</td>
</tr>
<tr>
<td>HRS 380</td>
<td>Rehabilitation Principles and Case Management</td>
<td>3</td>
</tr>
<tr>
<td>HRS 385</td>
<td>Working with Families in Rehabilitation</td>
<td>3</td>
</tr>
<tr>
<td>HRS 394</td>
<td>Practicum in Human Services</td>
<td>3</td>
</tr>
<tr>
<td>HRS 470</td>
<td>Client Assessment</td>
<td>3</td>
</tr>
<tr>
<td>HRS 480</td>
<td>Human Service Helping Skills</td>
<td>3</td>
</tr>
<tr>
<td>HRS 485</td>
<td>Medical and Psychological Aspects of Disability for Human Services Workers</td>
<td>3</td>
</tr>
<tr>
<td>HRS 490</td>
<td>Career Planning and Placement</td>
<td>3</td>
</tr>
<tr>
<td>HRS 492</td>
<td>Clinical Internship</td>
<td>12</td>
</tr>
</tbody>
</table>

**General Education Credits**

- Required 12 semester hours
- Elective 3 semester hours
- Total 15 semester hours

**Program Requirements**

- **Required Core Credits — 39 semester hours**
- **Elective Credits — 23 semester hours**
- **Total Credits Required for This Degree — 120 semester hours**

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**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
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<td>Introduction to Human Rehabilitative Services</td>
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<td>HRS 485</td>
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<tr>
<td>HRS 490</td>
<td>Career Planning and Placement</td>
<td>3</td>
</tr>
<tr>
<td>HRS 492</td>
<td>Clinical Internship</td>
<td>12</td>
</tr>
</tbody>
</table>

**Elective Credits — 12 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 |

**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 |
- **Category 7**
  - GER 205 Introduction to Gerontology | 3 |

**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**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HRS 580</td>
<td>Rehabilitation Principles and Case Management</td>
<td>3</td>
</tr>
<tr>
<td>HRS 581</td>
<td>Vocational Evaluation and Assessment of People with Disabilities</td>
<td>3</td>
</tr>
<tr>
<td>HRS 585</td>
<td>Occupational Information and Job Placement</td>
<td>3</td>
</tr>
<tr>
<td>HRS 605</td>
<td>Medical Aspects of Disability</td>
<td>3</td>
</tr>
<tr>
<td>HRS 606</td>
<td>Psychosocial Aspects of Disability</td>
<td>3</td>
</tr>
<tr>
<td>HRS 610</td>
<td>Interpretation and Evaluation of Behavioral Research</td>
<td>3</td>
</tr>
<tr>
<td>HRS 630</td>
<td>Human Services Counseling Theories and Techniques</td>
<td>3</td>
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<tr>
<td>HRS 631</td>
<td>Group Processes in Rehabilitation</td>
<td>3</td>
</tr>
<tr>
<td>HRS 635</td>
<td>Cultural and Family Concerns in Rehabilitation</td>
<td>3</td>
</tr>
</tbody>
</table>

**Elective Credits — 12 semester hours**

- HRS 692 Supervised Clinical Practice in Rehabilitation Counseling | 15 |
- HRS 694 Practicum in Human Services Counseling | 6 |

**Note**

- Note that required courses may be waived only by the department chair on written recommendation of the student's advisor.

**Laboratory Materials Fee**

- 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 here ...........................................60

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 ........................................5
HRS 581 Vocational Evaluation and Assessment of People with Disabilities ..................5
HRS 585 Occupational Information and Job Placement ..............................................5
HRS 605 Medical Aspects of Disability .................................................................5

Doctor of Philosophy in Human Rehabilitation

Program Requirements
Complete the required credits specified here ...........................................64

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 Credits — 41 semester hours
SRM 700 Advanced Research Methods ..............................................................3
HRS 755 Supervised Practicum in College Teaching ...........................................5
HRS 757 Advanced Practicum in Rehabilitation Administration ..........................5
HRS 758 Advanced Practicum in Rehabilitation Research ......................................5
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 .................................................................34
 Required supporting credits ..................................................................32-33
 General Education credits ..................................................................40
 Elective credits ......................................................................................10-11
 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 — 34 semester hours
KINE 220 Anatomical Kinesiology ............................................................3
KINE 221 Mechanical Kinesiology ............................................................3
KINE 222 Physiological Kinesiology .........................................................3
KINE 223 Neuromotor Kinesiology ..........................................................3
KINE 380 Prevention and Care of Sports injuries ....................................2
KINE 381 Practical Experiences in the Care of Athletic Injuries ..............12

Note that this course is divided into four 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
KINE 485 Mechanism and Evaluation of Sports Injuries .........................3
KINE 486 Clinical Methods in Sports Injury Rehabilitation ......................3
KINE 487 Therapeutic Modalities ............................................................2

Required Supporting Credits — 32-33 semester hours
CH 205 Issues in Health ........................................................................3
CHEM 108 Fundamentals of Chemistry I .................................................5

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 Mechanical Kinesiology ............................................................3
KINE 222 Physiological Kinesiology .........................................................3
KINE 223 Neuromotor Kinesiology ..........................................................3
KINE 311 Pharmacology for Exercise Professionals ..............................1
KINE 380 Prevention and Care of Sports Injuries ....................................2
KINE 400Fitness Management .................................................................3
KINE 402 Human Performance Assessment .........................................3
KINE 404 Exercise Nutrition and Body Composition ............................3

CHEM 109 Fundamentals of Chemistry II .................................................5
KINE 390 Cardiopulmonary Resuscitation Certification ..........................1
KINE 404 Exercise Nutrition and Body Composition ............................3
KINE 436 Social Influences on Sport and Exercise Behavior ..................3
PE 235 Advanced First Aid and CPR .....................................................2
ZOO 115 Human Biology ......................................................................3
ZOO 341 Human Anatomy ..................................................................3
ZOO 350 Human Physiology .................................................................4

Students must take one of the following two courses:
EPSY 345 Educational Psychology .......................................................3
PSY 120 Principles of Psychology .........................................................4

Notes
Clinical experience of 1500 clock-hours (minimum 5 semesters) under supervision of Certified Athletic Trainer at UNC is required. CH 205 can be used for the General Education requirement in Category 5.

CHEM 108 or ZOO 115 can be used for the General Education requirement in Category 6.

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.

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 admitted to the clinical program is limited. Students must make a separate application to the Clinical Athletic Training Program. Admission is based on available openings, grades in related courses (minimum 2.8 GPA), experience and interview. Additional information is available from the program coordinator.
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 .................................... 18
Required pre-professional credits .................................................. 8
Required PTEP core credits ............................................................ 26
General Education credits:
Specified ................................................................................. 4
Remaining ................................................................................. 82
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 & 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 .......... 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 229 Adventure Activities and Motor Learning ......................... 2
PE 232 Pedagogy of Outdoor Physical Education ......................... 2
PE 233 Advanced First Aid and CPR ............................................. 2
PE 461 Administration and Law .................................................... 2
KIME 380 Prevention and Care of Sports Injuries ......................... 2
Take one of the following two courses:
PE 211 Weight Training and Anatomy ........................................... 2
PE 213 Sports and Mechanics ...................................................... 2
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 ....... 2
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 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
EDPS 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 — 8 semester hours
Category 5 — Social Science .................................................... 3
PSY 250 Human Growth and Development .................................. 4

Notes
Outdoor physical education majors must achieve basic competency in the following two of the four required K-6 Outdoor A&M 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 pre-professional credits .................................................. 15
Required Pre-Professional Electives ................................................. 3
Required PTEP core credits ............................................................. 26
General Education credits:
Specified ........................................................................................... 8
Remainder ............................................................................................ 32
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 360 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
Take one of the following analysis and teaching courses:
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 ........................................................................... 31
Required elective credits ......................................................................... 8
General Education credits:
7 credits already included in requirements above .............................. 33
Remainder ............................................................................................... 32
Elective credits ....................................................................................... 42
Prerequisites already 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 — 31 semester hours
KIND 220 Anatomical Kinesiology ........................................................ 3
KINE 221 Mechanical Kinesiology .......................................................... 3
KINE 222 Physiological Kinesiology ......................................................... 3
KINE 223 Neuromotor Kinesiology .......................................................... 3
KINE 333 Psychological Analysis of Sports, Exercise and Physical Activity .................................................. 3
KINE 404 Exercise Nutrition and Body Composition .................................. 3
KINE 446 Social Influences on Sport and Exercise Behavior ...................... 3
PSY 120 Principles of Psychology .......................................................... 4
PE 228 Analysis and Teaching of Wrestling .............................................. 2
PE 250 Analysis and Teaching of Self Defense ...................................... 2
Students must complete 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

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 Electives — 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 .............................................. 2
EDSE 444 Supervised Teaching .............................................................. 15

General Education, Specified — 8 semester hours
Category 5 — Social Science
PSY 120 Principles of Psychology ........................................................ 4
PSY 250 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).

SOCI 100 Principles of Sociology .......................................................... 3
PSY 265 Social Psychology ................................................................. 3
SOCI 332 Social Psychology ............................................................... 3

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 331 Classical Social Theory ......................................................... 3
SOC 352 Contemporary Social Theory ................................................. 3
SOC 361 Social Research ................................................................. 3
SOC 362 Social Statistics ................................................................. 3

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.
The Nursing Program

The Nursing Program is designed to prepare students for professional practice in nursing. Clinical practice courses are taken concurrently with nursing theory courses and are guided by Nursing faculty. 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.

Students enrolled in the preclinical major will receive academic advisement from members of the School of Nursing faculty.

Clinical Major. The designation of nursing major does not assure admission to the clinical nursing program. A separate application and acceptance process during the sophomore year is required for students to enter clinical nursing courses in the junior year. Forms for applying to the clinical program and information about admission 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.
- Results of the health assessment required for admission to the clinical nursing program (see Health Policies for Nursing Majors).

The number of students admitted to the clinical 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 advising/professionals. 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 length of the program for the registered nurse student depends upon the amount of transfer credit, successful completion of advanced standing credit 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.

The Nursing 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 public health 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 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.

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 does not make 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, Pertussis, Tetanus and Rubella/Mumps) and have on record a completed physical examination. Hepatitis B vaccination is required. Thereafter, an annual PPD is required.

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. 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.

<table>
<thead>
<tr>
<th>Item</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Uniforms</td>
<td>$75</td>
</tr>
<tr>
<td>Lab coat</td>
<td>$25</td>
</tr>
<tr>
<td>Chest x-ray</td>
<td>$20</td>
</tr>
<tr>
<td>White shoes</td>
<td>$30</td>
</tr>
<tr>
<td>Penlight</td>
<td>$5</td>
</tr>
<tr>
<td>Scissors</td>
<td>$4</td>
</tr>
<tr>
<td>Rubella Titer</td>
<td>$8</td>
</tr>
<tr>
<td>Hepatitis B Vaccine</td>
<td>$150</td>
</tr>
<tr>
<td>Watch with second hand</td>
<td>$30</td>
</tr>
<tr>
<td>Nursing Achievement Exams</td>
<td>$30</td>
</tr>
<tr>
<td>Stethoscope</td>
<td>$25</td>
</tr>
<tr>
<td>Travel</td>
<td>Cost varies</td>
</tr>
</tbody>
</table>

Senior Year Expenses: Required uniforms are ordered the semester before clinical assignment. Costs listed here are approximate and subject to change.

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 practica.
Bachelor of Science in Nursing

Program Requirements

Required program/major credits .............................................. 65.5
Required supporting credits .............................................................. 36
Required elective credits ................................................................. 1-3

General Education credits:
Specified ..................................................................................... 18
Remaining ................................................................................. 22

Total credits required for this degree ........................................... 124.5-126.5

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 and groups 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 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 — 65.5 semester hours

NURS 300 Conceptual Foundations .................................................. 3
NURS 301 Physical Assessment Theory ............................................... 2
NURS 302 Physical Assessment Laboratory ......................................... 0.5
NURS 303 Basic Nursing Practice ........................................................ 4
NURS 304 Childbearing Families ........................................................ 3
NURS 306 Nursing Care of Children ..................................................... 3
NURS 309 Nursing Care of the Adult I .................................................. 3
NURS 315 Clinical Research and Theory ............................................. 3
NURS 329 Nursing Care of the Adult II ............................................... 3

Master of Science in Nursing

Emphasis in Education

Program Requirements

Complete the required credits specified here ..................................... 38-40

The Master of Science in Nursing prepares post baccalaureate nursing students as nurse educators for either academic or inservice settings with clinical emphasis in care 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.

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 340 Childbearing Families Practicum ...................................... 3
NURS 360 Practicum in Care of Children .......................................... 3
NURS 390 Adult Nursing Practicum .................................................. 3
NURS 402 Community Nursing Theory ............................................. 3
NURS 407 Mental Health Nursing ..................................................... 3
NURS 415 Professional Perspectives ............................................... 3
NURS 420 Community Nursing Practicum ....................................... 3
NURS 430 Nursing Management ...................................................... 2
NURS 440 Complex Nursing ............................................................ 2
NURS 450 Professional Nursing Roles ............................................. 3
NURS 470 Mental Health Practicum .................................................. 4

Required Supporting Credits — 36 semester hours

BIO 351 Microbiology ..................................................................... 4
CHEM 106 Fundamentals of Chemistry ............................................ 5
ENG 125 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 Nursing Electives — 1-3

Required Credits for Registered Nurses only — 8 semester hours

NURS 305 Conceptual Foundations for RNs ..................................... 4
(replaces NURS 300)
NURS 328 Physical Assessment for RNs ......................................... 4
(replaces NURS 301 and 302)

Clinical — 11 semester hours

NURS 602 Concepts in Chronic Illness ............................................. 4
NURS 604 Care of Chronically Ill Adult and Child ............................ 4
NURS 690 Advanced Clinical Roles ............................................... 3

Education — 13 semester hours

EPSY 540 Theories and Principles of Learning .................................. 3
NURS 630 Teaching Strategies ........................................................ 3
NURS 690 Nursing Education Seminar .......................................... 4

Research — 5-7 semester hours

NURS 699 Thesis ............................................................................. 6
or
NURS 691 Applied Research ............................................................ 2
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 here ..................43-47

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.

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 507 Research .................................................................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 here .................. 26-32
Complete the program electives ................................. 4

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 ................. 5
PE 641 Instructional Strategies for Elementary School Physical Education ................................................................. 5
PE 680 Perspectives in Physical Education ..................... 3
PE 692 Graduate Internship in Physical Education .............. 2-8

Students must select one of the following courses:
PE 614 Analysis of Teaching Physical Education ............... 3
PE 640 Curriculum in Physical Education ....................... 3
PE 688 Legal Aspects .................................................... 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.

Master of Arts in Physical Education
Emphasis in Coaching

Program Requirements
Complete the required credits specified here .................. 20
Complete program electives ........................................... 11

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 570 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.

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 625 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 here ...................................... 21-24
Complete program electives .............................................................. 9-12

Kinesiology is the integrated study of human movement. Within this discipline concentrations are available in Mechanical, Physiological and Social Psychological Kinesiology.

Concentration in Mechanical Kinesiology — 24 semester hours

Required Credits

CPE 602 Introduction to Research in Physical Education and Kinesiology ....................... 3
CPE 612 Measurement of Human Performance ............................................................... 3
KINE 625 Laboratory Techniques in Kinesiological Research ......................................... 3

Concentration area requirements

KINE 620 Advanced Anatomical Kinesiology ................................................................. 3
KINE 621 Advanced Mechanical Kinesiology ................................................................. 3
KINE 623 Advanced Neuromotor Kinesiology ................................................................. 3
KINE 629 Concepts in Kinesiology .................................................................................. 3

Students are required to take one of the following courses:

KINE 624 Advanced Developmental Kinesiology ............................................................. 3
KINE 626 Advanced Physiological Kinesiology ............................................................... 3
KINE 670 Advanced Sociological Kinesiology ................................................................. 3

Elective Credits — 9 semester hours

Elective credits must be selected with the approval of the program advisor.

Concentration in Physiological Kinesiology (Exercise Physiology) — 24 semester hours

Required Credits

CPE 602 Introduction to Research in Physical Education and Kinesiology ....................... 3
CPE 612 Measurement of Human Performance ............................................................... 3
KINE 625 Laboratory Techniques in Kinesiological Research ......................................... 3

Concentration area requirements

KINE 620 Advanced Anatomical Kinesiology ................................................................. 3
KINE 626 Advanced Physiological Kinesiology I .............................................................. 3
KINE 627 Advanced Physiological Kinesiology II ........................................................... 3
KINE 629 Concepts in Kinesiology .................................................................................. 3

Physiology (students are required to take one of the following courses)

KINE 621 Advanced Mechanical Kinesiology ................................................................. 3
KINE 623 Advanced Neuromotor Kinesiology ................................................................. 3
KINE 624 Advanced Developmental Kinesiology ............................................................. 3
KINE 670 Advanced Sociological Kinesiology ................................................................. 3

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 Physiology .................................................................................. 4
CCHM 581 General Biochemistry I ................................................................. 4
CCHM 582 General Biochemistry II ................................................................. 4
CCHM 586 Biochemistry Techniques ................................................................. 3
ZOO 551 Mammalian Physiology I ........................................................................... 4
ZOO 552 Mammalian Physiology II ........................................................................... 4

Preventative and Rehabilitative Exercise

KINE 500 Fitness Management ..................................................................................... 3
KINE 502 Human Performance Assessment ................................................................... 3
KINE 504 Exercise Nutrition and Body Composition ................................................... 3
KINE 506 Exercise Programming .................................................................................. 3
KINE 510 Principles of Electrocardiography ................................................................. 3
KINE 692 Graduate Internship in Kinesiology ............................................................... 3

Nutrition in Sport and Exercise

CHEM 581 General Biochemistry I ............................................................................. 4
CHEM 582 General Biochemistry II ............................................................................. 4
FD 555 Nutrition and Physical Fitness ........................................................................... 3

Concentration in Social Psychological Kinesiology (Social Psychology of Sport and Physical Activity) — 21 semester hours

Required Credits

CPE 602 Introduction to Research in Physical Education and Kinesiology ....................... 3
CPE 612 Measurement of Human Performance ............................................................... 3
KINE 625 Laboratory Techniques in Kinesiological Research ......................................... 3

Concentration area requirements

KINE 635 Sport and Exercise Psychology ...................................................................... 3
KINE 629 Concepts in Kinesiology ................................................................................ 3
KINE 670 Advanced Sociological Kinesiology ................................................................. 3

Students are required to take 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

Elective Credits — 12 semester hours

Elective courses in a concentration area must have the approval of the program advisor.

CPE 615 Qualitative Research in Physical Education, Recreation, and Kinesiology .............. 3
CPE 660 Perspectives in Physical Education and Sport .................................................... 3
PSY 550 Cognitive Development .................................................................................... 3
PSY 627 Psychometrics ................................................................................................. 3
PSY 643 Theories of Motivation ..................................................................................... 3
PSY 664 Advanced Social Psychology ............................................................................ 3
SOC 551 Classical Social Theory .................................................................................... 3
SOC 561 Social Research ................................................................................................. 3
SOC 563 Qualitative Research ......................................................................................... 3
SOC 632 Seminar in Social Psychology .......................................................................... 3
SOC 650 Sociological Theory ......................................................................................... 3
SOC 660 Advanced Social Research ............................................................................... 3
SRM 603 Multivariate Analysis I .................................................................................... 3
SRM 609 Sampling Methods I ......................................................................................... 3

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 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 ................................................................. 5

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 — 5 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 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 650 Sport Personnel Management ............................................................... 3
PE 675 Management of Sport 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 School’s Graduate Coordinator for additional information.
Master of Arts in Physical Education
Emphasis in Sport Administration

Program Requirements
Complete the required credits specified here .............................................21
Complete program electives ...........................................................................9

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 Management .................................................................5
PE 560 Issues and Ethics in Sport Management .....................................5
PE 576 Sport Promotion and Marketing .............................................5
PE 602 Introduction to Research in Physical Education and Kinesiology ...5
PE 675 Management of Sport Facilities and Equipment ......................5
PE 680 Perspectives in Physical Education and Sport .......................5
PE 688 Legal Aspects ............................................................................3

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 Contemporary Economic Problems ........................................3
ELPS 610 School Finance and Budgeting ............................................3
ELPS 656 Decision Theory .................................................................3

Doctor of Education in Physical Education
Emphasis in Kinesiology

Program Requirements
Complete the required credits specified here .............................................28
Complete concentration area credits .........................................................36

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 Mechanical
Kinesiology, 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 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 670 Advanced Sociological Kinesiology .....................................3
ELPS 661 Law and Higher Education ..................................................3
ELPS 652 Personnel Management in Higher Education .....................3
ELPS 659 Collective Bargaining and Conflict Management .............3
KIME 670 Advanced Sociological 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
REC 568 Programs in Recreation ......................................................3
REC 678 Organization and Operation of Park and Recreation Services ....3

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
SR 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 part of their
up program of study in the following kinesiology areas.
KINE 620 Advanced Anatomical Kinesiology
KINE 621 Advanced Mechanical Kinesiology
KINE 623 Advanced Neuromotor Kinesiology
KINE 624 Advanced Developmental Kinesiology
KINE 626 Advanced Physiological Kinesiology

Research Competencies
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 Credits — 28 semester hours
SRM 602 Statistical Methods I ..............................................................3
SRM 603 Statistical Methods II (or other*) ..........................................3
KINE 625 Laboratory Techniques in Kinesiological Research ..............3
KINE 690 Problems of Human Movement .........................................3
KINE 700 Doctoral Proposal Research ................................................4
KINE 799 Doctoral Dissertation ..........................................................12

*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 here ..........................................................50
Complete program electives .......................................................... 15

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
- KINE 621 Advanced Mechanical Kinesiology
- KINE 623 Advanced Neuromotor Kinesiology
- KINE 624 Advanced Developmental Kinesiology
- KINE 626 Advanced Physiological Kinesiology

Doctor of Education in Physical Education

Emphasis in Sport Administration

Program Requirements

Complete the required credits specified here ......................................................51
Complete program electives .......................................................... 13

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 — 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.

Doctor of Education in Physical Education

Emphasis in Sport Administration

Program Requirements

Complete the required credits specified here ......................................................51
Complete program electives .......................................................... 13

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
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 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 642 Instructional Strategies for Secondary School Physical Education ......3
PE 691 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
Bachelors of Science in Recreation

Program Requirements

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<th>Required program/major credits</th>
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<tr>
<td>Elective credits</td>
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<td>General education credits</td>
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<td>Specified</td>
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<td>Remaining</td>
<td>27</td>
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<tr>
<td>Total credits required for this degree</td>
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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

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<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<td>REC 203</td>
<td>Introduction to Recreation and Leisure</td>
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<td>REC 204</td>
<td>Introduction to Therapeutic Recreation</td>
<td>3</td>
</tr>
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<td>REC 264</td>
<td>Social and Cultural Recreation Skills</td>
<td>3</td>
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<td>REC 269</td>
<td>Recreation Management Skills</td>
<td>3</td>
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<td>REC 394</td>
<td>Practicum in Recreation and Leisure Services</td>
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<tr>
<td>REC 451</td>
<td>Administration of Leisure Delivery Systems</td>
<td>3</td>
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<td>REC 468</td>
<td>Programs in Recreation</td>
<td>3</td>
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<td>REC 472</td>
<td>Recreation Leadership</td>
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<td>REC 492</td>
<td>Internship in Recreation</td>
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<td>REC 495</td>
<td>Senior Seminar</td>
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Note that this is a HPA/AAR Accredited Program.

General Education, Specified Credits — 13 semester hours

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<td>Category 2 — Mathematics</td>
<td>STAT 150</td>
<td>Introduction to Statistical Analysis</td>
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</tr>
<tr>
<td></td>
<td>STAT 250</td>
<td>Statistics for Health Sciences</td>
<td>3</td>
</tr>
<tr>
<td>Category 5 — Social Sciences</td>
<td>PSY 230</td>
<td>Human Growth and Development</td>
<td>4</td>
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<td>ECOM 103</td>
<td>Introduction to Economics: Macroeconomics</td>
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<tr>
<td></td>
<td>ECOM 105</td>
<td>Introduction to Economics: Microeconomics</td>
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</tbody>
</table>

Category 4 — Arts and Letters

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST 100</td>
<td>Survey of American History from its Beginning</td>
<td>3</td>
</tr>
<tr>
<td>HIST 101</td>
<td>Survey of American History from 1877</td>
<td>3</td>
</tr>
</tbody>
</table>

Therapeutic Recreation Option — 19-21 semester hours

Students who elect to complete the Therapeutic Recreation 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 Recreation major:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>REC 415</td>
<td>Clinical Aspects of Therapeutic Recreation</td>
<td>3</td>
</tr>
<tr>
<td>REC 416</td>
<td>Procedures and Techniques of Therapeutic Recreation</td>
<td>3</td>
</tr>
<tr>
<td>REC 421</td>
<td>Contemporary Problems in Therapeutic Recreation Service</td>
<td>3</td>
</tr>
<tr>
<td>REC 426</td>
<td>Seminar in Recreation Program Development In Therapeutic Recreation</td>
<td>3</td>
</tr>
<tr>
<td>PSY 355</td>
<td>Abnormal Psychology</td>
<td>3</td>
</tr>
<tr>
<td>ZOO 245</td>
<td>Introduction to Human Anatomy and Physiology</td>
<td>4</td>
</tr>
<tr>
<td>KINE 220</td>
<td>Anatomical Kinesiology</td>
<td>3</td>
</tr>
<tr>
<td>KINE 222</td>
<td>Physiological Kinesiology</td>
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</table>

Master of Arts in Recreation

Program Requirements

<table>
<thead>
<tr>
<th>Required program/major credits</th>
<th>40</th>
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</thead>
<tbody>
<tr>
<td>Elective credits</td>
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<tr>
<td>General education credits</td>
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<td>Specified</td>
<td>13</td>
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<tr>
<td>Total credits required for this degree</td>
<td>120</td>
</tr>
</tbody>
</table>

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 experience 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.

<table>
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<td>KINE 222</td>
<td>Physiological Kinesiology</td>
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</tr>
</tbody>
</table>
Gerontology Graduate Certificate Program (Non-Degree)

Program Requirements
Complete the required credits specified here .................................................. 22

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 ................................ .......... 5
GERO 635 Social Policies of Aging ................................................................. 3
GERO 640 Health Aspects of Gerontology .................................................. 3
CH 694 Practicum in Gerontology ................................................................. 3
Advisor approved elective in Communication Disorders ............................. 3
Total credits required for this minor ............................................................ 19

Total credits required for this minor ..................................................... 19

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 ................................ .......... 5
GERO 635 Social Policies of Aging ................................................................. 3
GERO 640 Health Aspects of Gerontology .................................................. 3
CH 694 Practicum in Gerontology ................................................................. 3
Advisor approved elective in Communication Disorders ............................. 3
Total credits required for this minor ............................................................ 19

Minors

Minor in Communication Disorders
Total credits required for this minor ......................................................... 19

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 Gerontology
Required credits ......................................................................................... 18
Required elective credits ............................................................................. 6
Total credits required for this minor .......................................................... 24

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 351 Maturity and Aging ......................................................................... 3
SOC 351 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 365 Special Topics ............................................................................. 3
REC 225 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
Required credits ......................................................................................... 14
Required elective credits ............................................................................. 6
Total credits required for this minor .......................................................... 20

Required Credits — 14 semester hours
CH 268 Fundamentals of Chemistry I ............................................................ 5

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

College of Health and Human Sciences – Gerontology Graduate Certificate and Minors
Minor in Physical Education — Coaching
Total credits required for this minor .............................................. 18

**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 355 Sports Pedagogy ....................................................................................... 2
PE 461 Administration and Law ......................................................................... 2

Take two of the following coaching and officiating courses — 4 semester hours

PE 312 Coaching and Officiating Baseball ............................................................. 2
PE 315 Coaching and Officiating Basketball .......................................................... 2
PE 314 Coaching and Officiating Football ............................................................. 2
PE 316 Coaching and Officiating Gymnastics ........................................................ 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
Total credits required for this minor ................................................................. 21-22

**Required Credits — 21-22 semester hours**

PE 210 Movement Fundamentals and Motor Development .................................. 3
PE 211 Weight Training and Anatomy .................................................................. 3
PE 212 Fitness and Conditioning and Physiology ................................................. 3

*Students are required to take two of the following individual sport activity courses — 4 or 5 semester hours*

PE 116 Water Safety Instructor .............................................................................. 2
PE 208 Analysis and Teaching of Tumbling and Gymnastics ............................... 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 ...................................................... 3

*Students are required to take two of the following team sport activity courses — 4 semester hours*

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
Total credits required for this minor ................................................................. 22

**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 2.5. Grades of "D" and "F" in Recreation courses must be repeated.

Minor in Rehabilitative Services
Total credits required for this minor ................................................................. 18

**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

*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
Total credits required for this minor ................................................................. 19

**Required credits** .................................................................................................. 19

**Required elective credits** .................................................................................... 6

**Total credits required for this minor** ................................................................. 25

**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
Musical Theatre
Theatre Arts and Dance

Location: Fraser Hall 105; Telephone: 970-351-2678
Shirley Howell, Director; Rob Hallquist, Associate Director; Robert Eble, Graduate Coordinator

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 500 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; Gray Theatre, an experimental space seating up to 125; and Foundation Hall, which seats 550 and is used primarily by the School of Music.

School of Music
Location: Fraser Hall 105; Telephone: 970-351-2678
Shirley Howell, Director; Rob Hallquist, Associate Director; Robert Eble, Graduate Coordinator


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 a letter 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, Fraser Hall, Greeley, Colorado 80639, phone 970-351-2678.

School of Music graduates are well accepted in the professional world. UNC-prepared educators hold positions at universities, colleges, school systems, 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.

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.

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 University Jazz Ensemble
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

Location: Frasier Hall 108; Telephone: Theatre Arts — 970-351-2454; Dance — 970-351-2597

Thomas F. McNally, Chair

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.; Paul Mockovak, M.F.A.; Sheldon R. Wilhelm, 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 970-351-2454.

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 970-351-2454.

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.

Visual Arts

Location: Guggenheim Hall; Telephone: 970-351-2143, 2477

Richard S. Munson, Chair; Richard C. Luster, Coordinator of Graduate Studies


Associate professors — Eugene Hoffman; Virginia Jenkins, M.F.A.; Richard C. Luster, M.F.A.; Anna Ursyn, M.F.A.

Assistant professors — Thomas Stephens, M.F.A.; Margaret Sunday, 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.

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.
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
Select four credits, in consultation with advisor, from the following: 4
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

Note:
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.

MUS 301 18th Century Counterpoint ...............................2
MUS 302 Form and Analysis .........................................2
MUS 303 Instrumentation .............................................2
MUS 307 History of Instruments and Instrumental Practice ...5
MUS 319 Instrumental Techniques and Conducting ............1
MUS 403 Acoustics of Music .........................................2
Select two credits from the following: 2
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 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 ...........8
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

Note:
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.
Bachelor of Music
Emphasis in Piano

Program Requirements

Required credits in Music ......................................................... 64

Required elective credits in Music ........................................... 5

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

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
Select 8-12 credits, in consultation with advisor, from the following: 8-12
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 ...................................................... 5
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 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 Electives in Music — 10 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.

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

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: 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)

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.

Select four credits, in consultation with advisor, 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)

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
Select two credits from the following (Wind and Percussion Majors):
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, dictation, 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.

• Demonstrate proficiency in functional piano by examination.

• Achieve 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 Courses (Includes 6 credits: MUS 243, MUS 244 that are general education category 4b courses) ............... 49-53

Pre-Professional Courses (SPC0 100, SPC0 103) .................. 3

General Education credits:
6 credits already included in requirements above and the PTEP program

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
EDPE 270 Field Based Experiences .................................. 2
EDS 368 Learning and Development for Teachers ................. 2
EDF 366 Conceptions of Schooling .................................. 4
EDSE 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 510 Teaching General Music in Elementary Schools ....... 2
MUS 511 Teaching General Music in Secondary Schools ....... 2
MUS 512 Teaching Instrumental Music in Elementary Schools .2
MUS 524 Choral Conducting and Pedagogy for Elementary and Secondary Schools ................................................. 2
MUS 525 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 — 49-55 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 ........................................... 5
MUS 244 History of Music II .......................................... 4

Select four credits from the following: ............................... 4
MUS 269 Individual Performance in Voice (Piano Majors) .... 1
MUS 469 Individual Performance in Voice (Piano Majors) .... 1
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 ........................................ 17

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 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.

• Demonstrate proficiency in functional piano by examination.

• 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.

• Demonstrate proficiency in functional piano by examination.

• 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
Pre-Professional courses SPCO 100 and SPCO 103) .................................. 3
General Education credits:
6 credits already included in requirements above .................................. 6
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.

Master of Music
Emphasis in Choral Conducting

Program Requirements
Required credits for the Bachelor of Music Degree specified here .................................. 29
Complete the required 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 650 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
Studies in Music History and Theory
Music History .................................................................................. 6
Music Theory ..................................................................................... 6

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 here .........................22-23
Complete program electives specified here ...............................7-8

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

Studies in the Major Area
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.

Master of Music
Emphasis in Music History and Literature

Program Requirements
Complete the required credits specified here .........................30
Complete the program electives specified here ..............................1-4

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
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.

"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 here ......................... 33

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
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 ...................... 5
MUS 677 Individual Instruction in Composition .................... 8
MUS 699 Thesis (or Original Composition) ...................... 6
Music Performing Organization and/or Individual Performance .... 2

Studies In Music History
Music History ................................................................. 6
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.

Admission
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.

Master of Music
Emphasis in Vocal Performance

Program Requirements
Complete the required credits specified here ........................... 28-30
Complete program electives specified here ............................ 3

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
Studies In the Major Area
MUS 510 Vocal Pedagogy .................................................. 2
or MUS 564 Problems in Teaching Voice .............................. 2
Select two of the following courses — 4 semester hours
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 695 Practicum in Music (Recital and Correlative Paper) ...... 1-4

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 Education

Program Requirements
Complete the required core components specified here ........................................ 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 of the Music Education Department.

Core Components — 12 semester hours

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUS 510</td>
<td>Foundations of Music Education</td>
<td>3</td>
</tr>
<tr>
<td>MUS 553</td>
<td>Curriculum Trends in Music Education</td>
<td>3</td>
</tr>
<tr>
<td>MUS 610</td>
<td>Research in Music Education</td>
<td>3</td>
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</tbody>
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Credits in Music Studies — 10 semester hours

<table>
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<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>MUS 660</td>
<td>Introduction to Musical Scholarship</td>
<td>2</td>
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<tr>
<td>MUS 693</td>
<td>Practicum in Music</td>
<td>3</td>
</tr>
<tr>
<td>Individual</td>
<td>Performance in Conducting</td>
<td>4</td>
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<tr>
<td>Performance</td>
<td>(major instrument)</td>
<td>2</td>
</tr>
<tr>
<td>Major</td>
<td>Performing Organization</td>
<td>2</td>
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</tbody>
</table>

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 here .............................................. 55-59
Complete program electives .................................................................. 11

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 here .........................................53
Complete program electives specified here .............................................13

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 Research .................................................3
MUS 797 Doctoral Proposal Research ...........................................................4
MUS 799 Doctoral Dissertation ....................................................................12
Primary Emphasis
MUS 519 Foundations of Music Education..............................................3
MUS 533 Curriculum Trends in Music Education.....................................3
MUS 610 Research in Music Education...................................................3
MUS 622 Directed Study in Music Education...........................................3
SRM 602 Statistical Methods I.................................................................3
SRM 603 Statistical Methods II................................................................3
EDP 640 Psychological Foundations of Education..................................3
EDF 685 Philosophical Foundations of Education.................................3
Secondary Emphasis .................................................................10

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:
5 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 ............................................................ 2
or DNCE 180 Intermediate Ballet ....................................... 2
DNCE 170 Jazz Dance .................................................. 2
or DNCE 161 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
MT 485 Performance in Musical Theatre ....................... 3
MT 350 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

Note
• MT 342 may be used as part of the 40 hours of General Education.
• Complete 40 hours of General Education.
• MT 330 may be used as part of the 40 hours of General Education.
• 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 150 GYMNASTICS .............................................. 1
DNCE 180 Intermediate Ballet ....................................... 2
DNCE 181 Intermediate Jazz .......................................... 2
DNCE 175 Tap Dance .................................................. 2
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 ....................... 3
MT 485 Performance in Musical Theatre ....................... 3
MT 330 History of Musical Theatre .................................. 3

Note
• MT 342 may be used as part of the 40 hours of General Education.
• MT 330 may be used as part of the 40 hours of General Education.
• 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

<table>
<thead>
<tr>
<th>Program Requirements</th>
<th>Required credits</th>
<th>Required elective credits</th>
<th>3 credits already included in requirements above</th>
<th>Remaining</th>
<th>Total credits required for this degree</th>
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<td>83</td>
<td>2</td>
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<td>37</td>
<td>122</td>
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</tbody>
</table>

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 520 History of Musical Theatre ..........5
- MT 580 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 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: |
  - MUS 285 Performance in Opera Theatre (1-3) |
  - MUS 485 Performance in Opera Theatre (1-12) |
  - MUS 268 Scene Studies in Opera (1-3) |
  - MUS 486 Scene Studies in Opera (1-3) |
  - DNCE 166 Ballet ..........2
  - or DNCE 180 Intermediate Ballet ..........2
  - 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 275 Stage Movement II ..........1
  - THEA 370 Stage Combat ..........2

### Required Elective Credits — 2 semester hours
- Courses taken in Music, Theatre, or Dance with the approval of the coordinator ..........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 350 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 142 Survey of Technical Theatre ..................................................... 3
THEA 160 Beginning Acting .................................................................... 1
THEA 190 Stage Speech I ...................................................................... 1
THEA 191 Stage Speech II ................................................................... 2
THEA 235 Stage Dialects ........................................................................
THEA 240 Beginning Stage Directing ......................................................... 3
THEA 250 Stage Make-up I .....................................................................
THEA 260 Scene Study ...........................................................................
THEA 275 Stage Movement I ................................................................. 1
THEA 276 Stage Movement II ................................................................. 1
THEA 330 History of the Theatre I ........................................................... 3
THEA 351 History of the Theatre II ........................................................... 3
THEA 355 Advanced Voice Production ................................................. 1

THEA 361 Advanced Acting Styles I ....................................................... 2
THEA 361 Advanced Acting Styles II ....................................................... 2
THEA 370 Stage Combat ........................................................................
THEA 372 Period Movement ................................................................
THEA 464 Audition Techniques ......................................................... 2
MT 261 Singing for Actors .....................................................................

Required Elective Credits in Theatre — 2 semester hours

Notes
First semester (non-technical emphasis) freshman do not take THEA 100/101/102 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 your progress in the major, 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
Dance Performance/Choreography Emphasis

Program Requirements

Required credits .................................................... 71
Required 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

DNCE 169 Partnering .............................................................................
DNCE 180 Intermediate Ballet (2) ......................................................... 6
DNCE 292 Advanced Ballet (3) .................................................................
DNCE 181 Intermediate Jazz Dance: (2) .................................................
DNCE 293 Advanced Jazz Dance (2) ....................................................... 6
DNCE 182 Intermediate Modern Dance (2) ...........................................
DNCE 294 Advanced Modern Dance (2) ................................................
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 ....................................... 2
DNCE 371 Intermediate Technique, Improvisation and Composition .... 2
DNCE 440 Labanotation/Movement Analysis ...................................... 2
DNCE 453 Teaching Methods, Rhythmic Analysis and Accompaniment 5
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 .........................................................
DNCE 490 Dance Apprenticeship ...........................................................
KINE 220 Anatomical Kinesiology ......................................................... 3
MUS 140 Introduction to Music ............................................................
THEA 100 Individual Performance in Theatre ....................................
THEA 149 Survey of Technical Theatre ................................................

Required Elective Credits — 9 semester hours

Electives in the arts to be chosen under advisement. Additional dance technique classes, including ballet, jazz, modern, tap, ballroom, partnering and dance performance classes are recommended.

THEA 275 Stage Movement I ................................................................. 1
MT 370 Musical Theatre Dance ............................................................. 2

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
Required 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
Total required credits in Ballet: ........................................... 12
DNCE 180 Intermediate Ballet (2) ........................................ 1
DNCE 292 Advanced Ballet (3) ............................................. 2
Total required credits in Jazz Dance ....................................... 4
DNCE 181 Intermediate Jazz Dance (2) ................................. 1
DNCE 293 Advanced Jazz Dance (2) ................................. 2
Total required credits in Modern Dance ............................... 6
DNCE 182 Intermediate Modern Dance (2) ......................... 1
DNCE 294 Advanced Modern Dance (2) ......................... 2
DNCE 295 Beginning Dance Theory ..................................... 1
DNCE 296 Beginning Choreography and Improvisation .......... 2
Total required credits in Dance Performance ......................... 4
DNCE 354 Dance Performance I, Tour Troupe (2) .................. 1
DNCE 355 Dance Performance II, Spring Concert (2) .......... 2
DNCE 397 Intermediate Technique, Improvisation and Composition .......... 1
DNCE 440 Labanotation/Movement Analysis ...................... 2
DNCE 453 Teaching Methods, Rhythmic Analysis and Accompaniment ...... 2
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

Required Elective Credits — 4 semester hours
Electives in the Arts to be chosen under advisement. Additional dance technique classes, i.e. ballet, jazz, modern, tap, ballroom and partnering and dance performance classes.
MT 370 Musical Theatre Dance ........................................... 2

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 emphasis. 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.

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.

Bachelor of Arts in Theatre Arts
Dance Teaching/Movement Analysis Emphasis (Non-Licensure)

Program Requirements
Required credits ............................................................ 73
Required 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/mt. 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
DNCE 167 Intermediate Ballroom Dance .......................... 1
DNCE 169 Partnering ......................................................... 1
DNCE 175 Intermediate Jazz Dance (2) ............................ 1
Total required credits in Ballet: ........................................... 12
DNCE 180 Intermediate Ballet (2) ............................... 1
DNCE 292 Advanced Ballet (3) .................................... 2
Total required credits in Jazz Dance ....................................... 4
DNCE 181 Intermediate Jazz Dance (2) ......................... 1
DNCE 293 Advanced Jazz Dance (2) ......................... 2
Total required credits in Modern Dance ............................... 6
DNCE 182 Intermediate Modern Dance (2) ......................... 1
DNCE 294 Advanced Modern Dance (2) ......................... 2
DNCE 295 Beginning Dance Theory and Technique .......... 1
DNCE 296 Beginning Choreography and Improvisation .......... 2
Total required credits in Dance Performance ......................... 4
DNCE 354 Dance Performance I, Tour Troupe (2) .................. 1
DNCE 355 Dance Performance II, Spring Concert (2) .......... 2
DNCE 397 Intermediate Technique, Improvisation and Composition .......... 2
DNCE 440 Labanotation ..................................................... 1

Required Elective Credits — 7 semester hours
Electives in the Arts to be chosen under advisement. Additional dance technique classes, i.e. ballet, jazz, modern, tap, ballroom and partnering and dance performance classes.

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 emphasis. 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 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
THEA 310 History of Theatre I ........................................... 3
THEA 320 Stage Costume Design ........................................ 3
THEA 330 History of the Theatre I ....................................... 3
THEA 342 Workshop in Directing II .................................. 3
THEA 351 History of the Theatre II ..................................... 3
THEA 370 Stage Combat .................................................. 3
THEA 410 Advanced Design and Technology ......................... 3
THEA 420 Advanced Costume Technical Design ...................... 3

Required Elective Credits in Theatre — 3 semester hours
THEA 251 Advanced Stage Make-Up (recommended) ............. 1

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.

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 310 Beginning Scene Design ..................................... 3
THEA 320 Stage Costume Design ........................................ 3
THEA 330 History of Theatre I ........................................... 3
THEA 351 History of the Theatre II ..................................... 3
THEA 370 Stage Combat .................................................. 3
THEA 372 Period Movement .............................................. 1
THEA 440 Directing the One-Act Play .................................. 1
Select two of the following:
MT 342 Workshop in Directing/Choreography for Musical Theatre ............................... 5
THEA 340 Workshop in Directing I .................................... 5
THEA 341 Workshop in Directing II .................................... 5

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 Theatre

<table>
<thead>
<tr>
<th>Program Requirements</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required core credits</td>
<td>32</td>
</tr>
<tr>
<td>Required elective credits</td>
<td>19</td>
</tr>
<tr>
<td>General Education credits</td>
<td>50</td>
</tr>
<tr>
<td>Elective credits</td>
<td>40</td>
</tr>
<tr>
<td>Total credits required for this degree</td>
<td>120</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>THEA 100 Individual Performance in Theatre</td>
<td>1</td>
</tr>
<tr>
<td>THEA 135 Playscript Analysis</td>
<td>3</td>
</tr>
<tr>
<td>THEA 149 Survey of Technical Theatre</td>
<td>3</td>
</tr>
<tr>
<td>THEA 160 Beginning Acting</td>
<td>3</td>
</tr>
<tr>
<td>THEA 190 Stage Speech I</td>
<td>1</td>
</tr>
<tr>
<td>THEA 191 Stage Speech II</td>
<td>1</td>
</tr>
<tr>
<td>THEA 250 Stage Make-up I</td>
<td>1</td>
</tr>
<tr>
<td>THEA 330 History of the Theatre I</td>
<td>3</td>
</tr>
<tr>
<td>THEA 331 History of the Theatre II</td>
<td>3</td>
</tr>
</tbody>
</table>

#### Required Elective Credits — 19 semester hours

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MT 342 Workshop in Directing/Choreography in Musical Theatre</td>
<td>3</td>
</tr>
<tr>
<td>MT 360 Scene Study in Musical Theatre</td>
<td>3</td>
</tr>
<tr>
<td>MT 475 Music Dance Workshop</td>
<td>1</td>
</tr>
<tr>
<td>THEA 210 Graphics and Management</td>
<td>3</td>
</tr>
</tbody>
</table>

### Bachelor of Arts in Theatre Arts

#### Emphasis in Teaching

<table>
<thead>
<tr>
<th>Program Requirements</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required credits</td>
<td>53</td>
</tr>
<tr>
<td>General Education credits:</td>
<td>53</td>
</tr>
<tr>
<td>6 credits already included in the PTEP program</td>
<td>3</td>
</tr>
<tr>
<td>Remaining PTEP program</td>
<td>43</td>
</tr>
<tr>
<td>Total credits required for this degree</td>
<td>130</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>THEA 100 Individual Performance in Theatre</td>
<td>12</td>
</tr>
<tr>
<td>MT 342 Workshop in Directing/Choreography in Musical Theatre</td>
<td>3</td>
</tr>
<tr>
<td>THEA 135 Playscript Analysis</td>
<td>3</td>
</tr>
<tr>
<td>THEA 149 Survey of Technical Theatre</td>
<td>3</td>
</tr>
<tr>
<td>THEA 160 Beginning Acting</td>
<td>3</td>
</tr>
<tr>
<td>THEA 190 Stage Speech I</td>
<td>1</td>
</tr>
<tr>
<td>THEA 191 Stage Speech II</td>
<td>1</td>
</tr>
<tr>
<td>THEA 250 Stage Make-up I</td>
<td>1</td>
</tr>
<tr>
<td>THEA 330 History of the Theatre I</td>
<td>3</td>
</tr>
<tr>
<td>THEA 331 History of the Theatre II</td>
<td>3</td>
</tr>
<tr>
<td>THEA 260 Scene Study</td>
<td>2</td>
</tr>
<tr>
<td>THEA 275 Stage Movement I</td>
<td>1</td>
</tr>
<tr>
<td>THEA 276 Stage Movement II</td>
<td>1</td>
</tr>
<tr>
<td>THEA 310 Beginning Scene Design</td>
<td>3</td>
</tr>
<tr>
<td>THEA 330 History of the Theatre I</td>
<td>3</td>
</tr>
<tr>
<td>THEA 331 History of the Theatre II</td>
<td>3</td>
</tr>
<tr>
<td>THEA 385 Methods of Teaching Drama</td>
<td>3</td>
</tr>
<tr>
<td>THEA 440 Directing the One-Act Play</td>
<td>1</td>
</tr>
</tbody>
</table>

Note that THEA 385 is a PTEP requirement taken concurrently with EDLS 363.

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>THEA 340 Workshop in Directing I</td>
<td>3</td>
</tr>
<tr>
<td>THEA 341 Workshop in Directing II</td>
<td>3</td>
</tr>
</tbody>
</table>

### Notes

- First semester (non-technical emphasis) freshmen 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. This 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 ............................................................... 52
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 .... 4

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

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 ............................................................... 5
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 .............................................. 5
ART 231 Introduction to Painting ................................................ 5
or
ART 352 Watermedia Painting .................................................... 5
ART 241 Basic Crafts Design ....................................................... 5
ART 252 Printmaking I ................................................................. 5
ART 261 Sculpture I .................................................................... 5
ART 285 Jewelry ........................................................................ 5
ART 271 Basic Photography ........................................................ 5
ART 234 Basic Drawing ............................................................... 5
or
ART 333 Life Drawing ................................................................. 5

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
ED 356 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 — 5 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 emphasis. 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
emphases.

Students must complete the College of Education PTEP requirements (see
art education advisor).

Before receiving approval to student teach, an art education student must
determine 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 the student's 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
cannot be reviewed a second time. Failure to pass the review the 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 credits ....................................................... 33
Area of concentration credits ........................................... 15
Required elective credits .................................................. 40
General Education .......................................................... 40
Total credits required for this degree ................................ 128

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 I .................................................. 4
ART 182 History of Art II .................................................. 4
ART 185 Art I ................................................................. 5
ART 184-Art II ................................................................. 3

Core Courses
ART 231 Introduction to Painting ......................................... 3
ART 240 Lettering ............................................................. 5
ART 270 Graphic Arts I ...................................................... 3
ART 335 Life Drawing ........................................................ 3
One advanced art history course ........................................... 4

Select One Area of Concentration Credits — 55 semester hours

Graphic Design Concentration
ART 271 Basic Photography ............................................. 3
ART 370 Graphic Arts II .................................................... 3
ART 374 Illustration .......................................................... 3
ART 376 Typography ......................................................... 3
ART 473 Advertising Design ............................................. 3

Graphic Design Required Elective Credits — 40 semester hours (including the following)
ART 234 Basic Drawing ..................................................... 5
ART 375 Publications Production ........................................ 3
ART 434 Drawing II ........................................................... 5
ART 474 Graphics Studio .................................................... 1-3

Photographic Communications Concentration
ART 271 Basic Photography ............................................. 3
ART 370 Graphic Arts II .................................................... 3
ART 376 Typography .......................................................... 3
ART 475 Color Photography — Transparency ...................... 3
ART 477 Photographic Illustration and Lighting Techniques .... 3

Required Credits — 39-40 semester hours

Select two of the following:
ENG 260 Masterpieces of English Literature ...................... 3
ENG 261 Masterpieces of American Literature ..................... 3
ENG 262 Masterpieces of World Literature ......................... 3

Bachelor of Arts in Interdisciplinary Studies
Emphasis in Fine Arts

Program Requirements
Required credits ................................................................ 39-40
General Education ............................................................ 40
Elective credits ................................................................. 40-41
Total credits required for this degree .................................. 120

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 Appreciation .................................................. 3
Select one of the following:
ENG 260 Masterpieces of English Literature ...................... 3
ENG 261 Masterpieces of American Literature ..................... 3
ENG 262 Masterpieces of World Literature ......................... 3

Select one of the following:
MUS 140 Introduction to Music .......................................... 3
MUS 204 Music Fundamentals and Experiences ..................... 3
MUS 241 Perceiving the Arts ............................................. 3
THEA 130 Introduction to Theatre ..................................... 3
THEA 281 Improvisation and Creative Dramatics .................. 3

Select two of the following:
MIND 288 Contemporary Arts Connection ......................... 3
MIND 293 Play as a Route to Insight and Creation .................. 3
MIND 297 Creativity in the Arts .......................................... 3
MIND 299 Great Ideas in the History of the Arts .................. 3
ENGL — Select a 200 level course in English or American Literature .... 3
Participation in Music ensembles, Theatre or Music Theatre Productions or creative activities in Visual Arts ......................... 3

Select one of the following:
ART 290 Visual Thinking and Visual Images ....................... 3
ART 388 19th Century Art ................................................. 4
ART 388 20th Century Art .................................................. 4
THEA 441 Cultural Studies in the K-12 Curriculum ............... 3
MT 330 History of Musical Theatre .................................... 3
or MUS 340 Survey of History and Literature of Jazz ............ 3
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

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.

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

**Total credits required for this minor** ..................................................23

**Required Credits — 23 semester hours**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>DNCE 180</td>
<td>Intermediate Ballet Dance</td>
<td>2</td>
</tr>
<tr>
<td>DNCE 181</td>
<td>Intermediate Jazz Dance</td>
<td>2</td>
</tr>
<tr>
<td>DNCE 182</td>
<td>Intermediate Modern Dance</td>
<td>2</td>
</tr>
<tr>
<td>DNCE 295</td>
<td>Beginning Dance Theory</td>
<td>1</td>
</tr>
<tr>
<td>DNCE 296</td>
<td>Beginning Choreography and Improvisation</td>
<td>2</td>
</tr>
<tr>
<td>DNCE 397</td>
<td>Intermediate Technique, Improvisation and Composition</td>
<td>2</td>
</tr>
<tr>
<td>DNCE 453</td>
<td>Teaching Methods, Rhythmic Analysis and Accompaniment</td>
<td>3</td>
</tr>
<tr>
<td>DNCE 454</td>
<td>Dance History and Philosophy</td>
<td>2</td>
</tr>
<tr>
<td>DNCE 456</td>
<td>Advanced Technique, Improvisation and Composition</td>
<td>2</td>
</tr>
<tr>
<td>DNCE 459</td>
<td>Dance Production in High School and College</td>
<td>2</td>
</tr>
<tr>
<td>KIME 220</td>
<td>Anatomical Kinesiology</td>
<td>3</td>
</tr>
</tbody>
</table>

**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 Theatre Arts/Teaching

**Total credits required for this minor** ..................................................23

**Required Credits — 23 semester hours**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>THEA 100</td>
<td>Individual Performance in Theatre</td>
<td>4</td>
</tr>
<tr>
<td>THEA 149</td>
<td>Survey of Technical Theatre</td>
<td>3</td>
</tr>
<tr>
<td>THEA 160</td>
<td>Beginning Acting</td>
<td>3</td>
</tr>
<tr>
<td>THEA 210</td>
<td>Graphics and Management</td>
<td>3</td>
</tr>
<tr>
<td>THEA 240</td>
<td>Beginning Stage Directing</td>
<td>3</td>
</tr>
<tr>
<td>THEA 250</td>
<td>Stage Make-up I</td>
<td>1</td>
</tr>
<tr>
<td>THEA 261</td>
<td>Improvisation and Creative Dramatics</td>
<td>3</td>
</tr>
<tr>
<td>THEA 310</td>
<td>Beginning Scene Design</td>
<td>3</td>
</tr>
<tr>
<td>THEA 385</td>
<td>(3 hours credit) and EDLS 363 (2 hours credit) taken in Theatre Arts.</td>
<td></td>
</tr>
</tbody>
</table>

**Notes**

This program does not meet the current licensure requirements of the North Central Association for teachers of drama.

### Minor in Visual Arts

**Total credits required for this minor** ..................................................13

**Required credits** .................................................................................12

**Required Elective Credits — 7 semester hours**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 181</td>
<td>History of Art I</td>
<td>4</td>
</tr>
<tr>
<td>or ART 182</td>
<td>History of Art II</td>
<td>4</td>
</tr>
<tr>
<td>or ART 183</td>
<td>Art I</td>
<td>3</td>
</tr>
<tr>
<td>or ART 184</td>
<td>Art II</td>
<td>3</td>
</tr>
</tbody>
</table>

**Required Core Credits — 6 semester hours**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 211</td>
<td>Ceramic Design</td>
<td>3</td>
</tr>
<tr>
<td>ART 212</td>
<td>Wheel Throwing</td>
<td>3</td>
</tr>
<tr>
<td>ART 221</td>
<td>Introduction to Fiber Art</td>
<td>3</td>
</tr>
<tr>
<td>ART 252</td>
<td>Printmaking I</td>
<td>3</td>
</tr>
<tr>
<td>ART 261</td>
<td>Sculpture I</td>
<td>3</td>
</tr>
<tr>
<td>ART 251</td>
<td>Introduction to Painting</td>
<td>3</td>
</tr>
</tbody>
</table>

**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

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| Biology | BIO | 229 |
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| Black Studies | BLA | 251 |
| Botany | BOT | 251 |
| Business Administration | BA | 225 |
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| Chemistry Education | CHER | 235 |
| Chinese | CHIN | 235 |
| College Student Personnel Administration | CSA | 237 |
| Communication Disorders | CMD | 235 |
| Community Health | CH | 252 |
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| Computer Science | CS | 237 |
| Computing, General | CG | 232 |
| Dance | DANCE | 258 |
| Earth Sciences | ESCI | 254 |
| Economics | ECON | 239 |
| Educational Field Experiences | EDFE | 243 |
| Educational Field Experience: Laboratory School | EDLS | 243 |
| Educational Leadership and Policy Studies | ELPS | 250 |
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| Educational Technology | ET | 255 |
| Elementary Education | EDJL | 241 |
| Elementary Education: Early Childhood | EDEC | 240 |
| Elementary Education: Middle School | EDMO | 244 |
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| English as a Second Language | ESL | 255 |
| English Education | EED | 250 |
| Environmental Studies | ENST | 253 |
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| Food, Nutrition and Dietetics | FNDT | 256 |
| Foreign Languages | FL | 256 |
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| Management | BAMA | 228 |
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| Medical Technology | MTEC | 273 |
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| Spanish | SPAN | 295 |
| Special Education | SEED | 246 |
| Speech Communication | SPCO | 297 |
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| Theatre Arts | THEA | 300 |
| Visual Arts | ART | 222 |
| Women's Studies Program | WS | 301 |
| Zoology | ZOO | 301 |

### 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 are not listed in the Bulletin, but will appear in the Schedule of Classes. For example, a new course in Geology might be GEO 395. 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 CMD; 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.
Anthropology

**ANT 100 Introduction to Anthropology (3)**
An introduction to anthropology, 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 archaeology. Topics include locational analysis, stratigraphy, typological analysis, dating techniques and research publication.

**ANT 230 Anthrogeometrics (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 differentiation 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 316/516 Culture, Biology and Health (3)**
Prerequisites: ANT 100 or SOC 100 or equivalent. Analyze health and illness in different ethnic groups and cultural systems. Study alternatives to the modern biomedic model of health and disease.

**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 women. A seminar exploring diverse topics surrounding the definition of human nature. Repeatable, maximum nine credits under different subtitles.

**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 322 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. 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 325/525 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. Lab fees required for field maintenance.

**ANT 350 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. Anthropological, paleontological and forensic applications will be presented.

**ANT 351 Human Population Biology (3)**
The evolutionary genetics and demographics of modern human populations.

**ANT 408/508 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 420/520 Scientific Research in Archaeology (3)**
Prerequisite: ANT 100 or ANT 120 or equivalent. 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 research under the direction 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 lectures and class discussions 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 470/570 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 definition of human nature. Repeatable, maximum nine credits under different subtitles.

**ANT 480/580 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 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 subtitles.

**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 516/516 Culture, Biology and Health (3)**
Prerequisite: ANT 100 or SOC 100 or equivalent. Analyze health and illness in different ethnic groups and cultural systems. Study alternatives to the modern bio-medical model of health and disease.

**ANT 520/420 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 525/525 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.
Course Descriptions — Anthropology • Visual Arts

ANT 570/470 Seminar in Anthropology (3)
Prerequisite: Choose one of the following: ANT 100, ANT 130, QEOQ 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 580/480 Theory and Practice in Anthropology (3)
A seminar exploring diverse topics surrounding the question of defining human nature. Repeatable, maximum concurrent enrollment is two times.

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.

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 the 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 213 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 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 manuscript. 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 area for the exceptional learner. Fee required.

ART 252 Printing I (3) Prerequisites: ART 183 and ART 184 or equivalent. Introduction to intaglio printing techniques, including drypoint, engraving and etching in black and white. Traditional and experimental approaches are explored. Fee required.

ART 256 Calligraphy and Far Eastern Culture (3) To provide a new experience in the manipulation of Chinese painting and Calligraphy through Oriental fine art brush techniques. Culture of the Orient, its history, art, aesthetics and philosophies.

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 nature 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)
Art workshops are for the 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 223. 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 354 Relief Printmaking (3) Prerequisites: ART 183 and ART 184 or equivalent. Investigations in relief printmaking media including linoleum cuts, wood cuts, wood engravings and collotypes printed in black and white and in color. Repeatable, may be taken two times. Fee required (pending BOT approval).

ART 355 Silkscreen Printmaking (3) Prerequisite: ART 252 or equivalent. Study the silkscreen stencil process of printmaking, including the use of photosensitive screens and color on all levels. Repeatable, may be taken three times. Fee required.
ART 356 Typography (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 (pending BOT approval).

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. 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 soda 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.

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 427 Oil Painting (3) Prerequisite: ART 227. 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.

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 437/537 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 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: EDFT 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 471/571 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 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 transparency materials. Fee required.

ART 480 Art History Seminar (4) Discuss advanced and specialized art historical topic. Take concurrently with 300 level art history course. Subject area determined by subtitle. Repeatable, under different subtitles.

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 (1-6) 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 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 the technical materials, kilns and studio equipment that will provide the prospective potter or teacher with essential advanced technical skills. 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. Fee required.

ART 533 Life Drawing (3) Prerequisite: ART 333 or equivalent. Advanced life drawing emphasizing development of personal interpretation of the human form. Repeatable, up to two times. Fee required.

ART 537/537 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 545 Photography in Education (3) Study the uses of photographic images in the classroom. Plan, produce and evaluate black and white and color photographs for instruction. 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 3 times.

ART 554 Advanced Relief Printmaking (3) Prerequisite: ART 354 or consent of Instructor. Advanced investigations in relief printmaking techniques. Individual imagery and technical mastery are emphasized. Repeatable, may be taken 3 times. Fee required pending BOT approval.

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 3 times. Fee required pending BOT approval.

ART 557 Advanced Artist's Books: Structures and Concepts (3) Prerequisite: ART 557 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 (1-3) Self directed or assigned work in specific areas of sculpture. Advanced technical skills emphasized. Repeatable, up to two times. Fee required.

ART 571/471 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 579 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 (1-5) 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 concepts 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 in 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 topic 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 (5) 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 Seminar in Art History (1-4) Discuss advanced and specialized art historical topics. Taken concurrently with 400 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 committee and submitted in appropriate style and format to the Graduate School. S/U graded. Repeatable, no limitations.

AS 101 The Air Force Today I (2) Study military customs and courtesies, officerhood, 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) Study fundamentals of airpower 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 officerhood 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.

AS 422 Directed Studies (2-5) 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.

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 observations. 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.

Business Administration

NOTE: Course description may contain a notation (F) for fall; (S) spring. This designates the semester the course is offered.

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: ECON 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 marketplace. Non-technical introduction to global business operations and planning, including investment issues, comparative management, technology impact, competition, cultural diversity and legal issues.

BA 295 Executive Professor Special Topics I (1-3) Consent of Instructor. A seminar for freshman and sophomore majors and minors taught by business executives. Integrating practical experience into the theoretical curriculum. Topic varies per expertise of Executive Professor. S/U or letter graded. Repeatable, under different subtitles.

BA 495 Executive Professor Special Topics II (1-3) Consent of Instructor. A seminar for Junior and senior majors and minors, taught by business executives, Integrating practical experience into the theoretical curriculum. Topic varies per expertise of Executive Professor. S/U or letter graded. Repeatable, under different subtitles.

Accounting
NOTE: Course descriptions may contain a notation (F) fall; (S) spring. This designates the semester the course is offered.

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, and summarizing financial information and using computers for service and merchandising types of business. (F,S)

BAAC 221 Principles of Accounting II (3) Prerequisite: BAAC 220. A continuation of the Principles of Accounting I course to study basic principles of accounting as they apply to partnerships, corporations, long-term debt, manufacturing businesses and managerial uses of financial 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 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 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 - 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: BAAC 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 businesses. (S)

BAAC 420 Advanced Accounting I (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 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 I (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, internal 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 time and 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.

BAAC 622 Accounting 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.

BAAC 623 Seminar in Management Accounting (5) Prerequisite: BAAC 221 or equivalent. This is a seminar course designed to give students the background to understand the use of accounting for control and planning through the study of advanced topics in cost accounting. Emphasis is on using information derived from an accounting system for effective management decision making, cost analysis, and management control and evaluation. (F,S)

Computer Information Systems
NOTE: Course descriptions may contain a notation (F) fall; (S) spring. This designates the semester the course is offered.

BACS 100 Introduction to Computing (3) Required laboratory arranged. This is an activity course introducing students to computers in the modern workplace. Topics include hardware, software, BASIC programming and usage of microcomputers. It is a computer literacy course.

BACS 285 Business COBOL Programming (5) 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: BAAC 221. 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 (5) Prerequisites: BA 101 and MATH 175. Learn the use of statistics in business activities through techniques of descriptive statistics, sampling distributions, statistical estimation, tests of hypotheses and introduction to bivariate 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 384 Business Computer Solutions (3)
Prerequisite: BA 101. Required laboratory arranged. Juniors or above. An activity course covering the application of computer technology to the solution of business problems. Topics include modeling, implementing processors, memory communications, software interfaces, external storage devices, operating systems and the security and protection of information in a business environment.

BACS 390 Business Statistics II (3)
Prerequisites: BA 101, BACS 291, NATH 131 or NATH 176. Required laboratory arranged. Majors/Minors only. Juniors or above. A course designed to build on Statistics I foundations. Topics include hypothesis 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, Unix, Macintosh, Windows NT and Motif. Network and OS/2 platforms are explored.

BACS 395 Production Management (3)
Prerequisites: BACS 251, BACG 350, NATH 131 or NATH 176. Required laboratory arranged. Majors/Minors only. Juniors or above. Emphasizes problem 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 and 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 designed 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/S or U/S grades. 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.

BACS 500 Information Processing (3)
Required laboratory arranged. This is an activity course introducing students to computers and data processing concepts. Topics include history, hardware, software, analysis and design and microcomputers.

BACS 580 Information Processing (3)
Prerequisite: BACS 286 or BACS 287 with a minimum grade of "C." 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.

BACS 680 Seminar in Management Information Systems (3)
Prerequisite: BACS 300. Review and analyze macro Informational business systems including the technology and procedures associated with their development and implementation.

BACS 690 Seminar in Business Statistics (3)
Prerequisite: BACS 291 or BACS 590. Required laboratory arranged. An activity course designed to examine advanced statistical topics including hypothesis testing (using t-tests, ANOVA, Chi square and regression), exploratory data analyses, statistical design, sampling issues and time series analyses.

Finance
NOTE: Course descriptions may contain a notation of (F) Fall; (S) Spring. This designates the semester the course is offered.

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)
This course will examine the principles of personal financial planning and the role of financial institutions in 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)
Prerequisite: BACS 291. An introductory course to 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 370 Business Finance (3)
Prerequisites: BACS 221, BACS 291, ECON 103 and ECON 105. Junior or above. Provides an understanding of the principles underlying financial decision-making, with emphasis on investment decisions and the role of financial intermediaries. (F,S)

BAFN 371 Financial Markets and Institutions (3)
Prerequisite: ECON 105. Juniors or above. Finance in the world economy: capital markets, international flows of capital, financial institutions and the determinants of financial markets. (F,S)

BAFN 422 Directed Studies (1-3)
Consent of instructor required. 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.
and reduction of losses; case studies in risk economy. Industry and the firm with a focus on juniors or above. This seminar class involves the emphasized throughout the seminar. (S)

Investment policy including analysis of the current practices and problems. (S)

Discuss property disposition and estates and other business entitles and choice of business entity, Prerequisite: BAM 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)

BAFM 457 Managing New Business Ventures (3) Prerequisites: BAC 220, BAC 221, BAFM 350, BAFM 360, BAFM 370 or take concurrently. This class is designed to study the methods of intervention in the organization for the purpose of instituting change. Emphasizes applications of organizational behavior techniques, group change and/or organizational behavior.

BAFM 433 Seminar in Business Law (3) Prerequisite: BAFM 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)

BAFM 466 Strategic Management and Business Policy (3) Prerequisites: BAC 221, BACS 291, BAFM 370, BACS 395, BAFM 350, BAFM 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 BAFM 456. (F,S)

BAFM 422 Directed Studies (1-3) Prerequisite: BAFM 350 and consent of Instructor. Juniors or above. A seminar to study the role of corporations in society and the relationship between business and its environment. Studies economic policy, social responsibility and political influence in multiple environments.

BAFM 479 Security Analysis (3) Prerequisite: BAFM 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)


BAFM 499 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.

BAFM 530 Business Law (3) Not open to students with an undergraduate business law course. This seminar gives students an understanding of the principles of business law, contracts, personal property, sales, secured transactions, commercial paper, agencies, corporations, partnerships and real property and estates.

BAFM 570 Financial Management (3) This activity course covers the acquisition, allocation and management of funds within a business including financial goals, funds flows, capital budgeting, asset management and financing strategies. Not for previous finance majors and minors.

BAFM 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.

BAFM 670 Seminar in Financial Management (3) Prerequisites: BAFM 370, BAFM 570 or equivalent. A seminar in the advanced financial problems involved in the organization and conduct of the business enterprise including integration of financial goals, funds flows, capital budgeting, asset management and capital costs.

Managment

NOTE: Course descriptions may contain a notation (F) Fall; (S) Spring. This designates the semester the course is offered.

BAFM 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)

BAFM 353 Human Resources Management (3) Prerequisite: BAFM 350. Junior or above. A survey of human resource management topics such as: performance appraisal, training, compensation and labor relations. Current topics are emphasized.

BAFM 476 Management of Organizations (3) Juniors or above. A seminar course which concentrates on the management of organizations involved in global operations.

BAFM 450 International Management (3) Juniors or above. A seminar that examines the field of international management. Examine the implications of managing organizations involved in global operations.

BAFM 459 Seminar in Organizational Development (3) Prerequisites: BAFM 350 and BAFM 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.
Course Descriptions – Management • Marketing • Biochemistry • Biology Education • Biology

BAMG 492 Internship In Management (1-3)  
Faculty coordinator’s consent. Junior and 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 and human resource 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.

BAMG 497 Seminar In Management (3)  
A seminar course that studies concepts, principles, theories, operational problems of organization and management. Examines functional areas of management.

BAMG 522 Directed Studies (1-3)  
Individual 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.

BAMG 550 Organizational Theory (3)  
Prerequisite: BAMG 350 or equivalent. Review management techniques such as planning, organizing, controlling and basic behavioral concepts such as leadership. The course will examine such factors as organizational structure and processes. These topics include organizational theories, technology, power, conflict, size, goals and effectiveness.

BAMG 562 Seminar In Organizational Behavior (3)  
Prerequisite: BAMG 350 or equivalent. A seminar course to examine concepts of individual, group and organizational behavior. Analyze individual differences, group dynamics and factors that affect motivation, productivity and satisfaction. Current problems and issues in organizational behavior are studied including cross-cultural differences.

BAMG 565 Seminar In Human Resources (3)  
Prerequisite: BACS 291 or equivalent. A seminar course covering the basics of human resource management such as recruitment, selection, employment planning, compensation, indirect compensation, labor relations, equal employment, applicable laws and current topics.

BAMG 566 Seminar In Business Policy (3)  
Prerequisites: Undergraduate courses in functional areas of business or their equivalents. A seminar course in which a comprehensive case method is used to integrate functional areas of business at the policy making level.

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. Junior 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. Juniors or above. This theory course involves the study 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 362 Marketing Strategy (3)  
Prerequisite: BAMK 360. Juniors or above. Theory and application course designed to expand the scope and depth of strategic marketing and to provide an introduction to application methods used in international and domestic settings.

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 and its function in a marketing communications strategy. Emphasis on copywriting, advertising media, layout and creative process.

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 the theoretical and practical aspects of retailing.

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 covering the basics of working with small business majors through this cooperative program with the Small Business Administration.

BAMK 422 Directed Studies (1-3)  
Prerequisite: BAMK 360. 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. Provide the student with the opportunity to apply knowledge and skills acquired in the previous course. Topics vary by semester.

BAMK 462 Marketing Problems (3)  
Prerequisites: BAFN 370, BAMK 362. 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 International Marketing (3)  
Prerequisite: BAMK 360. Juniors or above. A seminar of the theories, 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)  
Prerequisites: BAMK 360, BAMK 362. 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)  
Prerequisites: BAMK 360, BAMK 362. An activity seminar course designed to explore the theories 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 or letter graded. Repeatable, maximum of three credits.

BAMK 495 Special Topics in Marketing (3)  
Prerequisite: BAMK 360. Juniors or above. This seminar course explores various advanced marketing topics. The course is offered as needed. S/U or letter graded. Repeatable, under different subtitles.

BAMK 560 Marketing Management (3)  
Not open to undergraduate majors or business minors. This theory course provides an understanding of the basic concepts of marketing, as well as an understanding of how these marketing concepts are applied by both business and nontobusiness organizations.

BAMK 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.

BAMK 665 Seminar In Marketing (3)  
Prerequisite: BAMK 360 or BAMK 560. This seminar course analyzes the marketing decision making processes and techniques by using cases. This course brings together all areas of marketing management and relates these areas to other functional areas in business.

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.

Biology Education

BED 682 Problems In Teaching College Biology (3)  
Prerequisites: Junior or above. This seminar course analyzes the marketing decision making processes and techniques by using cases. This course brings together all areas of marketing management and relates these areas to other functional areas in business.
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 191 Biology as a Profession Seminar (0.8) For freshmen major and undeclared majors. Examine specific disciplines within biological sciences and learn how to prepare for a career in a particular area of biology. S/U graded.

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 (5) (2 lecture, 3 laboratory) Prerequisite: BI 110. Discover how the fundamental laws of heredity apply to normal and abnormal development and maintenance of all living things. Fee required.

BIO 255 Biological Science Concepts for Elementary Teachers (5) (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 270 Biology and Behavior of Human Sexuality (2) Study of the human reproductive process, with structure and function of organs, organic response, genetics of sex, fertility, contraception and sexual behavior patterns.

BIO 351 Microbiology (4) (3 lecture, 2 laboratory) Prerequisites: BI 110, BI 111, or ZOO 115, CHEM 131, or CHEM 208. Examine microorganisms and their activities in the biological world. Study structures and functions of bacteria. Also discussion of fun and viruses. Fee required.

BIO 571/571 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 380 Aquatic Biology (4) (3 lecture, 3 laboratory) Prerequisites: BI 110, BI 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 408/508 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 graded.

BIO 415/515 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 (1-5) 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 428/528 Behavioral Genetics (2) Prerequisites: BI 220, PSY 120. Explore the genetic/environmental basis of normal and pathological behavior in humans and study such contemporary issues as evolution, intelligence and genetic counseling.

BIO 425/525 Molecular Genetics (3) (2 lecture, 3 laboratory) Prerequisites: BI 220, CHEM 481. Examination of macromolecules (DNA, RNA and proteins) and biological organisms with particular emphasis on recombinant DNA techniques and aberrant biochemical pathways.

BIO 450/550 Cell Physiology (4) (3 lecture, 3 laboratory) Prerequisites: BI 110, BI 111, CHEM 131 or CHEM 351, 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 homostatic regulations of the environment. Fee required.

BIO 455 Diagnostic Microbiology (4) (2 lecture, 4 laboratory) Prerequisite: BI 351. Learn about microorganisms of medical significance: isolation, identification, immunology and disease etiology. Fee required.

BIO 460 Ecology (4) (3 lecture, 3 laboratory) Prerequisite: BI 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 (5) Prerequisite: BI 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 485/585 Topics in Field Biology (1-10) After preparatory work, study biology in the field on a state, national or international basis. Fee required.

BIO 491 Senior Seminar (0.5) Survey research, literature and career opportunities in selected biological areas. S/U graded.

BIO 492/592 Internship in Biological Sciences (1-5) 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: BI 110, BI 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: BI 110, BI 111. Advanced study for qualified undergraduates in an area of the biological sciences.

BIO 497 Special Laboratory Topics in Biology (1) (3 laboratory) Prerequisites: BI 110, BI 111. Advanced study in the laboratory for qualified undergraduates in an area of the biological sciences.


BIO 501 Current Issues in Biology (1) Course varies in content, reviewing current issues of biology, botany or zoology. S/U graded.

BIO 505/505 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 509 Advanced Placement Biology (1-3) Consent of instructor. Topics in biological sciences and pedagogy related to establishment and maintenance of an 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 515/515 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 524/524 Behavioral Genetics (2) Prerequisites: BI 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 525/525 Molecular Genetics (3) (2 lecture, 3 laboratory) Prerequisites: BI 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 550/650 Cell Physiology (4) (3 lecture, 3 laboratory) Prerequisites: BI 110, BI 111, CHEM 131 or CHEM 351, 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 homostatic regulations of the cell environment. Fee required.

BIO 569 Conceptual Issues in Evolution (2) Prerequisite: BI 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 571/571 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.
After preparatory work, study biology in the field.

Course Descriptions - Biology • Black Studies • Botany

**BIO 585/485 Topics in Field Biology (1-10)**
After preparatory work, study biology in the field on a state, national or international basis. Fee required.

**BIO 592/492 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 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 procaryotic anatomy, physiology, genetics and taxonomy with laboratory studies of bacteria. Group 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 36 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.

**Black Studies**

**BLS 101 Crisis of Identity (3)**
Addresses social conditions that led to formation of black identity in America. Of special interest are Negro-to-black conversion experience, concept of racism, subordination and role of Afro-American culture.

**BLS 102 The Black Woman In America (3)**
Review contributions of black women historically in this country in the areas of social and political struggle, education, business, science and sports.

**BLS 104 Survey of Africa (3)**
Explores the geography, culture, philosophy, history, art, politics, economics, women and literature of Africa.

**BLS 201 Afro-American History I (3)**
A survey of the black experience from the African homeland to initial capture, enslavement and emancipation — 1619-1865.

**BLS 202 Afro-American History II (3)**
Examines the lives of black Americans from emancipation to the present.

**BLS 204 Introduction to African Literature (3)**
A study of traditional African tales and selected works from early written works from Africa.

**BLS 222 Black Nationalism in America (3)**
Black Nationalism as an aspect of Afro-American political and cultural belief receives attention here. Major figures include Richard Allen, David Walker, Henry M. Turner, Marcus Garvey and others.

**BLS 230 Black Women in Literature (3)**
A study of black women writers in Africa and the African Diaspora.

**BLS 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 racial thought, major sociological models used in United States, re: race relations.

**BLS 305 Survey of African-American Literature (3)**
Prerequisite: ENG 122. Literature by people of African descent receives selective attention: representative African, Afro-Latin American, Afro-Caribbean, Afro-American works. Genres such as political tract, novel, essay, autobiography, folk literature considered at various historical junctures.

**BLS 320 Economic Experience of Black America (3)**
Focus on economic experiences of people of African descent considered. Job choices and business experiences make up the substance of this course. The effects of racism on black employment, earnings, career opportunities and success are also studied.

**BLS 332 Pan-Africanism (3)**
Traces the development of Pan-Africanism on the African Continent and its effects in Latin American and Caribbean contexts.

**BLS 340 The Black Family (3)**
A social system approach to the study of the Afro-American family, dynamics of family relationships and effects of social, political and economic institutions on black family life.

**BLS 360 Music and the Black Experience (3)**
The historical, thematic and stylistic development of black music from ancient Africa to the present.

**BLS 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.

**BLS 395 Aspects of the African-American Experience (3)**
Topics include Afro-American culture, black psychology and mass media. Repeatable, under different subtitles.

**BLS 396 African and Afro-American Worldviews (3)**

**BLS 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.

**BLS 420 Black 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.

**BLS 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.

**BLS 456 Leadership and the Black Church (3)**
Examines the role of the Black Church in the development of the Afro-American family, philosophy and leadership style from slavery to the present.

**BLS 486 Current Issues in Multicultural Education (3)**
Explores different pedagogical and methodological strategies for understanding and teaching multicultural and diversity issues in the classroom.

**BLS 490 Seminar in Black Studies (3)**
Prerequisites: BLS 100, BLS 104, BLS 201, BLS 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.

**BLS 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.

**BLS 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.

**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 330/530 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 353/553 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 350/350 General Plant Physiology (4) (3 lecture, 3 laboratory) Prerequisite: 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 440/540 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 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 530/530 Plant Taxonomy (4) (2 lecture, 3 laboratory) Prerequisite: BIO 111. Recognition and identification of plants at species and family levels, using the keys and manuals. Native plant collection required. Fee required.

BOT 533/333 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 540/440 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 550/350 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.

Computer Education

Computer Education courses are administered by the Department of Mathematical Sciences. Additional computer-related offerings can be found under Computing, General and Computer Science.

CED 195 Special Topics in Computer Education (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.

CED 230 Programming Languages in Education (3) Prerequisite: CS 180 with grade of "C" or better. Study a variety of programming languages and their applications in the field of education.

CED 240 Computers in Education (3) Prerequisite: CED 230 with grade of "C" or better. Study ways computers can be used to assist the educational process.

CED 330 Computer-Assisted Instruction (3) Prerequisite: CED 240 with grade of "C" or better. Study the development and use of computer-assisted and computer-managed instructional materials.

CED 340 Methods of Teaching Computer Education (3) Prerequisite: CED 240 with grade of "C" or better. Study and practice effective methods of teaching with computers.

CED 505 Special Topics in Computer Education (1-3) Junior or above or 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.

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 490 Seminar (1) Junior or above in Computer Education. 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.

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 repetitability.

CGB 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.

CGB 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.

CGB 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.

CGB 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.

CGB 125 LOGO Programming (3) Study of the LOGO programming language. Topics include graphics, recursions and list processing.

CGB 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.

Community Health

CH 205 Issues In Health (5) 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 biocultural 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) Studies current drug abuse problems and issues confronting modern society. Including sociological and psychological factors influencing drug-taker 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.
Course Descriptions - Community Health • Chemistry Education

CH 303 Health Education in the Elementary School (1-2) Prospective elementary teachers are given a foundation in school health programs and opportunities to develop skills in organizing and presenting learning experiences in a comprehensive and sequential health curriculum.

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 (4) Prerequisites: CH 209, CH 295. 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 biological 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 343 Methods and Observation of Health Education (3) Effectively present health information by using various educational media, community resources, exhibits, experiments and presentations including observation and supervised teaching experience.

CH 350 Introduction to Environmental Health (3) Focus 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 subtopics.

CH 410 Introduction to Program Planning and Evaluation (3) Prerequisite: CH 350. Focuses on major components of health education/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. May be repeated for credit up to 25 clock hours 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 471 Safety Education (3) Prepares teachers and administrators comprehensively to assume responsibility for safety education and accident prevention programming in schools and public service.

CH 492 Internship in Health (6-12) Prerequisite: CH 410. Field 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. Prerequisite for purposes of evaluation and recording. Repeatable, maximum of 12 credits.

CH 500/500 Workshop: Stress Management (2) Course focuses on causes of stress, its physiological and psychological effects and consequences of prolonged exposure to stressors. Strategies for intervention and personal use will also be presented.

CH 503 Seminar: Substance Abuse (3) Analyze pharmacological, psychological, sociological and legal considerations 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 505/505 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 subtopics.

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 subtopics.

CH 520 Directed Studies (1-4) Individualized investigation under the direct supervision of a faculty member. May be repeated for credit up to 25 clock hours per credit hour. Repeatable, maximum concurrent enrollment is two times.

CH 540 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 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 550 or consent of instructor. Theoretical and practical approaches 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. May be repeated up to 25 clock hours 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 650 Seminar in Health Education (2-4) Present contemporary topics under guidance of qualified graduate faculty and consultants. Repeatable, two times.

CH 682 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 690 Thesis (1-6) Optional for Master of Arts candidates in Health Education. Repeatable, no limitations.

Chemistry Education

CHED 494 Tutoring in Chemistry (1-2) Prerequisites: CHEN 321, CHEN 352. Four hours of instruction dealing with tutoring. Complete 30 clock hours per semester hour of credit in actual tutoring. Attend two to six semesters of co-instructor meetings. Prepare a final written evaluation/summary of the tutoring experience. S/U graded. Repeatable, maximum of 2 credits.

CHED 495 Seminar in Teaching Chemistry (2) Full admission to PTEF 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 504 General Chemistry I: Concepts and Applications (3) (2 lecture, 2 laboratory) Prerequisite: CHEM 112 or CHEM 115. Content, pedagogy, laboratory experiences and instructional materials for the teaching of secondary chemistry. Not applicable to a graduate degree in chemistry.
CHED 505 General Chemistry II: Concepts and Applications (3) 2 lecture, 2 laboratory Prerequisite: CHEM 504. Continuation of CHED 504. Additional and advanced content and pedagogy for secondary chemistry. Not applicable to a graduate degree in chemistry.

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 511 Advanced Placement-Chemistry (1-3) Designed to provide content, pedagogical and laboratory information related to the teaching of Chemistry in a secondary school advanced placement program. Unlimited repeatability.

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 and skills. Fee required.

CHED 530 Organic Chemistry: Concepts and Applications (3) 2 lecture, 2 laboratory Colorado Teacher Certification in Sciences required or the equivalent. Structure, properties and reactions of organic compounds will be explored. Applications of basic concepts in modern society will be presented for teachers interested in improving their understanding of organic chemistry. Not applicable to a graduate degree in chemistry.

CHED 560 Physical Chemistry: Concepts and Applications (3) Prerequisites: CHEM 112 or MATH 125 in one year of physics. The basic ideas of thermodynamics are presented in a manner appropriate to the needs of the science teacher. Applications will be made to the world about us.

CHED 682 Problems in Teaching Chemistry (3) Problems encountered in teaching chemistry and approaches to solving these problems will be considered. The formal nature of concepts, management of laboratories, safety, demonstrations are illustrative of areas of discussion.

Chemistry

CHED 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.

CHED 102 Chemistry for Citizens Laboratory (1) (2 laboratory) Prerequisite: CHEM 101 or take concurrently. Chemical principles illustrated, including (1) chemical world through hands-on laboratory. For non-science majors. Credit given only upon successful completion of CHED 101. Fee required.

CHED 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.

CHED 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.

CHED 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.

CHED 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.

CHED 112 Principles of Chemistry II (5) 4 lecture, 3 laboratory) Prerequisite: CHEM 110 or CHEM 111. A continuation of CHEM 111. Thermochemistry, chemical kinetics, equilibrium, qualitative analysis, electrochemistry and descriptive inorganic chemistry. Fee required.

CHED 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. Course designed for the well-prepared student. Atomic theory, stoichiometry, bonding, states of matter and solutions. Fee required.

CHED 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.

CHED 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.

CHED 320/520 Theory and Use of Analytical Instruments (1) (3 laboratory) Prerequisite: CHEM 321 or CHEM 531. Techniques of sample preparation and data collection for IR, NMR, UV-visible and AA spectrophotometers and gas chromatograph. Fee required.

CHED 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.

CHED 331 Organic Chemistry I (5) 4 lecture, 3 laboratory) Prerequisite: CHEM 112 or CHEM 115. Credit not allowed for both CHEM 331 and CHEM 351. Nomenclature, reactions and synthesis of organic compounds. Fee required.

CHED 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.

CHED 360/560 Environmental Chemistry (2) 1.5 lecture, 5 laboratory) Prerequisite: CHEM 131 or CHEM 351. The effect of chemicals in the environment.

CHED 395 Food Chemistry (3) 2 lecture, 3 laboratory) Prerequisites: CHEM 208 and FND 251 or consent of instructor. Chemistry of foods, food products, food additives and the chemical analysis of foods. Fee required.

CHED 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.

CHED 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.

CHED 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.

CHED 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.

CHED 543 Inorganic Chemistry Laboratory (1) 3 laboratory) Prerequisite: CHEM 352, MATH 131, PHYS 221. Corequisite: CHEM 351. 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.

CHED 452/552 Physical Chemistry II (4) Prerequisites: CHEM 332, MATH 233, PHYS 241 or consent of instructor. Corequisites: CHEM 321 and CHEM 452. The properties of matter, thermodynamics, thermochimistry and kinetic molecular theory.


CHED 454 Physical Chemistry II Laboratory (1) 3 laboratory) Prerequisite: CHEM 452. Corequisite: CHEM 453. Fee required.

CHED 481 General Biochemistry I (3) Prerequisite: CHEM 351. 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.

CHED 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.

CHED 483 Experimental Biochemistry I (1) 3 laboratory) Prerequisites: CHEM 351, 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 485. 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, inorganic chemistry. Repeatable, maximum four credits under different subtitles.

CHEM 495 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 520/320 Theory and Use of Analytical Instruments (1) (3 laboratory) Prerequisite: CHEM 331, CHEM 351. 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 521. 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 theory.

CHEM 543 Organometallic Chemistry (3)
Prerequisite: CHEM 441. An Introduction to organometallic chemistry, including complexes of transition metal organometallic compounds.

CHEM 551/451 Physical Chemistry I (4)
Prerequisites: CHEM 352, MATH 253, PHYS 241. Corequisites: CHEM 351. The properties of matter, thermodynamics, thermochemistry and kinetic molecular theory.

CHEM 552/452 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. An examination of the thermodynamics and kinetics of bulk systems, including the energetics, equilibrium, and kinetics of such systems.

CHEM 560/560 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 531 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 582/482 General Biochemistry II (4)
Prerequisites: CHEM 532, 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 521, CHEM 481. Theory and application of techniques for the purification and characterization of biological molecules. Various techniques utilizing centrifugation, spectrosopy, chromatography, electrophoresis and radioisotope 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 632 Directed Studies (1-5)
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 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 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 of six credits.

CHEM 793 Research Practicum (1-6)
Consent of Major Advisor. Provides experience in the development and implementation of research techniques, the development of experimental design and the analysis of research data. Repeatable.

CHEM 797 Doctoral Proposal Research (1-4)
Required of all doctoral candidates. 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 grading. Repeatable, maximum of four credits.

CHEM 799 Doctoral Dissertation (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 grading. Repeatable, no limitations.

Chinese

CHIN 101 Beginning Chinese (5)
For students with no previous Chinese. Conversational Chinese using oral techniques with reading and writing skills. Stress 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. Stress comprehension, structure, pronunciation, fluency and cultural awareness. Fee required.

CHIN 105 Conversational Chinese I (5)
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 (5)
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 (5)
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 (5)
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.

Communication Disorders

CNDS 160 Introduction to Human Communication and Its Disorders (3)
Observation in UNIC Speech-Language Pathology and Audiology Clinic required. Survey identifying characteristics, causes, diagnosis and treatment of speech and language disorders.

CNDS 260 Introduction to Phonetics (2)
Characteristics of American English speech sounds and the International Phonetic Alphabet symbols used to represent them. Normal phonological development.

CNDS 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.

CNDS 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.

CNDS 267 Anatomy and Physiology of the Speech and Hearing Mechanism (3)
Prerequisite: ZOO 115. Somophores or above. Structure and function of the speech and auditory/vestibular mechanisms.

CNDS 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 Procedures (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 observation 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 and cannot be repeated.) 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 467/467 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 474/574 Clinical Practicum in Audiology (1) Prerequisite: CMDS 370 and 3.0 GPA in major courses or consent of clinical coordinator. Perform basic audimetric 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 483/583 Entry/Primary Speech-Language Pathology Practicum (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 487/587 Advanced Audiology (3) Prerequisite: CMDS 370. Theory and practice of advanced techniques of audimetric 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 specifically direct 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 Neuropsychology of Communication (3) Neuroanatomy and neuropsychology related to speech, language and hearing; neuropsychopathologies 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 567/467 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 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, emphasis on the electrophysiological potentials; processes of pathophysiology.

CMDS 574/474 Clinical Practicum in Audiology (1) Prerequisite: CMDS 370, 3.0 GPA in major courses or consent of clinical coordinator. Perform basic audimetric 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. Practicum in implementing procedures for acoustically-handicapped persons. Repeatable, maximum of six credits. Fee required.


CMDS 583/483 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 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 587/487 Advanced Audiology (3) Prerequisite: CMDS 570. Theory and practice of advanced techniques of audimetric 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 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 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 neuropsychology 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 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 study 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, participation in the scientific inquiry process, knowledge of scientific writing style and dissemination. S/U graded. Repeatable. No limitations.

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.

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.

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 subtitles.

CS 200 Object-Oriented Analysis Design and Programming (3) Prerequisite: CS 100. 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.

CS 222 Computer Architecture/Organization (3) A study of the organization and structure of the major hardware components of computers and the basics of assembly language programming.

CS 301 Algorithms and Data Structures (3) Prerequisite: CS 200. Study 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.

CS 302 Programming Languages (3) Prerequisite: CS 301. Study the major hardware components of computer science that reflect the specific interests of available instructors and the specific needs of the students. Repeatable, under different subtitles.

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.

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.) Repeatable, maximum concurrent enrollment is two times.

CS 440 Operating Systems (3) Prerequisite: CS 221. Study operating systems history, concepts/structure and design; process, processor memory, file system and input/output management; and representative operating systems.

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.

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) Prerequisites: CS 210, CS 300. Study knowledge representation, automated reasoning, natural language processing, vision processing, expert systems and machine learning; and AI programming.

CS 480 Graphics (3) Prerequisite: CS 210. 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.

CS 490 Seminar (1) Junior or above in Computer Science. Each student will research a current topic of interest present it as a seminar. A term paper on the topic will also be required. Repeatable, maximum of eight credits.

CS 492 Internship (1-8) Senior or above or consent of instructor. Obtain practical experience and have opportunities to utilize computer science theory. 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. Repeatable, maximum of eight credits.

College Student Personnel Administration

CSPA 050 New Student Seminar (0) Provides the opportunity for new students to learn and adopt methods and skills needed for success in college. Includes time management, study skills, note-taking, reading, and goal setting. 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. S/U graded.

CSPA 175 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 308 College Student Personnel Administration Workshop (1-3) 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 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 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 PSY 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 681 Philosophical, Historical and Cultural Foundations of Student Affairs (3) Examines the philosophical and historical foundations of student affairs, including the development and evolution of student affairs in higher 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 682 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 683 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 685 Multiculturalism in Higher Education (3) Understands 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 700 College Students: Culture, Characteristics, Campus Life (3) Prerequisite: CSPA 650. Investigates student affairs profession and implications of 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 755 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.

Dance

DNCE 166 Ballet (1) Gain knowledge and skill in the activity of ballet. Repeatable, maximum of 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 169Partnering (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 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 185 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 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 308/508 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 358 Repertoire (2) Prerequisites: DNCE 166, DNCE 170, DNCE 171. Learning choreographed dances for purpose of perfecting movement memory, musicality, performance ability and dancing as part of ensemble.

DNCE 359 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 453/553 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 454/554 Dance History and Philosophy (2) Consider the history and development of dance as it is culturally determined and the philosophy influencing dance.

DNCE 455/555 Dance Philosophy/Trends (2) Prerequisites: DNCE 166, DNCE 170, DNCE 171, DNCE 296. Consider trends in dance/art form. Familiarity with dance criticism.

DNCE 456/556 Advanced Technique, Improvisation and Composition (2) Prerequisites: DNCE 295. Investigate advanced dance technique, composition and problems connected with staging a dance performance.

DNCE 459/559 Dance Production in High School and College (2) Prerequisites: DNCE 295, DNCE 296, or consent of instructor. Investigate and explore principles of dance that serve the presentation of dance. Deal with the choreographic problems, its direction and production involving theatre application of set, costume and light design.

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 202 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 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 capitalistic, communist and socialist economic systems 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 300 Intermediate Microeconomics (3) Prerequisites: ECON 105, MATH 124 or MATH 175. The theory of consumer choice, of the business firm and resource allocation.

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 Labor/Management Economics (3) Prerequisites: ECON 105, ECON 105. Examine American labor movement, development of labor laws and policy, collective bargaining, 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 350. 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 350/355 Intermediate Macroeconomics (3) Prerequisites: ECON 103, ECON 105. Study the determinants of aggregate demand, aggregate supply, employment, macroeconomic objectives and policies.

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 402/502 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.

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 451/551 Quantitative Economics (3) Prerequisites: ECON 300, ECON 350, 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 456 Water Resource Economics (3) Prerequisites: ECON 103, 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 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 470/570 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 480/580 Research in Economics (2-5) Prerequisites: ECON 300, ECON 350 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. One time, maximum eight credits. Fee required.

ECON 492 Internship in Economics (2-5) Prerequisites: ECON 300, ECON 350 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 500, ECON 350, ECON 452. Senior oral review of 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 502/402 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 508 Workshop (1-5) 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 subtypes.

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 at the micro level through a variety of classroom learning experiences. Unlimited repetitability.

ECON 513 Professional Renewal (1-5) 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 subtypes.

ECON 550/350 Intermediate Macroeconomics (3) Prerequisites: ECON 103, ECON 105. Study the determinants of aggregate demand, aggregate supply, employment, macroeconomic objectives and policies.

ECON 551/451 Quantitative Economics (3) Prerequisites: ECON 300, ECON 350, 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 552/452 Econometrics (4) Prerequisites: ECON 300, ECON 350, BACS 390, MATH 131 or MATH 176. Estimating statistical regression models of economic relationships; treatment of special problems in analysis of economic data. Microcomputers will be used. Fee required.

ECON 555/455 Regional Theory and Methods (3) Prerequisites: ECON 300, ECON 350, 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 570/470 History of Economic Thought (3) Prerequisites: ECON 103, ECON 105. Trace the evolution of economic thought 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 580/480 Research in Economics (2-5) Prerequisites: ECON 300, 350 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.

Elementary Education: Early Childhood


EDDC 233 Development and Guidance of Young Children (3) (2 lecture, 2 laboratory) Prerequisites: EDEC 333, 334. Development of infant's and young children's responsibilities for providing favorable environment. Course to be repeated for credit. S/U graded. Repeatable under different subtypes.


EDDC 236 Child Development (3) Prerequisites: EDEC 333, 334. Developmental changes in the family as it develops role behavior, personality, self-identity. Focus on how interaction focuses on one's defenses against change in family crises.

EDDC 237 Directed Studies (1-3) Prerequisites: EDEC 333, 334. 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 462/562 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 465 Diagnostic Teaching in Early Childhood (3) Full admission to PTEP required. Juniors/seniors only. Discover various diagnostic tools and approaches 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 562/462 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 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 the supervising 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 Psycholingustics 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 educational 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 Decision Making for the Young Child (5) 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 the theoretical components of 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 development, functions 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 developmental processes 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 (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 12 hours of credit for the 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.

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 508 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 405/505 Cadet Teaching (1-6) Cadet teaching is the field component based in the school setting taken concurrent with "blocked" classroom methods courses, i.e., ERED 410/510 and ERED 440/540. A total of 12 credits. 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 & Pre-Service Teaching (6) Prerequisites: EPSY 346, EDEL 430. Corequisite: ET 301. Provisional or full admission to PTEP required. Students immersed in learning about teaching, reflecting on learning and learning, 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 Elementary Education Integrated Methods I and Preservice Teaching (9)**  
Prerequisites: ET 301, EDEL 450. 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 and social studies and art. Students learn discipline specific instructional techniques, activities and content knowledge in school setting.

**EDEL 470 Integrated Methods II and Preservice Teaching (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 505/405 Cadet Teaching (1-6)**  
Cadet teaching is the field component based in the school setting taken concurrent with a "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 school 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 the supervising 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. Helps student in recognizing the need for creating processes that enable children, educators and others to support and design a culturally and socially diverse curriculum.

**EDEL 620 Research 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 Research 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 Research 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 instruction. Major trends, issues and research affecting educating children for citizenship in a pluralistic, democratic society.

**EDEL 679 Research Applications in Appraisal, Evaluation and Clinical Supervision of Education 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)**  

**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. Covers 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/literature arts and 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 in the dissertation in partial fulfillment of requirements for the doctoral degree. S/U graded. Repeatable, no limitations.

**Foundations of Education**

**EDF 201 Introduction to Multiculturalism (3)**  
Acquaints students with concepts, content, strategies and resources for working in a multicultural pluralistic environment. Enables students to integrate content on pluralism into community settings. Attitudes and insights emphasized.

**EDF 308 Workshop In Foundations in Education (1-3)**  
For undergraduates to study problems in Foundations of Education. Repeatable, under different subtitles.

**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 Concepts of Schooling: Context and Process (4) Corequisites: ET 201 for elementary education program; EDHG 320 for middle grades program; STEP 282 for secondary program. Full admission 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 professional issues in school management, organization, finance, child abuse and neglect.

EDF 395 Advanced Topics in Foundations of Education (1-3) Topics may derive from need generated by other courses, or from those of a particular group of students. Area covered will be determined by course subtitle. Repeatable, under different subtitles.

EDF 422 Directed Studies (1-3) Individualized investigation under the direct supervision of a faculty member. (Minimum of 23 clock hours required per credit hour. Repeatable, maximum concurrent enrollment is two times.

EDF 508 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 be specifically directed at Individual professional enhancement rather than 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 the nature of human activity (thinking, behaving, feeling) and the 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 action.

EDF 663 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 667 Modern Curricular Trends and Issues (2) Describes curricular and pedagogical practices and trends in the public schools and approaches them in the light of criteria drawn from foundations areas.

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.

EDF 695 Advanced Topics in Foundations of Education (3) These topics may derive from other advanced courses in Foundations of Education, or from the need of a particular student or group of students. Area covered in any one course is determined by a course subtitle. Repeatable, under different subtitles.

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 prescribed 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 through 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 404 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 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. EDGE 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 the 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 repertoire 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 the 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, EDGE 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.

Educational Field Experience: Laboratory School

All EDLS courses have unlimited repeatability.

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 361 Clinical Experience: Intermediate (1-3) Full admission to PTEP or certification at the undergraduate level required. Consent of instructor. Professional development for middle grade education majors. Minimum of 25 contact hours with level 4-6 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.

EDLS 365 Advanced Clinical Experience (1-3) Full admission to PTEP or certification at the undergraduate level and, previous clinical experience. Consent of instructor. Enhance personal and professional development through selected class observations. Minimum of 25 contact hours with children for each hour of credit. Weekly seminar.

EDMG 200 Exploring Teaching: Emphasis in the Middle Grades (2) Corequisites: 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: EDMG 303, 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. 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 knowlege, skills, and dispositions needed to successfully complete the middle grades student teaching experience. S/U graded.

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. Select and use instructional strategies, skills required of teachers, nature of the curriculum and problems of articulation with other schools in a system.

EDMS 308 Middle School Workshop (1-10) Concentrate on instructional problems of participants, with problems attacked varying with participants. Required laboratory arranged. Repeatable, under different subtitles.

EDMS 360 Middle School Instructional Practices (4) Prerequisites: Full admittance to PTEP or undergraduate certification. Students seeking middle school certification will gain knowledge and application of instructional strategies, minimum plans 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 as 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) Corequisites: ET 420, EDMG 440, ET 301. Juniors or above. Required laboratory arranged. 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.

EDMS 666 Assessment, Design and Evaluation of Middle School Curriculum (3) Identification of content accreditation criteria, curriculum modeling, needs assessment, 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. Students provide a presentation which 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.

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 the 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 308 Reading Workshop (1-10) Subtitle indicates whether workshop is for elementary or secondary teachers. Topics related to remedial reading, word identification, comprehension, study skills, content reading and trends and issues will be included. S/U graded. Repeatable, may be taken four times to a maximum of 10 credits, under different subtitles.

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 relationship, 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 414/514 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 419/519 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 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 423/523 Reading and Writing in the Content Areas (3) Full admission to PTEP or certification at the undergraduate level required. Development 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, EDMC 440, ET 501. Juniors or above. Provisional or full admittance to PTEP required. Develop and construct 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 and planning programs 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 diagnostic reading 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 514/515 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 519/519 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 523/523 Reading and Writing in the Content Areas (3) Full admission to PTEP or certification at the undergraduate level required. Development 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 (1-3) 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. Examination 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 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 educational 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. Intensive study and guided application of research on reading strategies for emerging readers and to develop and utilize critical thinking skills in contemporary society.

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; 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, 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 Research 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 designed. A minimum 45 hours of supervised work equals one (1) credit. S/U graded. Repeatable, no limitations.


EDRD 701 Advanced Practicum in Literacy (1-6) 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 techniques 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, analyses 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. 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.

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, 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, instructional techniques and evaluation of children for placement. Materials prescribed by special workshop offered. Repeatable, under different subtitles.

EDSE 311 Including Exceptional Students in Middle Grades Classroom (1) Corequisites: EDMG 520, EDF 366. Juniors or above. Provisional or full admittance to PTEP required. Introductions 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 350 Structure of Language (3) Approach language from a syntactical and morphological view as it applies to children, stressing the understanding of the structure of the English language and how human language develops.

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 380 Introduction to the Gifted and Talented (3) To give potential teachers an understanding of talented and gifted children. Learn the characteristics and needs of the gifted and strategies and materials that benefit these children.

EDSE 400 Introduction to 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 402 Assessment of Students with Profound Needs (3) Prerequisite: EDSE 400. Full admission to PTEP required. Learning strategies, methods and curricula for children who are severely/profoundly handicapped and 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 teaching children with profound needs at the pre-vocational 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 and teaching conditions concerning 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, Early Childhood 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 413 Professional Renewal Experience (1-4) For teachers and administrators. Enhance expertise in respective professional fields. Specific content designated by course title offered and number of hours. Repeatable, under different subtitles.

EDSE 422 Directed Studies (1-5) 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 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 of 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 contexts 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 506 Seminar in Mainstreaming: Exceptional Students in the Regular Classroom (3) Survey course for non-special education graduate students concerning mainstreming 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 5 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 applications: 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. Emphasizes 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 501, 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 and assignment of educational/behavioral goals. Required laboratory arranged. Study special education graduate students in the area of educating students with profound needs. Prerequisites: EDSE 500, EDSE 501, EDSE 502, EDSE 503. Designed to synthesize experience and coursework in the area of educating students with profound needs. Emphasizes are on issues, research, classroom application and consultation.

EDSE 527 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 528 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 529 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 530 Parent/Professional Partnerships (3) Prerequisite: EDSE 520. Provides theory and practice 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 532 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 students 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 533 Research and Policy 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. 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 4 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. Will have the signing knowledge and ability to demonstrate visual discrimination, classifier description, time indicators, house and home, being/affectional 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 Sign Exact English (SEE). Manual communication skills used in educational and social settings are emphasized. Includes finger spelling, vocabulary, understanding sign concepts, conversational skills and ability to teach and communicate using sign exact English. Fee required.

EDSE 553 American Sign Language 2 (3) Prerequisite: EDSE 551 or equivalent. Provides opportunity to increase understanding of linguistic/cultural aspects of American Sign Language. Increase receptive/vocalized vocabularies, and recognize/apply appropriate grammatical rules using ASL. Additional lab required. Fee required.

EDSE 560 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. Consent of Instructor. Supervised practice in programming for and teaching special needs students including assigned seminar topics. Additional seminar time required. S/U graded. Repeatable, maximum of 12 credits.

EDSE 602 Behavioral Disorders: Characteristics, Identification and Intervention (3) Examine typical behavioral characteristics associated with severe behavioral 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 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 or consent of instructor. In-depth study of language and communication. Focuses on the language of students with special needs.

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 teaching of students with severe affective needs. Emphasis 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 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 cognitive 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. Emphasis are on issues, research and classroom application.

EDSE 622 Directed Studies (1-5) 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 624 Practicum with Students with Severe Cognitive Needs, Ages 5-12 (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 cognitive program competencies. Additional seminar time required. S/U graded. Repeatable, maximum 12 credits.

EDSE 625 Practicum with Students with Severe Cognitive Needs, Ages 13-21 (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 experiences 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. Emphasis 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 practical settings under college supervisor and certified 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 certified 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) 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 practical settings under college supervisor and certified 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 642 Advanced Seminar in Education of Students with Visual handicaps (3) Role of the special educator in the teaching of students with visual handicaps, assessments, compensatory skill methodology. IEP/IFSP development, appropriate placements, sources of 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 500, EDSE 501, EDSE 502 and EDSE 503. 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 645 Practicum in Rehabilitation Teaching of Individuals with Visual Handicaps, K-12 (6-12) Prerequisites: EDSE 543, EDSE 546, EDSE 549, EDSE 651 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 651 Speech Science, Severe Needs: Hearing (3) Prerequisite: EDSE 450. Study the physics, acoustics, speech, perceptual features and production of speech; suprasegmental and segmental and application to language for the severe hearing needs person.

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 communication 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 method 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 659 Seminar in Education of the Hearing Impaired (3) Prerequisites: EDSE 500, EDSE 501, EDSE 502 and EDSE 503 or consent of instructor. Designed to synthesize experiences and coursework in the area of hearing impairments with emphasis on recent trends, research and classroom application.

EDSE 660 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 agency. There is a blend of current theory and practice of administrators of various agencies serving exceptional children.

EDSE 661 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 efforts into useful form, and to interpret them 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) Prerequisites: EDSE 543, EDSE 546, EDSE 549, EDSE 641 and EDSE 643. Consent of instructor. Required laboratory arranged. Study current issues and trends in the 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 exceptionality, 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) Prerequisite: EDSE 543, EDSE 546, EDSE 654. 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 4 credits.

EDSE 726 Seminar in Low Prevalence Exceptionalities (3) Consent of instructor. Issues in education of students with learning disabilities, 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 for 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 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.


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 341/541 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 502 The Teaching of Writing (3) Full admission to PTEP or certification at undergraduate level required or consent of instructor. Methods of improving student writing. Repeatable, maximum nine credits under different subtitles.

EED 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.

EED 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.

EED 541/541 Methods and Materials for Teaching Language and Composition in the Secondary School (3) Full admission to PTEP or certification at undergraduate level required. Prerequisites: Methods and materials for teaching language and composition in the secondary schools. Teaching techniques are a point of emphasis.

EED 603 Developing the English Curriculum (3) Full admission to PTEP or certification at undergraduate level required. The place of English in the curriculum of the secondary school, with a consideration of appropriate materials and their use.

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 758 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.

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 is 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: Impediments for Practice (3) Prerequisite: 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 and allocation of funds, 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 procedures and programs of such management functions as 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 (5) 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 Development (3) Prerequisites: ELPS 601, ELPS 603, ELPS 604, ELPS 605 or consent of instructor. Focuses on the role of the curriculum leader in the development of curriculum and instructional materials. Emphasis on the use of evidence-based practices and the application of educational research to instructional decision making.

ELPS 655 Seminar in Learning in Adulthood (3) A seminar on the role of learning in adulthood. Topics may include learning theories, adult learning styles, and the role of technology in adult education. Prerequisite: ELPS 601, ELPS 603, ELPS 604, or consent of instructor.

ELPS 660 Law and the Administrator (3) Prerequisites: ELPS 601, ELPS 603, ELPS 604, or consent of instructor. Focuses on the legal aspects of school administration, including legal and ethical considerations in decision making, legal responsibilities and liabilities, and the role of the administrator in the legal system.

ELPS 661 Law and Higher Education (3) Prerequisites: ELPS 601, ELPS 603, ELPS 604, or consent of instructor. Focuses on the legal aspects of higher education, including the legal relationship between the university and students, faculty, and the state, and the role of the university in community development.

ELPS 665 Policy Analysis and Development (3) Prerequisites: ELPS 601, ELPS 603, ELPS 604, or consent of instructor. Focuses on the development of public policies, including the use of policy analysis, stakeholder involvement, and ethical considerations in policy development.

ELPS 666 Planning and Change in Education (3) Prerequisites: ELPS 601, ELPS 603, ELPS 604, or consent of instructor. Focuses on the strategic planning process in education, including the role of data and evidence in decision making and the management of change in educational organizations.

ENG 132 College Research Paper (3) Prerequisite: ENG 122. Instruction in the development of a substantial research project, including the identification of a research question, the selection of appropriate research methods, and the writing of a research paper. Repeatable, maximum three credits under different subtitles.

ENG 135 Modernism in Literature (3) Study of modernist movements in literature, focusing on the works of key modernist writers. Emphasis on understanding the social and cultural contexts of modernist literature and the use of literary devices such as symbolism and irony.

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, oral and written presentation and use of illustration in writing. Focus on literary, technical, and expository writing. Repeatable, maximum nine credits under different subtitles.

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 253 World in Literature (3) Variable content course studying literature of countries predominantly other than England and America. Readings may be thematic, comparative, or geographical. Repeatable, maximum nine credits under different subtitles.

ENG 256 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 258 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 259 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.
Study of the riches of world literature in translation.

Critical Approaches to Literature
(3) Study of literary works through a variety of approaches such as sociological, psychological, deconstructionist and other contemporary theories.

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.

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.

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.

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.

Advanced Expository Techniques
(3) Prerequisite: ENG 215. Reading, writing and formal analysis of various prose pieces and study of logical fallacies in ancient and modern political writing.

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.

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.

Creative Writing — Advanced
(3) Prerequisite: ENG 240 in the appropriate subtitle or equivalent. Subtitles: Poetry, Fiction, Drama. Repeatable, maximum nine credits under different subtitles.

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.

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.

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.

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.

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.

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.

American Literature through the 19th Century
(3) Careful study of major writers and literary movements from the Puritan period up to 1900.

American Literature of the 20th Century
(3) Careful study of major writers and literary movements from 1900 to the present.

The Short Story
(3) Analysis of modern short stories.

Techniques of the Novel
(3) Study of seven or eight important English and American novels to show different techniques used to reveal the novelists' artistic insight.

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.

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.

Advanced Studies in Poetry
(3) Study of one or more poets or special problems in poetry; may focus attention on specific poet or sub-genre.

Advanced Topics in Literature
(3) Topics may focus on themes, literary theory, genres, historical periods or selected writers.

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.

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.

Language and the History of English
(3) Prerequisite: ENG 210. A survey of English 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.

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.

Advanced Studies in World Literature
(3) An investigation of a theme, form or problem that cuts across periods and nationalities. Repeatable, under different subtitles.

World Literature By and About Women
(3) The contributions of important early and modern women writers. Novels, plays and poetry or short stories of women writers will be studied.

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.

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.

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.
**Course Descriptions - English • Environmental Studies**

ENST 235 Chemistry and the Environment (2) Prerequisite: ENST 100 recommended. Examine the practical application of the theories to works of literature. Repeatable, maximum nine credits under different subtitles.

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 growth. Repeatable, maximum nine credits under different subtitles.

ENST 375 Literature and the Environment (3) Explore writing about nature or human relationships with nature from various periods and cultures. What economic, scientific, philosophical and religious attitudes emerge from attitudes about nature and do these influence human treatment of natural things? Repeatable, maximum nine credits under different subtitles.

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. Repeatable, maximum nine credits under different subtitles.

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 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 343 Educational Psychology (3) Study the application of principles of learning, memory, human development, motivation, and educational assessment to classroom settings.

EPSY 346 Learning and Development for Teachers (2) Corequisites: EDMD 420 for middle grades program; EDSD 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 a number of classroom applications of psychological theories and principles considered throughout. Geared specifically for pre-service teachers.

EPSY 370 Educational Assessment (5) For prospective teachers and others interested in educationally related applications. Use and interpretation of standardized tests; basic concepts of reliability, validity, and norms; construction of teacher-made tests.

EPSY 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.

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 old age. Focus: cognitive, affective, social and psychomotor development throughout the life span.

EPSY 540 Theories and Principles of Learning (5) 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 development 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 684 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) Major topics include: examination of 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: EPSY 674. 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 674A. 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 654. Analysis of the research literature in cognitive psychology. Examination of 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 (1-4) 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 in educational psychology. 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.

Earth Sciences

ESCI 268 Earth Science Concepts for Elementary Teachers (3) (2 lecture, 2 laboratory) An introduction to the basic concepts of Earth Sciences through lecture, discussion and laboratory investigations. This course is ideal for those seeking elementary teacher certification. Fee required.

ESCI 480 Strategies in Teaching in Earth Sciences (1) (2 laboratory) Demonstration and strategies appropriate for teaching earth science concepts and presentation of current issues and management of laboratory and field trip activities.

ESCI 484/584 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 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 584/484 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.

ESCI 599 Seminar in Earth Sciences (1) Consent of Instructor. Invited speakers, including graduate students, faculty and guests, present current earth science topics in seminar format. Required of all 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 and presentation of scientific findings. Required of all first year Earth Sciences graduate students.
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 subtitile will explain each course. Repeatable two times, under different subtitles.

ET 500 Instruction 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 workshop 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. An introduction to 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 555 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 556 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/CDM 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 report project 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 subtitile will explain each course. Repeatable, under different subtitles to a maximum of three credits.
Technology (3) Summarize existing research, identify problems, and applied research bases is featured.

ET 502 Instructional Design Theory and Applications (3) Prerequisite: ET 602. Investigation of the design, organization and administration of large complex systems. Repeatable, maximum 4 credits.

ET 705 Design of Complex Technology Systems (3) Exploration of the design, organization, and administration of large complex technology systems. Repeatable, maximum 4 credits.

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 782 Research in Instructional Development/Design (3) Prerequisite: ET 602 or consent of instructor. Review and critique of basic and applied research investigating instructional design and development applications in a variety of contexts.

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) Prerequisite: ET 602. Topics and studies for new or revised doctoral programs. Repeatable, maximum 10 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.

Foreign Languages

FL 531 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 in the discipline. Repeatable, under different subtitles.

FL 513 Professional Renewal (1-10) A variety of workshops on special topics within the discipline. Goals and objectives will emphasize the acquisition of general knowledge in the discipline. Repeatable, under different subtitles.

FL 531 Teaching of Foreign Languages (2-4) 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 student. Supervised professional activity in student's area of interest. Repeatable, maximum 10 credits.

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. Introductory concepts including individual nutrients and their interactions.

FND 252 Nutrition in the Life Cycle (3) Prerequisite: FND 251. Nutrition applied to the various stages of life, from conception to the later years. Socioeconomic, psychological, physiological factors affecting food intake.

FND 508 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 542 Food Science (4) (2 lecture, 2 laboratory) Prerequisites: CHEM 151, FND 251. 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 420/520 Maternal and Child Nutrition (3) Prerequisite: FND 250 or FND 251 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. Repeatable, maximum concurrent enrollment is two times.


FND 446 Foodservice Systems Management (4) 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 251, CHEM 109, ZOO 350. Metabolic, physiological, and biochemical features 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. Repeatable, maximum 2 credits.

FND 455/555 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.

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 555/655 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 622 Directed Studies (1-3) Graduate students 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.

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 101 Intensive Elementary French I (5) Some previous knowledge of French required. Accelerated beginning course for students with previous basic French. Conversational French using oral techniques with reading and writing drills. Stresses comprehension, structure, pronunciation, fluency and cultural awareness. Conducted in French. Fee required.

FR 102 Elementary French II (5) Prerequisite: FR 100 or FR 101 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 (1-3) 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 311/511 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 312/512 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 401/501 Intensive French (1-8) Available only on Study Abroad. Experience intensive training in the 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 402/502 Contemporary Life in France (1-6) Available only on Study Abroad. Experience intensive training in the use of French through formal classroom instruction. Special attention to grammar review, idioms and media language. Conducted in French. Repeatable, maximum six credits (if course content varies).

FR 403/503 France of the Ancien Régime (1-8) Available only on Study Abroad. Study of social, cultural and political developments in France from prehistoric times up through the French Revolution with attention to art, architecture, theatre and music. Conducted in French. Repeatable, maximum eight credits (if course content varies).

FR 404/504 Modern France (1-8) Available only on Study Abroad. Study of social, cultural and political developments in France from the French Revolution to the present, 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 450/550 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 475/575 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 501/401 Intensive French (4) Graduate status in French. 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 502/402 Contemporary Life in France (3) Graduate status in French. Available only on Study Abroad. Study of French civilization from prehistoric times up through the eighteenth century, including the historical, geographical, economic, political, social, artistic and literary development of France. Conducted in French.

FR 503/403 France of the Ancien Régime (4) Graduate status in French. Available only on Study Abroad. Study of social, cultural and political developments in France from prehistoric times up through the French Revolution with attention to art, architecture, theatre and music. Conducted in French. Repeatable, maximum six credits (if course content varies).

FR 504/404 Modern France (4) Graduate status in French. Available only on Study Abroad. Study of social, cultural and political developments in France from the French Revolution to the present, with special attention paid to art, architecture, theatre and music. Conducted in French. Repeatable, maximum eight 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 507/707 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 acquisition of general knowledge and skills in the discipline. Repeatable, under different subtitles.

FR 510 Advanced Placement Program-French (1-3) A course designed to provide content and pedagogical information related to the teaching of grammar and literature in the secondary school French advanced placement program. S/U graded. Unlimited repeatability.

FR 511/511 French Civilization and Literature Survey I (3) Graduate status in French. Study of French civilization from prehistoric times up through the eighteenth century, including the historical, geographical, economic, political, social, artistic and literary development of France. Conducted in French.

FR 512/512 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. Study 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 550/850 Studies in French Literature (3) Graduate status in French. Study complete works of major authors representing different movements and genres. Conducted in French. Research paper required. Repeatable, under different subtitles.
FR 575/475 Seminar In French Literature (2)
Prerequisites: FR 302 and FR 450. Graduate
status in French. 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 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.

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 225 Physical Geography (3) Study the
natural environments that cover the earth, the
processes that shaped them and their role as
settings for human action.

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
graph 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
geoscientific and geographic viewpoints and examine locational factors that influence behavior and resulting
global patterns.

GEOG 316 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 peoples and cultures, 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
they relate to a particular political 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
graphic 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
246, 302. An introduction to the basic
capabilities and concepts of computer-based
geographic information systems. Fee required.

GEOG 410 Teaching Geography in Secondary
Curriculum (1) Prerequisite: SOSC 341 or
equivalent. Full attendance at a PTEP site, 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.

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 438/538 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 453/553 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 techniques and
methods 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
topics based on the student's major
emphasis. Course focuses on the assessment of
students' geographic knowledge base, research
and analysis skills.

GEOG 505 Evolution of Geographic Thought
(3) Discuss comparative development of
philosophies and operative thought of geographers
past and contemporary, in different countries,
by analyzing and appraising available literature,
particularly thematic and topics significant to
modern American geographic philosophy.

GEOG 508 Workshop (1-3) A variety of workshops
on special topics within the discipline and
objectives will be specifically in 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 515 Professional Renewal (1-3) Update
skills and knowledge of geographic
instructor. Goal and objectives will be specifically
directed at Individual professional enhancement
rather than the acquisition of general
discipline. S/U or letter
graded. Repeatable, under different subtitles.

GEOG 520 Topics in Systematic Geography
(2) Graduates only or consent of instructor. Examine
and evaluate systematic geographic
teaching about that geographic topic.

GEOG 525 Topics in Regional 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 530/430 North America (3) Analyze
physical features and patterns, placing major
emphasis on land utilization, agriculture,
resource development, settlement and
migration patterns and processes of
industrialization.
Course Descriptions – Geography • Geology

GEOG 553/553 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 the 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 (5) Prerequisite: GEOG 475 or equivalent. Undertake selected research projects that provide experience in the use of quantitative techniques in interpreting geographical data.

GEOG 578 Seminar in Research Methodology (3) An introduction to methods of organizing and carrying out research on geographic questions, with particular emphasis on data collection and interpretation strategies. Students will plan and carry out research exercises.

GEOG 590 Advanced Research Seminar (3) Prerequisite: GEOG 578 or consent of instructor. Research will be undertaken on selected geographic issues: emphasis on the directed application of acquired research skills.

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 repetitability.

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.

Geology

GEOG 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 GEOG 100 and GEOG 201. Fee required.

GEOG 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.

GEOG 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 GEOG 100 and GEOG 201. Fee required.

GEOG 202 Historical Geology (4) (3 lecture, 3 laboratory) Prerequisites: GEOG 100 or GEOG 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.

GEOG 320 Mineralogy (4) (2 lecture, 4 laboratory) Prerequisites: GEOG 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.

GEOG 350 Earth Materials (3) (2 lecture, 3 laboratory) Prerequisite: GEOG 100 or GEOG 201. Crystals, minerals and igneous, metamorphic and sedimentary rocks — their origins, descriptions and classifications.


GEOG 390 Colorado Geology (3) Prerequisite: GEOG 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 geologic features in natural settings, Fee required.

GEOG 421/521 Optical Mineralogy and Petrography (4) (2 lecture, 4 laboratory) Prerequisite: GEOG 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.

GEOG 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.

GEOG 450/550 Sedimentology and Stratigraphy (4) (3 lecture, 3 laboratory) Prerequisite: GEOG 202. Sedimentary processes: depositional environments; classification and structures of sedimentary rocks; laboratory methods of analyzing and interpreting outcrops and samples. Regional stratigraphy of northeastern Colorado investigated. Field trips required. Fee required.

GEOG 460/560 Geomorphology (3) (2 lecture, 3 laboratory) Prerequisite: GEOG 100 or GEOG 201. Origin and evolution of landforms with emphasis on fluvial processes; genetic character of streams, morphology of drainage basins, landscape evolution by stream sculpture and deposition and lithologic, climatic and structural controls. Fee required.

GEOG 464/564 Glacial and Quaternary Geology (3) Prerequisite: GEOG 100 or GEOG 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.

GEOG 470/570 Structural Geology (4) (3 lecture, 3 laboratory) Prerequisites: GEOG 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.

GEOG 481/581 Geologic Field Techniques (2) (4 laboratory) Prerequisites: GEOG 202, GEOG 470. Techniques of obtaining and recording geological data in the field and constructing geological maps. Includes use of Brunton compass, plan table and aerial photographs and the preparation of geological reports. Fee required.

GEOG 482/582 Geology Field Camp (6) Prerequisites: GEOG 421, GEOG 470, GEOG 481. Six weeks of field geology including mapping of a variety of geological terrains using topographic maps, aerial photographs, plane table and other methods.


GEOG 521/421 Optical Mineralogy and Petrography (4) (2 lecture, 4 laboratory) Prerequisite: GEOG 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.

GEOG 525 Economic Geology (3) Prerequisite: GEOG 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.

GEOG 532 Igneous and Metamorphic Petrology (2) (1 lecture, 3 laboratory) Prerequisite: GEOG 420 or GEOG 421. Description and classification of igneous and metamorphic rocks, phase relations of minerals, origin of igneous rocks and processes of metamorphism. Field trip required. Fee required.

GEOG 533 Sedimentary Petrology (2) (1 lecture, 3 laboratory) Prerequisite: GEOG 421 or GEOG 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.

GEOG 535 Tectonics (2) Prerequisite: GEOG 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.

GEOG 540/540 Paleontology (4) (2 lecture, 6 laboratory) Prerequisite: GEOG 202. Fossil animals and plants — fossilization processes, collecting procedures, specimen preparation, description, classification, functional morphology, paleoecology, biostratigraphy, evolutionary trends. Field trip required. Fee required.

GEOG 550/450 Sedimentology and Stratigraphy (4) (3 lecture, 3 laboratory) Prerequisite: GEOG 202. Sedimentary processes: depositional environments; classification and structures of sedimentary rocks; laboratory methods of analyzing and interpreting outcrops and samples. Regional stratigraphy of northeastern Colorado investigated. Field trips required. Fee required.

GEOG 560/460 Geomorphology (3) (2 lecture, 3 laboratory) Prerequisite: GEOG 202. Introduction to earth materials, landform development, geologic structures and tectonics. Field trips required. No credit for both GEOG 100 and GEOG 201. Fee required.
GEOG 564/464 Glacial and Quaternary Geology (3) Prerequisite: GEOG 100 or GEOG 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.

GEOG 567 Volcanic Geology (3) (2 lecture, 3 laboratory) Prerequisite: GEOG 421 or GEOG 521 or consent of instructor. A study of volcanoes and volcanic products. Emphasis on the origin, classification and interpretation of volcanic rocks and ejecta and volcanic structures and landforms. Fee required.

GEOG 570/470 Structural Geology (4) (3 lecture, 3 laboratory) Prerequisites: GEOG 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.

GEOG 581/481 Geologic Field Techniques (2) (4 laboratory) Prerequisites: GEOG 202 and GEOG 470. Techniques of obtaining and recording geological data in constructing geological maps. Includes use of Brunton compass, plane table and aerial photographs and the preparation of geological reports. Fee required.

GEOG 582/482 Geology Field Camp (6) Prerequisites: GEOG 421 or GEOG 521, GEOG 470 or GEOG 570, GEOG 481 or GEOG 581. Six weeks of field geology including mapping of a variety of geological terrains using topographic maps, aerial photographs, plane table and other methods.

GEOG 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 specific area. Fee required.

GEOG 595 Special Topics In Geology (1-4) An opportunity to explore areas of geology beyond the scope of existing course offerings. Repeatable, under different subtitles.

GEOG 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.

General Education Program

GEP 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.

GEP 102 Evolutions of Cultures (3) Prerequisite: GEP 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.

GEP 103 The Modern World (3) Prerequisite: GEP 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.

GEP 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.

GEP 120 Social Science Methods of Inquiry (3) A survey and critique of theoretical and methodological approaches in the social sciences. Includes discussion of discipline-based representative theories and methods and their application to contemporary social issues.

GEP 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.

GEP 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.

GEP 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, methodological, analytical skills, and ethics in the social world. Issues of gender, class and multiculturalism will be examined.

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 101 Intensive Elementary German I (3) Some previous knowledge of German required. Accelerated beginning course for students with previous basic German. Conversational German using oral techniques with reading and writing drills. Stresses comprehension, structure, pronunciation and cultural awareness. Conducted in German. Fee required.

GER 102 Elementary German II (3) Prerequisites: GER 101 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) Prerequisite: GER 102 or equivalent. 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 composition 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 311/511 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 312/512 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 401/501 Intensive German (1-8) 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 402/502 Contemporary Life in Germany (1-6) 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 403/503 Practicum in Germany (1-8) 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 404/504 Modern Germany (1-8) 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 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.
Course Descriptions – German • Gerontology

GER 407/507 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 450/550 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 475/575 Seminar in German Literature (2) Prerequisite: GER 502 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 501/401 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 502/402 Contemporary Life in Germany (3) Graduate status in German. Available only on Study Abroad. Examine the customs, institutions and daily life of modern 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 503/403 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 504/404 Modern German (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 505 Topics in German Civilization (1-3) Graduate status or consent of instructor. Study a variety of selected topics relevant to the German world. Topics to be considered also as material for presentation in a secondary classroom. Conducted in German. Repeatable, under different subtitles to a maximum of 15 credits.

GER 506 Topics in German Literature (1-3) Graduate status or consent of instructor. Reading and discussion of significant works in German-language literature. Work selected and discussed with an eye on their applicability to the secondary school classroom. Conducted in German. Repeatable, under different subtitles to a maximum of 15 credits.

GER 507/407 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 511/511 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 512/512 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 521 Problems in Advanced Grammar (1-3) Graduate status or consent of instructor. Learn and apply grammatical structures with emphasis on structures presenting special difficulties in teaching German. Conducted in German. Repeatable, under different subtitles to a maximum of five credits.

GER 522 Problems in Advanced Composition (1-3) Graduate status or consent of instructor. Emphasize on written expression, style and idiomatic usage of the language. Conducted in German. Repeatable, under different subtitles to a maximum of five credits.

GER 550/450 Studies in German Literature (3) Graduate status in German. 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 551/551 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 552 Problems in Advanced Composition (1-3) Graduate status or consent of instructor. Emphasize on written expression, style and idiomatic usage of the language. Conducted in German. Repeatable, under different subtitles to a maximum of five credits.

GER 575/475 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.

GER 623 Practicum in Gerontology (1-3) Applies developmental theories to explain concepts of aging. Emphasizes current research in the exploration of issues facing older adults.

GER 624 Gerontology G 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.

GER 625 Issues in Adulthood (3) Examine primary roles and developmental tasks of adulthood. Issues and life transitions explored from the perspective of the individual, family and society.

GER 694 Practicum in Gerontology (1-3) Make application to the department before registration. Repeatable, maximum eight credits.

GER 695 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. Examine full commitment 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 (6-18) 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 595/595 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 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 program models, service gaps and funding mechanisms.

GERO 565 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 493/593 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 623 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 professional 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 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 writing 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.


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 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, economical, 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 220 Women In Hispanic Society (3) Study of women in Hispanic society, their role and participation from Middle Ages to the present through literary works. 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 the 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 theoretical 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 358 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 with 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. K-6 Bilingual endorsement/TESL minor required.

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 418 Contemporary Chicano Issues (3) A study of external and internal issues affecting the Chicano community.

HISP 422 Directed Studies (1-5) 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.

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 through Reconstruction 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 250 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 topically 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 Intellectual History (3) An examination of the growth and development of American thought by surveying major works of literature in their historical context and selected examples of popular culture, which reflect and influence intellectual trends.

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 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 268 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, 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 309/509 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 310/510 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 311/511 Modern Japan (3) An historical analysis of Japan from the Meiji 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 318/518 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 319/519 History of Latin America: 1855 to the Present (3) A thematic study of nationalism, fascism and foreign influence and social classes with particular reference to Nicaragua, Cuba, Chile, Argentina and Brazil.

HIST 327 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 328 Modern Africa (3) A study of the social, political, economic and cultural transformation of 20th century Africa.

HIST 329 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 332 United States Diplomatic History to 1941 (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 333/533 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 337/537 History of American Education Since 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 344 Nature and the American West (3) For students of history and related disciplines with an interest in the environmental history of the American West. Subjects include resource development and human interaction with the land.

HIST 350/550 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 352/552 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 354 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 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 Reformation (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.
Socialism and contributed to the decline of Europe
examination of Western European political,
and racial antecedents of the Holocaust, its
of the Soviet Union and its role In the world to
HIST 382 Hitler's Germany 1890-1945 (3 ) The
Second Republic, Second Empire, Third, Fourth and Fifth Republics.
HIST 386 Soviet History, 1917 to the Present
A detailed consideration of the establishment of
the Soviet Union and its role in the world to
the present.
HIST 387 Russian Intellectual-Cultural History, 1700 to the Present
A detailed discussion of Russian-Soviet intellectual and cultural history.
1700 to the present at the advanced level.
HIST 389/390 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 six 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 399 Introduction to Historical Research
Prerequisite: ENG 122. Historical methodology and historiography.
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 509/509 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 lifestlyes.
HIST 510/510 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 511/511 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 514/514 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 515/515 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 518/518 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 529/529 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 533/533 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 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 537 357 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 550/550 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 553/553 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 559/559 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 593 Practicum in Teaching History (2) To examine on-site methodologies of master teachers and their interaction with students from area secondary schools in order to understand and teach the program of historical analysis.
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.
Honors Program

HON 100 Honors Connections Seminar I (2) A variable content seminar for Honors students only, designed to make the connections between the 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.

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 380/580 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, 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 586/586 Community Integrated Employment (3) Emphasis will be on supported employment programs (from sheltered workshops to community) and transition from school to work.

HRS 591/591 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 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 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 580/580 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 (5) 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 Occupational 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 586/586 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, community services facilities, business and industry. Addresses legal issues, worker compensation, expert witness, transition, supported work and ethics.

HRS 591/591 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 650, 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 members. S/U graded. Fee required.

HRS 694 Supervised Counseling in Human Services (6) Prerequisite: HRS 650. 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 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.


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 112 The Renaissance to the Present (3) Study values, beliefs, customs, social and intellectual history of the period through literature, visual arts, philosophy and music.

HUM 118 Literature and Arts of the Orient (3) An introduction to the literature, arts and thought of the Orient.

HUM 120 Studies in Film (5) An approach to film emphasizing genre, theme, director or historical period. Repeatable, under different subtitles to a maximum of nine credits.

HUM 210 Topics in the Humanities (3) Interdisciplinary study of major themes or problems in civilization, incorporating social, philosophical and/or aesthetic perspectives. Repeatable, under different subtitles to a maximum of nine credits.

HUM 225 Studies in Asian Humanities (3) A study of the literature and other arts of India, China or Japan in their historical, philosophical and aesthetic settings. 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 531 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 410 Advanced Seminar in the Humanities (3) One or more great literary or artistic works in relation to history, philosophy and other arts. Repeatable, maximum nine credits.

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.

Interdisciplinary Studies

ID 100 President's Scholars Symposium (1) Open to recipients of the President's Honor Scholarship. UNC professors discuss research interests and contemporary issues. S/U graded.

ID 208 Feminism: An Interdisciplinary Analysis (3) Discuss feminist movement and utilize an interdisciplinary perspective to analyze how myth affects identity and attitudes of the "male world" and of women in relation to themselves and society.

ID 300 Global Futures (3) Consent of Instructor. Consider the interrelatedness of human equality issues to one another and to world environmental threats. Develop and apply ethical theories for resolving conditions and phenomena that threaten global survival.

ID 308 Workshop (1-3) Study problems in education, with area covered in any one workshop determined by title. Repeatable, under different subtitles.

ID 325 Human Sexuality (3) A multidisciplinary approach to the physiological, psychological and sociological aspects of human sexuality including critical analyses of research methodology.

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 (1-3) 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.

ID 599 Capstone Seminar (3) Prerequisite: SRM 500. A culminating experience in the Graduate Interdisciplinary Master of Arts program. Integration of content and pedagogy coursework/experiences, as well as the development of action research projects into final products.

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 institutional problems. Required of all Doctor of Arts candidates in mathematics and music. Should be taken during the first year of graduate study.

Japanese


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 hour.) Repeatable, maximum concurrent enrollment is two times.

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 Newswriting (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 310 Feature Writing for News Media (3) Prerequisite: JMC 210. Majors only. Consent of Instructor. Researching and writing about ideas, trends, personalities and events in formats and styles useful to all mass media. Fee required.

JMC 340 Broadcast Newswriting (3) Prerequisites: JMC 210 and JMC 241. Majors only. News for the ear and for the television camera eye: radio, television and cable newscasts. Fee required.

JMC 341 Advanced Radio Production (3) Prerequisite: JMC 241. Majors only. Broadcast quality audio productions: writing and adapting materials especially for the radio medium. The hardware, software and programming used in radio broadcasting. Fee required.

JMC 342 Television Production (4) Prerequisite: JMC 241. 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 380/580 Public Relations (3) Majors only. Consent of Instructor needed for recreation majors. The concepts, procedures and theories behind public relations as practiced. The techniques of remote video production and video editing; producing short programs or segments using these techniques. Fee required.

JMC 384 Workshop (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 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 persons trained prevalently as journalists, relating major themes in journalism and fiction to popular listings. 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 (3) Majors only. Prerequisite: JMC 210. Local beats, columns and editorials; becoming familiar with local and national issues. 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 443/543 Electronic Field Production (4) Prerequisites: JMC 341. Majors only. Broadcast and cable techniques of remote video production and video editing; producing short programs or segments using these techniques. Fee required.

JMC 444/544 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 481/581 Public Relations Techniques (3) Prerequisite: JMC 210. Majors only. Effective tools and techniques used by the professional public relations practitioner.

JMC 484/584 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 the effect of 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 material which is better graded. Repeatable, under different subtitles.

JMC 543/443 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 544/444 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 566 Telecommunications Management (3) Prerequisite: JMC 460 or equivalent. The social, cultural, economic and interpersonal variables impacting decision-making in commercial and public telecommunications; and contemporary issues and problems in management.

JMC 580/580 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 581/481 Public Relations Techniques (3) Prerequisites: JMC 210, JMC 360. 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 media, the policies and the issues. Special focus is given to case studies of 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 595 Seminar in the History of Mass Communications (3) The lives and accomplishments of major figures in the development of contemporary journalism in the context of the times in which they lived and worked.

JMC 596 Seminar in Mass Communication Theory (3) A survey of major theories, seminal research findings and cultural critiques relevant to mass communication processes.

JMC 597 Media Freedom and Censorship (3) Students only. The evolution of media freedom in the United States from colonial times to the present, with attention to the many attempts at censorship of all kinds.
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 Mechanical Kinesiology
(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 Neuroromotor 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 (1-5) Consent of instructor. Titles: Laboratory Techniques in Mechanical Kinesiology; Laboratory Techniques in Exercise Physiology; Laboratory Techniques in Social Psychological Kinesiology; and Meta-analysis in KPF 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; Cardio-pulmonary Physiology; Physiological Principles of Conditioning; Psychological — Perception, Motivation, Motor Learning; Neuroromotor 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 680 Concepts in Sports Kinesiology (1-3) Consent of instructor. Repeatable, under different subtitles.

KINE 685 Concepts in Dance Kinesiology (1-3) Consent of instructor. Repeatable, under different subtitles.

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 797 Doctoral Prepositional 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 doctoral requirements. S/U graded. Repeatable, no limitations.

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 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 (3) 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. Leads to 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 some 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.

MATH 285 Informal Geometry (3) Study informal Euclidean geometry suitable for the K-8 curriculum, employing laboratory techniques where applicable.

MATH 295 Topics in Mathematics (1-3) An interest in continuing growth in mathematics required. Survey topics in geometry, analysis, algebra, statistics, topology and number theory that are not in existing courses and possibly problem solving or introduction to mathematics and technology. Repeatable, under different subtitles.

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 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 635 Geometric Analysis (3) Prerequisites: MATH 536. Analysis of functions of several variables, unifying and extending ideas from calculus and linear algebra. Includes the implicit function theorem and Stokes' Theorem.

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 670 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 532. A survey of topics in arithmetic and analytic number theory, such as Euler's 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 (5) 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 745 Intern Teaching in Mathematics (1-4) Prerequisite: MATH 545. Students will be observed to teach in current documents, college 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) Prerequisite: MATH 690. Designed for those certificated elementary/middle school teachers who will be pursuing a specialization in the teaching of mathematics. Content background necessary.

MATH 822 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 2 times.

MATH 941 Methods of Teaching Mathematics (3) Corequisite: EDLS 365. Full admission to PTEP required. For prospective teachers seeking certification at the middle school, junior high or senior high school level. Emphasis on teaching strategies, understanding curriculum problems and applying basic theories in teaching and learning mathematics. Early field experience desirable.

MATH 987/587 Technology, Manipulatives and NCTM Standards (3) Course 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.

MATH 908 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 909 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.

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 graded. Repeatable, under different subtitles.

MATH 530 Teaching of Discrete Mathematics (2) Prerequisite: MATH 430. A course in teaching discrete mathematics including use of technology, projects, cooperative groups and the development of curriculum materials. Topics will include the teaching of existence problems, counting problems and optimization problems.

MATH 554 Teaching Algebra and Trigonometry (2) Prerequisite: EDLS 365. Credit for both MATH 454 and 554 will not be granted. Techniques for the teaching of algebra and trigonometry and current issues in teaching from a conceptual and problem solving point of view.

MATH 555 Teaching Geometry (2) Prerequisite: MATH 455. Credit for both MATH 455 and 555 will not be granted. Techniques for the teaching of geometry and current issues in teaching from an intuitive and problem solving point of view.

MATH 557 Mathematics Teachers Workshop (1-3) No more than six credits may be applied to any one graduate degree. Work on problems K-14. S/U graded. Repeatable, under different subtitles to a maximum of 12 credits.

MED 505 Teaching Elementary and Middle School Mathematics (2) Prerequisite: MATH 430. A course in the teaching of arithmetic and algebra. Content background necessary.

MED 507/407 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 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 2 times.

MED 510 Technology in Mathematics Education (2) Prerequisite: MATH 600 or consent of Instructor. Designed for those certificated elementary/middle school teachers who will be pursuing a specialization in the teaching of mathematics. Content background necessary.

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 graded. Repeatable, under different subtitles.

MED 520 Teaching of Discrete Mathematics (2) Prerequisite: MATH 430. A course in teaching discrete mathematics including use of 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) Prerequisite: MATH 434. Techniques for the teaching of algebra and trigonometry and current issues in teaching from a conceptual and problem solving point of view.

MED 543 Teaching Geometry (2) Prerequisite: MATH 443. Techniques for the teaching of geometry and current issues in teaching from an intuitive and problem solving point of view.

MED 554 Teaching Probability and Statistics (2) Prerequisite: MATH 454. Credit for both MATH 454 and 554 will not be granted. Techniques for the teaching 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 557 Mathematics Teachers Workshop (1-3) No more than six credits may be applied to any one graduate degree. Work on problems K-14. S/U graded. Repeatable, under different subtitles to a maximum of 12 credits.

MED 565 Teaching Elementary and Middle School Mathematics (2) Prerequisite: MATH 430. A course in the teaching of arithmetic and algebra. Content background necessary.
M ED 700 Advanced Seminar: Postsecondary Cognitive Processes (2) Consent of Instructor. Discussion of post-secondary mathematics topics. Reading of research on teaching mathematics in post-secondary education. Repeatable, may be taken two times under different subtitles.

M ED 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.

M ED 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.

M ED 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.

M ED 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.

Meteorology

M ET 110 Climate and Humans (5) A general education course that explores the interactions between people and climate. The factors and elements of climate, impact of people on climate and influence of climate on historical events.

M ET 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.

M ET 306 Dynamic Meteorology I (3) (2 lecture, 3 laboratory) Prerequisite: M ET 205, MATH 131. In-depth treatment of gas laws, atmosphere thermodynamics and stability, cloud dynamics and adiabatic charts. Fee required.

M ET 315 Meteorological Instruments and Codes (2) (4 laboratory) Prerequisite: M ET 205 or M ET 306. Meteorological Instruments and their operations; weather maps and data exchange; codes and plotting of charts. Fee required.

M ET 360 Physical Meteorology (3) Prerequisites: M ET 205, MATH 124. Physical structure of the atmosphere, radiation in atmosphere, radiation laws, cloud microphysics, precipitation processes.

M ET 376 Meteorological COOP Education (1-12) Prerequisites: M ET 205, M ET 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.

M ET 407/507 Dynamic Meteorology II (4) (3 lecture, 2 laboratory) Prerequisite: M ET 306. Atmospheric motion and laws governing it. Planetary and secondary circulations, jet streams, vorticity, cyclogenesis, air masses and fronts. Fee required.

M ET 422 Directed Studies (1-4) Individualized investigation under the direct supervision of a faculty member. Repeatable, maximum concurrent enrollment is two times.


M ET 470/570 Satellite Meteorology (3) Prerequisites: M ET 407 or M ET 441 or M ET 507 and M ET 541. Use of atmospheric data and cloud imagery from satellites for understanding the atmosphere and forecasting the weather.

M ET 500 Survey of Meteorology (3) (2 lecture, 3 laboratory) Prerequisites: M ET 205, MATH 131. Majors only. Principles of atmospheric science for teachers. Earth's energy budget, pressure, temperature, wind, humidity, clouds, atmospheric stability, precipitation processes, air masses and fronts, current weather. Fee required.

M ET 507/407 Dynamic Meteorology II (4) (3 lecture, 2 laboratory) Prerequisite: M ET 306. Atmospheric motion and laws governing it. Planetary and secondary circulations, jet streams, vorticity, cyclogenesis, air masses and fronts. Fee required.


M ET 536 Biometeorology (3) Prerequisite: M ET 205 or M ET 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.


M ET 542/442 Synoptic Meteorology Laboratory (2) (4 laboratory) Corequisite: M ET 441/541. Analysis and forecasting exercises and activities. Fee required.

M ET 560/460 Mesometeorology (5) Prerequisite: M ET 306. Mesoscale weather phenomena, such as thunderstorms, tornadoes, tropical cyclones, lee wave and downslope winds.

M ET 565/465 Radar Meteorology (3) Prerequisites: M ET 205 and MATH 131. Majors only. Principles of radar operation and radar remote sensing techniques. Types of radar and their applications in meteorology.

M ET 570/470 Satellite Meteorology (3) Prerequisites: M ET 407 or M ET 441 or M ET 507 and M ET 541. Use of atmospheric data and cloud imagery from satellites for understanding the atmosphere and forecasting the weather.

M ET 595 Special Topics in Meteorology (1-4) Explore topics in Meteorology beyond existing departmental offerings. Specific topics determined by student interest and instructor. Repeatable, under different subtitles.

M ED 622 Directed Studies (1-3) Individualized investigation under the direct supervision of a faculty member. Repeatable, maximum concurrent enrollment is two times.

Life of the Mind Program

M IND 180 Great Ideas of the Western Tradition (3) An introduction to the intellectual tradition of the western world through reading and discussion of basic texts. Dante, Machiavelli, others. Credit in General Education category 4 for Philosophy or Literature or History.

M IND 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.

M IND 182 Contours 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 Courses.

M IND 285 Idealism and Despair in the American Renaissance (3) Critically analyze and debate the ideas of mid 19th century creators and activists who fostered the development of the American mind and investigate the relevance of these ideas today. Credit in General Education category 4 for Philosophy or Literature.

M IND 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 General Education category 5.

M IND 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.

M IND 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.

M IND 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.

M IND 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.

M IND 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.
Course Descriptions – Life of the Mind Program • Military Science • Musical Theatre • Medical Technology

MIND 294 Revolutions In Science (3) Any UNC Science laboratory course required or consent of instructor. Exploration of scientific revolution using examples in scientific inquiry while introducing them to important scientific revolutions such as Inertia, evolution, thermodynamics, genetics, plate tectonics 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.

MIND 299 Great Ideas in the History of the Arts (5) The concept of “utopia” and various aspects of idealism will be examined through the study of works of art in the fields of music, theatre and the visual arts. Team-taught by Music, Theatre and Visual Arts. Credit in General Education category 4.

Military Science

MS 111 Introduction to Military Skills I (2) Basic military skills to include: rifle marksmanship, repelling, customs and courtesies of military 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 behavior 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 287 Leadership Development and Introduction to Military Operations (8) (2 lecture, 6 laboratory) Consent of instructor. Introduction to principles of leadership and basic military skills during 6-week paid ROTC basic camp at Fort Knox, Kentucky. (May be taken in lieu of MS 111, 121, 211, 221.)

MS 311 Leadership Assessment (3) Prerequisites: MS 111, MS 121 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 operational orders and the conduct of tactical unit operations. Physical fitness training. Class includes 3-day field training exercise.

MS 322 Directed Studies I (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 I (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.

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 techniques as it applies to musical theatre and musical theatre auditioning.

MT 285/485 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.

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 (2 lecture, 1 laboratory) Prerequisite: THEA 240. A study of specific techniques required of the director for production of various musical theatre styles and production problems.

MT 355 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 405 Musical Theatre Workshop (3) (2 Lecture, 1 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 auditions 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 475 Music Dance Workshop (1) For cast of musical theatre or opera theatre production. Practical experience in dance and stage movement in preparation for public performance. Repeatable, maximum four credits.

MT 485/285 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.

Medical Technology

MTEC 410 Clinical Chemistry (3) Basic principles of chemistry instrumentation, quality control and clinical chemistry tests. Emphasis on gaining proficiency in performance of tests utilizing skills learned in MTEC 411.

MTEC 412 Chemistry Laboratory II (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 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) Principles 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 etiology, 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 fungal 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.
MUS 101 Sight-Singing and Theory I (4)
- A study of diatonic seventh chords, borrowed chords, secondary dominant, 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)
- Prerequisite: MUS 101. Continuation of the ear-training and written materials of MUS 101 in greater depth and detail. Principles of harmonic progression, diatonic chord modulations, non-harmonic tones in melody and the connection of triads in four voice writing. Class meets 4 days a week, with the fifth day for keyboard laboratory. Fee required.

MUS 210 Introduction to Music Education (1)
- Prerequisite: MUS 102. Major music majors only. For prospective teachers of music. Covers the history and present status of music in the schools, qualities of music teachers and beginning instructional problems. Weekly observation and aiding required.

MUS 221 Small Jazz Ensembles (1)

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 analysis skills necessary to the development of music theatre, with emphasis on the changes in style.

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.

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 the 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 250 Intermediate Class Piano I (1)
- Prerequisite: MUS 160 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 251 Intermediate Class Piano II (1)
- Prerequisite: MUS 250 or consent of instructor. Develop further reading skills, techniques and styles necessary to play simple accompaniments and intermediate piano music. Fee required.

MUS 255 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)
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 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 musical works 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 283 Men's Glee Club (1) Audition required. Open to all University men, this group performs often in addition to touring within the state. The Men's Glee Club sings a wide variety of literature from sacred anthems to spirituals, folksongs and popular music. Unlimited repeatability.

MUS 284 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 285 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 286 Summer Symphonic Band (1-3) Audition required. Open to all students interested in performing the highest quality literature available. The Summer Session consists of five outdoor concerts. Unlimited repeatability.

MUS 287 Summer 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 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 instruments, media, development of musical sensitivity, phrasing, style and interpretation. 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 293 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 301/501 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, 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 the smallest to the full symphony orchestra. Fee required.

MUS 304 Conducting (2) Prerequisite: MUS 303. Refining conducting techniques; studying more complex scores; other advanced topics and releases. Discussion on wind literature and rehearsal techniques appropriate for elementary and high school bands.

MUS 305 Wind Literature, Pedagogy and Conducting (2) Prerequisite: MUS 319. Designed to continue conducting begun in MUS 319, with emphasis on wind literature and rehearsal techniques appropriate for elementary and high school bands.

MUS 306 Countertenor (2) Prerequisite: MUS 202. A study of countertenor literature, style, and historical context.

MUS 307/507 History of Instruments and Instrumental Practice (3) A historical study of the development of musical instruments and the performance practices associated with them.

MUS 308/508 Basic Conducting (1-4) Receive instruction about current important ideas in conducting, such as the development of musical instruments and the performance practices associated with them. S/U graded. Unlimited repeatability.

MUS 309 Conducting (1-4) A course planned to develop knowledge and skill in arranging and orchestrating for various combinations of instruments from the smallest to the full symphony orchestra. Fee required.

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 field experience required.

MUS 313 Music in the Classroom (1) Music majors only or consent of instructor. Learn to play guitar, including basic folk and classical techniques. Approached from a psychological, pedagogical, and practical standpoint useful for the development of a guitar program in public school music curriculum and its accompaniment development in the general music and vocal public school program.

MUS 314 Guitar in the Classroom (1) For non-music majors only. Sing and learn skills that will enable the student to lead community songs. Lead community performance, play simple social instruments including guitar and help others listen to music.

MUS 315 Music and Recreation (1) For non-music majors only. Sing and learn skills that will enable the student to lead community songs. Lead community performance, play simple social instruments including guitar and help others listen to music.

MUS 316 Choral Arranging (2) Prerequisite: MUS 203. Study techniques for arranging choral music suitable for school choral groups in different settings and age levels.

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 begun in MUS 319, with emphasis on wind literature and rehearsal techniques appropriate for elementary and high school bands.

MUS 321/521 Conducting (4) Prerequisite: MUS 320. A course planned to develop knowledge and skill in arranging and orchestrating for various combinations of instruments from the smallest to the full symphony orchestra. Fee required.

MUS 322/522 History of Wind Instruments (3) A historical study of the development of musical instruments and the performance practices associated with them.

MUS 323 Choral Techniques and Conducting (2) Prerequisite: MUS 202. Develop basic conducting technique as a choir director. Study and develop repertoire of literature. Study and develop technique of leading choirs in performances of large masterworks with orchestra. Conducting and rehearsal techniques appropriate for elementary and high school bands.

MUS 324/524 Choral Conducting for Elementary and Secondary Schools (2) Prerequisite: MUS 323. Continue work begun in MUS 323, refining conducting techniques; studying and developing more complex conducting techniques. Study and develop repertoire of literature. Study and develop technique of leading choirs in performances of large masterworks with orchestra. Conducting and rehearsal techniques appropriate for elementary and high school bands.
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 334/334 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 336/336 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 338/338 French/Italian Art Song (2) Course in the performance of 19th and 20th Century French and Italian Art Song with particular emphases upon style, technical requirements and diction.

MUS 339/339 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 346/346 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 347/347 Jazz Arranging, Vocal Jazz and Studio Orchestra (2) Prerequisite: MUS 346/346 or consent of instructor. Continuation 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 348/348 Accompanying and Coaching I (2) Consent of instructor. Accompany students with necessary skills for collaborative performance through the study of listening, rhythm, sight-reading, technique and 4-hand repertoire. Class performances required. Unlimited repeatability.

MUS 349/349 Accompanying and Coaching II (2) Prerequisite: MUS 348/348 or consent of instructor. Accompany 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 352/352 Principles of Piano Teaching I (2) Compare current piano methods. Study technical and musical problems with a beginning student. Offered every other year.

MUS 353/353 Principles of Piano Teaching II (2) Prerequisite: MUS 352/352 or consent of instructor. A study of the methods of teaching musicianship and planastic 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 376/376 General Music Theories (2) 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 380 Orchestral Excerpts: Percussion (1) Consent of Instructor. Emphasis is on professional level performance of standard orchestral literature. Separate classes in percussion, timpani, and brass.

MUS 381 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.

MUS 382 Orchestral Excerpts: Brass (1) Consent of Instructor. Emphasis is on professional level performance of standard orchestral literature. Separate classes in trumpet, horn and tuba.
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 on 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 FTEP 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 454/554 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.

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 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 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 50-40 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. Concentration on literature for brass, instrumental media, development of musical sensitivity, phrasing, style and intonation. Major ensemble credit. Unlimited repeatability.

MUS 490 Symphonic Band (1-5) 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 501/301 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.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Prerequisite</th>
<th>Notes</th>
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</thead>
<tbody>
<tr>
<td>MUS 502</td>
<td>Harmony and Form I (3) Study 18th and early 19th century harmonic practice and tonality concepts.</td>
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<tr>
<td>MUS 503</td>
<td>Harmony and Form II (3) Prerequisite: MUS 502 or consent of Instructor. The study of late 19th and 20th century harmonic and formal concepts.</td>
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<tr>
<td>MUS 505</td>
<td>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.</td>
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<tr>
<td>MUS 506/806</td>
<td>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.</td>
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<tr>
<td>MUS 507/507</td>
<td>History of Instruments and Instrumental Practices (3) A historical study of the background and development of musical instruments. Emphasis will be on the historical roots of the various instruments used in music education.</td>
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<td>MUS 508/508</td>
<td>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.</td>
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<tr>
<td>MUS 509</td>
<td>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.</td>
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<td>MUS 510/510</td>
<td>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.</td>
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<tr>
<td>MUS 511</td>
<td>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.</td>
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<tr>
<td>MUS 512</td>
<td>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.</td>
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<tr>
<td>MUS 513</td>
<td>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.</td>
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<tr>
<td>MUS 514</td>
<td>History and Literature of the School Band (2) An overview of the 20th century American school band movement. Examines history, trends and literature for bands of all levels.</td>
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<tr>
<td>MUS 515/515</td>
<td>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.</td>
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<tr>
<td>MUS 516/416</td>
<td>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.</td>
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<tr>
<td>MUS 517/417</td>
<td>Band Arranging (2) Prerequisite: MUS 403 or consent of Instructor. Design for prospective instrumental music teachers. The practical application of arranging techniques for K-12 ensembles will be emphasized through study of three- to eleven-way scoring.</td>
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<tr>
<td>MUS 519</td>
<td>Foundations of Music Education (3) Study historical, philosophical and psychological issues and principles that provide the context for contemporary music education.</td>
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<td>MUS 521</td>
<td>Saxophone Pedagogy (2) Consent of Instructor. Develop teaching techniques for the saxophone in the areas of performance, style, repertoire, intonation and historical perspective.</td>
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<td>MUS 524</td>
<td>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.</td>
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<td>MUS 528</td>
<td>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.</td>
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<tr>
<td>MUS 533</td>
<td>Curriculum Trends in Music Education (3) Study curriculum trends in music education, including methods of teaching, curriculum development and aesthetic education.</td>
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<td>MUS 534/334</td>
<td>Acting for Singers (2) Instruction in the special needs of the singer/actor: staging of arias, improvisation, freeing the voice through movement.</td>
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<tr>
<td>MUS 536/336</td>
<td>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.</td>
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<tr>
<td>MUS 542</td>
<td>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.</td>
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<tr>
<td>MUS 543</td>
<td>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.</td>
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<td>MUS 546/446</td>
<td>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.</td>
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<tr>
<td>MUS 547/447</td>
<td>Jazz Arranging, Vocal Jazz and Studio Orchestra (2) Prerequisite: MUS 546 or consent of Instructor. Continuation 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.</td>
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<td>MUS 548/548</td>
<td>Accompanying and Coaching I (2) Consent of Instructor. Acquaint students with necessary skills for collaborative performance through the study of listening, rhythm, sightreading, performance practice and 4-hand repertoire. Class performances required. Unlimited repeatability.</td>
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<tr>
<td>MUS 549/549</td>
<td>Accompanying and Coaching II (2) Prerequisite: MUS 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.</td>
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<tr>
<td>MUS 550</td>
<td>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.</td>
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<td>MUS 551</td>
<td>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.</td>
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<tr>
<td>MUS 552/552</td>
<td>Principles of Piano Teaching I (2) Compare current pianistic techniques and musical problems with a beginning student. Offered every other year.</td>
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<tr>
<td>MUS 553/553</td>
<td>Principles of Piano Teaching II (2) Prerequisite: MUS 352/352 or consent or instructor. A study of the methods of teaching musicianhip and pianistic skills. Observe private and group lessons. Supervised teaching internship required. Offered every other year.</td>
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<td>MUS 554/554</td>
<td>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.</td>
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<td>MUS 555</td>
<td>Opera and Oratorio Literature (2) Study of the solo repertoire in opera and oratorio literature.</td>
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<td>MUS 564</td>
<td>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.</td>
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<td>MUS 565</td>
<td>Principles of Ensemble Intonation (1) Examine various tuning temperaments, emphasizing concepts of &quot;just intonation&quot; and its application to all flexible pitched ensembles. Employ electronic tuning devices with practical experience gained through small ensemble participation.</td>
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<td>MUS 580</td>
<td>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.</td>
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</table>
MUS 585 Advanced Jazz Improvisation (2) Consent of Instructor. Develop skills in advanced jazz improvisation. Prepare highly chromatic 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 (5) 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 and 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 Baroque 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 505.

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 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 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 50-60 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) Consent of instructor. Unlimited repeatability. Fee required for non-majors.

MUS 683 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 684 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 (1-5) 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 698 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 700 Introduction to Doctoral Research (1) Prerequisites: MUS 400, MUS 401, MUS 403. For students of any major. Supervision included. Corequisite: MUS 701. Maximum four credits. Repeatable, maximum six credits.

MUS 701 Doctoral Proposal Research (1) Required of all doctoral students. Repeatable, maximum four credits.

MUS 702 Doctoral Dissertation (1-12) Required of all doctoral candidates. Unlimited repeatability.

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 204 Health Promoting Behaviors (3) For students of any major. Assessment of health behaviors across the life span. Introduction to behaviors and lifestyles that promote one's own health.

NURS 230 Effective Parenting (3) For students of any major. Comparative theories of growth and development as related to emotional needs of children. Effective approaches for parenting children from birth through adolescence.


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 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 316 Interpersonal Processes for Health Care Professionals (3) Juniors or above. The focus is on professional relationships in interdisciplinary health care environments designed to assist the student in relating to other disciplines. Assessment will be the foundation to determine interpersonal strategies in conflict management.
Clinical level nursing student, RN, LPN or other health care professional. 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 322 Diagnostic Procedures for Disease Assessment (1) Clinical majors or consent of instructor. Designed to assist the nurse in understanding diagnostic procedures. Invasive and noninvasive diagnostic tests are examined along with client preparation and implications for nursing care.

NURS 323 Complementary Healing Modalities (2) Prepare students to consider the philosophical foundations in health and illness and explore a variety of complimentary healing modalities such as therapeutic touch, imagery and movement.

NURS 326 Pathophysiology (3) Prerequisites: a previous basic anatomy and physiology course. A systems approach to alteration and disruption of physiological functions. Focus on differentiation of pathophysiologic findings and identification of treatment modalities.

NURS 328 Physical Assessment for RNs (4) A current R.N. license is required. Designed to provide RNs cognitive and technical skills in problem-oriented recording, history taking and physical examination. Emphasis placed on identification of normal from abnormal findings and assessment across the lifespan.

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 physiologic, psychosocial and preventative aspects of care.


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 406 Rehabilitation Nursing (3) Clinical level IV status or R.N. status required. Concepts related to the nursing care of adults with self-care deficits due to chronic illness.

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: Students will conduct original research or implement the utilization of nursing research in clinical practice. Repeatable, maximum five credits.

NURS 415 Professional Perspectives (5) Majors only. Utilize analysis, synthesis and critical thinking skills to examine current issues and trends that challenge the professional nature of the nursing discipline.


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 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 440 Complex Nursing (2) Majors only. Synthesizes knowledge and practice concepts, including leadership and management through clinical experiences. S/U graded.

NURS 444 Issues and Concepts in Geriatric Nursing (3) Clinical Level IV status required or consent of instructor. Developmental approach to the theories of aging (physiological, psychological, psychosocial and environmental). Emphasizes nursing roles related to adult lifespan developmental tasks and transitions and age-related changes.

NURS 446 Ethical Issues in Health Care (3) Open to upper division students of any major. Analyzes and evaluates client and professional ethical dilemmas in the delivery of health care services. Emphasizes application of ethical principles in health care decisions.

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 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 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 (I) 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 495 Topics in Nursing (1-3) Prerequisites: NURS 529 and NURS 390. A study of advanced topics in nursing essential for clinical and specialty areas of practice. Repeatable up to one time, under different subtitles.

NURS 505 Nursing Research (3) Prerequisite: NURS 515 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) Role of nurse as leader and change agent explored in relation to health promotion strategies with chronically ill adults.

NURS 508 Workshop (1-3) A variety of workshops on special topics within the discipline. Goals and objectives will be specific and directed at individual professional enhancement rather than the acquisition of general discipline 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 520 Computers and Health Care (3) Graduates and majors only. Students will examine computer software programs designed specifically for nursing and health care systems. Emphasis on application of informatics in the health care settings.
NURS 522 Nursing Management (3) Majors only or consent of instructor. Graduate students only. Introduction to foundations of nursing management including current management and professional practice models. Emphasizes communication strategies in human resource management and application of theory to professional practice realities.

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 III Adult and Child (4) Required pre-requisites 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 III 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, symptomatology 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. Corequisites: NURS 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 EPSY 662; EPSY 674 or SRM 670 or SRM 670 OR CH 610; NURS 650. 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. Roles of consultant, manager, researcher and clinician are examined in relation to health promotion nursing interventions.

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 693 Practicum (1-3) Graduate students only. Minimum of 45 clinical hours per semester hour of credit. Supervised professional nursing activity. Two copies of scholarly paper must be filed before credit is given. S/U graded. Repeatable, maximum three 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.

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, geomorphology, distribution and ecology of marine organisms and ocean productivity. Required field trip. Fee required.

Physical Education

PE 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 109 Billiards (1) Gain knowledge and skill in the game of billiards. Fee required.

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 112 Fencing (1) Gain knowledge and skill in the activity of fencing.

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.
Course Descriptions – Physical Education

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 155 Advanced American Square and Folk Dance (1) Gain knowledge and skill in the activity of square and folk dance.

PE 165 American Square and Folk Dance (1) Gain knowledge and skill in the activity of square and folk dance.

PE 163 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 170 Gymnastics (1) Gain knowledge and skill in the activity of gymnastics

PE 172 Rhythmic Gymnastics (1) Combines dance and gymnastics movements and integrates the use of hands and apparatus (i.e., hoops, balls, ropes, ribbons).

PE 174 Social Dance (1) Gain knowledge and skill in social dance. Includes traditional dance steps: polka, fox trot, 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 189 Varsity Gymnastics (1) Consent of instructor. Participate in the sport of varsity gymnastics.

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) Consent of Instructor. 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 215 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 216 Analysis and Teaching of Technique (3) Majors/minors only. Study and apply biomechanical analysis of human movements through the specific sports of track and field, swimming and golf.

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 Racket 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 Analysis and Teaching of Yoga and Pilates (3) Majors/minors only. Presents content, method, safety and management of adventure 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 231 Women in Sport (2) Investigate social/cultural influences, biophysical and psychological aspects, historical perspectives and political realities, which shape opportunities and performances of American sport women.

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.
Touring and Cycling (2)
Skills in teaching bicycle touring, cycling, and skiing included. Cross-country, telemarking, nordic and back-country skiing included.

Cross-country, Telemarking, Nordic and Back-Country Skiing (2)
Focus on developing competent track and cross-country skiing experiences.

Prerequisite: PE 232 or equivalent.

Rock Climbing and Basic Mountaineering (2)
Focus on approaches and methodologies of teaching basic mountaineering with an emphasis on technical rock climbing, particularly top-rope climbing experiences.

Prerequisite: PE 232 or equivalent.

Wilderness Living Skills and Travel-Wilderness Ski Expedition (2)
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.

Prerequisite: PE 232 or equivalent.

Outdoor Adventure and Wilderness Living Skills and Travel - Basic (2)
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, and strategies of coaching,basic movement principles and activities included in a quality, well-rounded program of physical education in the elementary school.

PE 308/508 Workshop in Physical Education (1-3)
Study in the problem areas of participants. Problems will vary with expertise conducting workshops. S/U graded. Repeatable, under different subtitles.

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 315 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 316 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 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 355 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 test and written tests and use of other evaluative materials in the field including computers.

PE 356 Adapted Aquatics (2)
Study and apply methods of teaching swimming to students with various disabilities. Course leads to Red Cross Instructor of Adapted Aquatics. Laboratory required.

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 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 452 Adapted Physical Education (2)
Prerequisites: PE 211, EDSE 410. Acquire skills and knowledge for serving individuals with special needs in physical education. Topics to 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 438/538 Physical Education for the Learning Disabled (2)
Develop, implement and evaluate physical education programs for the mentally retarded, emotionally disturbed and learning disabled. Emphasize program development according to federal regulations.

PE 439/539 Physical Education for the Physically Disabled (2)
Learn skills required to develop and implement a physical education program for the physically handicapped, especially student placement in the least restrictive alternative.

PE 461 Administration and Law (2)
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 508/508 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 subtopics.

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 subtopics.

PE 538/438 Physical Education for the Learning Disabled (2) Develop, implement and evaluate physical education programs for the mentally retarded, emotionally disturbed and learning disabled. Emphasize program development according to federal regulations.

PE 559/459 Physical Education for the Physically Disabled (2) Learn skills required to develop and implement a physical education program for the physically handicapped, especially student placement in the least restrictive alternative.

PE 541 Motor Assessment and Prescription (2) Acquire knowledge about valid and reliable tests of motor assessment and learn to prescribe physical education activities based on the results of the assessment instruments.

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 564 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 618 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 619 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 of recreational 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 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 and situational analysis as they relate to management of sport facilities and equipment.

PE 676 Sport Public Relations and Information Systems (3) Development 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 (1-4) 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 706 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 733 Research Seminar in Physical Education (3) Consent of instructor. Students will embark on an in-depth study of contemporary topics under guidance of qualified graduate faculty and consultants. Repeatable up to one time.

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 (5) Prerequisite: ENG 122. Introduction to methods of critical thinking as required for critical and evaluative writing.

PHIL 103 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, Leibnitz, 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 subtopics.

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 pre-Socratica 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 to enable students to apply the theories to contemporary ethical problems.

PHIL 332 Business Ethics (3) Knowledge 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, including: 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 metaphysics issues (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 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 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 235 Microcomputer Electronics (3) Prerequisite: MATH 124. Learn elementary digital electronics with application to microcomputers, logic families, integrated circuits, microprocessors and interfacing of memory and input/output devices. Not acceptable elective for physics majors.

PHYS 236 Computer Graphics and Computational Methods (3) Knowledge of algebra, elementary programming ability required. Spreadsheets and plotting programs for engineering and science. Three dimensional graphics, printed circuit CAD programs, sprites for illustration and instruction.

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 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 2 and 3 dimensions, 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. Laboratory required. Theory and use of electronic circuitry 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, 2 laboratory. Prerequisites: PHYS 241, MATH 132. Atomic and quantum mechanics including 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. In-depth study of the principles of thermodynamics 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 the state devices, computer interfacing and computer algorithms for use in signal processing and controls. 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 theoretical 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 550 Current Topics in Physics (1-3)
Open only by invitation to resident graduate students. Supervised professional activity in student's major field, approximately two hours per day. Two copies of a well-written paper must be filed with instructor before credit is given. Repeatable, may be taken two times under different subtitles.

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.

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 prejudiced attitudes and 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 "at 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-credit 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. Supervision provided by one with division director 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 utilized 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, factors and change factors, 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 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 Internship 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. Fee required.

PPSY 613 Internship 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 Internship 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 counseling. Learn to 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 career counseling, learn to become familiar with career assessment instruments, and discuss current issues in the field of career counseling. Fee required.

PPSY 622 Directed Studies (1-3) Minimum of 25 clock hours required. 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 655. 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 600 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 (3) Understanding psychological testing in depth through (1) an overview of the measurement process, (2) an understanding of test construction, (3) familiarity with instruments and (4) overview of using test results.

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 diagnostic, remedial and compensatory rehabilitation.

PPSY 673 Individual Tests of Intelligence and Personality (2) Prerequisite: PPSY 670. A survey course of the major intelligence and personality tests used by professional psychologists. Test measurement and interpretation 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 679 Diagnostic Practicum (3) Prerequisites: PPSY 674 or PPSY 675. Consent of Instructor. Development of skills in generating test data. Case studies of varying ages and referral types are developed.

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. 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 experience 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) Prerequisites: PPSY 612, 712 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 as a faculty member in supervising counseling practice. Repeatable, maximum six credits.
PSY 715 Seminar in Counselor Supervision and Theory (2) Prerequisites: PSY 702, PSY 707, PSY 712 and consent of practicum coordinator. Corequisite: PSY 714. Majors only. Study problems involved in training individuals to engage in the therapeutic process.

PSY 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.

PSY 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.

PSY 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.

PSY 756 Advanced Psychopathology (3) Prerequisite: PSY 355 or PSY 556. Consent of instructor. Acquire understanding of developmental and behavioral disorders of childhood through adulthood. Thorough knowledge of specific pathologies and interventions through intensive reading, research or practical experience.

PSY 765 Seminar in School Psychology (5) 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.

PSY 773 Practicum in Supervision of Group Facilitation (5) Prerequisites: PSY 675 and consent of practicum coordinator. Majors only. Doctoral candidates receive experience in supervision of group facilitator training. Work with regular staff member supervising group practitioners, observe techniques and processes, receive feedback on progress.

PSY 774 Practicum in Supervision of Family Therapy Practice (3) Prerequisites: PSY 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 practitioners, observe techniques and processes, receive feedback on progress.

PSY 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.

PSY 777 Applied Neuropsychology (4) Prerequisites: PSY 612 or PSY 702, PSY 674 or PSY 675, and PSY 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.

PSY 778 Clinical Neuropsychology Practicum (2) Prerequisites: PSY 612, PSY 672, PSY 678, PSY 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.

PSY 779 Practicum in School Psychology (3) Prerequisites: PSY 674, PSY 676 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.

PSY 781 Evaluation of Psychological Services (3) Prerequisite: SRM 602. Learn the theory and practice of psychological program evaluation, taking both a theoretical and statistical approach. Use data to promote systems change techniques for evaluating effectiveness of consultation therapy, guidance and placement.

PSY 782 Introduction to Rorschach Administration and Scoring (2) Prerequisites: PSY 558, PSY 675 and PSY 678. Learn conceptual basis for comparing projective with traditional psychometric procedures and begin skills in administration and scoring of Rorschach test. Fee required.

PSY 787 Internship in School Psychology (2-10) Prerequisites: PSY 674, PSY 678, PSY 779 or consent of instructor. A minimum of 12 hours credit required. Full-time field experience in school psychology under qualified supervision in selected settings: taken at end of program. S/U graded. Repeatable, maximum 20 credits.

PSY 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.

PSY 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.

PSY 793 Intake Practicum (1) Prerequisites: PSY 702, PSY 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.

PSY 794 Clinic Practicum (2) Prerequisites: PSY 702, PSY 712, PSY 753 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.

PSY 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 of all doctoral degrees, before admission to candidacy. S/U graded. Repeatable, maximum four credits.

PSY 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.

PSY 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 economic 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 electoral 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. Provides experience in the identification and resolution of issues.

PSCI 306 Constitutional Law (3) Prerequisite: PSCI 100. Sophomores or above. An examination of Supreme Court decisions regarding civil liberties and rights and regulations among the states 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.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Prerequisites</th>
<th>Credits</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSCI 315</td>
<td>Comparative Public Policy (3)</td>
<td>Prerequisites: PSCI 100, PSCI 105. Sophomores or above.</td>
<td>3</td>
<td>Study the impact of taxation, population and income maintenance. Discuss the politics of the developing states 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.</td>
</tr>
<tr>
<td>PSCI 318</td>
<td>The Politics of the Developing States</td>
<td>Prerequisite: PSCI 105. Sophomores or above.</td>
<td>3</td>
<td>Explore the analysis of the politics of the developing states from a comparative and historical perspective. Focus on the emergence of a Third World and domestic politics of selected states will be examined.</td>
</tr>
<tr>
<td>PSCI 320</td>
<td>American Foreign Policy (3)</td>
<td>Prerequisites: PSCI 100, PSCI 105. Sophomores or above.</td>
<td>3</td>
<td>Examine the analysis of American foreign policy with emphasis on the Twentieth Century and of the process by which policy is made.</td>
</tr>
<tr>
<td>PSCI 321</td>
<td>War and Peace (3)</td>
<td>Sophomores or above.</td>
<td>3</td>
<td>Examine the causes and occasions of wars and the peaceful resolution of international disputes.</td>
</tr>
<tr>
<td>PSCI 325</td>
<td>Conflict in the Middle East (3)</td>
<td>Sophomores or above.</td>
<td>3</td>
<td>Explore the analysis of the principal governmental and non-governmental actors and their policies in the Middle East and relations among them.</td>
</tr>
<tr>
<td>PSCI 328</td>
<td>International Law and Organizations (3)</td>
<td>Prerequisites: PSCI 105, PSCI 220. Sophomores or above.</td>
<td>3</td>
<td>Examine an international examination of organizations, e.g. U.N. and O.A.S. and international agreements concerning the environment, health, finance, trade, etc.</td>
</tr>
<tr>
<td>PSCI 331</td>
<td>Political Philosophy I (3)</td>
<td>Juniors or above.</td>
<td>3</td>
<td>Explore the analysis of the principles and institutions proposed by major philosophers from Plato to Locke.</td>
</tr>
<tr>
<td>PSCI 332</td>
<td>Political Philosophy II (3)</td>
<td>Juniors or above.</td>
<td>3</td>
<td>Examine the analysis of the principles and institutions proposed by major philosophers from Rousseau to Mill.</td>
</tr>
<tr>
<td>PSCI 335</td>
<td>American Political Philosophy (3)</td>
<td>Juniors or above.</td>
<td>3</td>
<td>Examine the analysis and evaluation of the principles and institutions proposed by major American philosophers from Madison to Dewey.</td>
</tr>
<tr>
<td>PSCI 392</td>
<td>Internship (3-10)</td>
<td>Prerequisite: Applicants must have 12 semester hours in political science.</td>
<td>3-10</td>
<td>Offer opportunities for field experience as an observer and assistant to a public policymaker with supervised self-directed research. Repeatable, maximum 10 credits.</td>
</tr>
<tr>
<td>PSCI 401</td>
<td>Public Policy in the United States (3)</td>
<td>Prerequisite: PSCI 100. Sophomores or above.</td>
<td>3</td>
<td>Examine American public policy in the areas of health care, transportation, education, housing, labor-management relations, income maintenance and taxation.</td>
</tr>
<tr>
<td>PSCI 405</td>
<td>Problems in American Politics (3)</td>
<td>Prerequisites: PSCI 100, PSCI 105, PSCI 150 and a course in Group A. Seniors only.</td>
<td>3</td>
<td>Select problems in American politics will be examined.</td>
</tr>
<tr>
<td>PSCI 415</td>
<td>Problems in Comparative Politics (3)</td>
<td>Prerequisites: PSCI 100, PSCI 105, PSCI 150 and a course in Group D. Seniors only.</td>
<td>3</td>
<td>Topics of current interest or controversy in comparative politics.</td>
</tr>
<tr>
<td>PSCI 422</td>
<td>Directed Studies (1-5)</td>
<td>Individualized Investigation under the direct supervision of a faculty member.</td>
<td>1-5</td>
<td>Explore psychological factors in maintenance of wellness, treatment of illnesses and recovery from or adjustment to ongoing health problems. Study therapy, research methods and clinical applications in health psychology.</td>
</tr>
<tr>
<td>PSCI 425</td>
<td>Problems in International Relations (3)</td>
<td>Prerequisites: PSCI 100, PSCI 105, PSCI 150 and a course in Group B. Seniors only.</td>
<td>3</td>
<td>Examine problems and theories for close and lengthy attention.</td>
</tr>
<tr>
<td>PSCI 435</td>
<td>Problems in Political Philosophy (3)</td>
<td>Prerequisites: PSCI 100, PSCI 105 and a course in Group C. Seniors only.</td>
<td>3</td>
<td>Select problems or philosophies for close and lengthy attention.</td>
</tr>
<tr>
<td>PSCI 420</td>
<td>Principles of Psychology (4)</td>
<td>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.</td>
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<tr>
<td>PSCI 200</td>
<td>Psychological Statistics and Design (3)</td>
<td>Prerequisite: PSCI 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.</td>
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<tr>
<td>PSCI 230</td>
<td>Human Growth and Development (4)</td>
<td>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.</td>
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<tr>
<td>PSCI 265</td>
<td>Social Psychology (3)</td>
<td>Survey major areas of social psychology, discussing nature of and factors involved in human social behavior, impression management, prosocial behavior, aggression, conformity, obedience, authority, attitude change and interpersonal attraction.</td>
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<tr>
<td>PSCI 271</td>
<td>Psychological Testing and Measurements (3)</td>
<td>Receive an introduction to psychological test theory, interpretation of results, group and individual tests (cognitive, affective and psychomotor), reliability, validity and standardization procedures.</td>
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<tr>
<td>PSCI 323</td>
<td>Health Psychology (3)</td>
<td>Prerequisite: PSCI 120. Explore psychological factors in maintenance of wellness, treatment of illnesses and recovery from or adjustment to ongoing health problems. Study therapy, research methods and clinical applications in health psychology.</td>
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<tr>
<td>PSCI 330</td>
<td>Child and Adolescent Psychology (3)</td>
<td>Prerequisite: PSCI 230. Focus on human development from conception through adolescence, particularly physical, cognitive and socioemotional development. Learn research methods for studying developmental processes.</td>
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<tr>
<td>PSCI 350</td>
<td>Principles of Learning (3)</td>
<td>Individualized Investigation under the direct supervision of a faculty member.</td>
<td>3</td>
<td>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.</td>
</tr>
<tr>
<td>PSCI 342</td>
<td>Cognitive and Behavioral Change: Theory, Assessment and Application (3)</td>
<td>Prerequisite: PSCI 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.</td>
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<tr>
<td>PSCI 344</td>
<td>Group Processes and Roles (3)</td>
<td>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.</td>
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<tr>
<td>PSCI 350</td>
<td>Theories of Personality (3)</td>
<td>Prerequisite: PSCI 120. Study psychological theories and research methods used to explain personality development and functioning including psychoanalytic, neo psychoanalytic, cognitive, behavioral, humanistic and type-trait theories.</td>
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<tr>
<td>PSCI 366</td>
<td>Industrial Psychology (3)</td>
<td>Discover basic methods employed by psychologists in selection, placement, training and motivation of industrial personnel. Examine psychological factors influencing morale, production and job satisfaction.</td>
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<tr>
<td>PSCI 370</td>
<td>Chicano Psychology (5)</td>
<td>The course is designed to examine the behavior of Mexican-Americans in an Anglo-American cross-cultural setting. Taught in English.</td>
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<tr>
<td>PSCI 375</td>
<td>Sensation and Perception (3)</td>
<td>Prerequisite: PSCI 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.</td>
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<tr>
<td>PSCI 389</td>
<td>Research in Human Development (3)</td>
<td>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.</td>
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<tr>
<td>PSCI 400</td>
<td>Research Design and Analysis (5)</td>
<td>(4 lecture, 2 laboratory) Prerequisites: PSCI 120, PSCI 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.</td>
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<tr>
<td>PSCI 407</td>
<td>Introduction to Counseling Theories (3)</td>
<td>Prerequisite: PSCI 350. Survey current theoretical approaches with individuals and groups. Not intended as training in counseling approaches, but as basis for future study.</td>
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<tr>
<td>PSCI 422</td>
<td>Directed Studies (1-3)</td>
<td>Individualized Investigation under the direct supervision of a faculty member.</td>
<td>1-3</td>
<td>Repeatable, maximum concurrent enrollment is two times.</td>
</tr>
<tr>
<td>PSCI 425</td>
<td>Seminar: Psychological Issues (2)</td>
<td>Prerequisite: PSCI 120. Majors and minors only. Study, report and discuss psychological issues and problems identified through class discussion and study. Review and discuss research findings and conduct independent research projects.</td>
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</tbody>
</table>
Course Descriptions – Psychology • Recreation

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 (5) Prerequisite: PSY 120. Investigate motivational concepts and related research: drive, goals, direction, incentive, reinforcement, and motivation; stimulus, 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 482/482 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 and 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 psychology. Goals and objectives will emphasize the acquisition of general discipline 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 (5) A survey of empirical research and theory on the cognitive development of children. Contemporary and historical theoretical approaches will be considered as will such specific topics as the development of attention, perception, memory, intelligence and reasoning.

PSY 582/482 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 590 Seminar in History and Systems (5) 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 topics within 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 627 Psychometrics (3) Survey of psychometric considerations within areas of personality, psychopathology, intelligence, neuropsychology. Topics include: domain theory test construction 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, social 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 697 Master’s Project in Psychology (3-6) Majors only. Consent of advisor. For Master’s students in psychology as an approved alternative to the written comprehensive examination. Students will enroll with major advisor to develop research proposal, conduct project, report results. S/U graded. Repeatable, maximum six credits.

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.

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 need for 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 visits.

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) Acquiring the skills and knowledge 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 408/808 Workshop in Recreation (1-3)
Opportunities for study in professional interest areas of participants, but varying according to experts conducting the workshop. S/U graded. 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 420. Learn the history, philosophy of the current practice of providing recreation services to special populations through educational experiences in observation, videotapes, 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 the developing recreation programs in therapeutic recreation.

REC 481 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: facility-funding, legal aspects, municipal organization, department structure, financing, records and reports, publicity, public relations, personnel and professionalism.

REC 488 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, sport 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 492/692 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 498 Senior Seminar (3) Majors only. Research, observe 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 508/408 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 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) Basic 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. Employs employment practices, staff supervision and evaluation, liability, public relations and certification.

REC 692/492 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.

Russian

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.


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 441/541 Methods of Teaching Secondary School Science (3) Full admission to PTEP or certification at the undergraduate level required. Corequisite: EDLS 365. Prerequisite to student teaching. Consider curriculum and classroom organization, testing and evaluation, procedures and materials, relationship of subject to total secondary program, emphasizing teaching techniques.

SCED 470/570 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. 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 520 Problems in Teaching Physics (3) Consent of Instructor. Study current trends in teaching high school physics and various problems confronting teachers.

SCED 541/441 Methods of Teaching Secondary School Science (3) Full admission to PTEP or certification at the undergraduate level required. Corequisite: EDLS 365. Prerequisite to student teaching. Consider curriculum and classroom organization, testing and evaluation, procedures and materials, relationship of subject to total secondary program, emphasizing teaching techniques.

SCED 570/470 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. 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 676 Evaluation of Classroom Performance in Science (2) A study of test construction and use by science teachers. The philosophy, purposes and values of classroom and standardized tests are included. Test administration, scoring and proper physical form are considered.

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 Curriculum 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: SCI 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.

Science

SCI 100 History of Science — 20th Century (3) Trace the historical and philosophical development of 20th century science. Impacts on humanity, human systems or institutions and contemporary reactions to science and technology will be considered.

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 104 Physical Science Laboratory (1) (3 laboratory) Optional laboratory for students concurrently taking SCI 103. Experiments will reinforce principles and laws presented in SCI 103.

SCI 106 Introduction to Spacelight (3) Topics to be covered include history of spacelight, 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 110 Sights and Sounds (3) Optional laboratory available (SCI 111). Descriptive study of wave motion in sound and light, emphasizing the associations with music and art. Primarily for the student with limited science background. Taught by Physics faculty.

SCI 111 Sights and Sounds Laboratory (1) (3 laboratory) Optional laboratory for students concurrently taking SCI 110. Experiments will reinforce principles and laws presented in SCI 110.


SCI 114 "The Ascent of Man" (3) A non-mathematical study of the major developments, impacts and controversies of science throughout recorded history. Follows television series and book by J. Bronowski. Taught by Physics faculty.

SCI 225 Introductory Photo Science (3)  
Prerequisite: SCI 105 or equivalent. The history of photographic technology. Principles of optics, light and filters, film sensitivity. Simple photographic assignments.

SCI 265 Physical Science Concepts for Elementary Teachers (4) (3 lecture, 2 laboratory) Investigations 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: ENGL 122. Techniques of problem identification, literature survey, data interpretation and synthesis technical reports.

SCI 359/559 Computer Applications in Science (2) (4 lecture, 2 laboratory) Teachers 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 505 Physical Science Concepts (3) (2 lecture, 3 laboratory) For elementary/middle school teachers. Fundamental concepts of physical science are considered in a lecture/laboratory setting.

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 to atomic, nuclear and astrophysics. For certified teachers interested in improving understanding and pedagogic delivery of physics concepts.

SCI 591/591 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.

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. Definition 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 form 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, sociomedical 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 (3) 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 330/350 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 reality of America's open-class system, making use of current theoretical perspectives and systematic research. Examine 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 criminal 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 351/551 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 computer technology, types of computer technology, substantive issues in sociology. Data collection, data analysis, simulation and data archives. Mainframe, mini- and microcomputer applications.

SOC 361/561 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 design. Fee required.

SOC 362/562 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 371/571 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 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 510 Sociology of Education (5) Prerequisite: SOC 100 or equivalent. Systematically attempt to relate sociological concepts to the educational institution. Focus on a scientific analysis of school 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 423/523 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 444/544 Sociology of Criminal Law (3) Prerequisite: SOC 100 or equivalent. Survey of 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 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 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 marriage in depth, focusing primarily on American marriage. Also, contrast the American system with that of other societies.

SOC 523/525 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 530/330 Social Organizations (3) Study the social structure of modern bureaucratic organizations. Review human behavior in organizations from a social psychological perspective.

SOC 544/444 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 (5) Prerequisite: SOC 351 or equivalent. Explore a variety of philosophical problems, issues and methodologies related to a broad spectrum of philosophical assumptions, the nature of reality, the role of the scientist, the relation of science to society.

SOC 551/351 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 crime.

SOC 561/361 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 design. Fee required.

SOC 562/362 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 563 Qualitative Methods (3) Examination of major qualitative methods in sociology: ethnography, participant, phenomenological sociology, ethnomethodology, verstehen sociology, hermeneutics and other methods. Emphasis is on field research and application of specific qualitative methods.

SOC 571/371 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 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 352 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 (1-6) Gain graduate level research and career-relevant work experience. Design a research project with the internship advisor in cooperation with a social agency representative. Repeatable, maximum six credits.


Social Science

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.

Spanish

SPAN 101 Elementary Spanish I (3) 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 (3) 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 Spanish culture through music. Music, songs and instruments will be studied in their cultural perspectives. Course will develop Spanish language, vocabulary and pronunciation. Taught in Spanish.

SPAN 301/501 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 302/502 Spanish Composition (3) Prerequisite: SPAN 301. Designed to increase the student's composition skills in Spanish through the use of outlines, drafts, descriptions, and Spanish compositions, research papers and translations.

SPAN 303/503 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 304 Introduction to Hispanic Literature (3) Prerequisite: 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 321/521 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 331/531 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 by focusing on major historical events from the pre-Columbian period to the present.

SPAN 335/535 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 351/551 Masterpieces of Latin American Literature (3) Prerequisite: SPAN 335. Study major Latin American literature and the late 18th and 19th century Spanish literature.

SPAN 405/505 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 406 Introduction to Translation (3) Prerequisite: 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 407/507 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 408 Study Abroad Program: Coursework (9) Prerequisite: Two years of college Spanish or permission of department. Allows 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 and participate in the sociocultural 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. 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 (5) Prerequisite: 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 after completing SPAN 412 to receive Bilingual Education Certification.

SPAN 412 Spanish for Bilingual Education II (5) Prerequisite: SPAN 411. Develops Spanish language skills for teaching science and social studies. ACTFL/ETS Spanish Oral Proficiency Interview must be taken after completing SPAN 412 to receive Bilingual Education Certification.

SPAN 414/514 Contrastive Features of Spanish and English (3) Prerequisite: three years of high school Spanish or equivalent. Consent of instructor. General contrastive approach to study Spanish/English. Focuses on the areas of ease of 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 452/552 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, Cricollismo, Magical Realism and contemporary Social-Realism.

SPAN 453/553 Spanish Literature of the 20th Century (3) Prerequisite: two years of college Spanish or equivalent. Study Spanish literature from 1940 to the present. Analyze literary values of the works and their historical, linguistic, political and sociocultural implications.
SPAN 454/554 Latin American Literature of the 20th Century (3) Prerequisite: Two years of college Spanish or equivalent. A study of the major works of prominent Latin American writers. To include the works of Garcia Marquez, Rulfo, Vargas, Llosa, Fuentes, Cortazar, Carpenter, Poniatowska, Vallesio and Carballido.

SPAN 455/555 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 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 501/301 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 502/302 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 503/303 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 505/405 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 507/407 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 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 more focused. S/U or letter graded. Repeatable, under different subtitles.

SPAN 514/414 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 521/321 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 521/351 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 550/350 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 551/351 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 552/452 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 553/453 Spanish Literature of the 20th Century (3) Prerequisite: Two years of college Spanish or equivalent. Study Spanish literature from 1940 to the present. Analyze literary values of the works and their historical, linguistic, political and socioeconomic implications.

SPAN 554/454 Latin American Literature of the 20th Century (3) Prerequisite: Two years of college Spanish or equivalent. A study of the major works of prominent Latin American writers. To include the works of Garcia Marquez, Rulfo, Vargas, Llosa, Fuentes, Cortazar, Carpenter, Poniatowska, Vallesio and Carballido.

SPAN 555/455 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 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 (1-5) Prerequisite: Three years college Spanish or equivalent. Designed to cover literature written 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, 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 seldom-encountered 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, narration, 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.

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 its influence on 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 241 Forensics (1-3) Experience intercollegiate forensics: debate and individual events. Repeatable, maximum eight credits. S/U graded.

SPCO 321 Interpersonal Theory (3) An undergraduate course focusing on the philosophical and theoretical issues of self-perception and relationships 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 relationships of group communication and group variables such as leadership roles and cohesiveness.

SPCO 351 Organizational Communication (3) Study the dynamics of communication activities within an organization.

SPCO 354/554 Classroom 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 351/551 Directing Forensics (3) Study philosophy, principles, methods and problems of directing debate and individual events at the secondary school level.

SPCO 352/552 Methods of Teaching Secondary Communication (3) IPTT full admittance required. Focus of the course is on curriculum and classroom organization, teaching 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 404/504 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 431/531 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 444/544 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 461/561 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 480 Research in Speech Communication (2-8) Prerequisite: SPCO 201. Learn the basic skills involved in speech research. Prepare a research proposal, conduct the study and prepare a final report on timely communication problems. Repeatable one time, maximum six credits. (Minimum of 37 clock hours needed per credit hour.)

SPCO 491 Speech Communication Theory (3) Consent of instructor. Graduate students 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 assistants in SPCO. S/U graded. Repeatable, maximum three credits.

SPCO 504/404 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 531/431 Communication and Leadership (3) Examine theories of leadership, major leadership research findings and various leadership methods. Concepts 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 541/341 Courtroom Communication (3) Investigate the relationship between communication and the law and legal argumentation and consulting.

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 544/444 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 551/551 Directing Forensics (3) Study philosophy, principles, methods and problems of directing debate and individual events at the secondary school level.

SPCO 552/552 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, presentations, decisional processes and techniques in a variety of contexts.

SPCO 561/461 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 582 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.


Statistics and Research Methods

SRM 500 Teacher as a Researcher (3) Acquiring the skills and knowledge to understand educational research and conduct research in classroom settings. Identification and definition of research problems, research tools, designs and procedures for pursuing topics.

SRM 501 Applied Statistics I (4) Prerequisite: MATH 023 with a grade of "C" or better or a full year of high school mathematics. Focus of second semester algebra with a grade of "C" or better or consent of Instructor. Data summaries and basic probability. Central tendency, standard scores, percentiles, correlation regression and probability distributions. Studying inferences arising from distribution functions: t, F, chi-square, binomial, normal.

SRM 502 Applied Statistics II (4) Prerequisite: SRM 501 or consent of instructor. Hypothesis formulation and testing; estimation and confidence limits; one- and two-sample tests; and statistical decision theory. Study applications and interpretation of single and multiple classification designs. Topics include use of classification as control methods of un-weighted means.

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 511 Mathematical Statistics with Applications I (4) Prerequisite: MATH 233 or consent of instructor. This course presents an overview of classical approaches to probability and probability models, including both the discrete and continuous cases. Statistics, including their probability distributions, are discussed in detail. The Central Limit Theorem and its usefulness is also a focal point.

SRM 512 Mathematical Statistics with Applications II (4) Prerequisite: SRM 511. Continuation of SRM 511. Learn about sampling distribution, estimation techniques, maximum likelihood, test of hypothesis, confidence intervals, regression and chi-square tests.

SRM 515 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 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 604 Advanced Experimental Design (3) Prerequisite: SRM 502. Continuation of SRM 502. Study high-order factorial designs. 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 605 Multivariate Analysis I (3) Prerequisite: SRM 502. Receive introduction to multivariate analysis of variance, multivariate one- and two-sample tests on means, canonical correlation, profile analysis and discriminate function.

SRM 606 Multiple Linear Regression Models (3) Prerequisite: SRM 502. Take the matrix approach to continuous and categorical variables, polynomial and selected non-linear models: formulation of ANOVA and ANCOVA designs and collinearity; regression models: backward elimination, forward selection, stepwise and stagewise; and part-regression.

SRM 607 Non-Parametric Statistics (3) Prerequisite: SRM 502 or consent of instructor. Study non-parametric tests. Topics: hypothesis, tests, sample size, hypothesis 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 609 Sampling Methods I (3) Prerequisite: SRM 502 or consent of instructor. 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 603. Learn the use of statistical software libraries for analyzing data. Topics will include various ANOVA, ANCOVA and MANOVA designs, multiple regression, factor and cluster analyses, path analysis and measurement statistics.

SRM 611 Advanced Theory of Statistics I (4) Prerequisite: SRM 611 or equivalent. Advanced topics in statistics to include random variables, distributions, limit theorems, transformations, mathematical expectation, joint distributions, sampling and sampling distribution.

SRM 612 Advanced Theory of Statistics II (4) Prerequisite: SRM 611. Continuation of SRM 611 to include theory of point estimation, sufficient statistics, interval estimation, testing of hypotheses, most powerful tests, likelihood ratio tests, Chi-Square tests and regression tests.

SRM 613 Matrices for Statisticians (3) Prerequisites: MATH 525, SRM 604. Advanced topics in matrix algebra with applications to statistics. Topics will include definitions, forms, vector spaces, eigenvalues, eigenvectors, generalized and conditional inverses, systems of linear equation, approximate solutions and patterned matrices.
Statistics

SRM 614 Linear Models (3) Prerequisite: SRM 613. Develop the theory of linear models as a structure for handling problems in regression and correlation, analysis of variance and experimental design.

SRM 618 Multivariate Analysis II (3) Prerequisite: SRM 605. Consider Spearman's g-factor, eigenvectors, eigenvalues, principal axis analysis and promax models. Also consider the theory of oblique and orthogonal solutions and the communality problem.

SRM 616 Regression: Advanced Topics (3) Prerequisite: SRM 606. Advanced topics in regression will include diagnostics, remedial measures, qualitative variables, ridge regression, stepwise procedures, autocorrelation, nonlinear regression and binary dependent variables.

SRM 619 Sampling Methods II (3) Prerequisite: SRM 609 or consent of instructor. Advanced aspects of stratified and multistage cluster sampling.

SRM 623 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 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 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 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 36 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. Experimental learning in an on-campus setting in conjunction with supervision by a faculty member. Students work a minimum of 5 hours per week for each hour of credit. Repeatable, maximum 18 credits. S/U graded.


SRM 700 Advanced Research Methods (3) Prerequisites: SRM 600, SRM 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 753 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 conduct 4 partial fulfillment of requirements of 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.

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 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 mod 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 hypotheses, APOVA, 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, inference, 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.

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 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 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.

Teaching English as a Second Language

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.
Theatre Arts

THEA 100 Individual Performance in Theatre
(2) Open to all UNC students. Participation in Little Theatre of the Rockies productions. Student must participate in 90 hours. Unlimited repeatability.

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 release, 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
(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
(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 indepth 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
(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/character/relationships/given circumstances/character/orchestration and text scoring.

THEA 275 Stage Movement
(1) Prerequisite: Theatre 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 276 Stage Movement
(1) Prerequisite: Theatre 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 field 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
(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
(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
(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
(1) Prerequisite: THEA 240. Basic directing techniques as applied to period styles. Focus on various anti-classical 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 353 Theatre Production
(2) (6 contact hours per week) Acceptance by audition only. Production and presentation of touring theatre before live audiences in this laboratory class. Repeatable, maximum eight credits.

THEA 360 Advanced Acting Styles
(3) 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
(2) Prerequisites: THEA 160, THEA 260 or consent of instructor, and THEA 360. 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
(2) (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 380 Methods of Teaching Drama in the Secondary School
(3) Corequisite: EDLS 365. PTPF 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. Introduction to 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 351 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.
## Course Descriptions

### Theatre Arts

**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 585 Theatre Production in High School** (2) FTTP or distribution at undergraduate level English and/or speech teachers involved in direction of high school plays are offered this basic production course. Not for TL majors without instructor's permission.

**THEA 600 Introduction to Graduate Studies** (3) Graduate study and descriptive research in Theatre Arts. Required of all first year graduate students. To be taken early in the graduate program.

**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 costume. Emphasis is placed on research study. Unlimited repeatability.

**THEA 622 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 630 Seminar in Theatre History** (3) Prerequisites: THEA 530, THEA 531. May be repeated for credit. A seminar study of specialized topics in the history of the theatre. Emphasis is placed on research.

**THEA 640 Seminar in Directing and Acting** (3) Study the practical application of various theories of acting and directing. Emphasis is placed on research study. Repeatable, maximum six credits.

**THEA 650 Graduate Summer Theatre** (10) Acceptance by Theatre Arts staff only. Graduate workshop in acting and technical theatre. with 8-hour daily rehearsals for 8 weeks for summer productions. May be counted for 2 hours in Individual Performance in Theatre by graduate majors. May be repeated for maximum 30 hours credit.

**THEA 685 Seminar in Educational Theatre** (3) Study specialized topics in creative dramatics, children's theatre, teaching in high school, theatre production in the classroom, curriculum and other concerns of educational theatre. Emphasis on educational research. Repeatable, maximum nine credits.

**Women's Studies Program**

**WS 120 Women and Men in Perspective** (3) Interdisciplinary focus used to illustrate effects of gender stereotyping and develop strategies to produce civilized environments by enhancing the interpersonal relationships of females and males.

**WS 148 Introductory Seminar in Women's Studies** (3) Review issues, concerns, research and methodologies of Women's Studies and, through individual and group processes, explore relationships to self and society.

**WS 308/508 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 510/510 Philosophy of Feminism** (3) Utilizing the feminist theory developed by Simone de Beauvoir, traditional and feminist philosophical analyses of women will be critically examined.

**WS 520/520 Women in United States History** (3) Research and interpret the contributions of women to the history of the United States. Revision history through a feminist perspective. Special assignments for graduate students.

**WS 548/448 Women's Studies Graduate Seminar** (3) Enrollment in Graduate Interdisciplinary Degree Program required or consent of instructor. Primarily for students emphasizing Women's Studies in the Graduate Interdisciplinary Degree Program. Utilize the feminist perspective to develop interdisciplinary methodologies and paradigms pulling together the various disciplinary areas covered by Women's Studies.

**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.

**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 both ZOO 245 and ZOO 350. Fee required.

**ZOO 248 Introduction to Human Anatomy** (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 351 General Entomology** (4) (3 lecture, 3 laboratory) Prerequisite: BIO 111. Study 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 352 Invertebrate Zoology** (3) (lecture, 3 laboratory) Prerequisite: BIO 111. Study 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 353/553 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 354/354 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 335/535 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 535/533 General Parasitology (4) (5 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 534/334 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 535/535 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. Consider in detail the digestive, muscular and excretory systems, particularly the integrative functions of these systems in maintenance of homeostasis. 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 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.

### Administration and Faculty

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- Robert F. Merz, (1972) - B.A., Ph.D., University of Northern Colorado
- Forrest Swick, (1994) - B.A., University of Northern Colorado

**Vice Provost**
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- Francis A. Griffith, (1984) - Assistant Vice Provost for Assessment, Office of the Provost - B.S., University of Maryville; M.S., Ph.D., Pennsylvania State University (G)
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- Michael J. Phillip, (1996) - Assistant Vice President for Minority Affairs - B.Sc., M.Sc., University of Toronto; Ph.D., Michigan State University

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- Gerald E. Tanner, (1995) - Assistant Vice President for Auxiliary Services - B.A., M.A., Ph.D., University of Northern Colorado (G)

#### Assistant to the Vice President of Administration
- Alan V. Comedy, (1991) - Assistant to the Vice President of Administration - B.A., B.S., M.S., M.B.A., University of Wisconsin; Whitewater; Ph.D., University of Northern Colorado

**Dean of Students**
- Jean Schober Morrell, (1974) - B.S., Bowling Green State University; M.A., Oakland University; M.A., Bowling Green State University; Ph.D., University of Northern Colorado

**Registrar**

**Internal Auditor**

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- Roger A. Kovar, (1970) - Dean - B.A., Doane College; Ph.D., University of Wyoming
- John K. Gauger, (1963) - Associate Dean - B.S., M.S., Ph.D., Colorado State University
- Maria Lopez, (1972) - Associate Dean - B.A., University of Northern Colorado; M.A., Ph.D., University of Iowa

**College of Business Administration**
- Robert Lynch, (1973) - Dean - B.A., State University of New York; Ph.D., University of Northern Colorado (G)
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- Forrest Swick, (1994) - Systems Administrator - B.S., University of Northern Colorado

**College of Education**
- Gary R. Galluzzo, (1990) - Dean - B.A., Utica College; M.S., Ph.D., Syracuse University (G)(DR)
- Michael J. Gimmestad, (1977) - Associate Dean - B.A., St. Olaf College; M.S., Indiana University; Ph.D., University of Minnesota (G)(DR)
- Harvey Kude, (1982) - Associate Dean - B.S., Moorhead State University; M.A., Ed.D., University of Northern Colorado (G)(DR)

**Laboratory School**
- Daniel Lewis, (1994) - Co-Principal - B.A., M.A., Ph.D., University of Northern Colorado
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**College of Health and Human Sciences**
- Vincent Scala, (1977) - Dean - B.S., St. Peter's College; M.S., University of Arizona; Ed.D., University of Northern Colorado (G)(DR)
- Donna Bottengen, (1976) - Associate Dean - B.A., M.A., University of Northern Colorado; Ph.D., University of Colorado (G)(DR)

**College of Performing and Visual Arts**
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**University Libraries**
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**Division of Aerospace Studies**
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- Reiko Clark, (1988) - International Student Services - B.A., Tsunami Women's College (Japan); M.A., Hofstra University
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Administration and Faculty

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Michael J. Higgs, (1975) Professor of Anthropology – B.A., University of Northern Colorado; M.A., Ph.D., University of Illinois (G)
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Paul F. Hodapp, (1972) Professor of Philosophy – B.A., Western Michigan University; Ph.D., Washington University; J.D., University of Denver (G)
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Kenneth D. Hopkins, (1969) Associate Professor of Geology – B.A., University of Northern Colorado; M.S., Ph.D., University of Minnesota (G)
Jason G. Horn, (1990) Instructor of English – B.A., Fort Lewis College; M.A., Idaho State University; Ph.D., Northern Colorado (G)(DR)
William H. Hoyt, (1981) Professor of Oceanography – B.A., M.A., University of New Mexico; M.S., Ph.D., University of Washington (G)
Joonok Huh, (1988) Associate Professor of English – B.A., Ewha Woman’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. Isaacs, (1983) Associate Professor of Mathematics and Applied Statistics – B.A., Cornell College; M.A., University of Northern Colorado; M.S., Ph.D., Colorado State University
-Martyn R. James, (1966) Professor of Chemistry – B.S., B.S., Brigham Young University; Ph.D., University of Illinois (G)
Karen M. Jenness, (1972) Associate Professor of Sociology – B.A., University of Kansas; M.A., Washington University; Ph.D., Washington State University (G)(DR)
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.A., M.A., Ph.D., University of Michigan

Keila M. Kallon, (1953) Associate Professor of Economics – B.A., Methodist College; Ph.D., University of Virginia (G)

Anthonla C. Kalu, (1989) Associate Professor of Black Studies – B.A., M.A., Ph.D., University of Wisconsin

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Nancy J. Karlin, (1990) Associate Professor of Psychology – B.A., Evanston College; M.S., Fort Hays State University; Ph.D., Colorado State University (Q)

Idahlynn Kats, (1970) Professor of Speech Communication – B.A., M.A., University of Northern Colorado; Ph.D., University of Colorado (G)

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 (Q)


Kevin C. Kears, (1966) Professor of Geography – B.S., Washington University; M.A., Ph.D., St. Louis University

James A. Kears, (1991) Assistant Professor of Speech Communication – B.A., Montclair State College; M.A., Ph.D., Pennsylvania State University (G)


Susan E. Kirkpatrick, (1994) Assistant Professor of Political Science – B.A., University of Michigan; M.A., Harvard University; Ph.D., Colorado State University


Joyce Lackie, (1969) Professor of English – B.A., Illinois State University; M.A., University of Illinois; Ph.D., University of Alabama (G)

Carlos Leal, (1970) Associate Professor of Hispanic Studies – B.A., Ed.S., University of Northern Colorado


Lawrence L. Leland, (1990) Assistant Professor of Mathematics – B.A., Rice University; M.A., Ph.D., University of Texas (G)

Steven C. Leth, (1986) Associate Professor of Mathematics – B.A., M.A., Ph.D., Stanford University; M.S., Stanford University; Ph.D., University of Colorado (G)(DR)

Ivo E. Lindauer, (1960) Professor of Botany – B.S., Colorado State University; M.A., University of Northern Colorado; Ph.D., Colorado State University (G)(DR)

Marie L. Livingston, (1985) Professor of Mathematics – 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)

Maria E. Lopez, (1972) Professor of Hispanic Studies – B.A., University of Northern Colorado; M.A., McPherson College; Ph.D., University of Wyoming

Stan Luper, (1950) Associate Professor of Political Science – B.A., State University of New York; M.A., University of Toronto; Ph.D., City University of New York

Thomas P. MacKeys, (1994) Assistant Professor of Biological Sciences – B.A., M.A., University of California: Ph.D., Washington State University (G)

Kendall C. Mallory, (1991) Associate Professor of Physics – B.S., Point Loma College; M.A., California State University; Ph.D., University of California (G)

Kathleen E. B. Manley, (1969) Professor of English – B.A., Reed College; M.A., University of New Mexico; 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)

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Linda A. Warner, (1975) Teacher and Assistant Professor of Biological Sciences in the Laboratory School – B.A., M.A., University of Anchorage

Guy Westhoff, (1992) Instructional Staff Member in the Laboratory School – B.S., Colorado State University; M.E.D., Colorado State University; Ed.D., University of Northern Colorado

Kenneth H. Widel, (1974) Teacher in the Laboratory School – B.S., Central Missouri State University; M.A., University of Northern Colorado

Linda S. Witt, (1979) Teacher in the Laboratory School – B.A., M.A., University of Northern Colorado


Affiliate Faculty

Stewart Abbott, Affiliate Professor of Nursing – B.S., Colorado State University; M.D., South Dakota State University

Neil H. Allen, Affiliate Professor of Nursing – B.S., Texas A&M University; M.D., University of Texas Medical School

Spencer K. Anneberg, Affiliate Professor of Psychiatry – B.A., Cornell College; M.D., Uniformed Services University of the Health Sciences

I. Kaufman Arentzen, Clinical Professor of Communication Disorders – B.A., University of Michigan; M.D., University of Michigan Medical School

Douglas W. Armbrust, Affiliate Professor of Community Health & Nutrition – B.A., Kenyon College; M.D., Ohio State University

Bobbe J. Atkins, Affiliate Professor of Human Rehabilitative Services – B.A., Southern Illinois University; M.S., Ph.D., University of Wisconsin, Madison

David L. Bagley, Affiliate Professor of College Health – B.S., Allegheny College; M.D., Temple University

Jeffrey S. Banyas, Affiliate Clinical Professor of Communication Disorders – B.S., Pennsylvania State University; M.D., Jefferson Medical College

William G. Beardsee, Affiliate Professor of Nursing – B.S., State University of New York; J.D., University of Denver

Robert Blattner, Affiliate Professor of College Health – B.S., Southeast Missouri State; M.D., University of Missouri

Steven W. Blooms, Affiliate Professor of College Health – B.S., M.D., Wayne State University

Daryl D. Bohlender, Affiliate Instructor in Medical Technology – B.A., University of Northern Colorado

Christine C. Book, Affiliate Instructor of Food, Nutrition and Dietetics – B.S., Colorado State University

Carolyn Boton-Past, Affiliate Assistant Professor of Nursing – B.S., Metropolitan State College; M.S., University of Pennsylvania

Patricia Bril, Affiliate Instructor of Nursing – A.S., Pacoima Community College

John D. Chaffee, Affiliate Instructor of Human Rehabilitative Services – B.A., Pacific Lutheran University; M.A., Ed.D., Arizona State University

Arturo W. Combs, Affiliate Professor of Psychology – B.S., M.A., Ph.D., Ohio State University

Joseph Corona, Affiliate Professor of College Health – B.A., Miami University; M.S., Harvard University

Mary F. Davis, Affiliate Professor of Community Health – B.A., University of Nebraska; M.P.H., University of Minnesota; Ph.D., University of Colorado, Denver

Alice Dionne, Director of Summer Session and Evening Division – B.S., University of Washington; M.P.A., University of Alaska, Anchorage

James Dixon, Affiliate Professor of Human Rehabilitative Services – B.S., Brigham Young University; M.A., University of Maryland; Ph.D., University of Washington

Marlon F. Downs, Affiliate Professor of Communication Disorders – B.A., University of Minnesota; M.A., University of Denver

Phyllis Drenk, Affiliate Professor of Nursing – B.S., University of Denver; M.S., University of Colorado; Ph.D., University of Iowa

James Emmett, Affiliate Professor of Biological Sciences – B.S., M.S., University of Wisconsin; D.V.M., Colorado State University

Christopher M. Eriksen, Affiliate Professor of Communication Disorders – B.S., M.D., Pennsylvania State University

Mary Carol Ferrara, Affiliate Professor of Nursing – B.S., Marymount College; M.S., University of Colorado

Susan T. Ferrar, Affiliate Professor of Communication Disorders – B.S., Northern Illinois University; M.S., Colorado State University

David T. Fitzgibbon, Affiliate Professor of Nursing – M.D., Loyola University

Thomas Flower, Affiliate Professor of College Health – B.S., Ohio Northern University; D.O., College of Osteopathic Medicine and Surgery

Jeanne Fremuth, Affiliate Instructor of Nursing – Diploma, St. Mary's School of Nursing, Rochester, MN
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<td>Jane C. Cox</td>
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<td>Library Science</td>
<td>1963</td>
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<td>Virginia Costello</td>
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<td>Counseling Services</td>
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<td>Roy Edward Colby</td>
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<td>Shbley M. Carriar</td>
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<td>Clara E. Funderbank</td>
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<td>Judith S. Gilbert</td>
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<td>John S. Grafft</td>
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<td>Daniel Graham</td>
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<td>Leroy A. Green</td>
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<td>Leilolene Gunning</td>
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<td>Marvin Halderson</td>
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</table>

Administration and Faculty

Edna Mary Hoydar, Professor Emeritus of Public School Music – B.A., M.M. Appointed 1937; Emeritus since 1962


Joan T. Hurlock, Associate Professor Emeritus of Nursing – B.S., M.S. Appointed 1970; Emeritus since 1984

Rita J. Hutcherson, Emeritus since 1995

F. Morris Johnson, Emeritus since 1988

H. Audrle Johnston, Emeritus since 1986

Willard Jones, Emeritus since 1980

Joan T. Hurlock, Emeritus since 1995


J.M. Johnson, Emeritus since 1974

Robert L. Johnson, Emeritus since 1984

Audrie Johnston, Emeritus since 1981

William Jones, Emeritus since 1995

Zahl S. Kamal, Emeritus since 1985

Edward J. Kelly, Emeritus since 1980

Calvin E. Kennedy, Emeritus since 1985

LeRoy Kerns, Emeritus since 1985

David W. Kettel, Emeritus since 1983

Joyce C. Killion, Emeritus since 1985

Ray B. Knapp, Emeritus since 1984

Mary M. Koch, Emeritus since 1994

Betty J. Koistola, Emeritus since 1984

Oliver F. Koistola, Emeritus since 1984

Eugene Kopitz, Emeritus since 1984

Gabor Kovacs, Emeritus since 1993

Edward Krafft, Emeritus since 1984

Roy T. Kroshy, Emeritus since 1983

Jack LaBonde, Emeritus since 1984

Frank P. Lakin, Emeritus since 1964

Robert W. Larson, Emeritus since 1990

George Leach, Emeritus since 1990

Rose Ellen Leacock, Emeritus since 1993

Paul H. Lerman, Emeritus since 1968

Lawrence A. Levenson, Emeritus since 1982

Jay Y. Lindahl, Emeritus since 1982

Sanford A. Linscombe, Emeritus since 1984

Robert Longwell, Emeritus since 1986

David L. Lonsdale, Emeritus since 1984

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J. Max Labbers, Emeritus since 1984

Arno H. Luker, Emeritus since 1984

Donald M. Lusk, Emeritus since 1984

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Carol L. Lutsey, Emeritus since 1984

Theresa M. Malumphy, Emeritus since 1984

Florence M. Meyer, Emeritus since 1984

Howard M. Mickens, Emeritus since 1984

Robert A. Montgomery, Emeritus since 1984

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Robert A. Montgomery, Emeritus since 1984
Alberta Eloise Reitze, Associate Professor Emeritus of Education—B.A., M.A. Appointed 1950; Emeritus since 1986
Norman H. Resnick, Professor Emeritus of Special Education—B.A., M.A., Ph.D. Appointed 1971; Emeritus since 1991
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 1985
Paul W. Richard, Professor Emeritus of Biology in the Laboratory School—B.A., M.A. Appointed in 1967; Emeritus since 1984
Edmund Richards, Professor Emeritus of Zoology—B.S., M.S., Ph.D., M.D. Appointed 1970; Emeritus since 1995
Robert C. Richardson, Professor Emeritus of Educational Field Experiences—B.A., M.A., Ph.D. Appointed 1967; Emeritus since 1988
Winnifred S. Richardson, Associate Professor Emeritus of Library Science—B.A., M.A. Appointed 1967; Emeritus since 1973
Grace A. Robins, Professor Emeritus of Business—B.S., M.E. Appointed 1970; Emeritus since 1980
Bobby J. Rollins, Assistant Professor Emeritus of Physical Education—B.S., M.A. Appointed 1967; Emeritus since 1993
Anthony M.Rossi, Professor Emeritus of Physical Education—B.S., M.A. Appointed 1949; Emeritus since 1984
Wendell L. Roy, Professor Emeritus of Industrial Arts—B.S., M.Ed. Appointed 1970; Emeritus since 1983
Gretchen Saam, Associate Professor Emeritus of Business—B.A., M.A., M.B.A. Appointed 1972; Emeritus since 1991
Lynn A. Sandstedt, Professor Emeritus of Spanish—B.A., M.A., Ph.D. Appointed 1972; Emeritus since 1993
Gordon H. Sawatzky, Associate Professor Emeritus of Nursing—B.A., M.H., M.S. Appointed 1965; Emeritus since 1985
Walter A. Schenckman, Professor Emeritus of Music—B.A., M.M., D.N. Appointed 1956; Emeritus since 1984
John Schmid, Professor Emeritus of Mathematics and Applied Statistics—B.S., M.S., Ph.D. Appointed 1966; Emeritus since 1984
Claude M. Schmitz, Professor Emeritus of Music—B.A., M.A. Appointed 1953; Emeritus since 1983
Glenn B. Schroeder, Professor Emeritus of Educational Administration—B.S., M.Ed., Ph.D. Appointed 1960; Emeritus since 1989
Robert O. Schulte, Professor Emeritus of Sociology—B.A., M.A., Ph.D. Appointed 1972; Emeritus since 1987
Daniel A. Seager, Associate Professor Emeritus of Library Science—B.A., M.A. Appointed 1956; Emeritus since 1984
Jack Shaw, Professor Emeritus of College Student Personnel Administration—B.A., M.Ed., Ph.D. Appointed 1950; Emeritus since 1973
J. Max Shirley, Professor Emeritus of Recreation—B.S., M.S.A., Ed.D. Appointed 1962; Emeritus since 1984
Robert S. Sloat, Professor Emeritus of Human Rehabilitative Services—B.A., M.S., Ph.D. Appointed 1977; Emeritus since 1983
Walter Smith, Associate Professor Emeritus of Music—B.A., M.A., M.F.A. Appointed 1969; Emeritus since 1995
Oren Sprague, Associate Professor Emeritus of Library Science—B.A., M.L.S., B.D. Appointed 1973; Emeritus since 1990
Doris C. Steffy, Professor Emeritus of Physical Education—B.A., M.A. Appointed 1950; Emeritus since 1981
Robert B. Stein, Professor Emeritus of Sociology—B.A., M.A., Ph.D. Appointed 1975; Emeritus since 1984
Mort Stern, Professor Emeritus of Journalism and Mass Communications—B.A., M.A., Ph.D. Appointed 1985; Emeritus since 1990
John Swalm, Professor Emeritus of Elementary Education and Reading—B.S.E., M.S., Ed.D. Appointed 1969; Emeritus since 1995
George Tate, Professor Emeritus of Counseling Psychology—B.A., M.A., Ed.D. Appointed 1974; Emeritus since 1988
Bert O. Thomas, Professor Emeritus of Zoology—B.S., Ph.D. Appointed 1959; Emeritus since 1986
Gordon E. Tomasi, Professor Emeritus of Chemistry—B.A., M.A., Ph.D. Appointed 1962; Emeritus since 1989
Sylvester Roy Toussaint, Professor Emeritus of Speech—B.A., M.A., Ph.D. Appointed 1938; Emeritus since 1967
Orvel L. Trampler, Professor Emeritus of Economics—B.A., M.A., Ph.D. Appointed 1966; Emeritus since 1985
Leslie W. Trowbridge, Professor Emeritus of Science Education—B.S., M.S., Ph.D. Appointed 1962; Emeritus since 1993
Dean W. Tuttle, Professor Emeritus of Special Education—B.S., M.A., Ph.D. Appointed 1971; Emeritus since 1991
Nancy Van Anne, Professor Emeritus of Physical Education—B.A., M.A., Ph.D. Appointed 1955; Emeritus since 1985
Wayman E. Walker, Professor Emeritus of Music—B.M.E., M.M. Appointed 1951; Emeritus since 1978
Doris O. Walters, Associate Professor Emeritus of Home Economics—B.S., M.Ed. Appointed 1970; Emeritus since 1979
Mel W. Welshahn, Professor Emeritus of Special Education—B.A., M.A., Ed.D. Appointed 1963; Emeritus since 1990
William Williams, Associate Professor Emeritus of Education—B.S., M.A., Ed.D. Appointed 1968; Emeritus since 1983
John Willcoxon, Professor Emeritus of Theatre Arts—B.A., M.A., Ph.D. Appointed 1965; Emeritus since 1986
Marcia I. Willcoxon, Professor Emeritus of Women's Studies—B.A., M.A. Appointed 1967; Emeritus since 1993
Gary G. Willoughby, Associate Professor Emeritus of Sociology—B.A., M.A. Appointed 1963; Emeritus since 1988
Elisabeth P. Wirick, Associate Professor Emeritus of Food, Nutrition and Dietetics—B.S., M.A. Appointed 1971; Emeritus since 1988
Marian G. Witwer, Associate Professor Emeritus of English—B.A., M.A. Appointed 1965; Emeritus since 1979
Dale Woerner, Professor Emeritus of Chemistry—B.S., M.S., Ph.D. Appointed 1958; Emeritus since 1986
Ernest J. Woods, Professor Emeritus of Mathematics Education—B.A., M.A. Appointed 1956; Emeritus since 1982
Thurman Wright, Professor Emeritus of Physical Education—B.A., M.A., D.P.E. Appointed 1965; Emeritus since 1986
Leslie D. Zeleny, Professor Emeritus of Sociology—B.S., M.A., Ph.D. Appointed 1946; Emeritus since 1963
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