

UNIVERSITY of  
NORTHERN COLORADO

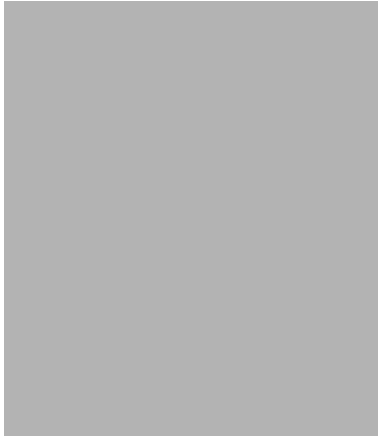


*Undergraduate and Graduate*

# Catalog

2001-2002





# **UNIVERSITY OF NORTHERN COLORADO**

**UNDERGRADUATE AND GRADUATE CATALOG**

**GREELEY, COLORADO**

**EFFECTIVE DATES**

**AUGUST 15, 2001**

**TO**

**AUGUST 14, 2002**

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# CALENDAR

FALL	2001	2002
Residence Halls Open	Aug. 22, Thurs	Aug. 22, Thurs
Classes Begin	Aug. 27, Mon	Aug. 26, Mon
Labor Day Holiday (Closed)	Sept. 3, Mon	Sept. 2, Mon
Thanksgiving Holiday (Closed)	Nov. 22-23, Thurs, Fri	Nov. 28-29, Thurs, Fri
Final Exam Week	Dec. 10-14, Mon-Fri	Dec. 9-13, Mon-Fri
Commencement	Dec. 15, Sat	Dec. 14, Sat
Christmas Holiday (Closed)	December 25-28 Tues-Fri	
New Years Eve and New Years Day (Closed)	Dec. 31, Mon Jan. 1, Tues	

SPRING	2002	2003
Residence Halls Open	Jan. 11, Fri	Jan. 10, Fri
Martin Luther King Day (Closed)	Jan. 21, Mon	Jan. 20, Mon
Classes Begin	Jan. 14, Mon	Jan. 13, Mon
Spring Break (No Classes - Open)	Mar. 18-22, Mon-Fri	Mar. 17-21, Mon-Fri
Final Exam Week	May 6-10, Mon-Fri	May 5-9, Mon-Fri
Commencement, Graduate	May 10, Fri	May 9, Fri
Commencement, Undergraduate	May 11, Sat	May 10, Sat

SUMMER	2001	2002	2003
13-wk Session Begins	May 14, Mon	May 13, Mon	May 12, Mon
Residence Halls Open	May 15, Tues	May 14, Tues	May 13, Tues
12-wk Session Begins	May 16 Wed	May 15, Wed	May 14, Wed
1st 6-wk Session Begins	May 16, Wed	May 15, Wed	May 14, Wed
Memorial Day Holiday (Closed)	May 28, Mon	May 27, Mon	May 26, Mon
8-wk Session Begins	June 11, Mon	June 10, Mon	June 9, Mon
1st 6-wk Session Ends	June 26, Tues	June 25, Tues	June 24, Tues
2nd 6-wk Session Begins	June 27, Wed	June 26, Wed	June 25, Wed
July 4th Holiday (Closed)	July 4, Thurs	July 4, Thurs	July 4, Fri
8-wk Session Ends	Aug. 3, Fri	Aug. 2, Fri	Aug.1, Fri
2nd 6-wk Session Ends	Aug. 7, Tues	Aug. 6, Tues	Aug. 5, Tues
12-wk Session Ends	Aug. 7, Tues	Aug. 6, Tues	Aug. 5, Tues
13-wk Session Ends	Aug. 10, Fri	Aug. 9, Fri	Aug. 8, Fri
Commencement Graduate	Aug. 10, Fri (evening)	Aug. 9, Fri (evening)	Aug. 8, Fri (evening)

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implemented without prior notice, without obligation and, unless specified otherwise, are effective when made.

The calendar is a projection of the course of events for the 2002-2003 academic years 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 the program offerings from semester to semester for educational, operational or financial reasons that are deemed sufficient to warrant such actions.

# WELCOME

## UNIVERSITY OF NORTHERN COLORADO

### PRESIDENT HANK BROWN



### PRESIDENT'S MESSAGE

Welcome to the University of Northern Colorado. We invite you to peruse the Catalog and discover the wealth of programs offered. The requirements and program options are not the core or our University – the people are. The University faculty, staff and administration are committed to your success. Our faculty are active professors, scholars and researchers who bring to their classrooms the latest information and practices from their field. Faculty-student interaction is the hallmark of a UNC education and you will find faculty are dedicated to teaching excellence. Pursuing a university education will be one of the most important and rewarding endeavors of your life. Whatever your chosen field your efforts will be rewarded, both during your time at UNC and over the rest of your life. We invite you to join our community and allow us to assist you with this exciting journey.

### DESCRIPTION OF THE UNIVERSITY

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 University offers more than 2,000 academic courses annually and enrolls about 11,000 students.

UNC is located in the city of Greeley, Colorado, about one hour north of the city of Denver and one hour east of Rocky Mountain National Park. Greeley is a city of 76,250.

The 236-acre UNC campus has two distinct, adjacent parts. Both have residence halls and classroom buildings. The central campus features tree-lined, older buildings while the west campus is distinguished by modern buildings.

### A SHORT HISTORY

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

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

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

### Accreditation and Affiliation

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

Various academic programs currently have special accreditation by the following:

- American Assembly of Collegiate Schools of Business
- National University Continuing Education Association
- American Chemical Society
- American Psychological Association
- American Speech-Language-Hearing Association
- Colorado Department of Education
- Colorado State Board of Accountancy
- Colorado State Board of Nursing
- Commission on Allied Health Education and Accreditation for Athletic Training
- 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 Association of School Psychologists
- National Association for Sport and Physical Education/ North American Society for Sport Management
- National Council for Accreditation of Teacher Education
- The American Dietetic Association
- The National League for Nursing
- Society for Public Health Education.

The institution currently holds membership in the American Association of State Colleges and Universities, American Council on Education, American Association of Colleges for Teacher Education, Teacher Education Council of State Colleges and Universities, the Council of Graduate Schools in the United States, Project 30 Alliance, the Western Association of Graduate Schools, the American Assembly of Collegiate Schools of Business, Colorado Thirty Group and other educational organizations.

## MISSION STATEMENT

### Mission, Values, Purposes and Goals

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

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

**Description.** The University of Northern Colorado is a general baccalaureate and specialized graduate research university with a statutory mission in teacher education. Academic programs are offered through the colleges of Arts and Sciences, Business Administration, Education, Health and Human Sciences, Performing and Visual Arts and the Graduate School. Programs are offered state-wide through the Office of Extended Studies. The University provides a full range of student support services and recreational opportunities. The James A. Michener Library provides information resources through sophisticated technology and established collections.

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

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

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

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

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

- excellence is sought and rewarded;
- teaching and learning flourish;
- there is respect for diversity of thought and culture, consistent with the spirit of rigorous criticism;
- 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 acquire deeper understanding of their discipline.
4. Students will study in programs informed by appropriate professional standards and practice.

*To prepare teachers and other education professionals.*

1. The preparation and professional renewal of educators will be a campus-wide responsibility.
2. Graduates of professional teacher education programs will meet state standards for licensure.
3. Programs for the professional renewal of educators will be informed by state standards for licensure.
4. Selected master's and specialist degree programs which serve education professionals will be accessible state-wide.
5. The University, in partnership with K-12 schools, will test innovations in education and disseminate the results.
6. The University will work collaboratively with K-12 schools on the simultaneous renewal of schools and professional education.
7. Graduates of professional teacher education programs will acquire an appreciation for and ability to teach in an increasingly diverse population.

*To fulfill its role as a specialized graduate research university.*

1. The University's specialized research mission will foster scholarship among its graduate and undergraduate students and faculty.
2. The University will encourage applied research that benefits the State of Colorado.
3. Doctoral students will engage in scholarly activity and creative endeavors to advance the knowledge and practices of the discipline.
4. Master's students will acquire knowledge and skills consistent with the professional preparation and standards of the discipline.
5. Doctoral research in education will emphasize scholarship on issues affecting education policy, teaching and learning processes and/or school leadership practices.
6. The University will support faculty efforts to obtain extramural funding to finance research, create learning opportunities for students and support students financially.

*To serve as a resource to the state.*

1. The University will serve the State of Colorado through applied research and the professional expertise of its faculty, staff and students.
2. The professional service activities of faculty, staff and students will be a resource to the community, state and region.
3. The professional activity of faculty, staff and students, beyond the boundaries of Colorado, will enhance the national and international reputation of the state.
4. The intellectual and creative activities of faculty, staff and students will contribute to the enrichment of the community.

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## STUDENT ACADEMIC RESOURCES

The Office of Extended Studies provides the coordination, with academic colleges, of off campus state and cash funded degree and licensure programs in Colorado. Degree programs and licensure programs are provided state-wide by the academic departments. The Office of Extended Studies offers hundreds of graduate and undergraduate career and professional development courses. Contract courses for credit are offered in collaboration with school districts and other employment agencies.

Independent study credit courses, offered by faculty in many departments, provide a flexible opportunity for students on and off campus to earn credit. Special professional and certificate programs are available and focus on skill development for individuals who are employed. These courses are offered in Greeley and throughout the state as non-credit courses or for Continuing Education Credit (CEU's).

Information Technology operates a state-of-the-art enterprise server providing UNC students with a full suite of computer languages and statistical packages. Information Technology also manages all telecommunications (telephone service) on campus, which includes not only a long-distance program for students living in the residence halls but direct connectivity to the campus network infrastructure (ResNet). Computer labs open to all students are strategically located throughout the campus with the flagship facility, located in the university center, open extended hours. The User Support staffs provide UNC students with telephone technical support. A central modem dial-in pool (Slip/PPP) that is maintained by Information Technology permits UNC students access to local and Internet resources. Information Technology also manages and operates Bear Logic, the campus computer store where students, faculty and staff may purchase computer supplies and equipment at a significant discount.

The Summer/Evening Division, located in the Registration Center, provides services to summer and evening students, and assists the campus community in summer and evening programming.

The University has hosted a nationally recognized Summer Session for more than 100 years. An integral part of the academic program, it allows students to accelerate completion of degree programs or participate in professional development and renewal. Summer semester is scheduled from mid-May to early August, and provides instruction in various course formats lasting from a few days to 13 weeks. Many of the same courses offered throughout the year are available, as well as summer institutes and workshops that feature special lecturers.

A significant number of courses within the UNC curriculum are conveniently offered during fall and spring semesters between the hours of 4 and 10 p.m., Monday through Thursdays and on weekends.

### University Libraries

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

Access to library materials and resources is provided through *The Source*, an on-line Public Access Catalog. In cooperation with the Colorado Alliance of Research Libraries, access is provided to the holdings of the UNC Libraries, and the collection of hundreds of libraries throughout the country. In addition, indexed access is provided to more than 3 million articles and databases, including full-text.

Through special arrangements, UNC students may borrow library materials from any state-supported college or

university in Colorado, the University of Denver, and the Denver Public Library.

The Interlibrary Loan Service obtains library materials for UNC students and faculty from within the state and nation as well as from foreign libraries. The University Libraries has initiated a new service that allows students to request materials directly from Colorado libraries participating in *Prospector*. Through the online catalog *The Source*, *Prospector* provides the student direct access and the ability to borrow materials from all participating libraries in Colorado and Wyoming.

The Adaptive Technology Room, located on the main level of Michener Library, is available to students who need special assistance in retrieving and viewing information. The room includes the Beyond Sight Computer System for the blind and visually impaired.

The University Libraries has been designated as the repository for the works of James A. Michener. The James A. Michener Special Collection includes manuscripts, personal papers, research materials and publications that are available to researchers, faculty, and students who want to further explore the works of the famous author. The University Archives provides materials dealing with the history and priorities of the University.

The Music Library building was completed in October of 1997. Services include a listening laboratory, a bibliographic instruction classroom, a group study room, study alcoves and carrels. Comprehensive holdings of scores, recordings, periodicals, and monographs are available to the academic community.

## OTHER STUDENT RESOURCES

### Bookstore

The University Bookstore, located in the lower level of the University Center, provides course textbooks and general reading books. It also sells a large selection of UNC imprinted clothing, greeting cards, posters, school and art supplies and other necessities for students. Additional services include check cashing, book buyback, special order books and book information.

### Campus Recreation

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

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

Club sports include men's and women's lacrosse, soccer and rugby; cheerleading, shotokan karate, fencing, cycling, ultimate frisbee, baseball, outdoor adventure, ice hockey, in-line hockey, rodeo, ski and snowboarding, and men's volleyball.

### Housing

Student housing at UNC is known as the Department of Residence Life and provides housing for more than 3,000 undergraduate and graduate students in traditional residence halls and apartment style facilities. Services and programs assist students in transition to UNC, support their academic success and facilitate the development of life-long friendships. Students are encouraged to participate in activities, programs and leadership opportunities provided by staff and the Residential Housing Association. Numerous employment opportunities are also available to students within the residence halls.

Residence halls and apartments are situated on two separate campuses known as Central Campus and West Campus. The

newly renovated Central Campus residence halls are located on a beautiful, tree-lined area and include Belford, Decker, Gordon, Faculty Unit One, Hansen-Willis, Sabin, Snyder, Wiebking and Wilson halls. These halls house between 28 and 280 students and are a five-minute walk from the University Center. West Campus residence halls are located west of the University Center and house between 440 and 612 students per hall. These buildings include Harrison, Lawrenson, McCowen, and Turner halls. Many students enjoy the opportunity to live on theme floors including performing and visual arts, outdoor adventure, education, international and quiet life-style. These floors offer programs, activities and experiences centered around the respective theme. Students may live in the International Hall during winter and spring breaks for an additional cost.

Each residence hall has a twenty-four hour, staffed, customer service desk. In addition, professional and student staffs live in the halls and are available for assistance and support. Centrally located dining facilities are located on both campuses and provide air-conditioned dining as well as the convenience of Gourmet-to-Go take-out meals. Laundry facilities, study lounges and television lobbies are also available for student use.

Residence halls and apartments are available for students with disabilities on both campuses and include numerous accommodations and helpful features. Residence Life staff are interested in working with any student to review accommodations to ensure rooms and apartments are ready prior to arrival. Please contact Residence Life as early as possible to ensure timely planning and preparation of a room or apartment.

The University Apartment complex is a five-minute walk from Central Campus and provides housing to upper division and graduate students. Single students and students with families are welcome to apply for housing in these newly renovated two-bedroom, furnished and unfurnished apartments. Utilities provided in the rent charge include cable television, gas, electric, water, sewer and trash services. Telephone installation, monthly charges and long distance are to be paid for by the resident. Additional amenities include centrally located laundry, playground, computer access, and a recreation room with large screen television.

The Residence Life web site provides detailed descriptions and floor plans for review as well as answers to commonly asked questions about living in any facilities on campus. Access the web site at [www.unco.edu/housing](http://www.unco.edu/housing).

## Dining Services

UNC Dining Services provides students, faculty and staff with a variety of meals in different settings, seven days a week. Dining rooms located in Harrison, Tobey-Kendel, and the University Center are open to students with meal plans. Take-out meals called "Gourmet to Go" are available at McCowen and Tobey-Kendel. Freshmen under age 20 and living on campus are required to carry a full meal plan (19 meals a week). At the University Center, Taco Bell *Express*, and UC Dining and other cash venues offer services to cash paying customers. Menu choices encourage the practice of good nutrition and a registered dietitian is available to assist with any special dietary needs. Dining Services also provides catering for special occasions.

UNC Dining Services is the largest student employer on campus. It provides a variety of job opportunities ranging from service staff to student supervisor and catering staff positions.

## Intercollegiate Athletics

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

## Student Activities

The Student Activities Office provides students with involvement and leadership opportunities that enhance the

academic experience. Students practice leadership skills, responsible citizenship, and develop management skills while making new friends and having fun.

**Charters student clubs and organizations**-Students may become involved in one of the 100 plus student groups which include academic societies, international, social, and political clubs and honorary organizations.

**SPARK /Community Service Office**-Students volunteer for community service activities such as Best Buddies, Alternative Spring Break (a national program for service projects) and other Weld County services agency programs.

**Drug Prevention/Education Program**-This nationally recognized program educates the campus community about alcohol and other drug issues. The program supports alcohol-free alternative activities, provides training and education to students, staff, and faculty and refers students needing assistance with alcohol or other drug problems to campus and community resources.

**Fraternities/Sororities**-These organizations, also known as Greek organizations, offer leadership, social, academic, and community service activities for members. The University recognizes the following fraternities: Alpha Kappa Lambda, Delta Chi, Delta Tau Delta, Delta Upsilon, Kappa Alpha, Lambda Chi Alpha, Sigma Alpha Epsilon, Sigma Chi, Sigma Lambda Beta, Sigma Pi and Tau Kappa Epsilon. The University recognizes the following sororities: Alpha Phi, Alpha Omicron Pi, Alpha Sigma Alpha, Delta Zeta, Lambda Theta Nu, Sigma Lambda Gamma, Sigma Gamma Rho and Sigma Kappa.

**The Gay, Lesbian, Bisexual, Transgender Resource Office**-Seeks to offer education and support to students, faculty and staff through student panels, educational programming, social and support groups, and a library of related materials.

**Student Representative Council (SRC)**-This is the UNC student government comprised of eleven officers, two non-voting members, and representatives for PASC, SPEEC and the faculty. SRC activities include allocation of student fees, voicing student concerns and issues to the campus and community and supervising four services which are the Center for Peer Education, Legal Services, Off-Campus Housing and National Student Exchange.

**University Program Council (UPC)**-This student-run, student-funded organization sponsors lectures, movies, comedians, concerts and other special events at low or no cost to students. Students obtain practical experience in all aspects of program and event management while having fun and meeting new people.

## Student Support Services

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

**The Office of Admissions** provides information and assistance to potential new undergraduate students. New freshmen, as well as undergraduate students transferring from other colleges and universities, should contact this office. Admissions information is available on UNC's website: [www.unco.edu](http://www.unco.edu). (Prospective graduate students should contact the Graduate School.)

**The Assault Survivors Advocacy Program (ASAP)** provides a full range of services to students including crisis intervention, legal advocacy, and educational programs. The program is located in Cassidy Hall.

**The Bursar's Office** (Accounts Receivable, Loans Receivable, Collections and the Cashier's Office) prepares and mails student billings; disperses financial aid; collects tuition, fees, room and board and other related charges; maintains and collects federal Perkins Loans and university loans, and handles the cashier functions for the entire University.

**The Career Center** provides current students and alumni the opportunity to explore educational and occupational options as well as preparation for entry into the world of work. Its four major service areas are career counseling, internships, employment assistance and testing services. Its staff also provide more than 300 workshops and presentations annually on such topics as: career planning, resume writing, interview skills, and job search strategies.

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

**The College Transition Center** provides the following services to undergraduate students: advising for undeclared students and assistance in their transition to selecting an academic major; increased academic support and monitoring through an intensive advising program; academic support for individuals experiencing academic difficulties and administration of the Fresh Start Programs for freshman and continuing students. Full-time and peer advising staff also provide students, faculty and staff with information regarding general education requirements, academic policies and procedures, and referral assistance.

The College Transition Center also assists new students and their family members with their transition to the University of Northern Colorado. All new freshmen and their family members attend a two-day orientation program, Discover UNC, held during the summer. During the Discover UNC program, new students are advised and register for Fall Semester classes. Transfer students can choose to attend a one-day orientation program, held in April and June. For more information, explore the Discover UNC website, [www.unco.edu/discover](http://www.unco.edu/discover) or call (970) 351-1391.

**The Counseling Center** provides psychological services to UNC students. In addition to individual and group counseling, the Center provides educational programs such as test anxiety reduction and time management. The Counseling Center is located in Cassidy Hall.

**The Dean of Students Office** serves as a University-wide problem-solving, information, and referral service. The dean coordinates a recognition and awards program and administers academic misconduct and discipline.

**The Disability Access Center (DAC)** provides equal opportunities for individuals with documented disabilities to pursue their educational goals through the provision of access, accommodations and advocacy. DAC also serves as a resource for the UNC community on disability related issues. Services include interpreters, test accommodations, readers, adaptive computers and training, and learning-strategy workshops. DAC can assist students with specific needs such as orientation training and obtaining volunteer note takers. PRIDE, an organization for any student with a disability, is also available. DAC web information may be located at <http://www.unco.edu/dac/dac>. For more information and for accommodation requests, please contact DAC at (970) 351-2289 (voice and TTY); e-mail: [nlkauff@unco.edu](mailto:nlkauff@unco.edu).

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

- **Asian/Pacific American Student Services** provides academic and cultural programs/events, advising, a resource room, computer labs, and support with emphasis on Asian/Pacific American students but is open to all students.
- **Center for Human Enrichment (CHE)** provides academic advising, skill development classes, tutoring and personal and career advising to referred students. The CHE Learning Center offers computer, tutoring and study skills workshops.
- **Cesar Chavez Cultural Center** provides cultural, social and academic support to all students, with a focused emphasis on the Hispanic/Latino student, as well as programs, cultural events, a resource room, and support to students in cultural, social and academic areas.
- **Cumbres** prepares Hispanic/Latino students to teach with an English as a Second Language or bilingual education endorsement.
- **Marcus Garvey Cultural Center** provides academic, cultural and social support to African-American students, as well as programs, cultural events and resources for all students throughout the year.
- **Native American Student Services** enhances the diversity of the University through cultural programming and events. Academic, cultural and social support is also

provided to all students with an emphasis on Native American students.

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

**The Student Health Center** provides a variety of medical and nursing services. Appointments can be scheduled with physicians, nurse practitioners, nurse specialists, and mental health professionals. The center manages a Certified Drug Outlet and is fully accredited by the Accreditation Association for Ambulatory Health Care, Inc. The Student Health Center is located in Cassidy Hall.

**The Visitors Center**, located at 1862 10th Avenue, provides campus tours Monday through Friday, five times daily. The prospective student should contact this center to arrange a visit to a residence hall, make an appointment with an admissions officer, visit the Student Financial Resources Office, or schedule (two weeks in advance) an appointment with a professor in his or her proposed field of study.

**The Women's Resource Center** provides educational programs, speakers, performers, resources and opportunities for students interested in women's issues and other social issues. The Center is located in Scott-Willcoxon Hall.

### The University Center

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

The UC houses the College Transition Center, Career Services, and Registration Center and is the home for student activities, campus clubs and organizations.

A variety of merchants serve the campus community on the UC lower level including several food vendors (Arnie's Pizzeria, Zachariah's Food Court and Taco Bell Express), the University Bookstore and Copy Center, a travel center, convenience store, hair salon, computer store and Wells Fargo Customer Service Center.

The UC Computer Commons offers students 24 hour access during the week and provides students with IBM compatible and MacIntosh computers.

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

**The UNC Card** is the official identification card for all members (faculty, staff and students) of the university community. On campus, the UNC card functions as a library card, dining card, activities card, recreation center pass, and as security access to various buildings. Students may also use the UNC Card as a discounted calling card. As a financial tool, the UNC Card functions as an ATM/Debit Card and permits direct deposit of financial aid and student payroll checks to a free Wells Fargo Bank account. For alternative bank options, stop by the Card Office.

**The UNC Card Office** and the customer service office for Wells Fargo Bank are located in the lower level of the University Center.

## OTHER SPECIAL RESOURCES

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

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

**University Police Department (UNCPD)**, provides law enforcement services to the campus. It is staffed 24 hours a day year-round with professional, full-time, state-certified

police officers. This office is responsible for the preventative police patrol, traffic and parking enforcement, response to medical calls, crime prevention efforts, as well as criminal investigations. The UNC Police Department is accredited by the Colorado Association of Chiefs of Police on Professional Standards.

## TUITION AND FEES, PAYMENT, FINANCIAL AID

### EXPENSES

#### In-State and Out-of-State Classification

Students who are classified as in-state are permitted to enroll at the University at a significantly lower tuition rate because the University is assisted by the taxpayers of Colorado in addition to the student tuition and fees. The determination of a student's tuition status is provided for under State Law Title 23, Article 7, Colorado Revised Statutes 1997 Repl. Vol., 1994 Supplement.

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

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

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

A student's tuition classification is determined before or at the time of registration. If at a later date, the student thinks the classification is no longer correct, she/he may petition for a change in tuition classification.

Petitions can be submitted to the Tuition Classification Specialist in the College Transition Center (University Center, Room 2205), or to the Registration Center (University Center), or to the Registrar's Office (Carter Hall, Room 3002) 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 Tuition Classification Specialist in the College Transition Center (University Center, Room 2205) no later than 10 days after the denial has been sent to the student. The decision rendered by the Tuition Classification Appeals Committee is the final University determination.

Petitioning for in-state tuition classification requires the student to complete a detailed form available at the College Transition Center (University Center 2205), or the Registration Center (University Center), or the Registrar's Office (Carter 3002). 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 Tuition Classification Specialist in the College Transition Center (University Center 2205) for information regarding qualification for the lower in-state tuition rates.

#### Rates

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

The following rates relate to the 2001-2002 academic year.

Rates for the 2002-2003 academic year, which begins with fall semester 2002, are not available as of the publication of this document.

Updated information about tuition and fees is available from Accounts Receivable after June 30 of each year.

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

Resident Per Semester Credits Taken	Undergraduate	Graduate
8.9 credit hours or less, tuition per credit hour	\$120.00	\$142.00
9-18 credit hours, total tuition (full-time enrollment)	\$1,077.50	\$1,274.50
Surcharge per credit hour for credits above 18 hours	\$120.00	\$142.00

Non-Resident Per Semester Credits Taken	Undergraduate	Graduate
8.9 credit hours or less, tuition per credit hour	\$546.00	\$581.00
9-18 credit hours, total tuition (full-time enrollment)	\$4,912.50	\$5,229.50
Surcharge per credit hour for credits above 18 hours	\$546.00	\$581.00

**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.

#### General Fees - 2001-2002

<b>Per Semester 8.9 hours or less, per credit hour</b>	Student service fees:	\$23.78
	Bond Retirement Fees:	\$4.85
<b>9 or more credit hours</b>	Student service fees:	\$214.00
	Health insurance fee:	\$375.00
	Bond Retirement Fees:	\$43.68
<b>Technology Fee per credit hour</b>		\$4.68
<b>Academic Program Fee</b>	\$1.73 per credit hour, maximum \$15.57	

All state funded off-campus classes have a \$45.00 per credit hour program delivery fee. All on-line classes have a \$40.00 per credit hour on-line access fee.

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

Tuition and fees for classes taken through Extended Studies may differ from on-campus charges and are subject to the Colorado Commission on Higher Education Extended Studies policies.

## Residence Life

The University operates fourteen residence halls and two apartment complexes. Rooms and apartments hold two, three or four persons per unit. Freshmen under age 20 and who have earned less than 24 semester hours are required to live on campus and carry a Full 19 Meal Plan (Breakfast, Lunch, and Dinner, Monday through Sunday). Brunch replaces breakfast and lunch on Saturday and Sunday. Non-freshman residents will be assigned a full meal plan, but may re-contract for a 15 Meal Plan (Breakfast, Lunch and Dinner, Monday through Friday) or a 14 Meal Plan (Lunch and Dinner, Monday through Sunday). The final date to re-contract for a 14 or 15 Meal Plan is the drop/add deadline for the semester.

## SEMESTER ROOM AND BOARD RATES

### 2001-2002 Room Rates

Residence Hall	Semester Rate
Harrison and McCowen	\$1,225
Belford, Decker, Gordon, Sabin, Snyder, Turner, Wiebking and Wilson	\$1,345
Hansen-Willis, Lawrenson and Faculty Unit One	\$1,465
University Apartments	Per Month
Unfurnished	\$586
Furnished	\$636

### 2001-2002 Board Rates

19 Meal Plan	\$1,395
15 Meal Plan	\$1,295
14 Meal Plan	\$1,275
Optional Bear Plans:	
50 Meals	\$300
80 Meals	\$480
120 Meals	\$685
160 Meals	\$880

### Semester Optional Bear 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 and at the University Center Food Court.

UNC Dining Services offers 4 Optional Bear Plans to residents of Lawrenson (excluding freshmen under age 20), and University Apartments, as well as off campus students. With options of 50, 80, 120 or 160 meals, students can choose when to eat, where to eat and how often to eat. Additional packages of 10 and 25 meals may be purchased throughout the semester. For more information, contact the Dining Services Office at 970-351-2652.

### Room and Board Withdrawal Costs

Students totally withdrawing from their classes during a semester will be assessed room and board charges according to the pro-rata percentage assessment in the Total Withdrawal Section of the appropriate Schedule of Classes.

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

See Schedule of Classes for each term for exact dates.

## Other Fees

In addition to general tuition and fees, and room and board rates for students who choose to purchase those services, a number of other fees have been established by the Board of Trustees. Such fees relate to the academic program fee, fees assessed for employment opportunity assistance services, transcripts, etc. Refer to the current Schedule of Classes for more specific information on these fees.

## PAYMENT

By applying for admission, registering for classes or allowing charges to be added to their account, **the student** represents to us that they have the intention and ability to pay and they promise to pay for all charges placed on their account as well as any service charges or collection costs, if any, that may be due.

The student will receive a billing statement. The first billing statement of the semester will be sent to the student's permanent address unless a billing address is provided. Subsequent billing statements for the semester will be sent to the student's local address unless a billing address is provided. Payment is due at the Cashier's Office on or before the **Payment Due Date** shown on the billing statement.

Payments from Financial Aid will be automatically posted to the billing account. Any excess funds will be deposited to the Student's Wells Fargo account.

A service charge of 1.75% of the unpaid balance will be added to the student's account if payment is not received in the Cashier's Office by the due date. Service charges are figured on the student's account by applying the service charge rate to the previous balance owed at the billing date minus any credits made to the account during the previous billing cycle. The annual percentage rate (APR) that corresponds to this service charge is 21%.

The university will accept payment on the student's account by cash, check, money order, VISA, MASTERCARD, DISCOVER, direct payment through financial aid and through the Credit Available for Student Employees at UNC (CASE-UNC). To learn more about the CASE-UNC plan please contact the Office of Student Employment in Carter Hall. Payments are accepted in person at the Cashier's Office in Carter Hall. Payments can also be made in person at the satellite location in the University Center, Aspen Suite the first week of classes, until the tenth class day. Check or credit card payments can be dropped in collection boxes in the Carter Hall lobby and at the Card Office in the University Center until the tenth class day. Credit card payments are accepted in person at the Cashier's Office and can also be accepted 24 hours a day by calling the credit card line at 970-351-2838 and choosing option 4.

**The University of Northern Colorado will not register a student, release a diploma, provide a transcript, or supply employment opportunity assistance and other University services to any student or former student who has an outstanding financial obligation to the University other than a loan that is not yet due or on which payments are up-to-date. Also, failure to pay a financial obligation to the University when it is due may result in your account being placed with a collection agency and such action reported to a credit bureau. In addition, the student's account may be charged legally allowable collection charges and attorney fees needed to collect or enforce the student's indebtedness.**

**Early Registration Cancellation.** The last day to drop all advance registered classes, without being assessed a fee is the first class day of each semester. During the Add/Drop period, if you drop all classes, you will incur a minimum charge of 10 percent (10%) of tuition and fees. When applicable, you will also pay the new enrollment fee and housing deposit. Therefore, it is strongly recommended to drop all the classes by the first day of the semester to avoid a minimum 10% late withdrawal charge. The minimum 10% withdrawal charge does not apply if you drop individual classes as a part of your schedule adjustment process.

**Fees for Class Withdrawals.** Withdrawal from an individual class is permitted until the midpoint of the course. Withdrawals are processed at the Registration Center, and faculty signatures are required for each class. The student must initiate the process of withdrawing from ALL classes in the Registrar's Office. A total withdrawal may be initiated through Friday of the 12th week of the term.

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 you totally withdraw from all classes. In this instance, you are assessed a percentage of the tuition and fee costs based on the number of credits registered for and the date at the time of withdrawal.

To determine the actual percentages of tuition and fees and the varying withdrawal dates, refer to the Total Withdrawal Section in the appropriate Schedule of Classes.

Students who need to withdraw from all of their classes must do so by Friday of the 12th week (see Schedule of Classes for actual date). This is the LAST day that you can withdraw from all classes for the semester.

**Note:**NOTE: 100% of non-refundable fees will be assessed. These fees include academic program fees, technology fees, course fees and online fees, Bookstore charges, graduation, health insurance, housing damages, ID card replacement, instructional fees, lab equipment not returned, library fines, lost athletic equipment, lost library books, new student fee, parking fines, phone features, returned check service charges, unpaid short term loans, etc. Some federally funded aid programs mandate a different withdrawal computation.

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

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

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

## FINANCIAL AID

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

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

**Grant Funds.** Grant funds are awarded on the basis of financial need. These funds do not require repayment unless the student does not complete the term in which the funds are received. Grant funds available at UNC include the Federal Pell Grant, Federal Supplemental Educational Opportunity Grant, Colorado Diversity Grant, Colorado Student Grant, Colorado Graduate Grant and the Colorado Leveraging Educational Assistance Partnership Program.

**Student Employment.** UNC offers a number of employment opportunities. Federal and State Work Study programs provide on-campus 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. The UNC Fast Application for undergraduate students is available in the Office of Student Financial Resources. Graduate students may pick up an application at the Graduate School.

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

## How to Apply for Aid

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

The FAFSA form can be obtained from college financial aid and high school guidance counselor's offices or on-line at [www.fafsa.ed.gov](http://www.fafsa.ed.gov). To receive the maximum amount of funding, the application must be received by the need analysis service by **March 1** preceding the award year. An application processed after March 1 will be considered late and the applicant will have limited funding opportunities.

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

## How To Apply for a UNC Scholarship

Incoming freshmen and transfer students must be admitted to UNC by March 1 to be considered for some scholarships for the upcoming academic year. Eligibility for scholarships is based on information obtained from the admission application. New freshman and transfer students may obtain the UNC "Fast App" for scholarships from the Admissions Office. Continuing UNC students may obtain a UNC "Fast App" from the Office of Student Financial Resources. This application is **due March 1**. The Fast-App is also available on-line at [www.unco.edu/sfr](http://www.unco.edu/sfr). 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 Pepsi Scholarship search is available in some of the computer labs on campus. Students are also encouraged to use the World Wide Web for scholarship listings.

## The Award

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

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

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

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

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

Renewal of financial aid is not automatic. A new FAFSA must be **completed and mailed by February 15** preceding each award year that aid is requested to meet our **priority filing date of March 1**. The student's academic progress as well as financial need determine the continuance of funding.

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

**Web Homepage.** Visit our web site at [www.unco.edu/sfr](http://www.unco.edu/sfr).

### 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 toward a degree program, regardless of whether she/he has previously received financial assistance. For a more detailed explanation of these policies, refer to the Standards of Satisfactory Academic Progress available in the Office of Student Financial Resources.

### Refund and Repayment

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

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

# REGISTRATION, UNDERGRADUATE/GRADUATE

## REGISTRATION PROCEDURES

The University publishes a Schedule of Classes each semester, which serves as the basic guide for registering for classes. It provides information on drop/add/withdrawals, fee payment and other relevant policies, procedures, and deadlines for which students are responsible. The Schedule of Classes for the appropriate semester may be obtained from the Registration Center or the College Transition Center in the University Center, the Admissions Office or the Registrar's Office in Carter Hall. The Schedule of Classes is also available on our web site --[www.registrar.unco.edu](http://www.registrar.unco.edu).

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

1. Obtaining your assigned registration date and advising.
2. Selection of courses.
3. Verification of courses.
4. Receipt of statement of account and change of address form.
5. Payment of student account.

New freshmen and transfer students for fall term are strongly encouraged to attend Discover UNC. Discover UNC is an orientation program for entering freshmen and transfer students that provides essential information about the University and special assistance in registering for classes. The College Transition Center conducts the Discover UNC program during June, July and August. The Graduate School conducts an orientation for new graduate students.

## REGISTRATION METHODS

**Voice response.** Students may register using a touch-tone telephone by following directions in the Schedule of Classes or on our website: [www.unco.edu](http://www.unco.edu).

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

There is a \$3.00 per semester charge for using the automated systems.

## SCHEDULE CHANGES (ADDS/DROPS)

During the beginning of each semester, students may add or drop courses from their schedule. Students may add a class during the first eight percent (8%) of the class term and may drop a class during the first fifteen percent (15%) of the class term. Any student seeking to add a class after the 8% period has lapsed must secure approval from the professor. Dates for the add/drop deadlines are listed in the Schedule of Classes. This procedure is handled in the Registration Center in the UC, Web Registration ([www.unco.edu](http://www.unco.edu) and accessing Webster) or touch-tone telephone registration. After the deadline posted in the Schedule of Classes, students may not enroll in additional full term courses or drop full term courses in which they are currently registered.

The add deadline for a short-term class occurs when the class has held 8% of its class meetings. The drop deadline occurs when the class has held 15% of its class meetings. The number of credits for which a student is registered at the time of the add/drop deadline determines tuition and fee charges. Drops differ from withdrawals since drops are not recorded on the student's transcript and withdrawals are recorded on the transcript. (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. Students are responsible for confirming their schedule by web, phone or in person.

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

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

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

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

## TWO-CLASS-HOUR DROP REQUIREMENT

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



## POLICIES AND PROCEDURES, UNDERGRADUATE/GRADUATE

### ACADEMIC FREEDOM, RIGHTS AND RESPONSIBILITIES OF STUDENTS

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

For more information, students should obtain a copy of the Student's Rights and Responsibilities document from the Dean of Students' Office, Carter Hall

### ATTENDANCE

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

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

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

### COURSE DESIGNATIONS

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

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

- Basic skills courses - 001 through 099 range are not counted in cumulative credits, total credits toward graduation or grade-point-average.
- Lower division courses - the 100 range for freshmen and the 200 range for sophomores.
- Upper division courses - the 300 range for juniors and the 400 range for seniors.
- Master's level courses - the 500 and 600 ranges. Juniors and seniors with a cumulative grade-point-average of 3.00 or higher may be admitted to 500-level courses by special permission of the instructor, but no undergraduates may be admitted to course numbers above the 500 range.
- Doctoral and Specialist level courses - the 700 range.

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

### COURSE LOAD

For all students, nine credit hours is considered full time for health insurance requirements and tuition charges. For financial aid and verification of enrollment purposes (other than for health insurance), full-time enrollment is considered 12 credit hours for undergraduate students and nine credit

hours for graduate students. (Some health insurance carriers require enrollment in a minimum of 12 credits.

Check with your health insurance company for their minimum enrollment requirement.) A normal undergraduate course load, however, is 15 credit hours of academic credit in each semester. This information may vary during summer terms; students should check the Summer Schedule of Classes for correct information. Undergraduate students are allowed to enroll for a maximum of 18 credit hours before the beginning of the semester.

More than 18 credit hours per semester for undergraduates and 17 credit hours for graduates is considered an overload (see Catalog section on Costs - more than 18 hours will increase tuition). Undergraduate students requesting overload credits must have a 3.00 or higher cumulative grade point average. (Graduate students see Graduate School Policies and Procedures section.)

- In addition to this policy, specific colleges, departments and programs may have additional conditions regarding overloads. It is the student's responsibility to meet these conditions.
- Overloads of more than 21 hours require approval by the department advisor and department chair. These approvals must be forwarded to the Registrar. The Registrar will assure that these procedures have been followed.
- Students who have lower than a 3.00 GPA but have extenuating circumstances may petition for an overload from the department advisor and department chair.
- Graduate students receive overload approval from their academic advisor.

Course load limitations for graduate students apply to all courses taken while an individual is enrolled as a graduate student in a graduate degree program, a nondegree certification program, or any combination thereof. The maximum load for a graduate student is 17 hours per semester.

During the summer term maximum credit loads may vary. Students should check the Summer Schedule of Classes for correct information. The course load limitations refer to work completed in either on-campus or off-campus programs or in a combination of the two types.

### FAMILY EDUCATIONAL RIGHTS AND PRIVACY ACT

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

1. The right to inspect and review information contained in the student's educational records.  
Students should submit to the Registrar's Office written requests that identify the record(s) they wish to inspect. The University official will make arrangements for access and notify the student of the time and place where the records may be inspected.
2. The right to request amendment of the contents of the student's educational records if believed to be inaccurate, misleading, or otherwise in violation of the student's privacy or other rights.

Any student who believes that his/her education records contain information that is inaccurate or misleading or is otherwise in violation of his/her privacy or other rights or who believes that his/her records have been or are being maintained or processed in violation of his/her privacy or other rights, may discuss his/her concerns informally with the Registrar's Office. If the decision of that person is in agreement with the student's request, the appropriate records shall be amended and the student shall be notified in writing of the amendment(s). If the decision is not in

agreement, the student shall be notified within thirty (30) calendar days that the records will not be amended and the student shall be notified by the official of the student's right to a hearing.

Additional information regarding the hearing procedures will be provided to the student when notified of the right to a hearing.

3. The right to prevent disclosure without consent, with certain exceptions, of personally identifiable information from the student's educational records. One exception which permits disclosure without consent is disclosure to school officials with legitimate educational interests. "School officials" shall mean any person who is a trustee, officer, agent or employee of the University. "Legitimate educational interest" shall mean any authorized interest or activity undertaken in the name of the University for which access to an education record is necessary or appropriate to the proper performance of the undertaking. It shall include, without limitation, access by a student's instructor, department or division head, dean, the chief academic administrator, the president, a trustee, the custodian of the University records, the alumni administrator, legal counsel, the financial aid administrator, administrators charged with maintaining education records, the staff and subordinates of the foregoing, and others authorized by the President to the extent the foregoing persons are acting within the course and scope of their employment or authority.
4. The right to file complaints with the U.S. Department of Education concerning alleged failures by the University to comply with the provisions of the Act. The name and address of the office that administers FERPA is: Family Policy Compliance Office, U.S. Department of Education, 400 Maryland Avenue S.W., Washington, D.C. 20202-4605

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

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

- Category I: Name, address(es), e-mail address, telephone number(s), dates of attendance, classification, enrollment status.
- Category II: The most recent institution attended, major field of study, honors, awards, degree(s) conferred and conferred date(s), degrees pursued or being pursued.
- Category III: Past and present participation in officially recognized sports and activities, physical factors of athletes (height and weight), date and place of birth.

Currently enrolled students may prohibit general disclosure of this Directory Information by notifying the Registrar's Office in writing within 10 calendar days after the first scheduled class-day of each term. The University will honor the request until the student notifies the Registrar's Office in writing of intent to allow release to Directory Information. The student should carefully consider the consequences of any decision to withhold any category of Directory Information. Regardless of the effect upon the student, the University assumes no liability that may arise out of its compliance with a request that such information be withheld. It will be assumed that the failure on the part of a student to request the withholding of Directory Information indicates the student's consent to disclosure.

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

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

## FINAL EXAMINATIONS

All final examination 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 in the Registrar's Office. Faculty should alert students to changes in final examination times or locations before the testing date.

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

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

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

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

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

## FULL-TIME AND PART-TIME ENROLLMENT STATUS

Full-time status for tuition purposes, health insurance requirement and verification of enrollment for health insurance purposes is nine credit hours for undergraduate and graduate students. (Some health insurance carriers require enrollment in a minimum of 12 credits. Check with your health insurance company for their minimum enrollment requirement.)

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

## Grades

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

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

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

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

A grade of "I" is assigned when course work 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 incomplete course work by the last day of the next semester including summer term. Along with assigning an "I" grade, the instructor must include a written notice of the specific work that must be completed before the final grade is determined; the student and the department chair/unit director will be provided a copy of the notification. If a student does not complete the academic requirements within these time limitations, the grade will be recorded as "I/F" or "I/U" on the academic records. The "I/F" will be computed into the student's grade point average as an "F" grade.

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

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

## GRADES, CALCULATING AVERAGES

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

"S" (credit granted) or "U" (no credit granted) and "W," "UW," "NR" and "NC" are not used in computing the grade point average. "I" is not used for computing the grade point average unless the time for completion of the work has expired. In this case the "I" is computed as an "F" an "I/F" is recorded on the transcript if the course is graded "A"-"F."

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

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

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

## GRADES, SUBMISSIONS AND CORRECTIONS

Faculty must submit grades to the Registrar's Office by 4 pm of the third working day after the end of a course. Grade changes or corrections must be submitted within the first two weeks of the following semester. Spring-term grade changes are also due the first two weeks of Summer term. Grade change requests are submitted on special grade report forms

signed by the instructor and department chairperson. Forms are available from departmental offices. No grade change request forms delivered by students will be accepted.

## IMMUNIZATION REGULATION

Colorado State law requires that students who were born after January 1, 1957, show proof of immunization prior to registering for classes. The required immunizations are against mumps (two doses), measles, (two doses), and rubella (two doses). **All students who are admitted to UNC are sent a health history form and Certificate of Immunization form. Students must submit the completed Certificate of Immunization form to the Student Health Center before they will be allowed to register for classes. Students who fail to comply with this requirement will not be allowed to register for classes.**

Individuals who are unable to be immunized due to medical, religious, or personal reasons are exempt from this regulation if they provide a signed Certificate of Exemption form. In the event of an outbreak of illness on campus, individuals who do not have proof of immunization or who have signed a Certificate of Exemption form will be subject to exclusion from classes and quarantine.

## INSURANCE REQUIREMENT FOR ALL STUDENTS

UNC's Board of Trustees requires that all students registered for nine credit-hours or more have health insurance.

The UNC-sponsored health insurance policy is automatically assessed to all full-time students, but can be waived if the student presents evidence of a comparable health insurance plan. **The deadline for such waivers is the 10th class day of the semester. Nonpayment of the health insurance premium does not waive the insurance. A waiver form must be completed by the deadline.**

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

The University's health insurance is available to students' dependents and part-time students upon request.

## 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. Students are encouraged, but not required, to submit a medical exam. **Students must submit a Health History Report before they can receive services at the Student Health Center.**

## OFF-CAMPUS ACTIVITY AND FIELD TRIP DISCLAIMER

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

## PARKING REGULATIONS

The University of Northern Colorado's Parking Services mission is to provide and maintain a safe and uncongested means for the movement and parking of vehicular traffic on campus by utilizing parking regulations, sanctions for violations and monetary use charges. Students, faculty or staff who wish to park on campus should purchase a parking permit at Parking Services in Gray Hall. The University's parking program is self-maintaining. No tax revenue, student fees or tuition funds are received or used.

## SEMESTER SYSTEM

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

## TRANSCRIPTS

Place official transcript requests through the Registrar's Office. There is a fee for each transcript ordered. Contact the Registrar's Office for appropriate request procedures and fee payment options.

## WITHDRAWAL FROM THE UNIVERSITY

A student may withdraw completely from the University through the 12th week of the semester. Students must start the process at the Registrar's Office. Depending upon the date the withdrawal is initiated, a percentage of tuition and fees may be assessed. (See the description of Withdrawals, Drops, or Cancellation from Classes within the Costs, Payment, Financial Aid section of this Catalog.)

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.

## POLICIES AND PROCEDURES: UNDERGRADUATES ONLY

### ACADEMIC ADVISING

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

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

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

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

### ACADEMIC APPEALS

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

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

### ACADEMIC RECOGNITION

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

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

**Graduation with Honors.** Graduation with honors (cum laude, magna cum laude, summa cum laude) is determined on the basis of a student's UNC cumulative grade point average. A student's academic record is reviewed for graduation with honors the semester before the semester that the student will graduate. To qualify for honors the semester before graduation, the student must have completed 50 semester hours of credit at UNC and have achieved the necessary cumulative grade point average. A student's record may also be reviewed at the end of the semester that he or she graduates. To qualify for honors at the time of graduation, the student must have completed 56 semester hours of credit at UNC and have achieved the necessary cumulative grade point average.

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

The criteria for awarding honors will be determined by the graduating classes of a given college from the previous academic year. The criterion for cumulative grade point

average for "summa cum laude" will be determined by the lowest cumulative grade point average of the students in the top two percent of the previous year's school/college graduating class; for "magna cum laude", by the lowest cumulative grade point average of students in the top four percent; and for "cum laude", by the lowest cumulative grade point average of students in the top six percent.

### ACADEMIC STANDING

A student's academic standing is determined by the cumulative grade point average. In order to graduate, a minimum of 2.0 on a 4.0 scale must be earned at the University of Northern Colorado:

- Students are placed on academic probation up to the next 24 credit hours at UNC (excluding summer) if the cumulative grade point average falls below 2.00. At any time the cumulative GPA is raised to 2.00 or higher, the student will return to regular academic standing.
- Students on academic probation who do not raise their cumulative grade point average to the required level after the next 24 credit hours at UNC (excluding summer) will be suspended. Students suspended from UNC may *not* apply for readmission until the passage of at least one term, excluding summer, unless extenuating circumstances exist and are documented.
- Students seeking readmission to UNC must have successfully completed nine semester hours of a 2.00 cumulative grade point average at another accredited institution, have reached the necessary cumulative grade point average through enrollment in the UNC summer session, or have presented other evidence of potential future academic success if readmitted.
- Applications for readmission are available through the College Transition Center.
- All applications will be reviewed by the University Academic Review Board and the Board's decisions are considered final.
- A second academic suspension is considered a permanent suspension from future enrollment at UNC.

### 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, serious illness, death, etc.) and must be documented. Appeal forms are available at the College Transition Center.

A student who has been suspended may not re-enroll at the University until at least one term, not including summer term, has passed. A readmission appeal form must be submitted to the College Transition Center at least 60 days prior to the start of the term in which the student wishes to re-enter UNC. The appeal should include the following:

- A detailed account of the reasons the student did not achieve his or her academic potential.
- A description of the circumstances that have changed to allow the student to perform at a satisfactory level.
- A specific plan of action that the student will follow to attain academic success.

A student who has attended other institutions since suspension from UNC must furnish the Admissions Office official transcripts from those institutions. Readmission forms are available at the College Transition Center.

### BASIC SKILLS COURSES

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

count toward meeting financial aid minimum credit-hour requirements.

## CLASSIFICATION STATUS

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

## COURSE CREDIT

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

Approved courses may be repeated for credit, some courses may have limits to the amount of credit earned. Repeated courses are recorded on the transcript for every individual registration; all letter grades count towards the cumulative grade point average. A non-repeatable course may be repeated but will be counted in total credits toward graduation only one time.

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

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

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

## COURSEWORK MAY COUNT FOR THE NEXT HIGHER DEGREE

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

## CREDIT BY EXAMINATION: AP, CLEP, CHALLENGE, PROFICIENCY

The University offers three options for credit by examination: A student may qualify for University credit or may exempt a specific course by demonstrating superior performance on the subject matter examinations administered through the Advanced Placement (AP) program of the Educational Testing Service. These are usually taken when the student is still in high school. Generally, an A test score of 3, 4, or 5 will result in college credit being awarded. Please consult the Office of Admissions for specific AP test score requirements.

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

In addition, students who judge their current academic ability in a specific course to be sufficiently high to earn credit may

take rigorous subject matter examinations. Several departments offer University challenge examinations that may be taken under the following conditions:

- The specific course must have been approved for challenge examination by the academic department that administers the course.
- The student must enroll in the course and pay the appropriate tuition and fees.
- The student must obtain approval from the course instructor to challenge the course through examination.
- The student must arrange for and pass a challenge examination designed and administered by the instructor or the department during the first two weeks of the semester that the specific course is offered.
- If a student passes the examination, he or she will not be required to attend the remaining class sessions. At the end of the semester that the examination was passed, the class credit and grade earned on the examination will be entered on the student's transcript.
- Should the student fail the examination or seek to earn a higher grade than attained on the examination, the student may either remain in the class and meet the course requirements or withdraw from the class before the withdrawal deadline for that semester and re-enroll in the class to attempt to earn credit by examination in a subsequent semester.
- Not all academic departments offer the credit-by-examination option. Students should contact the main office of any department to determine the policy of that particular department.

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

## DIRECTED STUDIES

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

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

1. A Directed Study course may be for no more than four semester hours of credit per academic semester, with no more than six credits of Directed Studies taken in any semester.
2. The student should apply through the department in which he or she is doing the study.
3. Permission to engage in a Directed Study for credit must be approved by the student's program advisor, the faculty member supervising the study, and the department chairperson of the major department. The Non-Scheduled Course form to be presented at the Registration Center at the time of enrollment must bear the signatures of the supervising faculty member and the department chairperson. A rationale for course credit form should be completed and filed in the academic department. Forms are available only through the department in which the study is supervised.

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

## DOUBLE MAJORS AND CONCURRENT DEGREES

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

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

## FRESH START PROGRAMS FOR FRESHMEN, CONTINUING STUDENTS

The Fresh Start Programs were created to provide a second chance or "fresh start" to students who experienced poor academic standing. Students who apply to and meet the requirements of the program are given the opportunity to recalculate their grade point averages without using some or all grades of "D" and "F".

The Fresh Start Program for Freshmen is for students who have earned less than 30 semester credits toward graduation and who have less than a 2.00 cumulative grade point average. To be eligible, a student must attend another institution and transfer a minimum of 24 semester credits (or 36 quarter credits) of transferable course work to UNC with a 2.50 grade point average for these credits. After returning to UNC, the Fresh Start Program for "Freshmen" can be invoked if the student earns a minimum of a 2.5 grade point average in the first 12 credits completed.

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

For more information, students should contact the College Transition Center.

## GRADUATION APPLICATION

Undergraduate students should apply for graduation upon completion of 90 semester hours of credit applicable to the degree program. Applications for graduation are accepted at the Registrar's Office through 4 pm Friday of the second full week of the semester that the student expects to graduate. There is a graduation fee assessed for the term the student initially plans to graduate.

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

## ON-CAMPUS LIVING REQUIREMENT

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

## ORIENTATION

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

## SECOND BACCALAUREATE

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

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

# ADMISSION, UNDERGRADUATE

## BASIS OF ALL UNDERGRADUATE ADMISSIONS

Admissions to the University is based upon academic criteria including the secondary school academic record, rank in class, standardized test scores (ACT or SAT) and the academic record from all previous colleges the student may have attended.

### NEW FRESHMAN ADMISSION

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

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

Admission to UNC is based on standards developed by the Colorado Commission on Higher Education as measured by a selectivity index created from high school performance and standardized test score. Eighty percent of the freshmen admitted must have a selectivity index of 94 or above. An index of 94 represents a cumulative high school GPA of 2.9 and an ACT composite of 22 or an SAT combined score of 1,000. A higher ACT/SAT score can compensate for a lower GPA and a higher GPA can compensate for a lower test score. Twenty percent of the freshmen admitted to UNC may have a selectivity index of 93 and below. Those applicants are evaluated on an individual basis.

Applicants for freshman admission are required to have earned the following secondary school credits:

- Mathematics - three units of higher mathematics of algebra or above.

and are expected to have earned at least the following distribution:

- English - four units with emphasis upon courses in composition.
- History/social science - two units.
- Natural science - two units including a laboratory course.

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

Prospective students are encouraged to submit applications as early as possible. Applications can be submitted on-line at: [www.GoBears.unco.edu](http://www.GoBears.unco.edu).

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

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

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

Students planning to major in music are required to submit a separate application to the School of Music. The music application is provided by the School of Music upon request or upon receipt of an Application for Admission that specifically indicates a music major. Auditions are required of these applicants. Information concerning auditions may be requested from the School of Music or at [www.arts.unco.edu](http://www.arts.unco.edu).

Students planning to major in musical theatre are required to submit an additional application to the Musical Theatre Program. The application and appropriate instructions are provided by the College of Performing and Visual Arts. Auditions are required of all applicants to the Musical Theatre Program. Information concerning auditions may be requested from the Coordinator, Musical Theatre Program or at [www.arts.unco.edu](http://www.arts.unco.edu).

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

A student who has earned fewer than 20 semester credits is exempt from this requirement if he or she is:

- married or at least 20 years of age at the beginning of the contract period, or
- is living at and commuting from the home of a parent or legal guardian who lives within a 30 mile radius of the campus throughout the contract period. The decision to commute must be made before the beginning of the contract period.

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

### TRANSFER STUDENT ADMISSION

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

Admission requirements to UNC as a transfer student are based upon the number of credit hours of collegiate work the student has attempted and the cumulative GPA from all schools attended. Students who have completed under 12 semester hours (18 quarter hours) of college work must submit an official transcript from each college attended, along with a high school transcript and ACT/SAT test scores. The admission decision will then be based on freshman admission requirements. Transfer applicants who have completed 12-29 semester hours (18-44 quarter hours) at other institutions are required to have maintained a cumulative grade point average of 2.50 or better and submit an official copy of their college transcripts. A student who has 30 semester credit hours (45 quarter hours) of transfer credit is required to have earned a cumulative grade point average of 2.00 or better to be admitted.

**Transfer Application Procedures.** An Application for Admission and a non-refundable processing fee must be submitted to the Admissions Office. Applicants also must submit an official transcript from EACH college or university previously attended. Final admission status cannot be determined until official transcripts have been received from each institution attended. Applications can be submitted on-line at [www.GoBears.unco.edu](http://www.GoBears.unco.edu).

**No Portion of An Applicant's Previous Collegiate Record Can Be Disregarded. Should The Applicant Fail To List All Institutions Previously Attended, Admission To UNC May Be Denied Or Canceled.**

Transfer students planning to major in music are required to submit an additional application to the School of Music. The music application is provided by the School of Music upon request or upon receipt of an Application for Admission that specifically indicates a music major. Auditions are required of these applicants. Information concerning auditions may be requested from the School of Music or at [www.arts.unco.edu](http://www.arts.unco.edu).



Students planning to major in musical theatre are required to submit an additional application to the Musical Theatre Program. The application and appropriate instructions are provided by the College of Performing and Visual Arts. Auditions are required of all applicants to the Musical Theatre Program. Information concerning auditions may be requested from the Coordinator, Musical Theatre Program or at [www.arts.unco.edu](http://www.arts.unco.edu).

Transfer students planning to major in Nursing are required to submit an additional application to the School of Nursing. Application information can be obtained by contacting the School of Nursing Nursing or at the UNC website [www.unco.edu](http://www.unco.edu).

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

A student who has earned a liberal-arts based Associate of Arts or Associate of Science degree from an accredited college will receive a full waiver of the content area in the General Education requirements. The skills requirements will be evaluated course by course. Completion of the Colorado Community College Common Core Curriculum will result in a full waiver of both the Skills and Content area of General Education. Associate of General studies degrees are not transferable to UNC

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

College work earned 15 years before the baccalaureate degree is to be granted may be applicable toward the UNC degree at the discretion of the applicant's intended major and minor departments.

Previous grade point averages are used for admission and scholarship purposes only and are not carried forward on the student's academic record at UNC. New transfer students begin a new grade point average.

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

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

Information concerning transfer to UNC from Colorado community and junior colleges is available in the UNC Transfer Guide. Copies of this publication are on file at each Colorado community or junior college and may also be obtained from the Admissions Office in Greeley or Denver, and on the web at [www.unco.edu](http://www.unco.edu).

**Transfer Status.** Transfer students will use the Catalog in the Admissions Office at the time of their acceptance to find their General Education requirements.

For the student's major requirements, the Catalog 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 STUDENT ADMISSION

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

The English proficiency standard may be met by:

1. Submitting either a Test of English as a Foreign Language (TOEFL) with a score of 520 or above with a score of no less than 52 on any of the three sections (students applying to the College of Business Administration must score at least 550 on the TOEFL), or
2. Submitting test scores of at least 85 from the Michigan Test of the English Language.

Information about the TOEFL may be obtained from the Educational Testing Service for TOEFL, Box 899, Princeton, New Jersey 08541, or about the Michigan Test from the University of Michigan Press, Ann Arbor, Michigan 42104.

Individual schools or departments of the University may have higher proficiency requirements than those stated above. If a prospective international student is in doubt about these requirements, he or she should contact the Graduate School and International Admissions Office (970) 351-2831.

The Application for Admission and all related credentials (including \$50 application fee) must be received by UNC no later than 90 days before the semester in which the student wishes to enroll. The scores for the English Proficiency Exam must be received no later than 40 days before the beginning of the student's initial semester at UNC.

Specific inquiries concerning undergraduate foreign student admission should be addressed to the Graduate School and International Admissions Office.

**The Center for International Education.** One of the major goals of the Center for International Education is to enhance the intellectual development of the university community by providing our visiting students and scholars the best opportunities for educational advancement through assessment, advisement and acculturation. The support services provided by the Center.

- orientation activities and seminars,
- immigration document processing and counseling,
- tutorial services and
- supplemental language training.

# GRADUATION REQUIREMENTS INCLUDING GENERAL EDUCATION, UNDERGRADUATE

## BACHELOR'S DEGREE

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

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

1. Earn a minimum of 120 semester credit hours.
2. 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).
3. Have at least 40 credit hours in courses designated as General Education in the Catalog of the academic year in which the student first completes courses at the University. The UNC undergraduate Catalog expires after six years. The General Education program is described later in this chapter.
4. Meet all requirements for the bachelor's degree in the student's major field of study, as listed in the Catalog current when the first major is officially declared. If applicable, teacher licensure requirements must be satisfied.

## UNC Catalog Requirements

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

## Other Requirements

**Minimum Residence.** A student must have earned a minimum of 30 semester credit hours in UNC courses. For students who exceed the minimum 30 hour residence requirement, 20 of the last 30 semester credit hours of a degree program must be earned in UNC courses.

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

**Correspondence Credit.** A maximum of 30 semester hours of credit in correspondence and/or continuing education courses from UNC and/or any other institution will be accepted toward graduation.

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

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

## Major and Minor Requirements

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

A student must meet the General Education requirements as designated in the Catalog of the academic year in which the first term of completed on-campus courses occurs.

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

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

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

To complete a major from UNC, a student is required to earn a minimum of nine upper-division UNC credits (300-400) in that major. To complete a minor, a student is required to earn a minimum of six upper-division UNC credits (300-400) in that minor. 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 Catalog that summarizes each academic department's offerings including its major and minor programs.

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

## 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.

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

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

*To satisfy General Education Category 2 only –*  
MATH 120 or STAT 150

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

*To satisfy Elementary Education Teacher Licensure –*  
MATH 181 and MATH 182

**Note:** Students in the Mathematics Concentration should consult an advisor in the Department of Mathematical Sciences.

*To satisfy Nursing and some Health Science majors –*  
STAT 250

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

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

## THE GENERAL EDUCATION PROGRAM

The mission of the General Education program is to foster competencies and perspectives that enrich and enhance our life experiences. Liberal arts education at the University of Northern Colorado extends beyond the teaching and learning of vocational skills and the acquisition of specialized knowledge. The program provides skills and abilities which strengthen an individual's capacity to both make a living and to have a satisfying life. It promotes an understanding of the circumstances and events which may not have shaped our personal development but that may exert a strong influence on the ability of others to read, hear, or understand our viewpoints.

The skills component of General Education fosters growth in critical thinking, computational ability, self-expression in written, oral and graphic forms and physical competence. All of these skills improve your ability to understand or develop new ideas and to present them to others.

The content component of General Education deals with the complexity and integrated nature of knowledge. It focuses on the paradigms and patterns of inquiry of many disciplines and the fundamentally multidisciplinary character of true understanding. The many different approaches to subject matter and problem-solving practiced in the humanities, the social sciences, the natural sciences and mathematics all contribute to an appreciation of diversity and the value of inquiry. The interdisciplinary, multicultural and international courses provide a grounding in the wealth of human experience and the necessity of taking this diversity into account throughout our lives.

Collectively, the skills and content components of the General Education program provide the framework for lifelong learning and personal growth. They provide an understanding of and perspective on our history, current events and future challenges. This foundation increases the ability of students to apply the knowledge acquired in major, minor and other parts of their education program more effectively.

The courses included in General Education program represent a variety of disciplines, but are designed to help all students reach some common goals. Each of the seven categories in General Education has its own set of criteria, which all courses offered in that category must meet. Each category of courses also has its own set of student performance expectations. As you complete your general education courses your achievement of these expectations will be assessed. In turn, you are provided with the opportunity to comment on the effectiveness of the courses in helping you meet the performance expectations.

The requirements in the Skills Areas are intended to help you to develop:

- Correct and effective use of the English language in generating writing in a variety of formats.
- The ability to gather and interpret information from a variety of sources, including computerized retrieval systems.
- Numerical, statistical and algebraic skills required for the understanding and investigation of real world problems.
- The ability and confidence to interpret numerical and graphical data.
- Appropriate use of technology in support of mathematical studies.
- Successful strategies for group participation in physical activity.
- Skills and techniques necessary for participation in physical activity.
- Knowledge that will help you to enhance and maintain your personal fitness and health.

The requirements in the Content Areas are intended to help you to:

- Understand the historical frameworks of and interactions between diverse disciplines.
- Understand and apply research techniques from different disciplines. You will collect, organize and interpret data using current technology.

- Assess the validity of diverse sources of information.
- Understand Western and non-Western cultures and values.
- Understand the perspectives, contributions and concerns of different ethnic, gender and age groups.
- Be able to identify important issues involved in human welfare and survival.

**Requirements.** The General Education Program at UNC is divided into two areas: Skills Area — *Category 1. - Category 3.* and Content Area — *Category 4. - Category 7.*

- An overall minimum of 40 semester credit hours selected from the Skills and Content Areas (*Categories 1.-7.*)
- At least 30 semester hours must be taken in the Content area.
- Only 6 semester hours of general education courses may be courses carrying your major prefix (i.e. Music majors can only use 6 hours of courses with the course prefix of MUS).

### Offerings

The typical frequency of offering of each General Education course is indicated following the credit hours for the course. Frequencies are indicated using the following codes:

**SEM** - course is offered every Fall and Spring Semester

**1YR** - course is offered every Academic Year

**2YR** - course is offered every two (2) Academic Years

**IRR** - course is offered irregularly

Please note: The frequency listed is typical and may be affected by departmental ability to staff the course when it is typically scheduled.

### Skills Area

#### Category 1. Composition (6 credit hours required)

Choose 2 courses; one must be **ENG 122 College Composition (3)**, and the second course selected from b. Intermediate Composition courses.

##### a. Elementary Composition

**ENG 122 College Composition (3) SEM**

##### b. Intermediate Composition

**ANT 315 Life History and Culture (3) 1YR**

**BA 205 Business Communications (3) SEM**

**AFS 305 Survey of African American Literature (3) 1YR**

**ENG 123 College Research Paper (3) SEM**

**ENG 223 Writing with Sources (3) IRR**

**ENG 225 Communications on a Theme (3) 1YR**

**ENG 227 Technical Writing (3) 2YR**

**MUS 152 Writing and Scholarship in the Performing and Visual Arts (3) 1YR**

**PHIL 101 Critical Thinking and Writing (3) IRR**

**SCI 291 Scientific Writing (3) SEM**

#### Category 2. Mathematics (3 credit hours required)

One course, chosen from among these listed courses, except that **MATH 181** and **MATH 182** must both be taken together to satisfy the requirement:

**MATH 120 Mathematics and Liberal Arts (3)**

**MATH 124 College Algebra (4) SEM**

**MATH 125 Plane Trigonometry (3) SEM**

**MATH 127 Elementary Functions (4) SEM**

**MATH 131 Calculus I (4) SEM**

**MATH 175 Topics in Finite Mathematics (3) SEM**

**\*MATH 181 Fundamentals of Mathematics I (3)**

**MATH 182 Fundamentals of Mathematics II (2)**

**STAT 150 Introduction to Statistical Analysis (3) SEM**

**STAT 250 Statistics for Health Sciences (3) SEM**

\*Students selecting the Mathematics Concentration take **MATH 131** instead of **MATH 181**.

#### Category 3. Physical Activity (minimum 1 credit hour required)

Choose 1 course from the courses listed below:  
*Lifetime and Leisure Skills*

##### Team Sports:

**PE 100 Basketball (1) SEM**

**PE 101 Flag Football (1) 1YR**

**PE 102 Soccer (1) SEM**

**PE 103 Softball (1) SEM**

**PE 104 Volleyball (1) SEM**

**Lifetime Sports:**

PE 110 Badminton (1) 1YR  
 PE 111 Bowling (1) SEM  
 PE 113 Fly Fishing/Trap Shooting (1) SEM  
 PE 114 Golf (1) SEM  
 PE 115 In-Line Skating (1) SEM  
 PE 116 Water Safety Instructor (2) 1YR  
 PE 117 Racquetball (1) SEM  
 PE 118 Swimming (1) SEM  
 PE 119 Tennis (1) SEM

**Adventure/Risk Activities:**

PE 125 Backpacking and Hiking (1) SEM  
 PE 126 Canoeing (1) IRR  
 PE 127 Cross-Country Skiing (1) 1YR  
 PE 128 Cycling (1) SEM  
 PE 129 Downhill Skiing (1) SEM  
 PE 130 Kayaking (1) 1YR  
 PE 131 Orienteering (1) SEM  
 PE 132 Challenge Ropes Course (1) SEM  
 PE 133 Scuba Diving (1) SEM  
 PE 134 Self Defense (1) SEM  
 PE 135 Rock Climbing (1) SEM

**Exercise and Fitness:**

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

**Dance and Movement Activities:**

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

**Content Area**

At least 30 semester hours of General Education courses must be taken in the Content Area (Category 4. - Category 7.). Note: You will need to take hours beyond the minimum requirements in the Content Area to meet the 30 semester hour requirement.

**Category 4. Arts and Letters (minimum 6 credit hours required)**

Choose 2 courses from 2 different alphabetical subgroups (a.-e) with different prefixes from the following:

**a. Fine Arts**

ART 181 History of Art I (4) 1YR  
 ART 182 History of Art II (4) 1YR  
 ART 190 Art Appreciation (3) SEM  
 ART 210 Ceramics for Non-Art Majors (3) SEM  
 ART 290 Visual Thinking and Visual Images (3) 1YR  
 DNCE 454 Dance History and Philosophy (2) 2YR  
 ENST 385 Art and the Environment (2) 1YR  
 GEP 101 Antiquity and the Classical Age (3) IRR – (may be used to meet the requirement in Fine Arts or History or Literature or Philosophy)  
 GEP 102 Evolutions of Cultures (3) IRR – (may be used to meet the requirement in Fine Arts or History or Literature or Philosophy)  
 GEP 103 The Modern World (3) IRR – (may be used to meet the requirement in Fine Arts or History or Literature or Philosophy)  
 HUM 120 Introduction to Film (3) SEM  
 MIND 181 Great Traditions of Asia: India, China and Japan (3) 1YR – (may be used to meet the requirement in Fine Arts or History or Literature)  
 MIND 288 Contemporary Arts Connections (3) 2YR  
 MIND 297 Creativity in the Arts (3) IRR  
 MT 330 History of Musical Theatre (3) 1YR  
 MUS 140 Introduction to Music (3) SEM  
 MUS 204 Music Fundamentals and Experiences (3) SEM  
 MUS 241 Perceiving the Arts (3) 1YR

MUS 243 History of Music I (3) 1YR  
 MUS 244 History of Music II (3) 1YR  
 MUS 246 Music in American History and Culture (3) 1YR  
 MUS 340 Survey of History and Literature of Jazz (3) SEM  
 THEA 130 Introduction to the Theatre (3) SEM  
 THEA 330 History of Theatre I (3) 1YR  
 THEA 331 History of Theatre II (3) 1YR

**b. Foreign Language**

CHIN 101 Beginning Chinese (5) 1YR  
 CHIN 102 Elementary Chinese II (5) 1YR  
 CHIN 201 Intermediate Chinese I (3) 1YR  
 CHIN 202 Intermediate Chinese II (3) 1YR  
 FR 101 Elementary French I (4) 1YR  
 FR 102 Elementary French II (4) 1YR  
 FR 201 Intermediate French I (3) 1YR  
 FR 202 Intermediate French II (3) 1YR  
 GER 101 Elementary German I (4) 1YR  
 GER 102 Elementary German II (4) 1YR  
 GER 201 Intermediate German I (3) 1YR  
 GER 202 Intermediate German II (3) 1YR  
 JAPN 101 Beginning Japanese (5) 1YR  
 JAPN 102 Elementary Japanese II (5) 1YR  
 JAPN 201 Intermediate Japanese I (3) 1YR  
 JAPN 202 Intermediate Japanese II (3) 1YR  
 RUS 101 Elementary Russian I (5) IRR  
 RUS 102 Elementary Russian II (5) IRR  
 SPAN 101 Elementary Spanish I (5) SEM  
 SPAN 102 Elementary Spanish II (5) SEM  
 SPAN 201 Intermediate Spanish I (3) SEM  
 SPAN 202 Intermediate Spanish II (3) SEM

**c. History**

AFS 201 African American History I (3) 1YR  
 AFS 202 African American History II (3) 1YR  
 GEP 101 Antiquity and the Classical Age (3) IRR  
 (may be used to meet the requirement in Fine Arts or History or Literature or Philosophy)  
 GEP 102 Evolutions of Cultures (3) IRR  
 (may be used to meet the requirement in Fine Arts or History or Literature or Philosophy)  
 GEP 103 The Modern World (3) IRR  
 (may be used to meet the requirement in Fine Arts or History or Literature or Philosophy)  
 HIST 100 Survey of American History from Its Beginnings to 1877 (3) SEM  
 HIST 101 Survey of American History from 1877 to the Present (3) SEM  
 HIST 120 Western Civilization from Ancient Greece to 1689 (3) SEM  
 HIST 121 Western Civilization from 1689 to the Present (3) SEM  
 HIST 267 Age of Revolution Since the 17th Century (3) IRR  
 MIND 180 Great Ideas of the Western Tradition (3) SEM  
 (may be used to meet the requirement in History or Literature or Philosophy)  
 MIND 181 Great Traditions of Asia: India, China and Japan (3) 1YR – (may be used to meet the requirement in History or Fine Arts or Literature)  
 MIND 290 Search for Meaning (3) IRR  
 (may be used to meet the requirement in History or Philosophy)  
**d. Literature**  
 ENG 131 Introduction to Literature (3) SEM  
 ENG 138 Modernism in Literature (3) IRR  
 ENG 211 Survey of American Literature (3) SEM  
 ENG 213 Survey of British Literature I (3) SEM  
 ENG 214 British Literature II (3) SEM  
 ENG 262 Masterpieces of World Literature (3) SEM  
 GEP 101 Antiquity and the Classical Age (3) IRR  
 (may be used to meet the requirement in Fine Arts or History or Literature or Philosophy)  
 GEP 102 Evolutions of Cultures (3) IRR  
 (may be used to meet the requirement in Fine Arts or History or Literature or Philosophy)  
 GEP 103 The Modern World (3) IRR – (may be used to meet the requirement in Fine Arts or History or Literature or Philosophy)  
 HISP 111 Introduction to Hispanic Literature (3) IRR  
 MIND 180 Great Ideas of the Western Tradition (3) SEM  
 (may be used to meet the requirement in Literature or History or Philosophy)

**MIND 181 Great Traditions of Asia: India, China and Japan (3) 1YR**  
(may be used to meet the requirement in Literature or Fine Arts or History)

**MIND 293 Play as a Route to Insight and Creation (3) 2YR**  
(may be used to meet the requirement in Literature or Philosophy)

*e. Philosophy*

**GEP 101 Antiquity and the Classical Age (3) IRR**  
(may be used to meet the requirement in Fine Arts or History or Literature or Philosophy)

**GEP 102 Evolutions of Cultures (3) IRR**  
(may be used to meet the requirement in Fine Arts or History or Literature or Philosophy)

**GEP 103 The Modern World (3) IRR**  
(may be used to meet the requirement in Fine Arts or History or Literature or Philosophy)

**MIND 180 Great Ideas of the Western Tradition (3) SEM**  
(may be used to meet the requirement in History, Literature or Philosophy)

**MIND 290 Search for Meaning (3) IRR**  
(may be used to meet the requirement in History or Philosophy)

**MIND 293 Play as a Route to Insight and Creation (3) 2YR**  
(may be used to meet the requirement in Literature or Philosophy)

**PHIL 100 Introduction to Philosophy (3) SEM**

**PHIL 110 Figures in Western Philosophy (3) SEM**

**PHIL 305 Ethics in Theory and Practice (3) IRR**

**Category 5. Social Sciences (minimum 6 credit hours required)**

Choose 2 courses from 2 different alphabetical subgroups (a.-f.) with different prefixes from the following:

*a. Anthropology*

**ANT 100 Introduction to Anthropology (3) SEM**

**ANT 120 World Archaeology (3) 1YR**

*b. Economics*

**ECON 101 Understanding the Contemporary Economy (3) 1YR**

**ECON 103 Introduction to Economics: Macroeconomics (3) SEM**

**ECON 105 Introduction to Economics: Microeconomics (3) SEM**

**MIND 286 Value Issues in Political Economy (3) 1YR**  
(may be used to meet the requirement in Economics or Political Science)

*c. Geography*

**GEOG 100 World Geography (3) SEM**

**GEOG 110 Geography of the United States and Canada (3) SEM**

**GEOG 200 Human Geography (3) SEM**

*d. Political Science*

**AFS 420 Black Urban Politics (3) IRR**

**MIND 286 Value Issues in Political Economy (3) 1YR**  
(may be used to meet the requirement in Economics or Political Science)

**PSCI 100 United States National Government (3) SEM**

**PSCI 105 Fundamentals of Politics (3) SEM**

**PSCI 203 Colorado Politics (3) 2YR**

**PSCI 220 Introduction to International Relations (3) SEM**

*e. Psychology*

**CH 336 Human Sexuality (3) SEM**

**CMDS 160 Introduction to Human Communication and Its Disorders (3) SEM**

**PSY 120 Principles of Psychology (4) SEM**

**PSY 230 Human Growth and Development (4) SEM**

**PSY 265 Social Psychology (3) SEM**

*f. Sociology*

**CH 205 Issues in Health (3) SEM**

**NURS 318 Health Care Systems (3) 1YR**

**SOC 100 Principles of Sociology (3) SEM**

**SOC 120 Introduction to Family Studies (3) SEM**

**SOC 141 Introduction to Criminal Justice (3) SEM**

**SOC 170 Social Problems (3) IRR**

**Category 6. Science and Mathematics (minimum 7 credit hours required)**

Choose 2 courses from two different alphabetical subgroups (a.-d.) with two different prefixes from the following courses. At least one of the courses must have an L (laboratory) designation:

*a. Earth Sciences*

**AST 100 General Astronomy (4) (L) SEM**

**ESCI 265 Earth Science Concepts for Elementary Teachers (3) (L) SEM**

**GEOL 100 General Geology (4) (L) SEM**

**GEOL 110 Our Geological Environment (3) 1YR**

**MET 110 Our Violent Atmosphere (3) SEM**

**MET 205 General Meteorology (4) (L) SEM**

**MIND 294 Revolutions in Science (3) SEM** – (may be used to meet the requirements in Earth Sciences, Life Sciences or Physical Sciences)

**OCN 110 Our Ocean Systems (3) 1YR**

**OCN 200 General Oceanography (4) (L) 1YR**

*b. Life Sciences*

**ANT 130 Introduction to Physical Anthropology (3) 1YR**

**BIO 100 Exploring Biology (3) SEM**

**BIO 110 Principles of Biology (4) (L) SEM**

**BIO 111 Survey of Organismal Biology (5) (L) SEM**

**BIO 265 Life Science Concepts (3) (L) SEM**

**BOT 270 Economic Botany (3) (L) 1YR**

**FND 250 Principles of Nutrition (3) SEM**

**MIND 294 Revolutions in Science (3) SEM** – (may be used to meet the requirements in Earth Sciences, Life Sciences or Physical Sciences)

**ZOO 115 Human Biology (3) (L) SEM**

*c. Mathematics*

**MATH 132 Calculus II (4) SEM**

*d. Physical Science*

**CHEM 101 Chemistry for Citizens (3) SEM**

**CHEM 102 Chemistry for Citizens Laboratory (1) (L) SEM**

**CHEM 108 Fundamentals of Chemistry I (5) (L) SEM**

**CHEM 111 Principles of Chemistry I (5) (L) SEM**

**CHEM 114 General Chemistry I (4) (L) IRR**

**ENST 235 Chemistry and the Environment (2) IRR**

**MIND 294 Revolutions in Science (3) SEM** – (may be used to meet the requirements in Earth Sciences, Life Sciences or Physical Sciences)

**PHYS 220 Introductory Physics I (5) (L) 1YR**

**PHYS 240 General Physics I (5) (L) 1YR**

**SCI 103 Physical Science for the 21st Century (3) SEM**

**SCI 106 Introduction to Spaceflight (3) SEM**

**SCI 109 The Cosmos (3) SEM**

**SCI 265 Physical Science Concepts (4) (L) SEM**

**Category 7. Interdisciplinary and International Studies, and Multicultural Studies (minimum 6 credit hours required)**

Choose 2 courses from two different alphabetical subgroups (a.-b.):

- 1 course from either Interdisciplinary and International Studies and

- 1 course from Multicultural Studies

*a. Interdisciplinary and International Studies*

*Interdisciplinary Courses:*

**ENST 100 Introduction to Environmental Studies (3) SEM**

**ENST 225 Energy and the Environment (3) SEM**

**GERO 205 Introduction to Gerontology (3) SEM**

**HUM 331 Images of Women in Literature and the Arts (3) 1YR**

**NURS 200 Women's Health Care (3) SEM**

**SOC 221 Sociology of Gender (3) SEM**

*International Courses:*

**ANT 110 Introduction to Cultural Anthropology (3) SEM**

**ANT 314 Sex Roles in a Cross-Cultural Perspective (3) 1YR**

**BA 251 International Business (3) SEM**

**FR 116 Contemporary France (3) 2YR**

**GEOG 335 Geography of Middle America (3) 1YR**

**GEOG 365 Russia and Eurasia (3) 1YR**

**GER 116 Contemporary Germany (3) 2YR**

**HISP 121 Spanish Civilization and Culture (3) IRR**

**HISP 131 Latin American Civilization and Culture (3) IRR**

**MAS 141 Mexican Civilization and Culture (3) IRR**

**HIST 110 African Civilization (3) 1YR**

**HIST 112 Asian Civilization I: From Prehistory to the 1600s (3) 1YR**

HIST 113 Asian Civilization II: The Modern Transformation (3) 1YR  
 HIST 118 History of Mexico (3) SEM  
 HIST 131 Middle East History II (3) IRR  
 HIST 283 Russian Civilization (3) 2YR  
 JAPN 116 Contemporary Japan (3) IRR  
 MIND 289 Coming of Age in the Twentieth Century (3) 1YR  
 MIND 292 Ideas in Conflict (3) IRR  
 MUS 247 Music Cultures of the World (3) 1YR  
 SPCO 323 Intercultural Communication (3) SEM

#### *b. Multicultural Studies*

ANT 317 Contemporary Native American Issues (3) 1YR  
 AFS 100 Introduction to Black Studies (3) SEM  
 AFS 101 Crisis of Identity (3) SEM  
 CH 236 Health and Life-styles Among the Elderly (3) 1YR  
 ENG 236 Ethnic American Literature (3) SEM  
 HISP 102 Hispanic Cultures in the United States (3) SEM  
 HIST 290 American Immigration (3) SEM  
 HRS 290 Introduction to Human Rehabilitative Services (3) SEM  
 MAS 101 Introduction to Mexican American Studies (3) SEM  
 MAS 110 Contemporary Chicano Literature (3) IRR  
 MCS 101 Multiculturalism in the United States: Concepts and Issues (3) SEM  
 MIND 182 Confluence of Cultures (3) 1YR  
 SOC 237 Sociology of Minorities (3) SEM  
 WS 101 Women in Contemporary Society (3) SEM

#### Special Notes

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

#### Exceptions to the General Education Program Requirements

Transfer students who have completed equivalent programs in General Education as determined by the Admissions Office may be exempted from all or part of the General Education requirements.

A student who has earned a liberal-arts based Associate of Arts or Associate of Science degree or who has completed an equivalent program in General Education as determined by the UNC Admissions Office will receive credit for such work and be excused from the content area of the General Education requirements. Courses required for the skill areas are evaluated course by course and the required number of hours for each skill area must be met.

If a student presents an ACT score of 30.0 or higher in English, or an SAT verbal score of 630 or higher, 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, or an SAT math score of 560 or higher, he or she is exempt from the mathematics area (Skill 2).

Students enrolled in any Army ROTC course and who participate in organized ROTC physical training for at least one session a week during the entire semester may request a waiver to be exempt from the physical activity area (Skill 3).

A student may challenge a General Education course and receive an exemption by registering for the course and passing the challenge examination. Interested students should contact the appropriate department to determine the availability of a challenge examination.

CLEP examinations are available for General Education credit. The student should contact Career Services for information relative to the CLEP program.

## ELEMENTARY EDUCATION LICENSURE: GENERAL EDUCATION PROGRAM

### Required General Education Courses — 40 semester hours

**Note:** Students are strongly recommended to take the courses listed with the full course titles. Courses listed in brackets are acceptable alternatives.

1a - ENG 122 College Composition (3)

1b - one course from Intermediate Composition (3)\*

2 - MATH 181 Fundamentals of Mathematics I (3)\*\*

and

MATH 182 Fundamentals of Mathematics II (2)

3 - one course from Physical Activity (1)

4c - HIST 100 Survey of American History from Its Beginnings to 1877 (3)

or [HIST 101 or HIST 121]

4d - ENG 131 Introduction to Literature (3)

or [ENG 211, ENG 214 or ENG 262]

4a/b/e - one course from ART/MUS/FL/PHIL/MIND

or

5a/e/f - one course from ANT/PSY/SOC

5bd - ECON 103 Introduction to Economics: Macroeconomics (3)

or [ECON 105 or ECON 101]

or PSCI 100 United States National Government (3)

or [PSCI 105]

5c - GEOG 100 World Geography (3)

or GEOG 110 Geography of the United States and Canada (3)

or [GEOG 200]

6 - Science-select one course from each of two of the following areas. The two courses must total at least 7 credit hours.

ESCI 265 Earth Science Concepts for Elementary Teachers (3)

or [AST 100, GEOL 100, MET 205 or OCN 200]

SCI 265 Physical Science Concepts (4)

or [CHEM 108, CHEM 111, PHYS 200 or PHYS 240]

BIO 265 Life Science Concepts (3)

or [BIO 110 or BIO 111]

7a - one course from either Interdisciplinary and International Studies (3)\*\*\*

or

7b - one course from Multicultural Studies\*\*\*\*

\* select any course except BA 205, AFS 305 and MUS 152

\*\* students selecting the Mathematics Concentration take MATH 131 instead of MATH 181

\*\*\* select any course except GERO 205, NURS 200 and BA 251

\*\*\*\*select any course except CH 236 and HRS 290

### Life of the Mind: General Education Option

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

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

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

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

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

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

# PROFESSIONAL TEACHER EDUCATION AND OTHER SPECIAL PROGRAMS

## PRESIDENTIAL LEADERSHIP PROGRAM

The Presidential Leadership Program (PLP) is open to selected freshmen with demonstrated leadership experience and potential who are also accomplished scholars. PLP has courses of its own, in which scholars are engaged with leadership theory, and General Education choices with leadership dimensions are suggested. The program also sponsors guests to campus who are distinguished leaders in their own fields. The leadership mentor network is accessed through internship opportunities, and students are encouraged to study for a semester abroad. The PLP program can be taken with any major, and concurrent enrollment in Honors and Life of the MIND is fostered. In PLP 100 the Contract Learning Guide, the scholar's agreed PLP learning contract, is first introduced.

### Semester 1

ID 108 Freshman Workshop (1)

MIND 180 Great Ideas of the Western Tradition (3)\*

### Semester 2

PLP 100 Foundations of Leadership (3)

HIST 100 Survey of American History from Its Beginnings to 1877 (3)\*

### Semester 3

PSY 265 Social Psychology (3)

ENG 225 Communications on a Theme (3)

### Semester 4

PLP 200 The Entrepreneur in America (2)\*

### Semester 5

BAMG 354 Organizational Behavior (3) (BAMG 350 prerequisite waived for PLP scholars by Management department)

### Semester 6

PLP 492 Internship in PLP (1-3)

### Semester 7

PLP 499 Capstone Course/Project (2)

Though none is required, students are invited to consider other University classes which bear on leadership. A partial list of these includes:

PHIL 110 Figures in Western Philosophy (3)\*

PSCI 220 Introduction to International Relations (3)

MUS 241 Perceiving the Arts (3)

HIST 260 History of Science and Technology of the West (3)

HIST 267 Age of Revolution Since the 17th Century (3)

PHIL 305 Ethics in Theory and Practice (3)

PSCI 100 United States National Government (3)

BAMG 350 Management of Organizations (3)

PSY 366 Industrial Psychology (3)

AFS 456 Leadership and the Black Church (3)

\*carries General Education Credit

## Program Narrative

*Year one.* The highlights of the first year are two classes, ID 108 and PLP 100, in which discussion is led by the University president. ID 108, to be taken in the first semester, will be a special section of the University's freshman orientation class highlighting campus and community leadership opportunities. The Career Center will assist with inventories of student aptitudes and interests, leading to matching of majors with careers.

PLP 100, Foundations of Leadership, will continue to build on the self-assessment inventories developed in ID 108. Students will be asked to begin a plan for their junior year internship, travel and study opportunities. Through readings - Gary Wills, John Gardner, Erik Erikson - and discussion with the president and his guests, Leadership scholars will be asked to explore leadership as a creative process of creating, anticipating and molding change. The context of both change and stasis is examined in detail through MIND 180, a humanities class rich in analysis of ideas, traditions and people formative in modernism.

*Year Two.* In the second year, students gain a comprehensive introduction to theories of normative human development in PSY 265, and the opportunity to do further reading and writing on leadership issues in ENG 225.

PLP 200, perhaps jointly offered as an Honors connection seminar, explores the entrepreneurial mind, personality and achievement. Successful entrepreneurs will be invited to campus, and asked to share their perspectives on success and leadership with PLP students. "Entrepreneur" is defined in the broadest sense, and includes leaders who have successfully managed change in education, the arts and government. As the beginning exercise in this seminar, PLP students will be asked to share final plans for their junior year internship/study/travel project and its linkage to the senior paper.

*Year three.* In the junior year, the PLP student's match of junior project and senior paper is developed through an internship, and/or by study and travel abroad. PLP staff will develop correspondent relationships with universities abroad, in cities where Americans can comfortably live; staff will also develop internships in Denver and throughout Colorado so that students may experience the life of the career they've chosen. The project will be recorded in a final paper, formalized in a contract between the student and the PLP advisor. In the case of students concurrently enrolled in the Honors program, the paper's research design may be coordinated with an Honors advisor in the student's major field.

*Year four.* In the fourth year, the student finishes writing the senior paper in the seventh term, and presents results to colleagues in the capstone course. In the capstone experience, students again assess themselves as leaders, in charge of their own personal, residential and career-development transitions. Final models - Erikson's Gandhi, David Donald's Lincoln, and the Constitution of the United States as a document triumphantly adaptative to new circumstances - are presented.

## 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 1999-00 PTEPs include: Elementary Education (K-6), Middle Grades Education in specific and support teaching areas (5-9), Secondary Education in specific teaching areas (7-12), and K-12 Education in the areas of Physical Education, Music Education, Visual Arts Education, and Special Education.

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

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

Minimal requirements for provisional admission to a PTEP may include:

- completion of an application form;
- minimum 2.50 cumulative grade point average for a minimum of 15 credit hours taken at the University of Northern Colorado. Upon entering UNC with 15 semester credit hours, transfer students may apply to a PTEP their first semester on campus, and they will have one semester to establish the requisite GPA. (NOTE: programs/departments have specific grade point average and/or credit-hour requirements that may exceed the minimum.);



- fingerprinting and background check as required for Colorado teacher licensure (The fee of approximately \$38 is subject to change.);
- declaration of a major and licensure area;
- documented evidence of experience (25 hours) working successfully with children or youths, and a recommendation from the supervisor of this experience. Examples of appropriate experience: teacher aide, camp counselor, recreational activity volunteer, youth leader;
- registering for and taking the state-mandated Basic Skills PLACE (Program for Licensing for Colorado Educators) Assessment administered by the National Evaluation Systems. (The fee of approximately \$50 is subject to change.) For more information on the PLACE assessment, contact the School for the Study of Teaching and Teacher Education.

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

## **PTEP ADMISSION**

Full admissions requirements may include:

- benchmark experiences specific to each PTEP;
- portfolio review;
- interview or review by PTEP faculty;
- demonstrated competence in written English (At this time, this requirement may be met with a “B” or better from general education category 1a or b);
- demonstrated competence in oral English. This requirement may be met with a “B” or better in SPCO 103. Students enrolled in an elementary, secondary or middle grades PTEP also may demonstrate oral proficiency by making an oral presentation before a panel of judges. Contact the School for the Study of Teaching and Teacher Education for information on the oral proficiency presentation. Students without an extensive background in public speaking are highly encouraged to enroll in SPCO 100/SPCO 103;
- recommendation of the program/major department(s) including compliance with program/major department minimum grade point average(s) and specific course and credit requirement.

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

## **PTEP BASIC REQUIREMENTS**

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

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

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

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

In compliance with federal guidelines (Title II) the performance of UNC students on the PLACE is detailed on the College of Education website at [www.unco.edu/coe](http://www.unco.edu/coe) (click on "Links," then click on "PLACE.").

**Current PLACE Assessment fees are as follows:**

Educator Content Areas (no performance component)	\$50.00
Educator Content Areas (with performance component)	\$85.00
Liberal Arts & Sciences	\$70.00
Professional Knowledge	\$70.00

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

## **APPLICATION FOR LICENSURE**

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

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

The teacher-education candidate may apply for a license at the end of the semester in which the PTEP is to be completed. Application forms are available in the School for the Study of Teaching and Teacher Education. Completed applications are processed as soon as official transcripts are received from the Registrar.

**Approved PTEPs.** The UNC Professional Teacher Education Programs (PTEP) 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, 7-12 (requires completion of the Elementary, Middle Grades or Secondary PTEP).
- English as a Second Language Endorsement, K-6, 5-9, 7-12 (requires completion of the Elementary, Middle Grades or Secondary PTEP).
- Middle Grades Education, 5-9.
- Music Education, K-12.
- Physical Education, K-12.
- Secondary Education Specific Teaching Areas, 7-12: English, Foreign Languages: French, German, Spanish; Mathematics; Science: (includes majors in Biological Science, Chemistry, Earth Science, Physical Science, Physics); Social Studies: (includes majors in Geography, History, Social Science; Speech; and Theatre Arts-Drama).
- Visual Arts Education (Art), K-12.

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

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

EDRD 410 Achieving Effective Instruction in Developmental Reading (3)  
 EDED 480 Early Childhood Curriculum (3)  
 EDEC 490 Early Childhood Student Teaching II (6)

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

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

## PTEP COURSE REQUIREMENTS

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

### PLEASE NOTE:

Modifications are being made to the Elementary PTEP for Fall 2000. Prospective teacher education candidates should visit the School for the Study of Teaching and Teacher Education in McKee 216 to obtain a copy of the program requirements.

### Early Childhood PTEP - Required Courses

Students apply to this program during the Sophomore year. The application process is completed in EDEC 210. Block I is completed during the first semester.

#### Block I

EDEC 333 Development and Guidance of Young Children (3)  
 EPSY 347 Educational Psychology for Elementary Teachers (3)  
 ET 347 Educational Technology Applications for Elementary Teaching (1)

#### Block II: Fall

EDSE 430 Exceptional Student in the Elementary Classroom (2)  
 EDRD 419 Language and Literacy Development of Preschool and Elementary School Children (3)  
 EDEC 450 Family Diversity and Involvement Early Childhood Education (2)  
 EDEC 460 Early Childhood Curriculum (3)  
 EDEC 470 Early Childhood Student Teaching I (6)

#### Block II: Spring

MUS 206 Music Methods and Materials for Elementary Teachers (1)  
 PE 288 Physical Education Activities for the Elementary School (1)  
 ART 344 Methods of Teaching Art in the Elementary School (1)

## Elementary PTEP - Required Courses

### \*Prerequisite Courses

EDF 366 Conceptions of Schooling: Context and Process (4)  
 ET 247 Technology in Education for Elementary Teaching (1)  
 EPSY 347 Educational Psychology for Elementary Teachers (3)  
 EDSE 430 Exceptional Student in the Elementary Classroom (2)  
 ET 347 Educational Technology Applications for Elementary Teaching (1)

*(ET 347 can be taken after Student Teaching Block I but must be completed before Student Teaching Block II)*

### Student Teaching Block I - Second Semester of Junior Year (15)

EDEL 460 Integrated Methods I: Reading, Language Arts, Science and Health (9)

*6 weeks of focused content learning and 10 weeks of supervised field experiences in an assigned Partnership School, Monday-Friday*

EDEL 480 Student Teaching Block I and Seminars (6)

*Field Experiences in Student Teaching Block I will occur in an assigned Partnership School in or around the Greeley area*

### Student Teaching Block II - Second Semester of Senior Year (15)

EDEL 470 Integrated Methods II: Math, Social Studies, Art, Music and Physical Education (9)

*5 weeks of focused content learning and 11 weeks of daily supervised field experiences in an assigned school, Monday-Friday*

EDEL 490 Student Teaching Block II and Seminars (6)

*Field experiences in Student Teaching Block II will occur in an assigned Partnership or Student Teaching School*

\*Prerequisite courses must be taken before Student Teaching Block I

**Please note:** Due to the modifications in the Elementary PTEP for Fall 2000, Elementary PTEP teacher candidates should visit the SSTTE Office (McKee 216) in the College of Education for updates on the program.

## Middle Grades PTEP - Required Courses

### Pre-Professional Cluster (courses are to be taken concurrently)

EDMG 200 Exploring Teaching: Emphasis in the Middle Grades (2)  
 ET 248 Technology in Education for Middle Grades Teaching (1)

### Introductory Cluster (courses are to be taken concurrently)

EDMG 310 Working with Middle Grades Students in the Classroom (1)  
 EDF 366 Conceptions of Schooling: Context and Process (4)  
 EPSY 348 Educational Psychology for Middle School Teachers (3)

### Intermediate Cluster 1 (courses are to be taken concurrently)

EDMG 320 Introduction to Middle School Grades Education (2)  
 EDMG 321 Middle Grades Teaching and Learning (3)  
 EDSE 311 Including Exceptional Students in Middle Grades Classroom (1)

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

EDMG 440 Middle Grades Integrated Curriculum and Instruction (5)  
 EDRD 340 Developing Language and Literacy in the Content Areas (3)  
 EDSE 411 Strategies for Teaching the Exceptional Student at the Middle Grade Level (2)  
 ET 348 Educational Technology Applications for Middle Grades Teaching (1)

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

EDMG 490 Middle Grades Student Teaching (12)  
 EDMG 491 Middle Grades Student Teaching Seminar (1)

## Secondary PTEP - Required Courses

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

STEP 161 Observation and Analysis of Secondary Teaching I (2)  
 EDF 366 Conceptions of Schooling: Context and Process (4)  
 ET 249 Technology in Education for Secondary Teaching (1)

### The following three courses are to be taken concurrently:

EDSE 360 Adaptation, Modification, and Integration of Curriculum for the Secondary Exceptional Learner (3)  
 EPSY 349 Educational Psychology for Secondary Teachers (3)  
 STEP 262 Observation and Analysis of Secondary Teaching II (2)

### The following four courses are to be taken concurrently:

STEP 363 Clinical Experience: Secondary (2)  
 EDRD 340 Developing Language and Literacy in the Content Areas (3)  
 ET 349 Educational Technology Applications for Secondary Teaching (1)  
 Secondary Methods (3-6)  
 STEP 464 Secondary Student Teaching (1-14)

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

EED 341/EED 541 Methods and Materials for Teaching Language and Composition in the Secondary School (3)  
*and*  
 EED 402 Methods and Materials for Teaching Young Adult Literature in the Secondary Schools (4)  
 FL 341 Methods of Teaching in the Secondary School (3)  
 GEOG 410 Teaching Geography in Secondary Curriculum (1)  
*and*  
 SOSC 341 Teaching Secondary Social Studies (3) (Geography Major)  
 HIST 400 Teaching History in the Secondary Curriculum (1)  
 SCED 441/SCED 541 Methods of Teaching Secondary School Science (3)  
 SOSC 341 Teaching Secondary Social Studies (3)  
 MED 441 Methods of Teaching Mathematics (3)  
 SPCO 352/SPCO 552 Methods of Teaching Secondary Communication (3)  
 THEA 385 Methods of Teaching Drama (3)

## Licensure Program for K-12 Music Education

### Instrumental Music Education - Required Courses

EDFE 270 Field Based Experience (2)  
 EPSY 346 Learning and Development for Teachers (2)  
 EDF 366 Conceptions of Schooling: Context and Process (4)  
 EDSE 433 Exceptional Students in the Regular Classroom (2)  
 EDRD 425 Reading in the Content Areas (1)  
 EDFE 444 Supervised Teaching (12)

### Instrumental Emphasis (B.M.E.)

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

**Notes:** A teacher candidate must meet an oral English proficiency requirement. Listed below are two options for meeting this requirement:

- *Option I:* Complete a university-level public speaking course taken for credit for a grade of “B” or better. At UNC, this course is SPCO 100 and SPCO 103. If a teacher candidate does not receive a grade of “B” or better, the student must repeat SPCO 100 and SPCO 103 or complete *Option II* before being fully admitted to the Professional Teacher Education Program.
- *Option II:* A teacher candidate may demonstrate oral English proficiency by making an oral presentation before a panel of selected individuals. Information regarding registration dates and evaluation procedures is available from the Career Services Office. The presentation is by appointment only. There is a fee for the oral presentation.

### Vocal/Piano/General Music Education - Required Courses

EDFE 270 Field Based Experience (2)  
 EPSY 346 Learning and Development for Teachers (2)  
 EDF 366 Conceptions of Schooling: Context and Process (4)  
 EDSE 433 Exceptional Students in the Regular Classroom (2)  
 EDRD 425 Reading in the Content Areas (1)  
 EDFE 444 Supervised Teaching (12)  
 MUS 210 Introduction to Music Education (1)  
 MUS 310 Teaching General Music in Elementary Schools (2)  
 MUS 311 Teaching General Music in Secondary Schools (2)  
 MUS 312 Teaching Instrumental Music in Elementary Schools (2)  
 MUS 324 Choral Conducting and Pedagogy for Elementary and Secondary Schools (2)  
 MUS 325 Choral Methods and Literature for Elementary and Secondary Schools (1)  
 MUS 414 Contemporary Issues in Music Education (2)  
 MUS 450 Seminar in Student Teaching for Music Educators (1)

**Notes:** A teacher candidate must meet an oral English proficiency requirement. Listed below are two options for meeting this requirement:

- *Option I:* Complete a university-level public speaking course taken for credit for a grade of “B” or better. At UNC, this course is SPCO 100 and SPCO 103. If a teacher candidate does not receive a grade of “B” or better, the student must repeat SPCO 100 and SPCO 103 or complete *Option II* before being fully admitted to the Professional Teacher Education Program.
- *Option II:* A teacher candidate may demonstrate oral English proficiency by making an oral presentation before a panel of selected individuals. Information regarding registration dates and evaluation procedures is available from the Career Services Office. The presentation is by appointment only. There is a fee for the oral presentation.

### Licensure Program for K-12 Physical Education

#### PTEP Core

EDF 366 Conceptions of Schooling: Context and Process (4)\*\*  
 EDFE 170 Introduction to Field Based Experience (1)\*\*  
 EDFE 444 Supervised Teaching (15)  
 EDRD 340 Developing Language and Literacy in the Content Areas (3)  
 EDSE 433 Exceptional Students in the Regular Classroom (2)  
*and complete one of the following courses:*  
 EPSY 347 Educational Psychology for Elementary Teachers (3)  
 EPSY 348 Educational Psychology for Middle School Teachers (3)  
 EPSY 349 Educational Psychology for Secondary Teachers (3)

#### PE/PTEP Courses

PE 266 Introduction to Physical Education as a Profession (3)  
 PE 340 Planning and Instructional Design (3)  
 PE 340L Planning and Instructional Design Lab (0)  
 PE 342 Teaching Health-Related Fitness (3)  
 PE 440 Developing Pedagogical Skills in Elementary Physical Education (3)  
 PE 440L Developing Pedagogical Skills in Elementary Physical Education Lab (0)  
 PE 442 Developing Pedagogical Skills in Secondary Physical Education (3)

PE 442L Developing Pedagogical Skills in Secondary Physical Education (0)

PE 444 Teaching Diverse Populations (3)

\*\*Corequisites

#### Additional Pre-Professional Courses

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

### Teacher Education Licensure Program in Special Education

#### PTEP Requirements - 8 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)

#### Required Credits - 44 semester hours

EDSE 201 Culture of Special Education (3)  
 EDSE 202 Communication, Consultation, and Collaboration in Special Education (3)  
 EDSE 320 Assessment in Special Education (3)  
 EDSE 323 Methods for Elementary Students with Exceptionalities (3)  
 EDSE 324 Special Education Practices in Secondary Schools (4)  
 EDSE 325 Behavioral Dimensions of Students with Exceptionalities I (3)  
 EDSE 326 Behavioral Dimensions of Students with Exceptionalities II (4)  
 EDRD 410 Achieving Effective Instruction in Developmental Reading (3)  
 EDSE 411 Strategies for Teaching the Exceptional Student at the Middle Grade Level (2)  
 EDSE 442 Language and Literacy for Students with Severe Delays (3)  
 EDSE 443 Support System in Special Education (4)  
 EDSE 444 Student Teaching in Special Education (8)

### Licensure Program for K-12 Visual Arts Education

#### PTEP Core Courses

EDFE 270 Field Based Experience (2)  
 EPSY 346 Learning and Development for Teachers (2)  
 EDF 366 Conceptions of Schooling: Context and Process (4)  
 EDSE 433 Exceptional Students in the Regular Classroom (2)  
 EDRD 425 Reading in the Content Areas (1)  
 EDFE 444 Supervised Teaching (12)

#### Visual Arts PTEP Courses

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

#### Additional Pre-Professional Courses

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

## HONORS PROGRAM

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

Students are urged to join the Honors Program as freshmen, but they may enter up to the second semester of their junior year. Entering freshmen should be in the top 10 percent of

their graduating class academically, or should have scored in the top 10 percent on the ACT or SAT exams. Prospective Honors students already enrolled at UNC or transferring from another college need a minimum GPA of 3.25. All applications must be accompanied by two letters of recommendation from teachers and a written statement of intent. Students with a GPA of less than 3.25 may be accepted on provisional status. If, after two semesters of academic work, they have maintained a GPA of at least 3.25 and have received a grade of at least "B" in two MIND-designated courses, they can earn formal acceptance into the Honors Program even if their cumulative GPA is still below 3.25. Applications and inquiries should be directed to the University Honors Program.

The Honors Program of study has two general categories. First, the General Education core asks students to take 3 Life of the Mind (MIND) classes within the Regular General Education Program. MIND classes emphasize an interdisciplinary approach to the analysis and discussion of great books and significant ideas. Students will also take one of two Honors Connections Seminars, which are open exclusively to Honors participants.

The second category of study for the Honors Program concerns enrichment work and a senior thesis within a student's chosen discipline.

### Honors Program General Education Core

Honors students enroll in three MIND classes (2 MIND classes for transfer students). It is recommended, but not required, that these classes fit into either Package I or Package II as listed below:

#### Package I - 11 Semester Hours

MIND 180 Great Ideas of the Western Tradition (3)  
MIND 181 Great Traditions of Asia: India, China and Japan (3)  
MIND 294 Revolutions in Science (3)  
HON 100 Honors Connections Seminar I (2)

#### Package II - 11 Semester Hours

HON 200 Honors Connections Seminar II (2) together with  
MIND 180 Great Ideas of the Western Tradition (3)

*and select one of the following two courses:*

MIND 181 Great Traditions of Asia: India, China and Japan (3)  
MIND 294 Revolutions in Science (3)

*MIND courses dealing with "knowing yourself and your values."  
Among the courses suggested for this category are:*

MIND 286 Value Issues in Political Economy (3)  
MIND 290 Search for Meaning (3)  
MIND 293 Play as a Route to Insight and Creation (3)

*or*

*MIND courses dealing with "knowing your world and times."  
Among the courses suggested for this category are:*

MIND 288 Contemporary Arts Connections (3)  
MIND 289 Coming of Age in the Twentieth Century (3)  
MIND 292 Ideas in Conflict (3)

### Junior and Senior Honors

#### Program Enrichment Work

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

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

#### Summary of Honors Program

3 MIND classes within the Regular General Education Program  
*and*

Honors Connections Seminar I or II (2)  
Junior Honors Seminar (2)  
Senior Honors Research Thesis (4)  
Total Semester Hours beyond General Education requirements (8)

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

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

# RESERVE OFFICER TRAINING CORPS (ROTC)

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

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

## AEROSPACE STUDIES MINOR (AIR FORCE)

General military credits . . . . .	8
Professional officer credits . . . . .	12
<b>Total credits required for this minor . . . . .</b>	<b>20</b>

### Required General Military Credits - 8 semester hours

AS 101 The Foundations of the United States Air Force I (1)
AS 103 General Military Course Leadership Laboratory I (1)
AS 102 The Foundations of the United States Air Force II (1)
AS 104 General Military Course Leadership Laboratory II (1)
AS 201 The Evolution of USAF Air and Space Power I (1)
AS 203 General Military Course Leadership Laboratory III (1)
AS 202 The Evolution of USAF Air and Space Power II (1)
AS 204 General Military Course Leadership Laboratory IV (1)

### Professional Officer Credits - 12 semester hours

AS 301 Air Force Leadership Studies I (3)
AS 302 Air Force Leadership Studies II (3)
AS 401 National Security Affairs/Preparation for Active Duty I (3)
AS 402 National Security Affairs/Preparation for Active Duty II (3)

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

Leadership Laboratory is mandatory for all AFROTC cadets (AS 100, AS 200, AS 300 and AS 400-level). Special students (those students taking the course for credit but not pursuing a commission as an Air Force Officer) are not required to attend Leadership Laboratories

## MILITARY SCIENCE MINORS (ARMY)

General military credits . . . . .	8
Required credits . . . . .	14
<b>Total credits required for this minor . . . . .</b>	<b>22</b>

### General Military Credits - 8 semester hours

MS 111 Introduction to Military Skills I (2)
MS 121 Introduction to Military Skills II (2)
MS 211 Contemporary Management Principles (2)
MS 221 Dynamics of Military Leadership (2)

or

MS 287 Army ROTC Basic Camp (2-8)

or

MS 387 Practicum in Leadership and Military Operations (8)

### Required Credits - 14 semester hours

MS 311 Leadership Assessment (3)
MS 321 Applied Leadership (3)
MS 401 Staff Functions and Leadership Principles (2)
MS 421 Role and Ethics of the Officer (3)
HIST 250 United States Military History, 1775-Present (3)

**Note:** Students taking the five-week Basic Camp (MS 287) will meet commissioning requirements for MS 111, MS 121, MS 211, and MS 221. The number of MS 100 and MS 200 level courses taken will determine the amount of semester hours awarded for MS 287. MS 287 is normally taken between a student's sophomore and junior years. Attendance at the six-week Army ROTC Advanced Camp (MS 387) is normally between a student's junior and senior years.



# GRADUATE SCHOOL – POLICIES AND PROCEDURES

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## INTRODUCTION

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

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

Students seeking graduate credit must display evidence of superior academic aptitude, achievement, and motivation. Moreover, the demonstration of competence in the discipline as evidenced by written and oral exams, theses, research projects, directed studies, and internships is an integral part of the graduate-education experience. Through cooperative



efforts of the Graduate Faculty, the Graduate Council, and the Graduate School, the University seeks to establish an environment in which the graduate student and the Graduate Faculty can achieve the traditional goals of graduate education.

Rules and regulations contained herein are intended to help the Graduate Faculty and the graduate student to accomplish the intent and purposes of graduate education.

**The Graduate Faculty.** Graduate Faculty are appointed by the University President after being recommended by the academic unit, the academic dean, the Graduate Council, and the Graduate Dean.

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

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

Upon approval by the department/division, the academic dean, and the Vice President for Academic Affairs, the Dean of the Graduate School may appoint, for a two-year period, selected individuals as Graduate Lecturer Faculty. These faculty may teach specific courses that are approved and/or perform other designated graduate responsibilities.

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

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

## DEGREES AND PROGRAMS

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

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

**Doctor of Arts degrees (D.A.)** are awarded for completion of content-oriented programs to prepare the candidate for a career in college or university teaching. The student is expected to specialize in a specific field of study but is not expected to specialize in a single facet of the chosen field. General components of the program include coursework in the major area, supervised practica in college teaching, interdisciplinary seminars in college teaching, and a

dissertation involving a significant teaching/education problem(s) or a traditional research topic. Students are offered considerable flexibility in program development. The degree is not research-oriented, but the recipient will demonstrate research competence by preparing a dissertation designed to support college/university teaching.

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

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

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

## GRADUATE PROGRAMS BY COLLEGE

### College of Arts and Sciences

Biological Sciences, M.A.

Non-Thesis Emphasis

Thesis Emphasis

Biological Education, Ph.D.

Chemical Education, Ph.D.

Chemistry, M.A.

Education Emphasis

Research Emphasis

Communication, M.A.

Human Communication: Non-Thesis Option Emphasis

Human Communication: Thesis Option Emphasis

Earth Sciences, M.A.

Educational Mathematics, Ph.D.

English, M.A.

Foreign Languages, M.A.

Spanish Teaching Emphasis

History, M.A.

Mathematics, M.A.

Liberal Arts Emphasis

Teaching Emphasis

Psychology, M.A.

General Psychology Emphasis

Human Neuropsychology Emphasis

Social Science, M.A.

Clinical Sociology Emphasis

### College of Education

Applied Statistics and Research Methods, M.S.

Applied Statistics and Research Methods, Ph.D.

Applied Statistics and Research Methods Doctoral Minor

Community Counseling, M.A.

Marriage and Family Therapy Emphasis

Counseling Psychology, Psy.D.

Counselor Education and Supervision, Ph.D.

Educational Leadership, M.A.

Educational Leadership, Ed.S.

Educational Leadership, Ed.D.

Educational Media, M.A.

Educational Psychology, M.A.

Educational Psychology, Ph.D.

Educational Psychology Doctoral Minor

Educational Technology, M.A.

Educational Technology, Ph.D.

Educational Technology Doctoral Minor

Elementary Education, M.A.

Middle School Emphasis

Elementary Education: Early Childhood Education, M.A.  
 Primary Education Emphasis  
 Elementary Education, Ed.D.  
 Graduate Interdisciplinary Degree Program, M.A.  
 Teacher Education Emphasis  
 Higher Education and Student Affairs Leadership, Ph.D.  
 Reading, M.A.  
 School Counseling, M.A.  
 School Psychology, Ed.S.  
 School Psychology, Ph.D.  
 Special Education, M.A.  
 Early Childhood Special Education Emphasis  
 Moderate Needs Emphasis  
 Profound Needs Emphasis  
 Severe Needs: Affective Emphasis  
 Severe Needs: Cognitive Emphasis  
 Severe Needs: Communication Emphasis  
 Severe Needs: Hearing Emphasis  
 Severe Needs: Vision Emphasis  
 Teaching the Gifted and Talented Emphasis  
 Special Education Administration, Post Master's Licensure Program  
 Special Education, Ed.D.

### College of Health and Human Sciences

Communication Disorders: Audiology, M.A.  
 Certifying Degree Emphasis  
 Non-Certifying Degree Emphasis  
 Communication Disorders: Speech-Language Pathology, M.A.  
 Certifying Degree Emphasis  
 Non-Certifying Degree Emphasis  
 Family Nurse Practitioner (FNP) Graduate Certificate Program (Non-Degree)  
 Gerontology, M.A.  
 Direct Service Emphasis  
 General Studies Emphasis  
 Management/Administration Emphasis  
 Gerontology Graduate Certificate Program (Non-Degree)  
 Human Rehabilitation, Ph.D.  
 Nursing, M.S.  
 Education Emphasis  
 Family Nurse Practitioner (FNP) Emphasis  
 Nursing Education Graduate Certificate Program (Non-Degree)  
 Nursing Education Minor  
 Physical Education, M.A.  
 Kinesiology Emphasis  
 Outdoor Education Emphasis  
 Pedagogy Emphasis  
 Sport Administration Emphasis  
 Physical Education, Ed.D.  
 Kinesiology Emphasis  
 Pedagogy Emphasis  
 Sport Administration Emphasis  
 Public Health, M.P.H.  
 Community Health Education Emphasis  
 Rehabilitation Counseling, M.A.  
 Vocational Evaluation Emphasis  
 Transcultural Nursing Graduate Certificate Program

### College of Performing and Visual Arts

Music M.M.  
 Choral Conducting Emphasis  
 Instrumental Performance Emphasis  
 Music Education Emphasis  
 Music History and Literature Emphasis  
 Music Theory and Composition Emphasis  
 Vocal Performance Emphasis  
 Wind/Orchestra Conducting Emphasis  
 Music, D.A.  
 Conducting Emphasis  
 Music Education Emphasis  
 Music History and Literature Emphasis  
 Music Performance Emphasis  
 Music Theory and Composition Emphasis  
 Performance and Pedagogy Emphasis  
 Visual Arts, M.A.

### Graduate School

Graduate Interdisciplinary Degree Program, M.A., M.S., D.A., Ed.D.  
 Individually Designed Programs

### Post-Doctoral Programs

Programs of research and advanced study are available in selected areas to persons holding the earned Doctor of Arts, Doctor of Education, Doctor of Philosophy, or Doctor of Psychology degree. Work at the post-doctoral level may be taken in areas such as educational leadership and policy studies, college student personnel administration, educational technology, educational psychology, counseling psychology, elementary education, special education, applied statistics, and other disciplines.

The specific research project or program of study is planned by the post-doctoral student in conference with a faculty committee appointed to advise the student throughout the program and to assess the student's progress at the end of the program.

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

## ADMISSION STANDARDS AND REQUIREMENTS

**Admission Criteria.** The Graduate Council, comprised of representatives from the Graduate Faculty, sets minimum standards for admission to the Graduate School at UNC. Faculty members in each degree program establish admissions standards for the specific degree program, which often exceed the minimum standards. Applicants should consult program brochures, departmental offices or faculty in the degree program(s) of interest to them for 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 and have a grade point average of 3.00 or better [4.00 point scale] on the most recent 60 semester hours.

If someone is recommended for admission who does not meet the Graduate School standard, a rationale must be provided stating the factors which were considered in recommending the student: GPA in the discipline, maturity, letters of recommendation, samples of their work, GRE scores or other compelling factors. All recommendations for admission below the 3.00 will be personally reviewed by the Graduate Dean.

**Specialist Degree.** Each applicant to a specialist degree program must possess a baccalaureate degree from an accredited college or university and have a grade point average of 3.00 or better [4.00 point scale] on the most recent 60 semester hours and an adequate academic background in the proposed area of specialization as defined by the program through which the specialist degree is to be awarded. In addition, the applicant must have completed at least 24 calendar months of appropriate work experience in the specialization as determined by faculty in the major. Those applicants having a GPA less than 3.00 may be considered for admission. If someone is recommended for admission who does not meet the Graduate School standard, a rationale must be provided stating the factors which were considered in recommending the student: GPA in the discipline, maturity, letters of recommendation, samples of their work, GRE scores or other compelling factors. All recommendations for admission below the 3.00 will be personally reviewed by the Graduate Dean and his representative.

**Doctoral Degree.** Each applicant for the doctoral degree must:

- Possess a baccalaureate degree from an accredited college or university,
- Submit three letters of recommendation confirming that the applicant has the ability to do doctoral work in the proposed discipline(s),
- Have a minimum level of achievement combining GPA and GRE performance (see section entitled "Use of GRE in Doctoral Admissions" below),

Consistent with the guidelines published by Educational Testing Service, the Graduate School does not apply a strict GRE cutoff score. Instead, it utilizes a decision matrix which combines GRE general test scores and GPA. This allows higher performance in one area to compensate for a lower performance in another. Although students may meet Graduate School criteria through multiple combinations of

GPA and GRE scores, the following rule of thumb can be used to determine admission:

Doctoral applicants meet the Graduate School minimum criteria for admission if they have a GPA of at least 3.0 on a 4.0 scale on the most recently completed degree, scores of at least 400 on each section of the three sections of the Graduate Record Examination general test and a combined GRE score of at least 1500. The actual admission eligibility determinations for doctoral students are based upon the GPA/GRE matrix shown below.

**If applicant has:**

GPA	GRE scores	Admission Decision
3.0-3.19	Over 500 score on each test [over 1500 total]	Fully meets Graduate School requirements
3.20-3.49	400-499 score on one test; Over 500 on others [over 1350 total]	
3.50 +	3.50 + Over 400 on all subtests [over 1350 total]	
3.00	Over 500 on each test or combined [over 1600]	
3.00-3.19	400-499 on one test; 500+ on two [between 1350 and 1500 total]	Does not fully meet Graduate School requirements but will be admitted with departmental recommendation
3.20-3.49	400+ on two or more subtests [over 1350 total]	
3.50 +	less than 400 in subtests if overall between 1200 and 1350	
If GPA is < 3.50	GRE is <400 on any test and overall <1350	Does NOT meet Graduate School requirements. Graduate School will consider departmental recommendation for admission. A written explanation must accompany the recommendation explaining circumstances and factors considered justifying acceptance of this applicant.
If GPA is <3.0		

The doctoral programs at the University of Northern Colorado do not utilize quantitative rating systems and standard criteria weightings as sole determining factors for decisions concerning the acceptance of doctoral applicants. 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. Because of the specialized nature of doctoral work, it is incumbent on the faculty to utilize their

professional judgment in determining to what extent a student is qualified for entry into a particular program. The information requested by each department/division/school upon which their decision is to be based, gives the faculty the opportunity to thoroughly and carefully evaluate the strengths and potential of each applicant.

Each application introduces a unique combination of qualifications for a program of doctoral study. Decisions to accept or not accept a potential doctoral student must thoroughly consider all of the information pertinent to the applicant's qualifications including sensitivity to diverse applicant backgrounds. Only in this way can strict adherence to and consideration of affirmative action policies be maintained. The doctoral student selection process thus avoids undesirable, restrictive, and potentially capricious decisions that can arise from over-reliance on purely quantitative selection criteria.

Departments/divisions/schools offering doctoral programs may recommend admission based upon supplemental/alternate criteria that have been established by the major department/division/school and approved by the Graduate Council.

**Application and Admission**

If departments/divisions/schools set deadlines for review of applications for admission for any term, they must allow sufficient time for Graduate School handling and evaluation. This typically means they must ask students to 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 prior to sending it to the department/division/school for screening. It is particularly important for programs requiring GREs 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 what program specific deadlines they will use and to work closely with the Graduate School to ensure that these deadlines are feasible.

**ADMISSION POLICIES**

**Admission Expiration**

Admission to any graduate program will remain valid for one calendar year following the first day of the applicant's proposed semester of enrollment. If a student does not begin coursework during that year, the student will be required to submit a new application with the appropriate processing fee and satisfy the new admission requirements.

**Conditional Admission**

Conditional admission refers to applicants admitted pending the receipt of application requirements specified by either the Graduate School and/or the major department/division/school. 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 requirement(s) is met during the first semester of the student's program.

**International Student Admission**

An international student is a student 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 before the semester that the student wishes to enroll. All international applicants must take these steps to be considered for admission:

- Obtain the appropriate International Application for Admission forms from the Graduate School.
- Complete the forms and return them along with a \$50 non-refundable application fee.
- Submit the "Financial Statement for International Students" and "Affidavit of Support" forms (evidence of

adequate financial support). These forms are attached to the application form.

- Submit all records of previous schooling such as mark sheets, official transcripts, diplomas, and certificates. These records must show courses taken, grades awarded, and degrees earned. An English translation must be included.
- International students who are not native speakers of English or who have not received their undergraduate degree from an American, British, Canadian, or Australian university are required to provide evidence of English language proficiency by submitting one of the following:
  1. Official score reports of the Test of English as a Foreign Language (TOEFL) (minimum score for regular admission is 550--CBT 213) or results of the IELTS (minimum score of 6.0). Additionally, subscores may not be lower than the equivalent total score.
  2. Completion of a bachelor's degree in the United States or one year of full time study at a regionally accredited college or university in the United States.

**Note:** Departments/divisions/schools may have higher or additional English proficiency requirements including departmental/divisional screening or testing for English proficiency. The applicant is responsible for determining whether the department/division/school has additional language requirements.

Upon application approval, international applicants will be sent a letter of admission and the proper immigration forms will be issued. If an applicant is granted conditional admission pending completion of English language schooling and receipt of English proficiency scores, the immigration forms will be issued by the English language school.

### Conditional Admission

International applicants whose academic record is sound but whose English language proficiency fails to meet the UNC minimum admission standard (TOEFL score of 550 or greater) may be granted a conditional admission to UNC. However, as the condition for admission, they must first study English to improve their proficiency. They may not enroll in graduate courses or gain regular admission status until they have improved their proficiency to the level necessary for successful graduate study. Students in this program register as full-time students at the University of Northern Colorado but may not register for graduate courses until approved to do so by the Director of International Education at UNC and the respective graduate advisor. Students enrolled in this program will receive all the benefits and services provided to full-time students at UNC. Once conditionally admitted international graduate students have successfully completed an intensive English program (either at another institution or the one provided by UNC), they must provide evidence of improved English proficiency to the Graduate School (this may be in the form of TOEFL scores or other method approved by the Graduate Dean) in order to gain regular admission.

## LANGUAGE BRIDGE PROGRAM

International applicants for both undergraduate and graduate admission can benefit from the new University of Northern Colorado Language Bridge Program which will open July 1, 2001. The Bridge Program allows international student applicants whose language skills are above the intermediate level to enter the university and take six hours of academic course work. The cost of the English language instruction is covered in the regular out-of-state tuition that is paid by undergraduate and graduate students. The cost for the six-week summer Language Bridge Program is \$1560 for undergraduates and \$1659 for graduate students.

### Qualification Criteria

Applicants who have a 475 on the Test of English as a Foreign Language (TOEFL) written version or a 152 on the computer-based test (CBT) and are academically admissible can qualify for the Bridge Program. The university also accepts the results of the International English Language Test (IELT) (minimum score of 4.5). Results of the TOEFL are not required if an applicant has completed the highest level of instruction at an intensive English language program.

## Classes Offered in the Bridge Program

The purpose of the Language Bridge Program is to increase the language proficiency of students to a level at which they can fully benefit from being a regular undergraduate or graduate student at UNC. Classes include English composition, English grammar, listening comprehension and pronunciation. The Bridge Program is offered fall semester, spring semester, and each summer beginning in July for six weeks.

### Length of Bridge Program

Typically, students enroll in two classes of English and two regular academic classes for two semesters. However, it is possible for students to complete the Bridge Program after one semester. Undergraduate students must present a score of 520 on an institutional TOEFL examination and achieve a grade point average of 2.00 in academic classes. (Prospective business majors must present a TOEFL score of 550.) Graduate students must present a TOEFL score of 550, unless a lower score is acceptable by a program area, and achieve a grade point average of 3.00 in their academic classes. Students can also complete English 122 with a grade of B. The summer program lasts for six weeks and is the equivalent of one semester of language student. Classes will meet daily.

### Housing

In fall and spring semesters, international students who are admitted to the University and the Language Bridge Program will be given priority for living in the International Living Center. This Center pairs international and American students in a newly renovated dormitory and provides a special cross-cultural living environment for students at the University.

### Additional Options

Applicants for admission whose TOEFL scores are below 475 can apply for conditional admission. However, if admitted, the student must attend a regular intensive English language program. UNC maintains an affiliation with two such programs: Spring International Language Center, 2625 West Church Avenue, Littleton, Colorado 80120 ([www.silc-usa.com](http://www.silc-usa.com)) and the Colorado Intensive Language Institute, Aims Community College, P.O. Box 69, Greeley, Colorado 80632 ([www.aims.edu](http://www.aims.edu)).

### Visa Processing

Students who are admitted to the Language Bridge Program are issued regular certificates of eligibility with which to apply for either an F or J visa. Students who study English at Spring International Language Center or the Colorado Intensive Language Institute can also use the UNC visa documents if they are offered conditional admission.

### Admission Without a Baccalaureate Degree

An individual without a baccalaureate degree or with a baccalaureate degree from a non-accredited institution may be admitted to a master's degree program by submitting an application which shows that the applicant has at least the equivalent of a four-year college education and the ability to do graduate work. This must include evidence that the applicant has (a) completed the general education requirements of UNC or equivalent, (b) an in-depth knowledge in the proposed area of study, and (c) the ability and preparation to pursue graduate work in the proposed major area. The applicant must follow the student administered application procedure and submit the following materials:

- Graduate School application for admission to a master's degree program, two complete sets of official transcripts, a \$35 non-refundable application fee to the Graduate School, and Graduate Record Examination (GRE) test scores (50th percentile or above) or the Miller Analogies Test (MAT) scores (50th percentile or above for intended majors).
- A comprehensive written statement of career goals, objectives and rationale for pursuing a master's degree program.
- Current resume summarizing academic and professional experience, publications, and activities. The applicant's resume must present evidence of in-depth knowledge in the proposed area of study and ability to pursue graduate study in the selected major as indicated by many years of

work experience with progressively increased responsibility in a field related to the proposed degree program.

- Three letters of recommendation attesting to the applicant's ability and qualifications to pursue graduate study, by persons qualified to evaluate such qualifications.

**General Education:** An applicant must present evidence of completion of the current general education requirements at UNC prior to applying to become a graduate student. All applicants should apply as a UNC undergraduate transfer student prior to being considered for the Non-Baccalaureate Degree Program in order to receive an official evaluation for general education and an evaluation of the courses required to complete an undergraduate degree program in the proposed major. General Education at UNC is a program of a minimum of 40 semester credit hours selected from three skill areas and four content areas. (Please check the current UNC Catalog 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 and at the breadth and depth of an undergraduate degree program in the same or a closely related discipline. This evidence could include, but is not limited to, college level course work with a 3.0 grade point average, vocational, industrial and military courses, advanced placement test scores, CLEP Subject Examinations, publications, performance and extensive work experience in the field of the proposed graduate degree. Satisfaction of these criteria will be verified by the Graduate School and the pertinent department/division/school.

**Potential for Graduate Study:** An applicant must present evidence that he/she can function academically at the graduate level. This evidence would include the items listed in the two preceding paragraphs, as well as additional indications of academic potential such as lectures presented, honors awarded, letters of recommendation attesting to the academic potential of the applicant, etc. The department/division/school in which the student proposes to study may also have additional graduate admission requirements.

**Process of Review:** Applicants are encouraged to consult with the Graduate Student Services Specialist of the Graduate School prior to submitting an application. If the minimum criteria are met, the completed application is reviewed by the Non-Baccalaureate Coordinating Committee. If approved by the Coordinating Committee, the application is sent to the department/division/school offering the degree program for consideration for admission or denial.

### **Admission with a Baccalaureate Degree from a Non-Accredited Institution**

Applicants holding baccalaureate degrees from non-accredited institutions will be considered for admission on the basis of the same criteria used for the admission of applicants to the Non-Baccalaureate Degree Program. It should be understood that "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 Master's Enroute To The Doctoral Degree**

Students who have been admitted to a doctoral program may complete a master's degree in the same discipline enroute to completion of the doctoral degree if this option has been previously requested by the department and approved as a program modification for this degree program through the curriculum approval process. Students should contact the Graduate School for details concerning this policy.

## **Interdisciplinary Studies: Graduate Interdisciplinary Degree Program**

**General Information.** The Graduate Interdisciplinary Degree Program is designed to be a rigorous, quality program which will give an opportunity to qualified students to meet career goals by combining two or more disciplines into a single degree program. To ensure the quality of the program, the student will require close supervision, participation, and coordination from all assigned committee members of each discipline concerned. It is imperative that the program be truly interdisciplinary and represents an integration of the subject matter of the component disciplines. Programs that parallel other degree programs are not acceptable as interdisciplinary degree programs. Applicants for the Graduate

Interdisciplinary Degree Program are encouraged to consult with the Graduate Student Services Specialist prior to submitting their applications. The applicant must follow the student administered application procedure. The complete application packet should include the following:

### **Application Packet**

- The degree application located in the "Guidelines for Interdisciplinary Degree Programs" with the appropriate non-refundable application fee.
- Two official copies of the applicant's transcripts from all colleges or universities attended (including UNC) that contributed to previous degrees and any graduate work for which credit is intended to apply to the proposed program.
- If applying for a doctoral program, one official copy of the applicant's GRE General Test scores (not more than five years - 1,825 calendar days old) be sent from Educational Testing Service to the Graduate School. A student copy of the GRE results will be accepted in the packet for processing to the program area for screening. No admission will be granted until the official GRE report is received from Educational Testing Service.
- Three letters of recommendation from appropriate professional sources attesting to the applicant's ability to pursue the intended graduate interdisciplinary program.
- A detailed written statement of career goals and objectives and a rationale for pursuing the proposed interdisciplinary program. This must be a compelling statement clarifying why no single existing degree program could satisfy these goals.
- Identification of two primary disciplines (departments/divisions/schools) which will be combined in the proposed program. At least one of the primary disciplines listed must offer a program leading to the desired degree, i.e. MA, MS, DA, or Ed.D. Secondary disciplines may also be included.
- A current resume that summarizes academic and professional experiences, activities, publications, and other pertinent information.

**Preliminary Review.** The Graduate Interdisciplinary Degree Coordinating (GIDP) Committee, comprised of interdisciplinary coordinators from each college, conducts a mid-semester preliminary review of all completed applications from individuals who satisfy the minimum admission requirements of the Graduate School. Applicants who do not meet the minimum admission requirements of the Graduate School will be denied admission (see the current University Catalog for admission standards for each degree level).

If the GIDP Committee finds the application to have merit, the Graduate School forwards the application materials to the appropriate GIDP College Coordinator who contacts the disciplines (departments/divisions/schools) for their evaluation and recommendation. If the GIDP Committee finds the application to lack merit or compelling rationale for interdisciplinary studies, the Graduate School notifies the applicant of the committee's concerns. Those applicants who receive such notification may resubmit their application materials after addressing the concerns of the GIDP Committee.

Upon receipt of the application materials from the Graduate School, the GIDP College Coordinator and the faculty in the appropriate disciplines evaluate the application and recommend to the Graduate School that the applicant be granted or denied provisional admission status. Each discipline recommending provisional admission must designate an advisor.

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

**Program Criteria.** The Plan of Study must meet the following criteria:

- If the Graduate Faculty advisors determine that a student has any deficiencies in his/her background, the proposal must list the course work necessary to alleviate those deficiencies. (Deficiency courses must be completed at the earliest possible date).
- SRM 600 (master's) or SRM 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.).
- **Master's Degree:** Proposed course work must equal at least thirty (30) semester hours of graduate-level courses plus any deficiency credits.
- **Doctoral Degree:** Proposed course work must equal at least sixty-four (64) semester hours beyond a master's degree excluding any deficiency credits. If an applicant does not hold a master's degree, the proposed course work must equal at least ninety-four (94) semester hours.
- **Master's Degree:** At least twelve (12) semester hours of graduate level course work must be proposed in each of at least two primary disciplines (departments/ divisions/ schools). Courses numbered 622 and 699 may not be used to meet this requirement.
- **Doctoral Degree:** At least fifteen (15) semester hours of graduate level course work must be proposed in each of at least two primary disciplines (departments/divisions/ schools). If an applicant does not hold a master's degree, the proposed course work in each of at least two primary disciplines must equal a minimum of eighteen (18) semester hours. Courses numbered 622 and 799 may not be used to meet this requirement.
- **Secondary disciplines** (departments/divisions/schools) are defined as those disciplines in which nine (9) to eleven (11) semester hours of course work are proposed at the master's levels or those disciplines in which nine (9) to fourteen (14) semester hours of course work are proposed at the doctoral level. If identified in the program proposal, these disciplines must assign an advisor and approve the selected course work.
- 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 thirty (30) semester hour program or three to four years for a sixty-four (64) semester hour program. Furthermore, research and library resources must be available to facilitate the completion of the thesis, if applicable, or dissertation.
- No more than one-third of the proposed courses may be double-numbered courses offered simultaneously toward undergraduate and graduate students.
- No more than nine (9) semester hours, individually or in combination, of courses numbered 508, 513, or 622 may be proposed or counted in the degree program.
- **Master's Degree:** If a thesis is proposed, the thesis must be a minimum/ maximum of six (6) semester hours.
- **Doctoral Degree:** Include four (4) semester hours of proposal (XXX 797) and twelve hours (12) semester hours of doctoral dissertation (XXX 799).
- **Master's:** One of the designated advisors must be named as the Program Advisor.
- **Doctoral Degree:** When there are only two primary disciplines proposed, one of the two designated Graduate

Faculty advisors must be named as 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/her department/ division/school chairperson and the Dean of the Graduate School.

- Program proposals must conform to all other Graduate School policies and procedures, e.g. transfer of credit. Prior to submission to the Graduate School, the "Graduate Interdisciplinary Degrees Plan of Study" form must be signed by the student, all Graduate Faculty advisors, and all primary and secondary department/division/school chairpersons. Until an approved plan of study is filed with the Graduate School, a "hold" is placed on an interdisciplinary student's ability to register for classes.

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

**Advising.** Together, the Graduate Faculty advisors are known as the program advisory committee. It is the responsibility of the program advisory committee to assist the student in planning and coordinating the degree program. Any deviation from the approved proposal must be approved in advance by the program advisory committee and the Graduate School.

**Committees.** 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 doctoral committee. The doctoral dissertation proposal and dissertation shall be under the supervision of a Research Advisor who is a member of the Graduate Faculty and holds doctoral research endorsement.

**Comprehensive Examinations.** Each interdisciplinary degree program student must pass a written comprehensive examination which is designed, administered, and evaluated by the Program Advisory Committee and by other qualified individuals as identified by the program advisor. All doctoral students must also pass an oral comprehensive examination (see the "Comprehensive Examination Sections" of this manual for further details).

All Graduate School policies apply to interdisciplinary students.

### On-Campus or Off-Campus Admission

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

### Enrollment Prior to Admission to a Graduate Program

Students who have applied for admission to a graduate degree program at UNC are not permitted to enroll for more than 9 hours in a single prefix (department/program) as an unclassified student (no more than one semester of full time enrollment). The Graduate School places holds on the registration of such students. They are not permitted to continue to enroll until an admission decision has been made. Thus, the student's application must be complete and the program faculty must recommend either a regular admission or must deny admission by the end of the first semester or nine semester hours, whichever is later.

## GRADUATE PROGRAM POLICIES

### Program Advisor

**Policy.** Each student will be assigned an academic advisor upon acceptance into a graduate program. Only members of the Graduate Faculty are authorized to serve as program advisors for graduate students. The program advisor is responsible for helping students understand the expectations

and requirements of their academic programs and planning their programs to satisfy all requirements. 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 department/ division/school, university and Graduate School policies and procedures. The program advisor is also responsible for professional advising and guidance including assisting students with planning for their academic and professional future.

**Procedure.** It is the responsibility of the department/ division/school to submit an advisor assignment form to the Graduate School. The advisor assignment is entered into the student database and maintained with the student file. To change an advisor assignment, a new advisor assignment form must be submitted to the Graduate School so that the appropriate records can be updated. Any advisor-approved deviations from published program requirements or plans of study are communicated to the Graduate School, in writing, by the program advisor to assist the graduation check process.

**Note.** The importance of the program advisor cannot be overstated. Program advisement includes all aspects of students' 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 own professional goals and aspirations. This responsibility is likely to involve extensive discussions of academic or professional goals well beyond the current program.

### English Competency: Spoken and Written

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

## COURSE AND COURSE CREDIT

### University Authorized Credits

**Policy.** Graduate credit is granted for courses taught by a faculty member who has been appointed to the Graduate Faculty or appointed as a Graduate Lecturer. With the exception of special assignments for XXX 513 courses approved by the college and Graduate Deans no graduate credit is granted for any course taught by a faculty member who is pursuing an advanced degree at this institution

### Unclassified Course Credit

**Policy.** A maximum of 9 semester hours of course work 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 into a graduate degree program or is not seeking admission into a graduate degree program.

### Enrichment Credits from Other Institutions

**Policy.** At the request of the student or the department/ division/school, the Graduate Dean may send a graduate student to another accredited institution offering graduate degrees to earn a maximum of 10 semester hours of specific course credit.

### Colorado Reciprocal Course Agreement

**Policy.** A full-time graduate student on one campus may take one approved course per term without additional tuition at one of the following institutions: the University of Colorado, Colorado State University, and Colorado School of Mines. Such work will count toward the doctoral student residency requirement and will appear on the UNC transcript.

**Procedure.** Those students interested in this arrangement may obtain the guidelines and the proper form in the Registrar's Office. Forms must be completed and approved before the term that a student proposes to take a course.

### Counting Work Toward Next Higher Degree

**Policy.** While completing one degree, students may count a

maximum of 12 graduate credits applicable to the next higher degree. Such dual enrollment is limited to two consecutive semesters. All credits applicable to graduate degrees must be earned within the time limits specified for each degree program. The initial date for the next higher degree will be the date of the first course credits counted toward that degree.

**Procedure.** If students desire to count work toward the next higher degree, they must have:

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

**Note:** 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.

## TRANSFER CREDIT

### General Transfer Policies

- Transfer work is not used in the calculation of the graduate grade point average.
- Graduate credit earned in off-campus or "extension" courses is not transferable unless it is acceptable to the major department/division/school and to the Graduate School.
- Transfer credit will not be accepted if the work was used to obtain a degree or is included as part of another degree at any institution.
- Transfer work must be approved by the department and must be "A" or "B" work.
- Transfer credit cannot be used to meet any residency requirement.
- Transfer credit cannot be used to make up "D," "F," or "U" grades received in required courses. Courses graded "S/U" are not transferable unless documentation can be obtained from the originating institution stating that the "S" grade granted is equivalent to an "A" or "B" grade.
- All program requirements, including transfer work, must be completed within the time limits of the degree program, i.e., five years for the master's degree, six years for the specialist degree, or eight years for the doctoral degree.
- Transfer courses must be numbered as graduate level according to the course numbering system at the originating institution.
- Transfer courses must be from accredited institutions of higher education that offer equivalent level degrees (e.g., doctoral degrees if transferring graduate credit into a doctoral program).

**Procedure.** A student who wishes to transfer credit must obtain and complete a "Petition to Count Work in a Degree Program" form and must obtain an official transcript(s) showing the course(s) to be transferred. The student must then present the completed petition and transcript to the program advisor for approval or disapproval. If the program advisor approves and signs the petition, it must be sent to the Graduate School for final approval/disapproval. This process must occur no later than three weeks prior to the end of the semester that the student plans to graduate. Courses requested for transfer must meet all criteria for credit transfer (see general transfer policies) to be approved by the Graduate School.

### Degree Specific Transfer Policies

- **Master's and Specialist Degree Policy.** Students must complete a minimum of 24 credits through the University of Northern Colorado as part of their master's degree or post-master's specialist degree. Thus, students can transfer up to 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. Students without a master's degree must complete 48 semester credit hours at UNC of the 60 required credits for a specialist degree. Students are encouraged to check departmental policies regarding transfer of credit.

- **Doctoral Degree Policy.** Students must complete a minimum of 40 semester hours through the University of Northern Colorado of the 64 minimum required for a doctoral degree. If the program requirements exceed the 64 credit minimum, students 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 policies allow programs that exceed the 30 credit minimum for a master's/ specialist and 64 credit minimum for a doctoral degree to establish departmental transfer limits and guidelines that exceed current minimums. As long as the minimum number of credits through UNC are 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.

### Credit by Course Numbers

**Policy.** Graduate students may not count courses numbered 100-499 toward graduate degree programs; courses numbered 700-799 may be taken for specialist or doctoral credit only. Upon prior written permission of the instructor, the major advisor, and the department/division/ school chairperson, an undergraduate student may take 500-level courses. Only those undergraduate students who have been previously approved to count work toward the next higher degree will be permitted to take 600 level courses (see Counting Work Toward Next Higher Degree policy and procedures).

**Note:** Courses at the University are sequentially numbered. Courses numbered 100 to 499 are for undergraduate credit, and courses numbered 500 to 799 are for graduate credit.

### Multiple Numbered Courses

**Policy.** Upon approval by the Graduate Council, courses numbered 400-599 may be double- numbered allowing undergraduate and graduate students to enroll simultaneously. All double-numbered courses may also be offered independently at either the graduate or undergraduate level. No course identified as an undergraduate General Education course may be double-numbered. At least two-thirds of a student's master's degree program must be in courses that are not double-numbered courses or in courses that have been taught solely as 500-level or above graduate courses.

**Procedure.** The Graduate Council will utilize the following guidelines in the process of evaluating new course proposals involving multiple numbering:

- All programs requesting approval of multiple numbered courses must demonstrate in the Rationale of the Course Proposal the academic value of and need for the proposed course in this format.
- In situations where a non-graduate degree program is seeking to include a multiple numbered course in its offerings that is intended to serve other units of the University, the requesting program must include supporting materials from those units.
- Non-graduate degree programs requesting approval of multiple numbered courses must demonstrate that the necessary expertise to teach the course exists in the faculty of that program.
- The practice of the Graduate School/Graduate Council will be to limit the number of graduate level courses offered by non-graduate degree programs. The specific number of courses will be determined on a case by case basis.
- All requests for multiple numbered courses must be simultaneously submitted to the Undergraduate Council and the Graduate Council for approval.

- All new requests for multiple numbered courses should try to pair a 500 level course with a 400 level course.
- Many course proposals are submitted with little or no distinction made in the qualitative differences between the graduate and undergraduate components of the course. It is the concern of the Graduate Council that the significant differences in this regard should be clearly articulated in terms of all aspects of the proposed course. It is considered insufficient to require graduate students to perform the same work as undergraduate students, but at a significantly higher level of accomplishment, without a clear delineation of those qualitative criteria. It is also considered insufficient to merely require a research paper/project of a brief nature, as the "graduate" component of the course. Therefore, all new course proposals must clearly distinguish, in the syllabus, the qualitative differences between the graduate and undergraduate components of the course. The significant differences in this regard should be clearly articulated in terms of expectation of outcomes, specific course content, course delivery, and evaluation of work.

**Note:** Multiple numbered courses are generally discouraged on the grounds that the practice tends to limit the expectations of the graduate component of the course by grouping together undergraduate and graduate level students. While this may be seen to be challenging and advantageous to the undergraduate students, the concern exists that graduate students will not be presented with true graduate-level education because of "watering down" the content to meet the needs of the undergraduate students.

### Course Load Limits

**Policy.** The maximum load for a graduate student is 17 hours per semester during the academic year. During the summer term, student course load will be a maximum of 9 hours for 6 weeks and 10 credits for 8 weeks. A total student course load will be a maximum of 15 hours for the entire summer. Course load limitations for graduate students refer to all courses taken on-campus or off-campus (or a combination of the two) while enrolled as a graduate student in a graduate degree program, a non-degree licensure program, or any combination thereof.

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

### Variable Topics Courses

**Policy.** A maximum of nine semester hours, individually or in combination, of courses numbered 508, 513, or 622 may be counted toward a graduate degree except

- **Masters:** A maximum of three semester credits of 513 (Professional Renewal) may be counted toward the master's degree.
- **Specialist:** For baccalaureate only students, a maximum of 12 semester hours of 508, 513 or 622, individually or in combination, will be counted toward a specialist degree.

### Distance Delivered Course Credit

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/school, 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 licensure programs as electives, support courses, or courses that fulfill program requirements.

### Concentrated Delivery Format (Short Courses)

**Policy.** The following concentrated course delivery format is intended to provide guidance and a clear policy statement for short courses offered by UNC. All courses of brief duration should be consistent with these requirements. Exceptions to this policy may be granted by the appropriate academic dean for undergraduate courses and the academic and Graduate



## Credit Hour Requirements

Dean for graduate courses. However, all courses, regardless of format, are expected to meet minimum CCHE requirements (750 minutes of class contact per semester credit hour) and contain sufficient opportunities for reflection and consolidation of course content. Due to the nature of content, certain courses are not appropriate for concentrated delivery.

### Contact Minute Requirements

1 credit hour	750 contact minutes
2 credit hours	1500 contact minutes
3 credit hours	2250 contact minutes
4 credit hours	3000 contact minutes
5 credit hours	3750 contact minutes

### Instructional Length of Day, Breaks, Lunches, Travel Time, etc.

Maximum Daily Contact	8 contact hours maximum instruction hours per day
Blocks	115 minutes maximum continuous block of time
Breaks	2-4 hours must incorporate a 15 minute break
Lunch	4 or more hours must incorporate a lunch break
Travel time	travel time will not be counted in instructional time
Maximum Consecutive	5 days

### Consecutive days: Credit Hour/Meeting Days Minimum Requirement

1 credit hour class	2 1/2 days
2 credit hour class	5 days

Consecutive day formats for courses above 2 credit hours must be proposed to and approved by the academic dean (and Graduate Dean for graduate courses) on a case-by-case basis

### Weekend Format: Credit Hour/Meeting Days Minimum Requirement

1 credit hour class	2 days
2 credit hour class	4 days over 2 weekends
3 credit hour class	6 days over 3 weekends
4 credit hour class	8 days over 4 weekends
5 credit hour class	10 days over 5 weekends

### Preparation, Study and Reflection Time

Syllabus should be provided to students a minimum of two weeks before the class meets and should include preparatory readings and assignments needed prior to the first day of the class. Research papers/projects/monitored exams should be due or administered two weeks after the end of class.

### Directed Study

**Policy.** Students may register for directed study if a directed study course option is available in the department. Directed studies are courses in which a qualified student may receive university credit for undertaking an individualized investigation under the direct supervision of a UNC faculty member.

- The faculty member providing the supervision must be approved to teach graduate level courses. However, no faculty member will be authorized to supervise a directed study during a semester that he/she is not actually employed on-campus at UNC.
- Unless specifically recommended by the program advisor and the department/division/school 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's 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.
- No more than two directed studies with a combined total of no more than six semester hours may be taken in a semester. Furthermore, each study is limited to the maximum number of credits listed in the Catalog for the approved XXX 622 in the specified program.

**Procedure.** The student shall apply through the department/division/school that the study is to be supervised.

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/school. A Rationale for Course Credit form should be completed and filed in the academic department.

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 may also 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 concerned. It is the student's responsibility to acquire the appropriate style manual for reference.

The faculty member must submit one copy of the final report to the appropriate department/division/school office with the final grade assignment.

## CREDIT HOUR REQUIREMENTS

### Master's Degree

**Policy.** The Graduate School requires a minimum of 30 semester hours for a master's degree. This includes at least 24 semester hours of discipline content courses. Chemistry and Biological Sciences master's programs require a minimum of 20 semester hours of discipline content courses. Departments/divisions/schools may have requirements that exceed the minimum standards established by the university.

### Specialist Degree

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

### Doctoral Degree

**Policy.** 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 level discipline content courses and 16 semester hours of research 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 graduate level discipline content courses and 16 semester hours of research 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 committee. Departments/divisions/schools may have requirements that exceed the minimums established by the university.

## Selection of Major Program

### Change of Major

**Policy.** Currently enrolled graduate students may change their major from one graduate program to another or from one emphasis to another with the approval of the department/division/school for both program areas and final approval by the Graduate School.

**Procedure.** If a student is admitted to and begins work (registers for courses) in a degree program and if the student desires to change programs, the student must complete a "Request for Change of Major" form and receive appropriate department/division/school approvals. If the student is admitted to but does not begin work in a degree program (has not registered for courses) and if such a student 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

**Policy.** Only one degree will be awarded (e.g., MA, MS, MM) 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 for degree purposes. 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 until all requirements for both majors are complete.

**Note:** 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. Additional consultation from the student's program advisor or the Graduate School regarding a decision to declare a double major or to seek two master's degrees should be pursued.

### Drop of Double Major

A student with a double major may drop one of the majors before taking either comprehensive examination only if he/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, the other major cannot be dropped.

### Doctoral Minor

Doctoral minors consist of a minimum of 15 semester hours of course work in a discipline different from the doctoral program. The doctoral minor must be approved by the college and Graduate Council. Graduate students admitted to doctoral programs may, upon approval of their doctoral program advisor, select a minor program of study for inclusion in their doctoral program. Completion of the doctoral minor will be indicated on the student's transcript.

**Procedure.** Doctoral students who have been approved by the department to pursue a doctoral minor will include the requirements for completion of the minor in their doctoral plan of study. Approval of the plan of study will be construed as permission to pursue the doctoral minor. Any department with at least one approved graduate degree program (master's, specialist, or doctorate) is eligible to offer doctoral minor(s). Application for approval to offer a doctoral minor is submitted through the curriculum approval process from a department as a program change. Upon approval, the doctoral minor will be listed in the university catalog.

**Note:** The credit hours associated with an approved doctoral minor would count toward the total doctoral degree program hours required only when they overlap with electives or research core requirements. No course would be allowed to count for double credit hours. Students would not be allowed

to pursue a minor offered under the same program name as the doctoral program to which they are admitted. To complete a minor, the student must first be officially admitted to a doctoral degree program.

### Second Doctorate Guidelines

**Policy.** Double majors are not permitted at the doctoral level. A student may receive a second doctoral degree from UNC provided that the requirements for the first doctoral degree have been completed before initiating the second degree program and provided that no course work from the first degree is counted toward the second degree.

## GRADES

### Calculating Grade Point Average

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

"I"	Incomplete
"W"	Withdrawal
"UW"	Unauthorized Withdrawal
"S"	Satisfactory
"U"	Unsatisfactory
"NC"	No Credit
"NR"	No Report

"S," "U," "UW," "W," "NC," and "NR" grades are not counted in determining grade point average. Courses for which "D," "F," "U," "W," "UW," "NR," or "I" grades are awarded will not count in graduate degree programs and will not satisfy program deficiency requirements.

To amend a grade of "I" with an earned grade on a student's transcript, the student must complete all coursework by the last day of the next semester of enrollment including summer term. If a student does not enroll again, the maximum time allowed for completion is one year. If a student does not complete the academic requirements within these time limitations, the grade will be recorded as "I/F" or "I/U" on the academic record. The "I/F" will be computed into the student's grade point average as an "F" grade.

Grades can be changed, using the Special Grade Report, within the first two weeks of the semester following the receipt of the original grade by the Records Office. 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.

A No Report ("NR") will be recorded for the number of hours in a Master's Thesis or Creative Project, a Specialist Degree Practicum, a Doctoral Proposal, or a Doctoral Dissertation when a student has not completed the work by the end of the semester. The "NR" will be replaced by an "S" or "U" when the work is completed.

### GPA Requirement

**Policy.** In order to remain in a graduate program, a graduate student must maintain a cumulative grade point average of 3.00 in graduate level courses. A graduate student may not graduate with a cumulative grade point average below 3.00. If student's cumulative grade point average drops below 3.00 after taking at least 9 graduate level credit hours, a warning letter will be sent to the student. The degree program of a student who has been sent a warning letter will be terminated if the student's grade point average 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 that the 9th hour is earned are used in the calculation of the grade average.

## EXTERNAL DEGREE PROGRAMS

Students admitted to external degree programs must meet the same degree and grade point average requirements as on-campus students. Additional policies regulating external

degree programs can be found in the Statewide Extended Campus Policies and Procedures Manual available at the Office of Extended Studies.

### PROGRAM TERMINATION POLICIES

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

- Based on an overall evaluation of a student's progress, the major department/division/ school recommends that the student's program be terminated.
- The department/division/school declines to issue a letter of continuation based on an overall evaluation of a specialist or doctoral student's progress.
- The student fails to maintain the cumulative 3.0 grade point average standard.
- The student fails the retake of the written comprehensive examination or its approved equivalent.
- The student fails the retake of the oral comprehensive examination.
- The student submits an unsatisfactory thesis or dissertation.
- The time limit established for the degree program expires before the degree requirements are completed.

### Readmission Subsequent to Program Termination

**Policy.** A student whose degree program has been terminated may be admitted to a different degree program. The following policies apply:

- The student must apply for admission to a different degree program.
- If admitted, the student must complete all standard requirements of the program to which he/she has been admitted.
- 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'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.

### PROGRAM TIME LIMITS

#### Master's Degree

**Policy.** 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 first enrollment after admission, the student must complete the degree within five calendar years beginning with the earliest work counted in the program.

#### Specialist Degree

**Policy.** 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 first enrollment after admission, the student must complete the degree within six calendar years beginning with the earliest work counted in the program.

#### Doctoral Degree

**Policy.** 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/she begins a doctoral degree program and if the student is permitted to include 21 semester hours of his/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 REQUIREMENTS

#### Master's and Specialist Degrees

**Policy.** Master's students must complete at least one course in research methodology designated as appropriate to the discipline and approved by the Graduate Council. Departmental courses numbered XXX 622 (Directed Studies) shall not be used as a substitute for the research course.

**Procedure.** The Graduate School will not waive this requirement but can approve an appropriate substitute research methodology course. The program advisor must provide a written request to substitute an alternative course, a syllabus for the course, and rationale for the requested substitute to the Graduate Dean. If the student earned a graduate degree from an accredited institution within the last five years in which an equivalent research course was taken, the program advisor must provide a written request to waive the UNC research requirement based on the previous course work completed.

#### Doctoral Degrees

**Policy.** Doctoral students must complete a departmentally prescribed core of at least 12 semester hours of research courses or methods of inquiry designated as appropriate to the discipline and approved by the Graduate Council. Departmental courses numbered XXX 622 (Directed Studies) shall not be used to substitute for courses in the research core.

**Procedure.** The Graduate School will not waive this requirement but can approve appropriate substitute research courses or methods up to the full 12 semester hours. The program advisor must provide a written request to substitute an alternative course, a syllabus for each course, and rationale for the requested substitute(s) to the Graduate Dean.

#### Doctoral Research Tools

**Policy.** All Ph.D. students must demonstrate competency in two acceptable research tools. A research tool is defined as advanced knowledge and/or set of skills related to a specifiable technique or method that contributes to the student's ability to conduct doctoral level research in the discipline. Departments will determine acceptable research tools such as languages, applied statistics, mathematical statistics, and computer languages/applications. With the approval of the major department/division/school and the Dean of the Graduate School, however, doctoral students may use a collateral field of study as a substitute for one of the research tools. A collateral field of at least 12 credit is defined as advanced and specialized or focused knowledge and competence within a specifiable content area or skill area from a related discipline that contributes to the student's ability to conduct doctoral level research in their major discipline, e.g., advanced cognitive theory, applications of distance education technology or multimedia technology to the classroom. The level of competency and the assessment of competency is established by each department/division/school and must be approved by the Dean of the Graduate School.

**Procedure.** Means of evaluating the student's knowledge or skill must be included on the plan of study to indicate how each research tool requirement is to be satisfied. Acceptable evaluation of research tools might include examinations in academic courses, competency demonstrations evaluated by advisors and committee members, or alternative testing or competency demonstration procedures developed within the department or program.

### RESEARCH ISSUES

#### Internal Review Board (IRB) Policy

Before any research involving human subjects can be conducted under the auspices of the university, an Internal Review Board (IRB) review is required. Data from human subjects are not to be collected until written approval is received from the University Internal Review Board. The main considerations and responsibilities of the IRB are to

assure that ethical standards and the protection of human rights are maintained in any research conducted while at UNC.

**Procedure.** Researchers are advised to obtain and submit an IRB packet early in their research process to allow time for a thorough review. Applications are available for graduate students as part of the Thesis and Dissertation Manual (latest edition) which can be purchased at the UNC Bookstore. Faculty members can request an IRB packet from the Sponsored Programs and Academic Research Center (SPARC) or on the SPARC website.

### Student Liability

To protect against liability claims, all research involving subject consent requires a statement informing potential subjects that their participation is not covered by university liability insurance. The subject consent form must include the following statement:

If injuries occur during the course of research, subjects are advised that the University of Northern Colorado is a publicly-funded institution of higher education and as such, liability may be limited under and governed by the Colorado Governmental Immunity Act.

**Notes:** The State of Colorado's Risk Management Division (the unit responsible for UNC's liability insurance) has concluded that student researchers are not protected by the state against claims unless they are student employees, interns, or authorized volunteers assigned to a research project (most student researchers would not be). This means that most graduate students working on their master's theses or doctoral dissertations are not protected by the state of Colorado against claims resulting from their research. This decision has serious implications for student researchers who are working with human subjects. Any student researcher who is placing subjects at some level of risk should be concerned. For example, student researchers are engaged in a variety of activities that could potentially harm their subjects (e.g., they draw blood, conduct therapy sessions, evaluate physical conditioning). Regardless of how responsible researchers may be, accidents can happen. Though the researcher is ultimately responsible for the health and safety of research subjects, low risk research, as defined by Health and Human Services (HHS) Guidelines and described in the IRB instruction packet, may not be recommended for special liability insurance coverage. For moderate to high risk procedures, the IRB committee will strongly recommend that you purchase liability insurance either through your professional association or an alternative source.

## PLAN OF STUDY

### Master's Degree

**Policy.** The program listed in the university Catalog will serve as the plan of study for master's programs.

**Procedure.** Written requests for changes or substitutions in the plan of study must be signed by the program advisor and submitted to the Graduate School. Students should take the responsibility to make sure any deviations from the Catalog are documented in their Graduate School file. Departments/divisions/schools are also encouraged to identify any deficiency courses a student must complete, at the time of screening for admission.

### Specialist Degree

**Policy.** In conjunction with the supervising committee, each specialist degree student must prepare a plan of study that clearly specifies core requirements and identifies elective, transfer, and double numbered course work. A two-person committee recommended by the department/division/school and approved by the Dean of the Graduate School shall supervise a student's specialist degree program.

**Procedure.** The plan must be formalized on a "Plan of Study Form" and the completed form, including the signatures of the supervising committee members, must be filed with the Graduate School by the end of the student's first semester of enrollment after admission. Upon receipt of a properly signed "Plan of Study Form," the Dean of the Graduate School or his/her designee shall review the plan and approve or disapprove

the plan. If approved, the "Plan of Study Form" will be filed in the student's folder. If disapproved, the "Plan of Study Form" will be returned to the student for correction and re-submission. Because the plan of study will be the basis for the graduation check, any deviation from the plan of study must be approved by the supervising committee and the Dean of the Graduate School or his/her designee. Requests for changes to the plan of study must be approved by the advisor and submitted in writing to the Graduate School with copies sent to all committee members.

### Doctoral Degree

**Policy.** A program advisory committee, a committee of at least three persons appointed and approved by the major department/division/school and, if applicable, by any supporting area department/division/school shall supervise the planning of a student's doctoral degree program. In conjunction with the doctoral program advisory committee, each doctoral student must prepare a long-range plan of study that clearly specifies core requirements, elective, transfer, double numbered course work, research tools (if applicable), and doctoral minor (if applicable).

**Procedure.** The plan must be formalized on a "Plan of Study Form" and the completed form, including the signatures of the program advisor committee members, must be filed with the Graduate School by the end of the student's first semester of enrollment after admission. Upon receipt of a properly signed "Plan of Study Form," the Dean of the Graduate School or his/her designee shall review the plan and approve or disapprove the plan. If approved, the "Plan of Study Form" will be filed in the student's folder. If disapproved, the "Plan of Study Form" will be returned to the student for correction and re-submission. Because the plan of study will be the basis for the graduation check, any deviation from the plan of study must be approved by the program advisory committee and the Dean of the Graduate School or his/her designee. Requests for changes to the plan of study must be approved by the advisor and submitted in writing to the Graduate School with copies sent to all committee members.

## PROGRAM PROGRESS REVIEW

**Policy.** Departments/divisions/schools are to evaluate and provide an annual program progress report for each doctoral student until the student passes the oral comprehensive examination.

**Procedure.** Doctoral student advisors will be responsible for obtaining and reporting at least the following information for each assigned advisee:

- Student's self evaluations of their academic performance and professional development.
- Student's grades in all graduate courses during the evaluation period.
- Performance ratings from instructors for all graduate courses during the evaluation period.

Assessment of the student's professional development from appropriate departmental faculty. Based on the data collected, each doctoral advisor will meet with each student's doctoral committee to develop and provide a summary of the student's strengths and area(s) for improvement. Emphasis should be placed on acknowledging accomplishments and professional growth where appropriate.

Recommendations for improvement should include specific changes expected in the student's performance or behavior, means of assessing the changes, and the time period by which the change is expected to occur. Improvements or lack of change in areas recommended from prior progress reports should be documented. Signatures of the advisor and all committee members are required on the progress report.

The progress report will include a clear recommendation to the chair of the Department Graduate Program Committee (DGPC) of whether the student is to be continued each year without conditions, continued with conditions, or not supported for continuation. If conditions for improvement are stipulated, the student must be informed by the Department Graduate Program Committee (DGPC), in writing, of the conditions and specific changes required to satisfy the conditions. If the department does not have a

DGPC, the report will be submitted directly to the chair of the department.

The following procedures must be followed prior to submitting a recommendation to discontinue a doctoral student's program for causes other than poor academic performance:

- The student must be informed of the pattern of behavior or incident(s) that has given rise to concern among the departmental faculty members and that led to the recommendation for program discontinuation.
- The student must be given an opportunity to meet with and address the observed behavior or incident with the Department Graduate Program Committee (DGPC) or with the student's doctoral committee for departments with no graduate program committee. Following the meeting, the DGPC or doctoral committee must either reassert the concerns or withdraw the concerns in writing to the department chairperson.

If the complaint arises from an unprofessional behavior or other behavioral concerns, the student will be given a clearly defined probationary period during which clear behavioral objectives are provided to either rectify the concerns or change the behavior. Clear means of assessing improvement will be provided.

If the complaint results from an egregious violation of laws or published university or departmental policy, rules or professional ethics, clear documented evidence of the incident(s) must be provided with the recommendation.

Copies of the progress report are to be provided by the DGPC or student doctoral committee to the department chair/division director no later than April 15 of each year and copied to the student. A chair/division director may agree or disagree with the DGPC's or doctoral committee recommendation. If in agreement with the recommendation, the chair/division director will approve and submit the progress report to the Dean of the Graduate School and a copy to the college dean by May 1. The student and DGPC or doctoral committee will be informed in writing of the approval. If in disagreement with the DGPC's or doctoral committee's recommendation, the department chair/division director will invite the student's program advisor and the DGPC chair or doctoral committee members to discuss the disagreement. After the meeting, the DGPC chair or student's doctoral advisor will approve and submit the original progress report recommendation to the Graduate Dean with a copy to the college dean and student. Modify and submit the recommendation to include conditions agreed to by the department chair/division director and DGPC or doctoral committee (or add conditions) to the Graduate Dean with a copy to the college dean and student;

or

Change and submit the recommendation as agreed to by the department chair/division director and DGPC or doctoral committee with explanation any additional documentation and signed acknowledgement from the department chair/division director and DGPC chair or doctoral committee members. The advisor and DGPC members or doctoral committee members may submit additional comments or documentation to support the DGPC chair's decision or to express opposition to the chair's decision. The changed recommendation will then be submitted to the Dean of the Graduate School with a copy to the college dean and student.

## DOCTORAL CONTINUOUS REGISTRATION

**Policy.** Once students have been admitted to candidacy, they are 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 course work or by paying a doctoral service fee. If the student does not enroll for any course work, the Accounting Office will bill the student for this fee.

## DOCTORAL RESIDENCY

**Policy.** Each student must complete at least two terms of full-time study in residence after having been admitted to the

doctoral degree program. A term in residence is defined as an academic term during which a student completes nine or more credit hours of on-campus course work applicable to the doctoral degree. Non-scheduled courses (e.g., internships, externships, directed studies and doctoral research) will not be counted in the nine or more credit hours unless a student also completes at least six other credit hours of on-campus course work applicable to the doctoral degree.

**Procedure.** Departments/divisions/schools may request approval of alternative requirements. Proposals for alternative residency requirements must assure extensive immersion in discipline research or practice under close supervision of departmental graduate faculty or field professionals approved for graduate faculty equivalent status. Further, alternative proposals should address how the requirements promote appropriate values and professional motivation of a doctoral student beyond the training or academic experience that the individual will receive. Approvals will be applicable only to the program(s) specified in the proposal. Proposals should be submitted as a program curriculum request in accordance with the current curriculum review process. Alternative proposals must be approved by Graduate Council and Graduate Dean prior to implementation for any individual student.

**Note:** The purpose for this residency requirement is to encourage immersion of the doctoral student in the program of study, the department and the discipline. Part-time or sporadic participation in a doctoral program is discouraged. A residency requirement does not guarantee total focus on doctoral studies. It does extend the message that a doctoral program involves more than attending some classes and completing program requirements. It also includes refinement of professional values and developing the intrinsic motivation required to contribute to the discipline.

**Policy.** If a University of Northern Colorado or Aims Community College employee cannot meet the above prescribed residency requirement due to employment restrictions, he/she may satisfy the requirement by completing 20 or more credit hours of on-campus work applicable to the degree during consecutive, academic year terms. Such a student must receive written permission from his/her immediate supervisor and a recommendation from his/her major department/division/school to fulfill the residency requirements in this manner. The supervisor's permission and the department's/division's/school's recommendation must be filed with the Graduate School.

## COMMITTEES NEEDED

### Master's Thesis Committee

**Policy.** Whether the master's thesis is to be completed as an additional program requirement or as a project in lieu of the written comprehensive examination, a thesis committee of at least two Graduate Faculty members is required. If the thesis is in lieu of the written comprehensive examination, departmental procedures for determining comprehensive examination eligibility are to be used prior to conducting the thesis research and at least two signatures from Graduate Faculty members must be obtained to indicate the successful completion of the thesis.

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

**Policy.** If the student plans to complete a thesis, whether in lieu of the comprehensive examination or in addition, the student must register for a minimum of six (6) semester hours of 699-Thesis. No more than six hours of thesis may be applied to the minimum credit requirements of a student's program.

### Specialist Supervising Committee

**Policy.** A two-person specialist supervising committee, recommended by the department/division/school, will supervise a student's specialist degree program. The supervising committee will assist the student in preparing a plan of study, oversee comprehensive examinations where appropriate, and direct the student's practicum.

## Doctoral Committee

**Policy.** Besides the doctoral program advisor appointed by the department/division/school, each doctoral student will have a doctoral committee.

The committee will include at least three members of the Graduate Faculty who have been recommended by the program advisor, approved by the major department/division/school chairperson, and appointed by the Dean of the Graduate School.

The Dean of the Graduate School or his/her designee will appoint a faculty representative from another department/division/school. The faculty representative is a full voting member with all the rights and responsibilities of any other member and must be present at the student's doctoral oral examination and dissertation defense. The faculty member must hold graduate faculty status and should be in a tenure track position in a department/division/school program unit different from that of the student's program. The student may nominate a faculty representative from outside the program discipline. The nomination should be based upon the methodological, theoretical, or content expertise that this person will bring to the committee. The final approval of the faculty representative is the responsibility of the Graduate Dean.

No faculty member will be appointed to a doctoral committee without his/her consent.

University employees who are not members of the Graduate Faculty shall not be appointed as members of doctoral committees.

The doctoral committee must be appointed before the written comprehensive examination is taken; the appointment shall occur no later than the end of the semester prior to the scheduled comprehensive examination. The student and all member of the doctoral committee will receive confirmation of the approved committee assignments.

Unless the student or committee chairperson otherwise informs the Graduate School or the Graduate School informs the student of the need for a change, the doctoral committee membership will remain the same from the oral comprehensive examination through the dissertation research stages of the program. The Graduate School will confirm that the student's committee membership is appropriate as a doctoral research committee upon receipt of the results of the oral examination. The research committee is comprised of a chair who is doctoral research endorsed or is a Graduate Faculty member who is co-chairing with a doctoral research endorsed member of the Graduate Faculty, at least two departmental Graduate Faculty members (or a representative from a supporting area if applicable and a departmental/program member), and a faculty representative. The faculty representative is expected to contribute conceptual, theoretical, methodological, and/or academic expertise from an alternative disciplinary perspective.

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

The concerns and recommendations of all committee members, including the faculty representative, are crucial to the dissertation approval process. The student and all members of the research committee will receive confirmation of the approved committee assignments.

## Faculty Committee Load Policy

**Policy.** An individual Graduate Faculty member may serve on ten active doctoral research committees at any one time and may serve as the dissertation director or research advisor for no more than five of these ten committees. Exceptions to the committee maximums may be permitted only if agreed to by the Graduate Faculty member, department/division/school chair and College Dean as follows:

- The faculty member involved agrees that his or her load (current or projected) allows adequate time to take on an additional student without adversely affecting the responsibility of the department/division/school to other students and to programs offered by the department/division/school.
- The department/division/school chairperson approves the additional student. Approval indicates that the chairperson has reviewed the current load of the faculty member and does not feel the additional load will adversely affect the responsibility of the department/division/school to other students and to programs offered by the department/division/school.
- The Graduate Dean has approved the exception(s).

**Note:** An individual department/division/school may elect to impose more stringent limitations on its faculty with respect to the number of committees on which they may serve. An active doctoral student will be defined as one who is currently enrolled or is paying a continuous registration fee.

## WRITTEN COMPREHENSIVE EXAMINATIONS

Master's Degree Written Comprehensive Examinations/Thesis or Project in Lieu of:

**Policy.** Each master's degree student must pass a written comprehensive examination or otherwise show competency in the discipline by successfully completing a department/division/school specified equivalent that has been approved by the Graduate Council (thesis or project in lieu of comprehensive examinations). Defense of a project or thesis in lieu of comprehensive examinations is equivalent to administering the comprehensive examination. The major department/division/school is responsible for determining the student's eligibility for taking the examination as well as scheduling the time, date, and place of the examination. This examination or its approved equivalent may not be taken until the student has:

- been granted regular admission to the program
- completed departmentally specified course requirements
- maintained a GPA of at least 3.0 in their program
- received approval from the program advisor.

**Procedure.** The student will apply in the academic department/division/school office for the written comprehensive examination or to defend the thesis before the thesis committee. The comprehensive examination permit is valid only for the semester that it is issued. The program advisor must be consulted for information regarding examination format, procedures, time, date, and place.

**Note:** If the student plans to graduate at the end of the semester in which he/she takes the comprehensive examination or completes the project/thesis in lieu of comprehensive examination, the student must apply for graduation during the preceding semester or very early in the semester in which the graduation is to occur. Students should not wait until they have been notified of comprehensive examination results before applying for graduation.

**Policy.** Once the comprehensive examination session begins, it is considered a take of the examination. If the student leaves the examination session and does not return, the examination will be considered taken and the exam will be evaluated accordingly and reported to the Graduate School.

**Procedure.** Once the examination has been evaluated or the project/thesis has been defended, the program advisor must return the signed report form to the Graduate School indicating a pass or failure of the examination. This must be done on or before the published deadline to submit the results of the written comprehensive examination for that semester.

**Policy.** A retake may not be scheduled during the same semester that the original examination was completed. Failure of the retake of the examination or its equivalent will result in the termination of the student's degree program.

**Policy.** The thesis must be signed by a minimum of two thesis committee members.

**Procedure.** One original and three copies of the thesis plus an additional copy of the abstract (150 words) must be submitted to the Graduate School along with a non-plagiarism affirmation form. If a project in lieu of the comprehensive exam is to be copyrighted, University Microfilms requires an abstract of the project. These items must be submitted to the Graduate School at least four weeks (28 calendar days) before the student's anticipated graduation date. Upon filing a thesis, the Graduate School will require each student to complete specific forms related to the thesis and graduation and to pay the current fees for binding, mailing, publishing, and microfilming, if applicable.

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

### Specialist Degree

**Policy.** Each specialist student must pass a written comprehensive examination in the area of specialization and pass any other examination(s) the supervising committee may require. The written comprehensive examination may not be taken until the student has:

- been granted regular admission to the degree program
- filed an approved plan of study
- completed at least 20 semester hours (50 semester hours if baccalaureate only student) of work applicable toward the degree, not including the practicum
- maintained a grade average of at least 3.00 in his/her graduate degree program
- received a letter of continuance from the department/division/school
- obtained approval from the supervising committee.

**Procedure.** The major department/division/school 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/her program.

**Policy.** Once the comprehensive examination session begins, it is considered a take of the examination. If the student leaves the examination session and does not return, the examination will be considered taken and the exam will be evaluated accordingly.

**Procedure.** Once the examination has been evaluated, the program advisor must return the signed report form to the Graduate School indicating a pass or failure of the examination.

**Policy.** A retake may not be scheduled during the same semester that the original examination was completed. Failure of the retake of the examination or its equivalent will result in the termination of the student's degree program.

### Doctoral Degree

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

- been granted regular admission to the degree program
- filed an approved plan of study
- completed at least 36 semester hours (60 semester hours if baccalaureate only student) of work applicable toward the degree -- at least 24 semester hours must have been completed on-campus
- maintained a grade average of at least 3.00 in his/her graduate degree program
- had a doctoral committee appointed
- obtained approval from the program advisor to take the exam.

**Procedure.** The major department/division/school 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/her program.

**Policy.** Once the comprehensive examination session begins, it is considered a take of the examination. If the student

leaves the examination session and does not return, the examination will be considered taken and the exam will be evaluated accordingly.

**Procedure.** Once the examination has been evaluated, the program advisor must return the signed report form to the Graduate School indicating a pass or failure of the examination.

**Policy.** A retake may not be scheduled during the same semester that the original examination was completed.

Failure of the retake of the examination or its equivalent will result in the termination of the student's degree program.

### Record Files of Written Comprehensive Exams

**Policy.** Written comprehensive examinations are maintained in the departmental office for a period of 12 calendar months. These examinations are to be confidential and only available to the student who completed an exam and department/division/school faculty to address potential appeals and/or questions of administration and grading procedures. Students may request to review their comprehensive examination but may not be allowed access to written responses of other students. Past comprehensive examination responses with identification removed can be used by program faculty as models for instructional purposes.

### Oral Comprehensive Examinations

**Policy.** After passing the written comprehensive examination, each doctoral student must pass an oral comprehensive examination. 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 results of the written comprehensive examination must be on file in the Graduate School two weeks prior to the scheduling of the oral comprehensive examination.

**Procedure.** The program advisor, who will serve as chairperson of the oral comprehensive examination committee, should direct the student to arrange the date, time, and place of the oral examination. After all arrangements have been made, the student or program advisor will notify the Graduate School by forwarding a completed "Request to Schedule Doctoral Examinations" two weeks (14 calendar days) before the exam date. Requests submitted with greater advance notice are encouraged and appreciated. The student's performance on the examination will be evaluated as (a) pass, (b) will pass if meets stated conditions, (c) unsatisfactory, retake permitted, (d) fail, retake not permitted, program terminated. At least three-fourths of the committee members must agree on the final evaluation.

The Graduate School will approve and publicize the examination date, time and place in the UNC REPORT or in any other appropriate university publication.

**Note:** 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 may also attend with permission from the chairperson of the committee.

### Passed Orals

**Policy.** 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.

### Passed With Conditions

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

### Failed Orals

**Policy.** If the student's performance was unsatisfactory, the report must be signed and returned to the Graduate School.

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

## DISSERTATIONS

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

Minimum credit for the doctoral dissertation is 12 semester hours. Any program requirement exceeding 12 credits of dissertation hours must first be approved by the Graduate Council and Graduate Dean.

**Policy.** A dissertation proposal is to be developed and presented to the student's doctoral committee for approval and submitted to the Graduate School prior to engaging in final data collection. Preliminary data collection necessary for developing appropriate skills and methods pertaining to the project is acceptable prior to approval of the proposal.

**Policy.** All 797 and 799 hours will result in a grade of "NR" until completion of the proposal and final dissertation. Upon successful completion of the Dissertation and submitting the Report of the Dissertation Defense Form to the Graduate School with approval signatures, the Graduate School and Registrar are authorized to change all prior grades for 799 to "S".

**Note:** The proposal is a crucial step in the dissertation process and should culminate with a formal and public dissertation proposal hearing with the full committee present. Approval of the dissertation proposal establishes the expectations for the final dissertation and assures agreement among the committee with the student's methods and research strategy prior to proceeding to the final stages of the project. The proposal hearing also allows the committee to introduce required changes or additions to a student's proposed project while changes are still possible. The student should consult department/ division/school procedures for scheduling the defense of the proposal.

### Doctoral Candidacy

**Policy.** Doctoral students advance to candidacy upon passing the written and oral comprehensive examinations and filing an approved dissertation proposal in the Graduate School.

### Plagiarism

**Policy.** The following is the approved definition of plagiarism: Plagiarism is the act of appropriating the written, artistic, or musical composition of another, or portions thereof; or the ideas, language, or symbols of same and passing them off as the product of one's own mind. Plagiarism includes not only the exact duplication of another's work but also the lifting of a substantial or essential portion thereof.

Regarding written work in particular, direct quotations, statements which are a result of paraphrasing or summarizing the work of another, and other information which is not considered common knowledge must be cited or acknowledged, usually in the form of a footnote. Quotation marks or a proper form of indentation shall be used to indicate all direct quotes.

As long as a student adequately acknowledges his/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 form of the acknowledgment may be unacceptable. However, students should be aware that most professors require certain forms of acknowledgment and some may evaluate a project on the basis of form.

**Procedure.** The student shall sign the plagiarism affirmation when the proposal is filed and shall be told that another

affirmation must be signed and filed in the Graduate School Office with the corrected dissertation following the defense.

### Dissertations: Proposal to Defense

The student should confirm the composition of the research committee prior to registering for 797. This same committee will serve as research and oral comprehensive examination committee unless a change is deemed appropriate by the student and student's research advisor. If there is to be a difference in the doctoral committee structure for the oral comprehensive examination and the dissertation research, the student must submit a change of committee membership form to the Graduate School.

The student will then register for Doctoral Proposal credits (XXX 797).

Students should prepare their dissertation proposal in collaboration with their research advisors. Dissertation proposals and proposal hearings are required for all doctoral students. Other committee members are to be consulted when appropriate but the major interaction and editorial work should be with the student's research advisor. Students should avoid sending portions of the dissertation proposal to all committee members for their review and comment. Unless otherwise agreed by the committee members, only completed copies of the proposal or dissertation are to be distributed and reviewed by the committee.

The proposal is then presented to the student's entire committee at least three weeks prior to the scheduled formal proposal hearing. Arrangements for a room are made with the research advisor. Students must make sure all committee members are available and aware of the time and place. The faculty representative must be present at both the proposal hearing and the final dissertation defense which will be a public hearing open to the academic community.

After the proposal hearing, the proposal is to be revised according to committee requirements. During the proposal hearing, committee members will direct questions to the student and point out concerns regarding the proposed project. It is a good idea for the student to take careful notes of all comments and concerns made and then review the notes with the committee before the hearing is over to insure that all the requested changes are included on the list. It will be the student's responsibility, in consultation with the research advisor, to address those concerns in a revised proposal. It is recommended that the student summarize the changes that have been incorporated into the revised proposal to assist the committee in identifying and locating the changes that have been made.

The revised proposal should then be circulated with a signature page to the committee for review and signature if they approve of the revisions. A second committee meeting is optional but could be required by the committee due to the extensive nature of the expected changes or to expedite the approval process. All committee members' signatures are required.

The approved proposal is then submitted to the Graduate School. The Graduate School will consider the proposal to be accepted. After submitting the dissertation proposal to the Graduate School, students may then register for departmental prefix 799, Doctoral Dissertation. Approval from the appropriate Internal Review Board (IRB for human subject research or IACUC for animal research) must be obtained prior to collecting data for the dissertation.

The student will complete the project and write the dissertation in close collaboration with the research advisor. The student will submit a Request to Schedule a Doctoral Examination form to the Graduate School to request a defense date. The Graduate School will send the research advisor a copy of the confirmed schedule and a defense evaluation. The scheduled defense date must be at least two weeks (14 calendar days) following the request to allow for publicizing the defense to the academic community. Requests for defense submitted more than two weeks in advance are welcomed and appreciated.

The defense must occur at least four weeks (28 calendar days) before the anticipated graduation date or the student cannot graduate until the following semester.



All members of the graduate faculty may attend the defense and may ask questions of the student after the committee members finish their questioning. Other graduate students may attend with permission from the research advisor.

**Dissertation Defense.** The research advisor should discuss the nature and purpose of the dissertation defense with the student. Generally, the student is instructed to prepare a brief description of the entire study from the purpose to the results and discussion. The committee is free to ask any questions pertaining to the dissertation. The student is expected to understand all aspects of the study including the data analyses and theoretical implications and should avoid being unaware of the procedure or logic followed in the data analyses even if he/she contracted the services of a statistical consultant to complete the analyses. The committee will expect the student to demonstrate himself/herself as an expert on the topic and thesis of the dissertation. It should be recommended that the student bring copies of the signature pages for the dissertation to the defense in the event that the committee evaluates the performance as pass. They can then sign the evaluation form and the signature pages. The dissertation committee will evaluate the student'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 student passes 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 student shall proceed to make any corrections required by the research committee and submit the corrected dissertation to the committee members for their signatures. The student must provide all necessary copies of the signature page.

If the research committee requires the student to meet stated conditions, the research advisor shall list the conditions on the Report of Defense of Dissertation Form, obtain the signatures of the committee members on the form, and submit the form to the Graduate School. The list of conditions must include a statement regarding the number of additional defense meetings authorized and the amount of additional time allowed by the research committee.

If the student subsequently satisfies the stated conditions, the research advisor shall obtain the original Report of Defense of Dissertation Form from the Graduate School, shall obtain the signatures of the research committee members on SECTION II of the form indicating approval, and resubmit the form to the Graduate School. The student 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 student does not meet the stated conditions, the research advisor shall obtain the original Report of Defense of Dissertation Form from the Graduate School, shall obtain the signatures of the research committee members on SECTION II of the form indicating that they do not approve, and resubmit the form to the Graduate School. The Graduate School shall then notify the student that the degree program is terminated.

If a student fails the defense, the research advisor shall obtain the signatures of the research committee members on the Report of Defense of Dissertation form and submit the form to the Graduate School. The Graduate School shall then notify the student that the degree program is terminated.

### Objection to the Dissertation

**Policy.** If a dissertation is filed with all but one of the signatures of the research committee members, the Dean of the Graduate School or his/her designee will ask the non-signing member if he/she wishes to enter a formal objection(s). If a formal objection is filed, the Dean of the Graduate School will appoint a review committee to assess the specific objection(s) of the dissenting dissertation committee member. If the review committee rules that the objection(s) does not justify the rejection of the study, the chairperson of the review committee will sign the dissertation in place of the dissenting faculty member. If the review committee rules that the objection(s) is valid, the student must take appropriate steps to modify the

dissertation in order to gain the approval of the original dissertation committee.

### Filing the Dissertation

Upon completing any necessary revisions and successful approval of the dissertation by the student's committee, one copy of the final dissertation is to be submitted to the Graduate School. The Graduate School will conduct an editorial review to check for grammar and spelling. The student will then be asked to make revisions and/or submit the additional three copies of the final dissertation for the Dean of the Graduate School to sign. The dissertation is not approved until signed by the Graduate Dean.

The original and each additional copy must contain an originally signed approval sheet and a 350 word abstract. (University Microfilms will not publish an abstract that exceeds the 350 word limitation.) Furthermore, the student must submit one extra copy of the abstract to the Graduate School for publication purposes.

If the dissertation is not filed with the Graduate School at least four weeks (28 calendar days) before the student's anticipated graduation date, the student may not graduate until the following semester.

Upon filing the dissertation, the Graduate School will require each doctoral student to complete specific forms related to the dissertation and graduation and to pay the current fees for binding, mailing, microfilming, and publishing the dissertation. All four copies of the dissertation will be bound. The dissertation will be microfilmed and the abstract will be published in Dissertation Abstracts.

After binding, the original and one copy will be filed in the University Library, one copy will be forwarded to the student's research advisor, and one copy will be sent to the student.

## GRADUATION CHECK

### Master's and Specialist Students

**Policy.** All master's and specialist students must apply for graduation no later than the end of the semester preceding the semester that a student plans to graduate. A late fee will be assessed for late applications. The student has the responsibility for determining that the application has been filed with the Graduate School. The Graduate School will not accept a graduation application that is not signed by the student and program advisor.

If the student does not complete all requirements for the degree and, therefore, does not graduate at the end of the proposed semester, the application will be placed in the deferred file. The student must give written notice to the Graduate School when he/she wishes to appear again on the tentative list of graduates.

**Procedure.** Graduation requirements are checked in accordance with one specific University Catalog. The Catalog used to meet graduation requirements is normally the one published for the academic year during which the student first enrolls after admission to the university. The student must specify the Catalog under which he/she wishes to be evaluated and must meet all requirements in that Catalog.

The student may select any subsequent Catalog 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 Catalog and other requirements in another Catalog.

**Policy.** The University reserves the right to modify or change Catalog 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.

## Doctoral Students

Upon admission to doctoral candidacy, the Graduate School will conduct a preliminary graduation check of those doctoral students newly admitted to candidacy. Any discrepancies between the transcript and the plan of study must be corrected with either a new plan of study or a correction memo initiated by the advisor. Upon receipt of the preliminary graduation check, the student must thereafter notify the Graduate School IN WRITING the semester he/she wishes to graduate. Therefore, doctoral students will not need to apply for graduation.

**Note:** All graduating students are encouraged to attend graduation. Those students participating in the graduation ceremony are required to wear appropriate academic regalia. Diplomas are not issued at the graduation ceremony. They will be mailed to addresses supplied by the students to the Graduate School. Failure to supply the mailing address could result in a delay in receipt of the diploma. No diploma will be issued until all requirements for graduation have been met.

## Doctoral Hooding

**Policy.** The candidate's research advisor shall hood the candidate at the graduation ceremony.

## Letter of Completion

Usually, an official transcript is your proof of completion of your degree. If you need proof of your degree prior to the availability of official transcripts with degree indicated, you may contact the Graduate School for a letter of completion. A letter of completion can only be issued after the all degree requirements have been officially verified as completed including posting of grades for the current semester by the Registrar.

## The Graduate Dean's Citation for Excellence

The Graduate Dean's Citation is awarded each semester to students nominated by their division, department or school in recognition of superior achievement in their graduate studies. Each division, department or school may recommend graduate students completing their programs during a specific term (fall, spring or summer) provided that they meet these minimum criteria:

- a cumulative graduate grade point average of at least 3.75
- documented evidence of superior accomplishment while a graduate student at UNC

The nomination should be supported by:

- written recommendations from graduate faculty of the academic program outlining the student's accomplishments and/or
- special recognition by an agency or organization (outside UNC) for scholarly accomplishment, academic achievement or contributions to society.
- Student resume or vita.

Awardees are reviewed by the Executive Committee of the Graduate Council. Their recommendations for awards will be forwarded to the Graduate Dean for final selection.

## The Graduate Dean's Citation for Outstanding Thesis and Dissertation

The Graduate Dean's Citation for Outstanding Thesis and Dissertation may have four awards each semester: two for outstanding master's thesis and two for outstanding doctoral dissertation.

## OTHER GRADUATE SCHOOL POLICIES AND PROCEDURES

### Graduate Student Petitions for Exception

**Policy.** Graduate students may petition for exceptions to certain procedures, rules, policies, and requirements.

**Procedure.** The Graduate Student Petition for Exception forms are available in department/ division/ school offices. When petitioning for an exception to a rule, policy or requirement, explain how the exception would enhance the academic program, allow the continuation of a productive academic program, allow recovery from lost opportunity due to health or traumatic events or allow the student to profit from unique educational opportunities impeded by Graduate School regulations. When requesting an extension of program time limit, describe specific steps, proposed scheduling and evidence of progress toward completing degree/program requirements. Signatures of the program advisor and department/division chair indicating approval of and support for the request will be required on this form prior to submitting the request to the Graduate School.



# COLLEGE OF ARTS AND SCIENCES (A&S)

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French, B.A. (81)  
Liberal Arts Emphasis (81)  
Teaching Emphasis (82)  
Geography, B.A. (83)  
Applied Geography Emphasis (83)  
Liberal Arts Emphasis (84)  
Secondary Teaching Emphasis (85)  
German, B.A. (86)  
Liberal Arts Emphasis (86)  
Teaching Emphasis (87)  
History, B.A. (88)  
Liberal Arts Emphasis (88)  
Teaching Emphasis (89)  
Interdisciplinary Studies, B.A. (90)  
Administered by the College of Arts and Sciences (90)  
Anthropology Emphasis (91)  
Business Administration/Sociology: Not-for Profit Human  
Service Organization Emphasis (92)  
International Studies Emphasis (93)  
Liberal Arts Emphasis (94)  
Journalism and Mass Communications Major Requirements  
(98)  
Journalism, B.A. (98)  
News-Editorial Emphasis (98)  
Public Relations and Advertising Media Emphasis (99)  
Telecommunications Emphasis (99)  
Mathematics, B.A. (100)  
Actuarial Science Emphasis (100)  
Applied Statistics Emphasis (100)  
Computer Science Emphasis (101)  
Liberal Arts Emphasis (101)  
Middle School Teacher Education Emphasis (102)  
Secondary Teacher Education Emphasis (103)  
Mexican American Studies, B.A. (104)  
Liberal Arts Emphasis (104)  
Philosophy, B.A. (105)  
Ethics and Public Policy Emphasis (105)  
Physics, B.A. (106)  
Computer Science Emphasis (106)  
Engineering Physics Emphasis (107)  
Liberal Arts Emphasis (108)  
Mathematical Physics Emphasis (108)  
Physical Science Teaching Emphasis (109)  
Teaching Emphasis (110)  
Political Science, B.A. (111)  
Psychology, B.A. (112)  
Social Science, B.A. (113)  
Liberal Arts Emphasis (113)  
Middle Grades Education Emphasis (114)  
Social Studies-Secondary Licensure Program Emphasis (115)  
Sociology, B.A. (115)  
Criminal Justice Emphasis (115)  
Family Studies Emphasis (116)  
Social Issues Emphasis (117)  
Sociology of Education Emphasis (117)



Spanish, B.A. (118)  
Bilingual Bicultural Education Emphasis (118)  
Liberal Arts Emphasis (118)  
Teaching Emphasis (119)

### Endorsement Programs

Bilingual Bicultural Education - Endorsement (120)  
Elementary Education and Middle School Education (120)  
Secondary Education (120)  
Bilingual Bicultural Education - Graduate Endorsement (121)  
Elementary and Middle School Education (121)  
Secondary Education (121)  
Teaching English as a Second Language - Endorsement (121)  
Elementary Education and Middle School Education (121)  
Secondary Education (122)  
Teaching English as a Second Language - Graduate Endorsement (122)  
Elementary and Middle School (122)  
Secondary Education (122)

### Pre-Degree Programs

Engineering Program (Pre-Engineering) (123)  
Health Sciences (Pre-Professional Studies) (123)  
Law Program (Pre-Law) (123)

### Minors – A&S

Anthropology Minor (124)  
Anthropology - Multicultural Anthropology Minor (124)  
Applied Statistics Minor (124)  
Asian Studies Minor (125)  
Biological Sciences/Liberal Arts Minor (125)  
Biological Sciences/Teaching Secondary Biological Science Minor (125)  
Black Studies Minor (125)  
Chemistry/Liberal Arts Minor (126)  
Chemistry/Teaching Minor (126)  
Computer Science Minor (126)  
Cultural Studies Minor (126)  
Earth Sciences Minor (126)  
Economics Minor (127)  
English Minor (127)  
Environmental Studies Minor (127)  
Film Studies Minor (128)  
French Minor (128)  
Geography Minor (128)  
German Minor (128)  
History Minor (129)  
Legal Studies Minor (129)  
Mathematics/Liberal Arts Minor (129)  
Mathematics/Secondary Mathematics Teaching, Grades 7-12 Minor (129)  
Media Studies Minor (130)  
Mexican-American Studies Minor (130)  
Philosophy Minor (130)  
Physics Minor (130)  
Political Science Minor (130)  
Psychology Minor (131)  
Sociology Minor (131)  
Spanish Minor (131)  
Speech Communication Minor (131)  
Teaching English as a Second Language (TESL) Minor (132)  
Women's Studies Minor (132)  
Writing Minor (132)

### Master of Arts (M.A.)

Biological Sciences, M.A. (133)

Non-Thesis Emphasis (133)  
Thesis Emphasis (134)  
Chemistry, M.A. (135)  
Education Emphasis (135)  
Research Emphasis (136)  
Communication, M.A. (136)  
Human Communication: Non-Thesis Option Emphasis (136)  
Human Communication: Thesis Option Emphasis (137)  
Earth Sciences, M.A. (138)  
English, M.A. (138)  
Foreign Languages, M.A. (139)  
Spanish Teaching Emphasis (139)  
History, M.A. (140)  
Mathematics, M.A. (141)  
Liberal Arts Emphasis (141)  
Teaching Emphasis (141)  
Psychology, M.A. (142)  
General Psychology Emphasis (142)  
Human Neuropsychology Emphasis (142)  
Social Science, M.A. (143)  
Clinical Sociology Emphasis (143)

### Doctor of Philosophy (Ph.D.)

Biological Education, Ph.D. (144)  
Chemical Education, Ph.D. (145)  
Educational Mathematics, Ph.D. (147)

## OFFICE OF THE DEAN

**Location:** Candelaria 0215    **Telephone:** (970) 351-2707

**Dean:** Sandra M. Flake, Ph.D.

**Associate Deans:** Maria E. Lopez, Ph.D.; Richard G. Trahan, Ph.D.

## INTRODUCTION

The College of Arts and Sciences provides the foundation for a liberal arts education through studies intended to impart general knowledge and to develop the intellectual capacities of reason and judgment. The broad areas included are the humanities, natural sciences and social sciences.

General Education courses, predominantly offered by disciplines in this college, give UNC graduates a background in the liberal arts and sciences to better prepare them for living in our complex society.

The College of Arts and Sciences at UNC is committed to serious scholarly work, superior instruction and research. The knowledge, understanding and perceptions that lead to critical and independent thought are fostered by the faculty and administration of the college, and these qualities serve to enrich the lives and careers of its graduates.

Arts and sciences majors are broadly educated and well prepared to enter a wide variety of occupations. Many areas prepare students specifically for positions in industry and government. Pre-professional studies in law, medicine, dentistry, engineering and education are all based on a liberal arts foundation and many businesses today prefer their employees to have a liberal arts background to support on-the-job training. As Americans change jobs more and more frequently, a broad liberal arts background makes these changes possible and successful.

The college maintains a number of specialized facilities used by many departments. They include: the foreign language lab, a television studio, the English writing lab, the animal care facility, the greenhouse, computer facilities in Ross and Candelaria Halls and Michener Library, a computerized news-writing lab, the math lab and the psychology lab.

## ARTS AND SCIENCES ADVISING CENTER AND LEARNING COMMUNITIES

**Location:** Candelaria 0140    **Telephone:** (970) 351-2751

**Director:** Phyllis S. Endicott

**Director:** Sharon S. McMorrow-SI, Ascent and Cluster Programs

**Assistant Director:** Jean A. Kramlich

The Arts and Sciences Advising Center provides information and support for students, faculty and staff interested in Arts and Sciences majors and minors, general education programs and teacher education programs, as well as information on University services, policies and procedures. In addition this office and the Arts and Sciences Learning Communities Office coordinate several learning communities for entering students. These programs are designed to help new students with their transition into the university community by connecting them with faculty, peers, academic areas, and/or pre-professional fields. Most Arts and Sciences learning communities involve cohorts of students in general education coursework, new student seminars (ID 108), and the preparation of four-year graduation plans. These efforts combine with other Arts and Sciences Academic initiatives to support student satisfaction, retention and success.

## AFRICANA STUDIES DEPARTMENT

**Location:** Michener L137    **Telephone:** (970) 351-2685

**Chair:** Osita G. Afoaku, Ph.D.

**Professors:** Hermon George, Jr., Ph.D.; Anthonia C. Kalu, Ph.D.

**Associate Professors:** Osita G. Afoaku, Ph.D.; George H. Junne, Jr., Ph.D.

The Department of Africana Studies offers an interdisciplinary curriculum that promotes the study of the history, culture, philosophy, economy and political experience of people of African descent, especially those living in the United States, on the African continent itself, in Latin America and in the Caribbean. The curriculum is based on the assumption that there exists a substantive, intrinsically valuable body of knowledge that expresses the black experience.

As an academic discipline, the Black Studies curriculum is divided into two foci: social and behavioral studies and cultural studies. Coursework in the social and behavioral studies focus includes such topics as history of African descended people, nationalism, cultural heritage, the effects of racism and the social scientific study of African American communities. The cultural studies focus emphasizes literature by authors of African descent, music, religion, identity and the family.

## ANTHROPOLOGY DEPARTMENT

**Location:** Candelaria 0190    **Telephone:** (970) 351-2021

**Chair:** James A. Wanner, Ph.D.

**Professors:** Robert Brunswig, Ph.D.; Sally McBeth, Ph.D.; James A. Wanner, Ph.D.

**Lecturer:** Kirsten Bell, Ph.D.

Anthropology is the study of the nature of humans and of human relations, both within one's own society and in other societies. It helps one to think internationally and interculturality. 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 archaeological linguistics. Cultural/social anthropology, archaeology and physical anthropology are stressed at UNC.

Laboratories in physical anthropology, archaeology, ethnology and media are utilized in the instructional program. Ethnology and archaeology courses include all areas of the world, but focus on peoples of the New World. Social processes such as culture change, acquiring culture, ethnicity,

urban anthropology, the biological basis for culture and society and current problems are stressed.

Students in Anthropology will gain the following skills in the specific subfields:

- Cultural Anthropology — Cultural awareness, participant observation, interviewing, listening, and ethnographic description, interpretation, and comparison in the development of ethnographic assessments.
- Physical Anthropology — Techniques of paleoanthropology, microevolutionary analysis, forensic anthropology, and statistical methods in applied settings.
- Archaeology — Field and laboratory techniques, interpreting site and survey data, report writing, interdisciplinary approaches, integration of subfields in cultural resource management and heritage preservation.
- Multicultural Studies — Multicultural awareness, critical thinking, empathy for others, ability to conceive and apply alternative interpretations to the contemporary problems of culturally diverse societies.

## BIOLOGICAL SCIENCES DEPARTMENT

**Location:** Ross Hall 2280    **Telephone:** (970) 351-2921

**Chair:** Curt M. Peterson, Ph.D.

**Professors:** Warren R. Buss, Ph.D.; Catherine S. Gardiner, Ph.D.; Margaret E. Heimbrosk, Ph.D.; Stephen P. Mackessy, Ph.D.; John C. Moore, Ph.D.; Charles E. Olmsted, III, Ph.D.; Curt M. Peterson, Ph.D.

**Associate Professors:** Jennifer A. Clarke, Ph.D.; Robert J. Reinsvold, Ph.D.; Gerald W. Saunders, Ph.D.

**Assistant Professors:** Edward J. Bilsky, Ph.D.; Carol A. Fortino, Ph.D.; Richard Robert Jurin, Ph.D.; Neil Snow, Ph.D.

**Lecturer:** Kathleen S. Jones, 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 on 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 on independent research projects or internships with both faculty members and agencies outside the University to gain experience not available in the classroom.

Animal maintenance facilities, a museum, herbarium and greenhouses are available for laboratory support and research. Field studies are encouraged, since there is ready access to both prairie and mountain habitats. Expertise and research interests of the faculty include taxonomy of plants, animals and microorganisms; genetics; molecular biology; reproductive biology; plant and animal ecology; community and ecosystem structure; mammalogy; ornithology; plant and mammalian physiology; anatomy; and biology and science education.

The State of Colorado has mandated that institutions of higher education assess student outcomes resulting from their college education. The Department of Biological Sciences requires that all undergraduate students entering under this Catalog meet the following conditions in addition to meeting the general graduation requirements of the University:

1. In the senior year of study all undergraduates will take the Educational Testing Service's nationally standardized exam in Biology.
2. All departmental majors are required to have a minimum of a 2.0 GPA in all BIO, BOT and ZOO prefix courses taken

to meet their major requirements. Students receiving "D" or "F" grades in BIO, BOT or ZOO courses taken to meet their major requirements must repeat the courses or take suitable alternate courses approved by their major advisor.

## CHEMISTRY/BIOCHEMISTRY DEPARTMENT

**Location:** Ross Hall 1380      **Telephone:** (970) 351-2559

**Chair:** Richard M. Hyslop, Ph.D.

**Professors:** Clark L. Fields, Ph.D.; Richard M. Hyslop, Ph.D.; Loretta L. Jones, Ph.D.; Marcus K. Meilahn, Ph.D.; David L. Pringle, Ph.D.; James O. Schreck, Ph.D.; Richard W. Schwenz, Ph.D.

**Associate Professor:** Aichun Dong, Ph.D.

**Assistant Professor:** Kimberly J. Smith, M.S.

**Lecturer:** Robert Bruce Palmer, Ph.D.

The goal of the Department of Chemistry is to provide a high-quality education in chemistry for several different groups of students:

- Those individuals who wish to become chemists or to pursue professional programs that may build on a strong background in chemistry, such as health-related careers, etc.
- Those individuals whose career choices require a background in chemistry, such as nursing, dietetics and nutrition, biology, etc.
- Those individuals who elect to study chemistry as a part of their General Education program.
- Those students with a background in chemistry who wish to undertake advanced or graduate studies.

The chemistry faculty is committed to the attainment of this goal and has set excellence in instruction as its highest priority. Relatively small classes and dedicated teachers help accomplish this goal. Students and faculty have the opportunity to know each other very well. This facilitates obtaining help on an individual basis when it is needed for coursework and for program planning.

We are proud of the fact that our undergraduate degree has been approved by the American Chemical Society since 1968 and that our recently revised program was accepted. Graduates who elect to follow the approved program receive certification for this accomplishment.

Although the Chemistry Department is not formally divided, the areas of analytical, biological, inorganic, organic and physical chemistry and chemical education are well represented in the backgrounds of our faculty. This enables us to offer a well-balanced program.

Laboratory facilities are available and the experimental aspects of chemistry are included as an integral part of all chemistry programs. Modern chemical instrumentation is available for student use. Students are taught how to operate these instruments and how to interpret and apply the results. They are encouraged to use as much of this instrumentation as possible in their programs.

Access to microcomputers and to terminals of the large campus computers makes use of computers within chemistry courses possible.

Research opportunities are available to chemistry students in all programs. Students can work with faculty who are involved in research selected from most of the basic areas of chemistry, including chemical education.

At the undergraduate level, students are encouraged to work on independent research problems in their junior and senior years and to present the results of their work in departmental seminars and at the regional meeting of the affiliates of the American Chemical Society and the Colorado-Wyoming Academy of Science.

At the graduate level, most degree programs require research. The results of a graduate student's efforts are reported in a dissertation or thesis and may be presented at meetings and submitted for publication.

## EARTH SCIENCES DEPARTMENT

**Location:** Ross Hall 3320      **Telephone:** (970) 351-2647

**Chair:** William H. Hoyt, Ph.D.

**Professors:** Richard D. Dietz, Ph.D.; Kenneth D. Hopkins, Ph.D.; William H. Hoyt, Ph.D.; William D. Nesse, Ph.D.

**Associate Professor:** Bruce D. Lee, Ph.D.

**Assistant Professors:** Catherine A. Finley, Ph.D.; Jared R. Morrow, Ph.D.; Michael R. Taber, Ph.D.

**Instructor:** Rita Leafgren, M.A.

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, secondary-level earth science teaching, and the environmental industry. The general earth sciences program is appropriate for individuals seeking a broad background in the sciences. The major allows students to create programs of studies that are tailored to individual interests and goals. The graduate program is designed to meet the needs and interests of individuals who wish to expand their knowledge of the earth sciences as science teachers or in other careers that require a knowledge of the earth sciences.

The Department of Earth Sciences emphasizes the integration of field and laboratory study and students are encouraged to undertake independent research projects and internships.

## ECONOMICS DEPARTMENT

**Location:** Michener L130      **Telephone:** (970) 351-2739

**Chair:** Patricia E. Graham, Ph.D.

**Professor:** Marie L. Livingston, Ph.D.

**Associate Professors:** Patricia E. Graham, Ph.D.; Kelfala M. Kallon, Ph.D.; Bruce A. McDaniel, Ph.D.

**Assistant Professors:** David R. Aske, Ph.D.; Laura S. Connolly, Ph.D.

**Lecturers:** Rhonda R. Corman, M.A.; Christine E. Marston, Ph.D.

The economics discipline provides a logical, orderly way of describing, analyzing and finding solutions to the numerous diverse economic problems and issues that people and societies face.

Topics in economics have a broad range, including how individuals and businesses make intelligent economic decisions to how governments deal with vital current problems like unemployment, inflation, international trade and economic growth.

As a discipline, economics is attractive to students and commands prestige because it is challenging, has a wide focus and is not static; the discipline contains theory, mathematics, models and scientific method.

The Economics Department takes part, with other College of Arts and Sciences departments and programs, in offering quality liberal arts education, but the department also has close ties with the College of Business Administration and several interdisciplinary programs, including the International Trade and Relations program and Life of the Mind.

Students graduating with an Economics-Business Economics emphasis will also have demonstrated knowledge of the basic elements of business activity, including accounting, management, and marketing.

Economics major and minor students usually take other social science courses such as political science and sociology, and supporting and elective courses in business, mathematics and computer science.

The department participates in the Honors program and arranges limited internships.

## ENGLISH DEPARTMENT

**Location:** Michener L50      **Telephone:** (970) 351-2971

**Chair:** Joonok Huh, Ph.D.

**Professors:** Barbara A. Dickinson, Ph.D.; Sandra M. Flake, Ph.D.; Emily B. Golson, Ph.D.; Janie Hinds, Ph.D.; Joonok Huh, Ph.D.; John E. Loftis, III, Ph.D.; Norman L. Peercy, Ph.D.; Tomas N. Santos, Ph.D.; Sharon R. Wilson, Ph.D.; Lloyd D. Worley, Ph.D.

**Associate Professors:** Thomas A. Bredehoft, Ph.D.; Marcus E. Embry, Ph.D.; Tracey A. Sedinger, Ph.D.; Leo Ben Varner, Ph.D.

**Assistant Professors:** Elena Del Rio, Ph.D.; Lahcen C. Ezzaher, Ph.D.; Rosemary V. Hathaway, Ph.D.; Michael Kramp, Ph.D.; Martha D. Merrill, M.A.;

**Instructors:** Mark H. Leichliter, M.A.; Ann Rasmussen, M.A.; Sharron R. Riesberg, M.A.

**Lecturers:** Anne Bozzay, Ph.D.; Joel F. Daehnke, Ph.D.; Bruce Johnson, Ph.D.; Steve P. Miles, M.F.A.; Teresa A. Sellmer, M.A.; Lisa Horton Zimmerman, M.F.A.

The discipline of English treats literature and language and several related subjects such as creative writing, film, folklore and myth. Creative artists refuse to be limited in their subjects or approaches.

Literature, as one writer has said, is “an eloquent artistic document, infinitely varied, of mankind’s journey; the autobiography of the race’s soul.” The questions we ask in studying literature are as “infinitely varied” as those asked by poets, playwrights and novelists: What does it mean to be human? How is the individual related to society? By what values should one lead his or her life?

The study of literature and language requires rigorous discipline and sensitivity, a strict adherence to the highest standards of logic, evidence and argumentation, as well as creative response to language and form. One learns to think, research and write critically, while simultaneously developing sensitivity to language and to the complexities of people and situations.

## FOREIGN LANGUAGES DEPARTMENT

**Location:** Candelaria 0190      **Telephone:** (970) 351-2221

**Chair:** Peter Kastner, Ph.D.

**Professors:** David Caldwell, Ph.D.; Peter Kastner, Ph.D.

**Assistant Professor:** Lars O. Erickson, Ph.D.

**Lecturers:** Marie-Laure Marécaux, Ph.D.; Ruth V. Warner, 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 a cutting edge computer language laboratory for individual work.

We hope it is possible for many of our majors and minors to study in their target countries as a normal part of their professional development. There is an exchange program with the Université de Tours in France, as well as three exchange programs with German universities.

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.

## GEOGRAPHY DEPARTMENT

**Location:** Candelaria 2200      **Telephone:** (970) 351-2715

**Chair:** James P. Doerner, Ph.D.

**Professors:** Charles O. Collins, Ph.D.; Charles “Gil” Schmidt, Ph.D.

**Associate Professor:** James P. Doerner, Ph.D.

**Assistant Professors:** Robert M. Beavers, Ph.D.; Philip A. Klein, Ph.D.; Alexander C. Vias, Ph.D.

**Lecturers:** Siaw Akwawua, Ph.D.; David M. Diggs, Ph.D.; James M. Dunn, 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.

Geography department facilities include a geographic information science laboratory. A large, well-organized map collection is available in Michener Library.

## HISPANIC STUDIES DEPARTMENT

**Location:** Candelaria 0295      **Telephone:** (970) 351-2811

**Chair:** Jose I. Suarez, Ph.D.

**Professors:** Roberto H. Cordova, Ph.D.; Ester M. Gimbernat de Gonzalez, Ph.D.; Maria E. Lopez, Ph.D.; Alfonso Rodriguez, Ph.D.; Teresa Bolet Rodriguez, Ph.D.; Jose I. Suarez, Ph.D.

**Associate Professors:** Genevieve Canales, Ph.D.; Priscilla L. Falcon, Ph.D.

**Assistant Professors:** Sara R. Acosta, Ph.D.; Michael D. Vrooman, Ph.D.

**Lecturers:** Margarita Landaeta, M.A.; Monica Lettieri, Ph.D.; Elizabeth A. Page-Vrooman, M.A.; Manuel B. Ramirez, M.A.; Manuel Trevine, Ph.D.; Louisa C. Warfield, M.A., J.D.

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 resources include a student resource library and student conversation and study lounges. Faculty are readily available for advising and consultation. Study-abroad programs have been established and majors and minors are encouraged to participate in one of these spring semester intensive programs in which they may earn 9 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 theatre
- Colorado Chicano history
- Southwest linguistics
- Bilingual educational materials
- Contemporary women Hispanic authors.

## HISTORY DEPARTMENT

**Location:** Michener L88      **Telephone:** (970) 351-2905

**Chair:** Barry Rothaus, Ph.D.

**Professors:** Marshall S. Clough, Ph.D.; Matthew T. Downey, Ph.D.; Ronald K. Edgerton, Ph.D.; Barry Rothaus, Ph.D.; Michael Welsh, Ph.D.; Janet E. Worrall, Ph.D.

**Associate Professors:** Joan L. Clinefelter, Ph.D.; Fritz Fischer, Ph.D.; Jennifer A. Frost, Ph.D.; Alexander W. Knott, Ph.D.

**Assistant Professors:** Christopher L. Doyle, Ph.D.; Erin L. Jordan, Ph.D.; Joan A. Pratt, Ph.D.



**Lecturer:** Donald R. Shaffer, Ph.D.

The discipline of history concerns itself with the record of the human past, thereby forming an indispensable background for all other areas of knowledge, whether in the humanities, social sciences or sciences.

It is the role of the history department at UNC to offer a series of courses that address the significant events in the human past for the purpose of liberally educating students from all areas of the University. The department has a second, but no less important, role in training teachers at both the graduate and undergraduate levels.

## **JOURNALISM AND MASS COMMUNICATIONS DEPARTMENT**

**Location:** Candelaria 1265    **Telephone:** (970) 351-2726

**Chair:** Charles H. Ingold, Ph.D.

**Professors:** Walter Friedenber, M.A.; Charles H. Ingold, Ph.D.

**Associate Professor:** Wayne W. Melanson, Ph.D.

**Assistant Professors:** Katherine Bradshaw, Ph.D.; Lynn Klyde-Silverstein, Ph.D.

**Instructors:** Michael D. Applegate, M.A.; William W. Woodward, M.A.

Career preparation and understanding of the mass communications media are two significant benefits of majoring in this discipline. Undergraduates are able to choose from among three emphases: news-editorial, telecommunications, and public relations and advertising media. Professionally-experienced, academically-qualified faculty members in each emphasis provide opportunities for instruction and skills enhancement. Modern facilities include a color TV studio and a computerized newswriting lab.

## **MATHEMATICAL SCIENCES DEPARTMENT**

**Location:** Ross Hall 3220    **Telephone:** (970) 351-2820

**Chair:** Richard M. Grassl, Ph.D.

**Professors:** William L. Blubaugh, Ph.D.; J. Wey Chen, Ph.D.; Ricardo L. Diaz, Ph.D.; Richard M. Grassl, Ph.D.; Robert L. Heiny, Ph.D.; Steven C. Leth, Ph.D.; Robert L. Mayes, Ph.D.; Igor N. Szczyrba, Ph.D.

**Associate Professors:** Dean E. Allison, Ph.D.; Cathleen M. Craviotto, Ph.D.; Jeffrey D. Farmer, Ph.D.; Peter C. Isaacson, Ph.D.; Jodie Dawn Novak, Ph.D.; Terry A. Scott, Ph.D.

**Assistant Professors:** Helen Gerretson, Ph.D.; Shandy Hauk, Ph.D.; Jennifer L. Luebeck, Ed.D.

**Lecturers:** Lucian M. Ionescu, Ph.D.; Michael K. Petrie, M.A.; John D. Putnam, M.A.; Mark R. Schultz, B.A.; Karen M. Walters, M.A.

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.

Mathematics, statistics and computer science reflect the dual nature of these programs. Undergraduate courses, minors, and majors from these areas can be used as important components within a variety of other programs.

## **PHILOSOPHY DEPARTMENT**

**Location:** Weber House    **Telephone:** (970) 351-2572

**Chair:** Jack Temkin, Ph.D.

**Professors:** Paul F. Hodapp, Ph.D.; Jack Temkin, Ph.D.

**Associate Professor:** Richard A. Blanke, Ph.D.

**Assistant Professors:** Lisa A. King, Ph.D.; Thomas K. Trelogan, B.A.

Philosophy is the ongoing attempt to remain true to the spirit of the Socratic dictum: "The unexamined life is not worth living." As such, it entails serious reflection on all of our fundamental convictions and beliefs, with an eye in particular to the clarification of the concepts that these involve and the discovery of reasons for regarding these convictions and beliefs as either true or false. The

Department of Philosophy places special emphasis on helping its students to become capable of such serious reflection and it does so not only in the courses it offers primarily for its majors and minors, but in those it offers primarily as service courses for students of other disciplines as well.

## **PHYSICS DEPARTMENT**

**Location:** Ross Hall 0430    **Telephone:** (970) 351-2961

**Chair:** Willard L. Fadner, Ph.D.

**Professors:** Willard L. Fadner, Ph.D.; Cynthia S. Galovich, Ph.D.; Robert A. Walch, Ph.D.; Courtney W. Willis, Ph.D.

**Associate Professors:** Kendall E. Mallory, Ph.D.; Ruwang Sung, Ph.D.

**Lecturer:** Matthew R. Semak, 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. A lab with high-speed personal computers is adjacent to the Physics Office. Computer use is thoroughly integrated into physics classes and curricula. The department has developed award-winning computer software to enhance the first-year laboratories. A well-equipped nuclear laboratory features a neutron howitzer, 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.

An electronics technician and an instrument fabricator are available to help with classroom needs, as well as in special projects and research. The machine shop and electronics shop are available for various projects.

In addition to degree programs, the Department of Physics offers a selection of general education courses concerned with energy problems, space travel, the cosmos, science and society, scientific revolutions and a survey course in physical science.

## **POLITICAL SCIENCE DEPARTMENT**

**Location:** Weber House    **Telephone:** (970) 351-2058

**Chair:** Stan Luger, Ph.D.

**Professors:** Stan Luger, Ph.D.; Steve J. Mazurana, M.A.; Hank Brown, M.L.L., J.D.

**Associate Professor:** Kelechi A. Kalu, Ph.D.;

**Assistant Professor:** Christine A. Kelly, Ph.D.

**Lecturer:** Brook Blair, Ph.D.; Christiane Olivo, Ph.D.

The Department of Political Science labors in the cause of citizenship through the systematic exploration of how societies are organized and how they change. Instruction and research opportunities are offered in the art and science of politics and policymaking. Undergraduate research and instruction is conducted within four basic fields in political science:

- American government, politics and policy
- International relations, organizations and law
- Comparative politics and policy
- Political philosophy.

The department emphasizes the development of writing and research skills, and analytical skills necessary to think critically and reflect upon political values. The department also offers qualified students opportunities to complete an internship in public organizations such as Weld County government, the U.S. Congress and Colorado legislature, and the Governor's Office. The department participates in the General Education program, the Center for Teaching History and Social Science, Life of the Mind, the Honors Program, Women's Studies, Environmental Studies, and International Trade and Relations.

## PSYCHOLOGY DEPARTMENT

**Location:** McKee Hall 0014    **Telephone:** (970) 351-2957

**Chair:** Grant L. Morris, Ph.D.

**Professors:** William A. Barnard, Ph.D.; Theodore R. Bashore, Ph.D.; David M. Gilliam, Ph.D.; Grant L. Morris, Ph.D.; Charles S. L. Poston, Ph.D.; Paul D. Retzlaff, Ph.D.; Eugene P. Sheehan, Ph.D.; Marilyn C. Welsh, Ph.D.

**Associate Professors:** Mark B. Alcorn, Ph.D.; Susan P. Bromley, Psy.D.; Carl E. Granrud, Ph.D.; Nancy J. Karlin, Ph.D.

**Assistant Professor:** Thomas N. Dunn, Ph.D.; Lora D. Schlewitt-Haynes, Ph.D.

**Lecturers:** Thomas N. Dunn, Ph.D.; Laura L. Manuel, Ph.D.; Rosann Ross, M.A.

The goal of psychology is to understand behavior. A psychologist seeks to predict behavior and to apply that knowledge for the benefit of people with a variety of needs. A psychologist may strive to assist people in realizing their full potential or help those experiencing problems in living.

## SOCIAL SCIENCE PROGRAM

**Location:** McKee Hall 318    **Telephone:** (970) 351-2929

**Director:** Matthew T. Downey, Ph.D.

**Professor:** Matthew T. Downey, Ph.D.

**Assistant Professor:** David R. Aske, Ph.D.

**Instructors:** Mary G. Borg, M.A.; Karen Fentiman, M.A.

This multidisciplinary Bachelor of Arts 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.

Students may elect to emphasize in one of three areas: Liberal Arts, Middle School Education or Social Studies - Secondary Licensure Program.

The Liberal Arts emphasis prepares students for careers in human services, research, program planning, graduate school and law school. Examples of human services careers include positions such as agency management, probation counseling, environmental and social impact analysis, city planning and local, state and federal government positions.

The Middle School Education emphasis specifically prepares students for careers in teaching in middle schools. These students also must complete the Professional Teacher Education Program and meet all the requirements described in the Middle Grades Certification program sections of this Catalog.

The Social Studies - Secondary Licensure Program emphasis provides students with the academic subject content background necessary for teaching social studies at the secondary (grades 7-12) level in Colorado. Upon successful completion of this program and the requirements of the Professional Teacher Education Program, students will qualify to be licensed to teach social studies at the secondary level.

## SOCIOLOGY DEPARTMENT

**Location:** Candelaria 2285    **Telephone:** (970) 351-2315

**Chair:** John W. Fox, Ph.D.

### Criminal Justice Office

**Location:** Candelaria 2016    **Telephone:** (970) 351-2315

**Director:** Colleen Fitzpatrick, Ph.D.

### Family Studies Office

**Location:** Candelaria 2285E    **Telephone:** (970) 351-2315

**Director:** Pamela G. Hewitt, Ph.D.

### Sociology of Education Office

**Location:** Candelaria Hall 2064    **Telephone:** (970) 351-2315

**Director:** James P. Marshall, Ph.D.

### Social Issues Office

**Location:** Candelaria Hall 2048    **Telephone:** (970) 351-2315

**Director:** Daniel F. O'Connor, Ph.D.

**Professors:** John W. Fox, Ph.D.; Pamela G. Hewitt, Ph.D.; Karen M. Jennison, Ph.D.; James P. Marshall, Ph.D.; David W. Musick, Ph.D.; Philip L. Reichel, Ph.D.; Jacqueline B. Stanfield, Ph.D.; Richard G. Trahan, Ph.D.; John A. Vonk, Ph.D.

**Associate Professors:** Hedy Red Dexter, Ph.D.; Colleen Fitzpatrick, Ph.D.; Melanie Moore, Ph.D.; Daniel F. O'Connor, Ph.D.

**Assistant Professor:** Michael J. Hogan, Ph.D.

**Lecturers:** Walter M. Francis, Ph.D.; Diane L. Schott, M.A.; Patricia D. Wilkins-Wells, Ph.D.

Sociology is the study of social life. It is the scientific investigation of human society and the social interactions that emerge among people. The main focus of sociology is the group rather than the individual. Sociologists attempt to understand the social and cultural forces that operate throughout society and the forces that mold individuals, shape their behavior and thus determine social events.

Sociologists attempt to understand the world of human relations. In order to carry out their investigations, sociologists employ methods of gathering data from the social world. Generally, methods are either quantitative (e.g., survey) or qualitative (e.g., participant observation). Sociological theories accompany methods in enabling us to understand the social world. Social theories are explanations offered to account for a set of social phenomena. Together, methods and theory provide the foundation for the science of sociology.

Sociologists perform a wide variety of tasks. Most are employed as teachers, researchers, administrators, counselors or policy consultants. One area in which sociologists receive training is statistical techniques and analysis, which are useful in a wide variety of careers. Many sociologists are engaged in basic research, the acquisition of knowledge for its own sake, while others are involved in applied research that provides directives, suggestions or answers related to a particular problem. An increasing number of sociologists are electing to apply their skills to the government, business and industry, health services and welfare as well as other nonprofit agencies (e.g., family planning, youth counseling, city planning). According to the American Sociological Association, "sociology's career potential is just beginning to be tapped" and "many sociologists predict that the next quarter century will be the most exciting and most critical period in the field's 150 year history."

### **Sociology Admission Requirements**

First year students are admitted to degree programs in the Department of Sociology and UNC based on standards developed by the Colorado Commission on Higher Education as measured by a selectivity index created from high school performance and standardized test score. Sociology candidates must have a selectivity index of 94 or above. An index of 94 represents a cumulative high school GPA of 2.9 and an ACT composite of 22 or an SAT combined score of 1,000. A higher ACT/SAT score can compensate for a lower GPA and a higher GPA can compensate for a lower test score.

Transfer students are admitted to degree programs in the Department of Sociology 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 course work may qualify for admission to degree programs in the Department of Sociology provided they meet the first year student admission requirements specified above.

International students are admitted to degree programs in the Department of Sociology 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 Department of Sociology.

Students denied admission to degree programs in the Department of Sociology may petition for a special admission through a faculty-diversity student mentorship program.

### **Change of Major/Minor Requirements**

UNC students may change their major to sociology or may change from one sociology emphasis area to another provided that they have completed 30 semester hours of university level coursework with at least 15 semester hours at UNC. Students must meet the Change of Major and Minor requirements established by the department emphasis area in which they wish to take their sociology emphasis. Copies of these requirements are available in the Department of Sociology.

Students enrolled in the Fresh Start Program should contact the Department of Sociology for information on program-specific policies regarding admission. The Department of Sociology uses grades from all classes taken at UNC when computing the student's GPA.

UNC students with less than 30 semester hours of university level coursework may change to a Sociology major provided that they had met the first year student entry requirement specified above for admission and are in good academic standing at UNC.

Students must meet all departmental entrance requirements in effect at the time they apply for their major.

### **Program Assessments**

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

## **SPEECH COMMUNICATION DEPARTMENT**

**Location:** Candelaria 1265    **Telephone:** (970) 351-2045

**Chair:** Idahlynn Karre, Ph.D.

**Professor:** Idahlynn Karre, Ph.D.

**Associate Professors:** Linda S. Allen, Ph.D.; James A. Keaten, Ph.D.; Sherilyn R. Marrow, Ph.D.

**Assistant Professors:** David L. Palmer, Ph.D.; Cheryl Pawlowski, Ph.D.; Charles Soukup, Ph.D.

**Lecturer:** Diane L. Matuschka, M.A.

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.

A Bachelor of Arts in Communication prepares students with the knowledge and skills to be effective communicators in personal and professional settings. Coursework focuses on theoretical, analytic, and practical aspects of human interaction.

Students may elect to emphasize the study of communication in interpersonal, small group, educational, organizational and intercultural contexts. Practical skills may be obtained in professional presentation, persuasion, leadership, and communication in the classroom. 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 in business or education.

A major in Speech Communication is well-suited for students desiring a career in education. This degree will prepare future educators for effective communication with students, parents, and other school professionals. Students preparing for careers in elementary and middle grades education may select the Human Communication Emphasis. Students preparing for careers in Secondary Education must select the Emphasis in Secondary Education. All requirements for the Professional Teacher Education Program, as described in the UNC Catalog, must be met.

## **WOMEN'S STUDIES PROGRAM**

**Location:** Michener L137    **Telephone:** (970) 351-2607

**Coordinator:** Tracey A. Sedinger, Ph.D.

**Associate Professors:** Hedy Red Dexter, Ph.D.; Tracey A. Sedinger, Ph.D.

**Assistant Professor:** Christine A. Kelly, Ph.D.; Lisa A. King, 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.

## FACULTY – A&S

- Sara R. Acosta, Ph.D.
- Osita G. Afoaku, Ph.D.
- Siaw Akwawua, Ph.D.
- Mark B. Alcorn, Ph.D.
- Linda S. Allen, Ph.D.
- Dean E. Allison, Ph.D.
- Michael D. Applegate, M.A.
- David R. Aske, Ph.D.
- William A. Barnard, Ph.D.
- Theodore R. Bashore, Ph.D.
- Robert M. Beavers, Ph.D.
- Kirsten Bell, Ph.D.
- Edward J. Bilsky, Ph.D.
- Brook Blair, Ph.D.
- Richard A. Blanke, Ph.D.
- William L. Blubaugh, Ph.D.
- Katherine Bradshaw, Ph.D.
- Thomas A. Bredehoft, Ph.D.
- Susan P. Bromley, Psy.D.
- Hank Brown, M.L.L., J.D.
- Robert Brunswig, Ph.D.
- Warren R. Buss, Ph.D.
- David Caldwell, Ph.D.
- Genevieve Canales, Ph.D.
- J. Wey Chen, Ph.D.
- Jennifer A. Clarke, Ph.D.
- Joan L. Clinefelter, Ph.D.
- Marshall S. Clough, Ph.D.
- Charles O. Collins, Ph.D.
- Laura S. Connolly, Ph.D.
- Roberto H. Cordova, Ph.D.
- Rhonda R. Corman, M.A.
- Cathleen M. Craviotto, Ph.D.
- Joel F. Daehnke, Ph.D.
- Elena Del Rio, Ph.D.
- Hedy Red Dexter, Ph.D.
- Ricardo L. Diaz, Ph.D.
- Barbara A. Dickinson, Ph.D.
- Richard D. Dietz, Ph.D.
- David M. Diggs, Ph.D.
- James P. Doerner, Ph.D.
- Aichun Dong, Ph.D.
- Matthew T. Downey, Ph.D.
- Christopher L. Doyle, Ph.D.
- James M. Dunn, Ph.D.
- Thomas N. Dunn, Ph.D.
- Ronald K. Edgerton, Ph.D.
- Marcus E. Embry, Ph.D.
- Lars O. Erickson, Ph.D.
- Lahcen C. Ezzaher, Ph.D.
- Willard L. Fadner, Ph.D.
- Priscilla L. Falson, Ph.D.
- Jeffrey D. Farmer, Ph.D.
- Clark L. Fields, Ph.D.
- Catherine A. Finley, Ph.D.
- Fritz Fischer, Ph.D.
- Colleen Fitzpatrick, Ph.D.
- Sandra M. Flake, Ph.D.
- Carol A. Fortino, Ph.D.
- John W. Fox, Ph.D.
- Walter M. Francis, Ph.D.
- Walter Friedenber, M.A.
- Jennifer A. Frost, Ph.D.
- Cynthia S. Galovich, Ph.D.
- Catherine S. Gardiner, Ph.D.
- Hermon George, Jr., Ph.D.
- Helen Gerretson, Ph.D.
- David M. Gilliam, Ph.D.
- Emily B. Golson, Ph.D.
- Ester M. Gimbernat de Gonzalez, Ph.D.
- Patricia E. Graham, Ph.D.
- Carl E. Granrud, Ph.D.
- Richard M. Grassl, Ph.D.
- Rosemary V. Hathaway, Ph.D.
- Shandy Hauk, Ph.D.
- Margaret E. Heimbrook, Ph.D.
- Robert L. Heiny, Ph.D.
- Pamela G. Hewitt, Ph.D.
- Janie Hinds, Ph.D.
- Paul F. Hodapp, Ph.D.
- Michael J. Hogan, Ph.D.
- Kenneth D. Hopkins, Ph.D.
- William H. Hoyt, Ph.D.
- Joonok Huh, Ph.D.
- Richard M. Hyslop, Ph.D.
- Charles H. Ingold, Ph.D.
- Lucian M. Ionescu, Ph.D.
- Peter C. Isaacson, Ph.D.
- Karen M. Jennison, Ph.D.
- Bruce Johnson, Ph.D.
- Kathleen S. Jones, Ph.D.
- Loretta L. Jones, Ph.D.
- Erin L. Jordan, Ph.D.
- George H. Junne, Jr., Ph.D.
- Richard Robert Jurin, Ph.D.
- Kelfala M. Kallon, Ph.D.
- Anthonia C. Kalu, Ph.D.
- Kelechi A. Kalu, Ph.D.
- Nancy J. Karlin, Ph.D.
- Idahlynn Karre, Ph.D.
- Peter Kastner, Ph.D.
- James A. Keaten, Ph.D.
- Christine A. Kelly, Ph.D.
- Lisa A. King, Ph.D.
- Philip A. Klein, Ph.D.
- Lynn Klyde-Silverstein, Ph.D.
- Alexander W. Knott, Ph.D.
- Michael Kramp, Ph.D.
- Margarita Landaeta, M.A.
- Rita Leafgren, M.A.
- Bruce D. Lee, Ph.D.
- Mark H. Lechlitter, M.A.
- Steven C. Leth, Ph.D.
- Monica Lettieri, Ph.D.
- Marie L. Livingston, Ph.D.
- John E. Loftis, III, Ph.D.
- Maria E. Lopez, Ph.D.
- Jennifer L. Luebeck, Ed.D.
- Stan Luger, Ph.D.
- Stephen P. Mackessy, Ph.D.
- Kendall E. Mallory, Ph.D.
- Laura L. Manuel, Ph.D.
- Marie-Laure Marécaux, Ph.D.
- Sherilyn R. Marrow, Ph.D.
- Christine E. Marston, Ph.D.
- James P. Marshall, Ph.D.
- Diane L. Matuschka, M.A.
- Robert L. Mayes, Ph.D.
- Steve J. Mazurana, M.A.
- Sally McBeth, Ph.D.
- Bruce A. McDaniel, Ph.D.
- Marcus K. Meilahn, Ph.D.
- Wayne W. Melanson, Ph.D.
- Martha D. Merrill, M.A.
- Steve P. Miles, M.F.A.
- John C. Moore, Ph.D.
- Melanie Moore, Ph.D.
- Grant L. Morris, Ph.D.
- Jared R. Morrow, Ph.D.
- David W. Musick, Ph.D.
- William D. Nesse, Ph.D.
- Jodie Dawn Novak, Ph.D.
- Daniel F. O'Connor, Ph.D.
- Christiane Olivo, Ph.D.
- Charles E. Olmsted, III, Ph.D.
- Elizabeth A. Page-Vrooman, M.A.
- David L. Palmer, Ph.D.
- Robert Bruce Palmer, Ph.D.
- Cheryl Pawlowski, Ph.D.
- Norman L. Percy, Ph.D.
- Curt M. Peterson, Ph.D.
- Michael K. Petrie, M.A.
- Charles S. L. Poston, Ph.D.
- Joan A. Pratt, Ph.D.
- David L. Pringle, Ph.D.
- John D. Putnam, M.A.
- Manuel B. Ramirez, M.A.
- Philip L. Reichel, Ph.D.
- Robert J. Reinsvold, Ph.D.
- Paul D. Retzlaff, Ph.D.
- Sharron R. Riesberg, M.A.
- Alfonso Rodriguez, Ph.D.
- Teresa Bolet Rodriguez, Ph.D.
- Rosann Ross, M.A.
- Barry Rothaus, Ph.D.
- Tomas N. Santos, Ph.D.
- Gerald W. Saunders, Ph.D.
- Lora D. Schlewitt-Haynes, Ph.D.
- Charles "Gil" Schmidt, Ph.D.
- Diane L. Schott, M.A.
- James O. Schreck, Ph.D.
- Mark R. Schultz, B.A.
- Richard W. Schwenz, Ph.D.
- Terry A. Scott, Ph.D.
- Tracey A. Sedinger, Ph.D.
- Teresa A. Sellmer, M.A.
- Matthew R. Semak, Ph.D.
- Donald R. Shaffer, Ph.D.
- Eugene P. Sheehan, Ph.D.
- Kimberly J. Smith, M.S.
- Neil Snow, Ph.D.
- Charles Soukup, Ph.D.
- Jacqueline B. Stanfield, Ph.D.
- Jose I. Suarez, Ph.D.
- Ruwang Sung, Ph.D.
- Igor N. Szczyrba, Ph.D.
- Michael R. Taber, Ph.D.
- Jack Temkin, Ph.D.
- Richard G. Trahan, Ph.D.
- Thomas K. Trelogan, B.A.
- Leo Ben Varner, Ph.D.
- Alexander C. Vias, Ph.D.
- John A. Vonk, Ph.D.
- Michael D. Vrooman, Ph.D.
- Robert A. Walch, Ph.D.
- Karen M. Walters, M.A.
- James A. Wanner, Ph.D.
- Louisa C. Warfield, M.A., J.D.
- Ruth V. Warner, Ph.D.
- Marilyn C. Welsh, Ph.D.

- Michael Welsh, Ph.D.
- Patricia D. Wilkins-Wells, Ph.D.
- Courtney W. Willis, Ph.D.
- Sharon R. Wilson, Ph.D.
- William W. Woodward, M.A.
- Lloyd D. Worley, Ph.D.
- Janet E. Worrall, Ph.D.
- Lisa Horton Zimmerman, M.F.A.

# BACHELOR OF ARTS (B.A.)

## BIOLOGICAL SCIENCES, B.A.

### Cell Biology Emphasis

#### Program Requirements

Required Major Credits	23
Elective Major Credits	10
Required Supporting Credits	35-37
Required Minor Credits	0
Required Specified General Education Credits	14
Required PTEP Credits	0
<b>Total Program Credits, 82-84</b>	
Elective General Education Credits	26
University Wide Elective Credits	10-12
<b>Total credits required for this degree</b>	<b>120</b>

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 Major Credits — 23 semester hours

BIO 110 Principles of Biology (4)  
 BIO 220 Genetics (4)  
 BIO 351 Microbiology (4)  
 BIO 425 Molecular Genetics (3)  
 BIO 450 Cell Physiology (4)  
 BIO 465 Evolution (3)  
 BIO 491 Senior Seminar (1)

#### Elective Major Credits — 10 semester hours

*Select from the following courses (10 semester hours - minimum)*

BIO 458 Diagnostic Microbiology (4)  
 BOT 270 Economic Botany (3)  
 BOT 333 Morphogenesis of Algae and Fungi (4)  
 BOT 350 General Plant Physiology (4)  
 BOT 440 Anatomy and Morphogenesis of Plants (4)  
 ZOO 333 General Parasitology (4)  
 ZOO 345 Comparative Vertebrate Morphogenesis (4)

#### Required Supporting Credits — 35-37 semester hours

*Chemistry Credits (19 semester hours)*

CHEM 112 Principles of Chemistry II (5)  
 CHEM 320 Theory and Use of Analytical Instruments (1)  
 CHEM 321 Chemical Analysis (4)  
 CHEM 331 Organic Chemistry I (5)  
 CHEM 481 General Biochemistry I (3)  
 CHEM 483 Experimental Biochemistry I (1)

*Physics Credits (10 semester hours)*

*select one group from the following:*

PHYS 220 Introductory Physics I (5)  
 PHYS 221 Introductory Physics II (5)

*or*

PHYS 240 General Physics I (5)  
 PHYS 241 General Physics II (5)

*Mathematics Credits*

*select two courses from the following (6-8 semester hours):*

MATH 124 College Algebra (listed under required GE)  
 MATH 125 Plane Trigonometry (3)

*or*

higher mathematics course (3-4)

#### Required Specified General Education Credits — 14 semester hours

*Category 2. Mathematics*

MATH 124 College Algebra (4) or MATH 125 listed above

*Category 6. Science and Mathematics*

BIO 111 Survey of Organismal Biology (5) (6.b.)

CHEM 111 Principles of Chemistry I (5) (6.d.)

**Elective General Education Credits — 26 semester hours**

**University Wide Elective Credits — 10-12 semester hours**

## BIOLOGICAL SCIENCES, B.A.

### Field Biology Emphasis

#### Program Requirements

Required Major Credits	18
Elective Major Credits	31
Required Supporting Credits	4
Required Minor Credits	0
Required Specified General Education Credits	14
Required PTEP Credits	0
<b>Total Program Credits, 67</b>	
Elective General Education Credits	28
University Wide Elective Credits	25
<b>Total credits required for this degree</b>	<b>120</b>

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 Major Credits — 18 semester hours

- BIO 220 Genetics (4)
- BIO 460 Ecology (4)
- BIO 465 Evolution (3)
- BIO 491 Senior Seminar (1)
- BOT 330 Plant Taxonomy (4)
- ENST 265 Conservation of Natural Resources (2)

#### Elective Major Credits — 31 semester hours

*Biological Science-Organismal Credits (10 semester hours-minimum)*

- BIO 351 Microbiology (4)
- BIO 380 Aquatic Biology (4)
- BOT 333 Morphogenesis of Algae and Fungi (4)
- ZOO 330 Ornithology (3)
- ZOO 331 General Entomology (4)
- ZOO 332 Invertebrate Zoology (3)
- ZOO 333 General Parasitology (4)
- ZOO 334 Mammalogy (4)
- ZOO 335 Survey of Fishes, Amphibians and Reptiles (4)

*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) (Gen.Ed. 2.)
- MATH 125 Plane Trigonometry (3) (Gen.Ed. 2.)
- MATH 131 Calculus I (4) (Gen.Ed. 2.)

**Note:** 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 course from the following):*

- CG 105 Personal Computer Applications (3)
- STAT 150 Introduction to Statistical Analysis (3) (Gen.Ed. 2.)

*Earth Science (select one course from the following):*

- GEOL 100 General Geology (4)
- MET 205 General Meteorology (4)

#### Required Supporting Credits — 4 semester hours

- CHEM 131 Introductory Organic Chemistry (4)

#### Required Specified General Education Credits — 14 semester hours

*Category 6. Science and Mathematics*

- BIO 111 Survey of Organismal Biology (5) (6.b.)
- CHEM 111 Principles of Chemistry I (5) (6.d.)

BIO 110 Principles of Biology (4)

Elective General Education Credits — 28 semester hours

University Wide Elective Credits — 25 semester hours

## BIOLOGICAL SCIENCES, B.A.

### Human Biology Emphasis

#### Program Requirements

Required Major Credits	30
Elective Major Credits	6
Required Supporting Credits	28
Required Minor Credits	0
Required Specified General Education Credits	14
Required PTEP Credits	0
<b>Total Program Credits, 78</b>	
Elective General Education Credits	28
University Wide Elective Credits	14
<b>Total credits required for this degree</b>	<b>120</b>

Intended for those students having an interest in the medical and paramedical professions, this program meets the minimal requirements of most professional schools of health science. Undergraduates entering this program should have a strong science and mathematics background in high school.

Students who successfully complete the program will be able to apply for admission to paramedical and medical, veterinary or dentistry professional programs. They will also be able to continue their education in graduate programs in the biological sciences (zoology, anatomy, physiology) or pursue careers in medical, scientific or pharmaceutical sales.

#### Required Major Credits — 30 semester hours

- BIO 220 Genetics (4)
- BIO 351 Microbiology (4)
- BIO 450 Cell Physiology (4)
- BIO 460 Ecology (4)
- BIO 465 Evolution (3)
- BIO 491 Senior Seminar (1)
- BOT 270 Economic Botany (3)
- ZOO 341 Human Anatomy (3)
- ZOO 350 Human Physiology (4)

#### Elective Major Credits — 6 semester hours

Select from BIO, BOT or ZOO prefixes (6 semester hours)

#### Required Supporting Credits — 28 semester hours

*Chemistry Credits — 15 semester hours*

- CHEM 112 Principles of Chemistry II (5)
- CHEM 331 Organic Chemistry I (5)
- CHEM 332 Organic Chemistry II (5)

*Physics Credits — 10 semester hours*

- PHYS 220 Introductory Physics I (5)
- PHYS 221 Introductory Physics II (5)

*Mathematics/Applied Statistics Credits (3 semester hours - minimum)*

- MATH 124 College Algebra (4) (Gen.Ed. 2.)
- MATH 125 Plane Trigonometry (3) (Gen.Ed. 2.)
- A higher level Mathematics course (3-4)
- STAT 250 Statistics for Health Sciences (3) (Gen.Ed. 2.)

#### Required Specified General Education Credits — 14 semester hours

*Category 6. Science and Mathematics*

- BIO 111 Survey of Organismal Biology (5) (6.b.)
- CHEM 111 Principles of Chemistry I (5) (6.d.)
- BIO 110 Principles of Biology (4)

Elective General Education Credits — 28 semester hours

University Wide Elective Credits — 14 semester hours

**BIOLOGICAL SCIENCES, B.A.**

## Liberal Arts Emphasis

**Program Requirements**

<b>Required Major Credits</b> .....	12
<b>Elective Major Credits</b> .....	20-21
<b>Required Supporting Credits</b> .....	18
<b>Required Minor Credits</b> .....	0
<b>Required Specified General Education Credits</b> .....	14
<b>Required PTEP Credits</b> .....	0
<b>Total Program Credits, 64-65</b>	
<b>Elective General Education Credits</b> .....	28
<b>University Wide Elective Credits</b> .....	27-28
<b>Total credits required for this degree</b> .....	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 skills 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 Major Credits — 12 semester hours**

- BIO 220 Genetics (4)
- BIO 460 Ecology (4)
- BIO 465 Evolution (3)
- BIO 491 Senior Seminar (1)

**Elective Major Credits — 20-21 semester hours**

*Biological Science-Organismal — 10 semester hours (minimum)*

- BIO 351 Microbiology (4)
- BOT 330 Plant Taxonomy (4)
- BOT 333 Morphogenesis of Algae and Fungi (4)
- ZOO 330 Ornithology (3)
- ZOO 331 General Entomology (4)
- ZOO 332 Invertebrate Zoology (3)
- ZOO 333 General Parasitology (4)
- ZOO 334 Mammalogy (4)
- ZOO 335 Survey of Fishes, Amphibians and Reptiles (4)

*Biological Science-Anatomy/Physiology (7 semester hours-minimum)*

- BIO 450 Cell Physiology (4)
- BOT 350 General Plant Physiology (4)
- BOT 440 Anatomy and Morphogenesis of Plants (4)

*Select one of the following (3-4 semester hours):*

- ZOO 245 Introduction to Human Anatomy Physiology (4)
- ZOO 350 Human Physiology (4)
- ZOO 341 Human Anatomy (3)

**Required Supporting Credits — 18 semester hours**

*Chemistry Credits (4 semester hours)*

- 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) (Gen.Ed. 2.)  
or a higher level Mathematics course (3)
- SCI 391 Computer Applications in Science (2)

*Earth Sciences Credits (4 semester hours)*

- GEOL 100 General Geology (4)

**Required Specified General Education Credits — 14 semester hours**

*Category 6. Science and Mathematics*

- BIO 111 Survey of Organismal Biology (5) (6.b.)
- CHEM 111 Principles of Chemistry I (5) (6.d.)
- BIO 110 Principles of Biology (4)

**Elective General Education Credits — 28 semester hours****University Wide Elective Credits — 27-28 semester hours**

**Note:** Credit is not allowed for both ZOO 245 and ZOO 350. Biological Science (select from BIO, BOT, or ZOO prefixes) (4 semester hours)

**BIOLOGICAL SCIENCES, B.A.**

## Teaching-Secondary Biology Emphasis

**Program Requirements**

<b>Required Major Credits</b> .....	25
<b>Elective Major Credits</b> .....	4
<b>Required Supporting Credits</b> .....	18
<b>Required Minor Credits</b> .....	0
<b>Required Specified General Education Credits</b> .....	17
<b>Required PTEP Credits</b> .....	37
<b>Total Program Credits, 101</b>	
<b>Elective General Education Credits</b> .....	25
<b>University Wide Elective Credits</b> .....	0
<b>Total credits required for this degree</b> .....	126

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 Major Credits — 25 semester hours**

- BIO 220 Genetics (4)
- BIO 351 Microbiology (4)
- BIO 371 Teaching Strategies for Biology Teachers (1)
- BIO 460 Ecology (4)
- BIO 465 Evolution (3)
- BIO 491 Senior Seminar (1)
- BOT 350 General Plant Physiology (4)
- ZOO 245 Introduction to Human Anatomy Physiology (4)

**Elective Major Credits — 4 semester hours (minimum)**

*Earth Sciences (select one of the following):*

- AST 100 General Astronomy (4)
- MET 205 General Meteorology (4)

**Required Supporting Credits — 18 semester hours**

*Chemistry Credits (4 semester hours)*

- CHEM 131 Introductory Organic Chemistry (4)

*Physics Credits (10 semester hours)*

- PHYS 220 Introductory Physics I (5)
- PHYS 221 Introductory Physics II (5)

*Earth Science Credits (4 semester hours)*

- GEOL 100 General Geology (4)

**Required Specified General Education Credits — 17 semester hours**

*Category 2. Mathematics*

- STAT 150 Introduction to Statistical Analysis (3)

*Category 6. Science and Mathematics*

- BIO 111 Survey of Organismal Biology (5) (6.b.)
- CHEM 111 Principles of Chemistry I (5) (6.d.)
- BIO 110 Principles of Biology (4)

**Required PTEP Credits — 37 semester hours****Elective General Education Credits — 25 semester hours**

**Note:** Completion of PTEP is necessary for this program.



## BLACK STUDIES, B.A. (AFRICANA STUDIES DEPARTMENT)

### Program Requirements

Required Major Credits	19-22
Elective Major Credits	12
Required Supporting Credits	0
Required Minor Minimum Credits	0
Required Specified General Education Credits	6
Required PTEP Credits	0
Total Program Credits, 37-40	
Elective General Education Credits	34
University Wide Elective Credits	46-49
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. The program's courses are organized into two foci: social and behavioral studies and cultural studies.

Graduates in Black Studies will be prepared to enter professional and academic careers in the humanities and social sciences. They will possess accurate information about the histories and identities of people of African descent. They will be exposed to and contribute to scholarship about people of African descent and will have a liberal arts education and those skills necessary for working in multicultural environments.

They will understand the struggles of people of African descent. As a job-related field, Black Studies fosters the intellectual and professional expertise valuable for positions in teaching (elementary, secondary and post-secondary levels), business, criminal justice, counseling, education and health-related fields. Additional applications include community resource development, urban planning, public and social policy analysis, law, social services, government (local, state and federal) and international relations. Graduates also qualify for graduate work in Black Studies, Africana Studies or Pan African Studies.

#### Required Major Credits — 19-22 semester hours

- AFS 104 Survey of Africa (3)
- AFS 202 African American History II (3)
- AFS 240 Dynamics of Racism (3)
- AFS 305 Survey of African American Literature (3)
- AFS 386 Modern African World (3)
- AFS 399 Community Study Project (1-4)
- AFS 490 Seminar in Black Studies (3)

#### Elective Major Credits — 12 semester hours

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

- AFS 102 The Black Woman in America (3)
- AFS 222 Black Nationalism in America (3)
- AFS 332 Pan-Africanism (3)
- AFS 395 Aspects of the African-American Experience (3)
- AFS 420 Black Urban Politics (3)
- AFS 456 Leadership and the Black Church (3)

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

- AFS 101 Crisis of Identity (3)
- AFS 230 Black Women in Literature (3)
- AFS 340 The Black Family (3)
- AFS 360 Music and the Black Experience (3)
- AFS 395 Aspects of the African-American Experience (3)
- AFS 396 African and African American World Views (3)
- AFS 486 Current Issues in Multicultural Education (3)
- ID 308 Workshop (1-3)

#### Required Specified General Education Credits — 6 semester hours

*Category 4.c. Arts and Letters*

- AFS 201 African American History I (3)

*Category 7.b. Interdisciplinary, Multicultural and Internat. Studies*

- AFS 100 Introduction to Black Studies (3)

#### Elective General Education Credits — 34 semester hours

#### University Wide Elective Credits — 46-49 semester hours

Notes: Electives are chosen with the approval of the chair.

The course, AFS 395, Aspects of the African American Experience, is a variable subtitle course. Students may elect this course more than once, each time with materials applicable to a different program focus, but may not repeat the same subtitle in a program focus where the student has already taken the course for credit.

Majors in Black Studies must choose at least one elective at the 300-level and one elective at the 400-level. Also, for majors, AFS 399 must always be taken at 3 semester hours.

**CHEMISTRY, B.A.****Biochemistry Emphasis (ACS Certified)****Program Requirements**

<b>Required Major Credits</b> .....	<b>49-51</b>
<b>Elective Major Credits</b> .....	<b>0</b>
<b>Required Supporting Credits</b> .....	<b>21</b>
<b>Required Minor Credits</b> .....	<b>0</b>
<b>Required Specified General Education Credits</b> .....	<b>*16</b>
<b>Required PTEP Credits</b> .....	<b>0</b>
<b>Total Program Credits, 86-88</b>	
<b>Elective General Education Credits</b> .....	<b>22</b>
<b>University Wide Elective Credits</b> .....	<b>10-12</b>
<b>Total credits required for this degree</b> .....	<b>120</b>

This program is designed to give students a broad background in five areas of chemistry (including analytical chemistry, biochemistry, inorganic chemistry, organic chemistry and physical chemistry) and biology. Students will have the opportunity to work with a faculty member on an independent research project in chemistry. Students receiving this degree can be certified by the American Chemical Society. See advisor for details.

Students graduating with this degree emphasis will be prepared to pursue graduate study in chemistry, biochemistry, molecular biology, environmental health, professional schools (e.g., medicine, dentistry, veterinary medicine and other health-related areas) or obtain an entry position within the chemical or biotechnological industry.

**Required Major Credits — 49-51 semester hours**

*Core Courses - 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)

*and complete the following core courses:*

CHEM 321 Chemical Analysis (4)

CHEM 331 Organic Chemistry I (5)

CHEM 332 Organic Chemistry II (5)

CHEM 441 Inorganic Chemistry I (2)

*and complete the following courses:*

CHEM 421 Instrumental Analysis (4)

CHEM 442 Inorganic Chemistry II (1)

CHEM 443 Inorganic Chemistry Laboratory (1)

CHEM 451 Physical Chemistry I (4)

CHEM 452 Physical Chemistry II (4)

CHEM 453 Physical Chemistry I Laboratory (1)

CHEM 454 Physical Chemistry II Laboratory (1)

CHEM 481 General Biochemistry I (3)

CHEM 482 General Biochemistry II (3)

CHEM 483 Experimental Biochemistry I (1)

CHEM 484 Experimental Biochemistry II (1)

**Required Supporting Credits — 21 semester hours**

*Mathematics*

MATH 233 Calculus III (4)

*Physics*

PHYS 241 General Physics II (5)

*Biology*

BIO 110 Principles of Biology (4)

BIO 220 Genetics (4)

BIO 450 Cell Physiology (4)

**Required Specified General Education Credits — 16 semester hours**

\*This program requires you to complete the following course(s) within the 40 hours of General Education. \*CHEM 111 or \*CHEM 114, required in this program will count toward General Education credit. (5 credit hours)

*Category 1.b. Intermediate Composition*

SCI 291 Scientific Writing (3)

*Category 2. Mathematics*

MATH 131 Calculus I (4)

*Category 6. Science and Mathematics*

MATH 132 Calculus II (4) (c.Mathematics)

PHYS 240 General Physics I (5) (d. Physical Science)

**Elective General Education Credits — 22 semester hours**

**University Wide Elective Credits — 10-12 semester hours**

**Notes:** Qualifying students may be eligible for a five-year program resulting in a B.A./M.A. degree. Consult your advisor early in your program for details.

Chemistry majors, minors and other well-qualified students are recommended to take CHEM 114 and CHEM 115.

It is recommended that students consider electives in public speaking (SPCO 100/SPCO 103) and for those students planning to go to graduate school, a foreign language (GER 100 or GER 101 and GER 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.

**CHEMISTRY, B.A.**

## Chemistry Emphasis (ACS Certified)

**Program Requirements**

<b>Required Major Credits</b> .....	<b>41-43</b>
<b>Elective Major Credits</b> .....	<b>4-5</b>
<b>Required Supporting Credits</b> .....	<b>9</b>
<b>Required Minor Credits</b> .....	<b>0</b>
<b>Required Specified General Education Credits</b> .....	<b>*16</b>
<b>Required PTEP Credits</b> .....	<b>0</b>
<b>Total Program Credits, 70-73</b>	
<b>Elective General Education Credits</b> .....	<b>22</b>
<b>University Wide Elective Credits</b> .....	<b>25-28</b>
<b>Total credits required for this degree</b> .....	<b>120</b>

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 Major Core — 41-43 semester hours***Chemistry Core*

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)

and the following core courses:

CHEM 321 Chemical Analysis (4)  
CHEM 331 Organic Chemistry I (5)  
CHEM 332 Organic Chemistry II (5)  
CHEM 441 Inorganic Chemistry I (2)

and complete the following courses:

CHEM 421 Instrumental Analysis (4)  
CHEM 442 Inorganic Chemistry II (2)  
CHEM 443 Inorganic Chemistry Laboratory (1)  
CHEM 451 Physical Chemistry I (4)  
CHEM 452 Physical Chemistry II (4)  
CHEM 453 Physical Chemistry I Laboratory (1)  
CHEM 454 Physical Chemistry II Laboratory (1)

**Elective Major Credits — 4-5 semester hours**

Select one Laboratory Course from the following:

CHEM 483 Experimental Biochemistry I (1)  
CHEM 499 Seminar and Research in Chemistry (1-3)

Select one Lecture Course from the following:

CHEM 481 General Biochemistry I (3)  
CHEM (any 500 Level Courses) (3)

**Required Supporting Credits — 9 semester hours***Mathematics*

MATH 233 Calculus III (4)

*Physics*

PHYS 241 General Physics II (5)

**Required Specified General Education Credits — 16 semester hours**

\*This program requires you to complete the following course(s) within the 40 hours of General Education. \*CHEM 111 or \*CHEM 114, required in this program will count toward General Education credit. (5 credit hours)

*Category 1.b. Intermediate Composition*

SCI 291 Scientific Writing (3)

*Category 2. Mathematics*

MATH 131 Calculus I (4)

*Category 6. Sciences and Mathematics*

MATH 132 Calculus II (4)

PHYS 240 General Physics I (5)

**Elective General Education Credits — 22 semester hours****University Wide Elective Credits — 25-28 semester hours**

**Notes:** Qualifying students may be eligible for a five-year program resulting in a B.A./M.A. degree. Consult your advisor early in your program for details.

Chemistry majors, minors and other well-qualified students are recommended to take CHEM 114 and CHEM 115.

It is recommended that students consider electives in public speaking (SPCO 100/SPCO 103) and for those students planning to go to graduate school, a foreign language (GER 100 or GER 101 and GER 102). Additional elective coursework in chemistry, mathematics, statistics and/or physics is desirable as time permits. Graduate level CHEM courses are recommended as well as MATH 221, MATH 335, STAT 150, PHYS 321 and PHYS 343.

Juniors and seniors are expected to participate in the Department's undergraduate research program. All students in the program must take an assessment examination before graduation. Students wishing to participate in the Honors Program should consult their advisors about general education selections and other requirements.

**CHEMISTRY, B.A.****Industrial Chemistry Emphasis****Program Requirements**

<b>Required Major Credits</b> .....	<b>33-35</b>
<b>Elective Major Credits</b> .....	<b>2</b>
<b>Required Supporting Credits</b> .....	<b>5</b>
<b>Required Minor Minimum Credits</b> .....	<b>18</b>
<b>Required Specified General Education Credits</b> .....	<b>*15</b>
<b>Required PTEP Credits</b> .....	<b>0</b>
<b>Total Program Credits, 73-75</b>	
<b>Elective General Education Credits</b> .....	<b>21</b>
<b>University Wide Elective Credits</b> .....	<b>24-26</b>
<b>Total credits required for this degree</b> .....	<b>120</b>

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 — 33-35 semester hours***Chemistry Core*

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)

and complete the following courses:

CHEM 321 Chemical Analysis (4)  
CHEM 331 Organic Chemistry I (5)  
CHEM 332 Organic Chemistry II (5)  
CHEM 441 Inorganic Chemistry I (2)

and complete the following courses:

CHEM 421 Instrumental Analysis (4)  
CHEM 443 Inorganic Chemistry Laboratory (1)  
CHEM 450 Survey of Physical Chemistry (4)

**Elective Major Credits — 2 semester hours**

Select one of the following courses:

CHEM 493 Special Topics in Chemistry (2)  
CHEM 360 Environmental Chemistry (2)

**Required Supporting Credits — 5 semester hours**

PHYS 221 Introductory Physics II (5)

**Required Minor Minimum Credits — 18 semester hours****Required Specified General Education Credits — 15 semester hours**

\*This program requires you to complete the following course(s) within the 40 hours of General Education. \*CHEM 111 or \*CHEM 114, required in this program will count toward General Education credit. (5 credit hours)

*Category 1.b. Intermediate Composition*

SCI 291 Scientific Writing (3)

*Category 2. Mathematics*

MATH 131 Calculus I (4)

*Category 5. Social Science*

ECON 103 Introduction to Economics: Macroeconomics (3)

*Category 6. Science and Mathematics*

PHYS 220 Introductory Physics I (5)

**Elective General Education Credits — 21 semester hours****University Wide Elective Credits — 24-26 semester hours**

**Notes:** Chemistry majors, minors and other well-qualified students are recommended to take CHEM 114 and CHEM 115.

A minor is required for this emphasis. Possible minors include business or economics for students interested in management, biology for students leaning toward

biotechnology or English for students considering technical writing. Consult your advisor for additional coursework to complement this emphasis.

It is recommended that students consider electives in public speaking (SPCO 100/SPCO 103) and for those students planning to go to graduate school, a foreign language (GER 100 or GER 101 and GER 102). Additional elective coursework in chemistry, mathematics, statistics and/or physics is desirable as time permits. Graduate level CHEM courses are recommended as well as MATH 132, MATH 221, STAT 150 and PHYS 321.

Juniors and Seniors are expected to participate in the Department's undergraduate research program. All students in the program must take an assessment examination before graduation. Students wishing to participate in the Honors Program should consult their advisors about general education selections and other requirements.

**CHEMISTRY, B.A.****Pre-Health Emphasis****Program Requirements**

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

**Option A: Pre-Medical Pre-Dental, Pre-Optometry, Pre-Veterinary, Pre-Podiatry and Pre-Pharmacy.**

Required Major Credits . . . . . 36-38

Elective Major Credits . . . . . 0

Required Supporting Credits . . . . . 20-21

Required Minor Minimum Credits . . . . . 0

Required Specified General Education Credits . . . . . \*16

Required PTEP Credits . . . . . 0

Total Program Credits, 72-75

Elective General Education Credits . . . . . 22

University Wide Elective Credits . . . . . 23-26

This program offers training in chemistry, mathematics and physics with a broad base in biological sciences and biochemistry. It provides a solid 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 Major Credits — 36-38 semester hours**

Core Courses - 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)

and complete the following core courses:

CHEM 321 Chemical Analysis (4)

CHEM 331 Organic Chemistry I (5)

CHEM 332 Organic Chemistry II (5)

CHEM 441 Inorganic Chemistry I (2)

and complete the following courses:

CHEM 450 Survey of Physical Chemistry (4)

CHEM 481 General Biochemistry I (3)

CHEM 482 General Biochemistry II (3)

CHEM 483 Experimental Biochemistry I (1)

CHEM 484 Experimental Biochemistry II (1)

**Required Supporting Credits — 20-21 semester hours**

Biology

BIO 111 Survey of Organismal Biology (5)

Physics

PHYS 221 Introductory Physics II (5)

and select two of the following biology credits:

ZOO 341 Human Anatomy (3)

ZOO 350 Human Physiology (4)

BIO 351 Microbiology (4)

Select one course from the CS or STAT prefixes (3)

**Required Specified General Education Credits - 16 semester hours**

\*This program requires you to complete the following course(s) within the 40 hours of General Education. \*CHEM 111 or \*CHEM 114, required in this program will count toward General Education credit. (5 credit hours)

Category 1b — Intermediate Composition

SCI 291 Scientific Writing (3)

Category 2 — Mathematics

MATH 131 Calculus I (4)

Category 6 — Sciences and Mathematics

BIO 110 Principles of Biology (4)

PHYS 220 Introductory Physics I (5)

Elective General Education Credits — 22 semester hours

University Wide Elective Credits — 23-26 semester hours

Notes: Chemistry majors, minors and other well-qualified students are recommended to take CHEM 114 and CHEM 115.

It is recommended that students consider electives in public speaking (SPCO 100/SPCO 103) and for those students planning to go to graduate school, a foreign language (GER 100 or GER 101 and GER 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.

**Option B: Pre-Medical Technology**

Required Major Credits . . . . . 32-34

Elective Major Credits . . . . . 0

Required Supporting Credits . . . . . 49

Required Minor Minimum Credits . . . . . 0

Required Specified General Education Credits . . . . . \*8

Required PTEP Credits . . . . . 0

Total Program Credits, 89-91

Elective General Education Credits . . . . . 28

University Wide Elective Credits . . . . . 1-3

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 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 Major Credits — 32-34 semester hours**

Core Courses - 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)

and complete the following core courses:

CHEM 321 Chemical Analysis (4)

CHEM 331 Organic Chemistry I (5)

CHEM 332 Organic Chemistry II (5)

and complete the following courses:

CHEM 481 General Biochemistry I (3)

CHEM 482 General Biochemistry II (3)

BCHM 381 Immunology (2)

**Required Supporting Credits — 49 semester hours**

Biology

BIO 111 Survey of Organismal Biology (5)

BIO 351 Microbiology (4)

ZOO 341 Human Anatomy (3)

ZOO 350 Human Physiology (4)

Business

BAMG 350 Management of Organizations (3)

Medical Technology

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-Immunochemistry (2)  
 MTEC 431 Immunochemistry Laboratory I (2)  
 MTEC 432 Immunochemistry Laboratory II (1)  
 MTEC 440 Medical Microbiology (3)  
 MTEC 441 Microbiology Laboratory I (2)  
 MTEC 442 Microbiology Laboratory II (3)  
 MTEC 460 Urinalysis and Clinical Microscopy (1)  
 MTEC 490 Hematology-Coagulation (3)  
 MTEC 491 Hematology Laboratory I (2)  
 MTEC 492 Hematology Laboratory II (2)  
 MTEC 493 Hematology-Serology-Electrophoresis Laboratory III (1)

Biology — 4 semester hours

and select one of the following courses:

BIO 220 Genetics (4)

BIO 458 Diagnostic Microbiology (4)

ZOO 333 General Parasitology (4)

**Required Specified General Education Credits - 8 semester hours**

\*This program requires you to complete the following course(s) within the 40 hours of General Education. \*CHEM 111 or \*CHEM 114, required in this program will count toward General Education credit. (5 credit hours)

Category 2. Mathematics

MATH 124 College Algebra (4)

Category 6. Science and Mathematics

BIO 110 Principles of Biology (4)

\*CHEM 111 or CHEM 114, required in this program, will fulfill this requirement (4-5).

A course in scientific/technical writing is recommended to complete the Category 1.b. Intermediate Composition requirement.

**Elective General Education Credits — 28 semester hours**

University Wide Elective Credits — 1-3 semester hours

**Notes:** Students completing the required biology courses including the biology elective above will be eligible for a minor in biology.

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.

**CHEMISTRY, B.A.****Teaching Emphasis (ACS Certified)**

<b>Required Major Credits</b> .....	<b>32-34</b>
<b>Elective Major Credits</b> .....	<b>0</b>
<b>Required Supporting Credits</b> .....	<b>0</b>
<b>Required Minor Minimum Credits</b> .....	<b>0</b>
<b>Required Credits for Science Licensure</b> .....	<b>17</b>
<b>Required Specified General Education Credits</b> .....	<b>*13</b>
<b>Required PTEP Credits</b> .....	<b>37-39</b>
<b>Total Program Credits, 99-103</b>	
<b>Elective General Education Credits</b> .....	<b>25</b>
<b>University Wide Elective Credits</b> .....	<b>0</b>
<b>Total credits required for this degree</b> .....	<b>124-128</b>

This program is designed to prepare students as secondary school chemistry teachers licensed in science by the Colorado Department of Education. In addition to a strong background in chemistry, students will receive training in biological sciences, physics, earth sciences and mathematics. Students receiving this degree can be certified by the American Chemical Society. See advisor for details.

Students graduating with this degree and licensure at the elementary/middle school level could become a teacher or science coordinator at an elementary or middle school. Students graduating with this degree emphasis will be well prepared to teach chemistry and other sciences in junior and senior high school. Students completing this program will be prepared to pursue graduate study in chemical education or science education.

The program will take four-five years to complete depending on high school background and the point in the educational career at which the program is entered.

**Required Chemistry Core Credits — 32-34 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)

and complete the following courses:

CHEM 321 Chemical Analysis (4)

CHEM 331 Organic Chemistry I (5)

CHEM 332 Organic Chemistry II (5)

CHEM 441 Inorganic Chemistry I (2)

and complete the following courses:

CHED 495 Seminar in Teaching Chemistry (2)

CHEM 360 Environmental Chemistry (2)

CHEM 450 Survey of Physical Chemistry (4)

**Required Credits for Science Licensure — 17 semester hours**

*Biology*

BIO 111 Survey of Organismal Biology (5)

*Earth Sciences*

GEOL 201 Physical Geology (4)

*Physics*

PHYS 221 Introductory Physics II (5)

*Secondary Licensure*

SCED 441 Methods of Teaching Secondary School Science (3)

**Required Specified General Education Credits — 13 semester hours**

\*This program requires you to complete the following course(s) within the 40 hours of General Education. \*CHEM 111 or \*CHEM 114, required in this program will count toward General Education credit. (5 credit hours)

*Category 2. Mathematics*

MATH 131 Calculus I (4)

*Category 6. Sciences and Mathematics*

BIO 110 Principles of Biology (4)

PHYS 220 Introductory Physics I (5)

**Elective General Education Credits — 25 semester hours**

**Notes:** It is recommended that students have a fundamental background in computers. SCI 393 is recommended.

ACS Certification may be obtained with this degree by taking the following courses:

CHEM 421 Instrumental Analysis (4)

CHEM 443 Inorganic Chemistry Laboratory (1)

and replacing CHEM 450 (4) with the following:

CHEM 451 Physical Chemistry I (4)

CHEM 452 Physical Chemistry II (4)

CHEM 453 Physical Chemistry I Laboratory (1)

CHEM 454 Physical Chemistry II Laboratory (1)

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.

## SPEECH COMMUNICATION MAJOR REQUIREMENTS

### Communication, B.A.

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.

## COMMUNICATION, B.A.

### Human Communication Emphasis

#### Program Requirements

Required Major Credits	27
Elective Major Credits	9
Required Supporting Credits	0
Required Minor Minimum Credits	18
Required Specified General Education Credits	0
Required PTEP Credits	0
<b>Total Program Credits, 54</b>	
Elective General Education Credits	40
University Wide Elective Credits	26
<b>Total credits required for this degree</b>	<b>120</b>

A major in the discipline of speech communication allows the student to examine closely the many ways in which spoken language is the foundation of human societies and cultures. At UNC, speech communication coursework focuses on theoretical, analytic and practical aspects of human interaction. Students may elect to emphasize the study of communication in interpersonal, small group, organizational and intercultural contexts. Practical skills may be obtained in professional presentation, persuasion, leadership, and communication consulting.

Students completing this program may elect to apply for graduate study in the field of speech communication, to apply to law or other professional schools, or to begin a career with businesses who are interested in hiring people whose expertise involves human communication.

#### Required Major Credits — 27 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 321 Interpersonal Theory (3)
SPCO 330 Small Group Communication (3)
SPCO 343 Persuasion (3)
SPCO 491 Speech Communication Theory (3)
SPCO 492 Undergraduate Internship (6)*/**

#### Elective Major Credits — 9 semester hours

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 323 Intercultural Communication (3) (Gen. Ed. 7.c)
SPCO 324 Family Communication (3)
SPCO 331 Organizational Communication (3)
SPCO 341 Courtroom Communication (3)
SPCO 350 Communication in the Classroom (3)
SPCO 352 Methods of Teaching Speech Communication (3)
SPCO 404 Rhetorical Theory (3)
SPCO 422 Directed Study (1-3)
SPCO 431 Communication and Leadership (3)
SPCO 444 Argumentation Theory (3)
SPCO 461 Seminar in Speech Communication (1-3)

#### General Education Requirements

The department expects its new majors to have already made significant progress toward completion of the General Education requirements.

#### Grade Point Average

Students must have a minimum of 2.5 GPA for all courses completed for graduation. Students wishing to be admitted to the Professional Teacher Education Program (PTEP) in Speech Communication must have a minimum of 3.0 GPA for all courses completed in Speech Communication.

#### Required Minor Minimum Credits — 18 semester hours

#### Elective General Education Credits — 40 semester hours

#### University Wide Elective Credits — 26 semester hours

\*Students in Teacher Preparation programs may substitute STEP 490: Student teaching for internship requirement.

\*\*Students in elementary and middle grades Teacher Preparation programs may substitute their PTEP program for the minor requirement.

\*\*Students who are not eligible for an internship are required to complete six additional credits of Speech Communication electives.

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 and/or SPCO 480 may count toward the major requirements.



## COMMUNICATION, B.A.

### Secondary Education Emphasis

#### Program Requirements

<b>Required Major Credits</b> .....	<b>30</b>
<b>Elective Major Credits</b> .....	<b>7</b>
<b>Required Supporting Credits</b> .....	<b>3</b>
<b>Required Minor Minimum Credits</b> .....	<b>0</b>
<b>Required Specified General Education Credits</b> .....	<b>0</b>
<b>Required PTEP Credits</b> .....	<b>40</b>
<b>Total Program Credits, 80</b>	
<b>Elective General Education Credits</b> .....	<b>40</b>
<b>University Wide Elective Credits</b> .....	<b>0</b>
<b>Total credits required for this degree</b> .....	<b>120</b>

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 Major Credits — 30 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 321 Interpersonal Theory (3)
- SPCO 330 Small Group Communication (3)
- SPCO 343 Persuasion (3)
- SPCO 352 Methods of Teaching Speech Communication (3)
- SPCO 491 Speech Communication Theory (3)

#### Elective Major Credits — 7 semester hours

- SPCO 221 Non-Verbal Communication (3)
- SPCO 232 Principles of Interviewing (3)
- SPCO 323 Intercultural Communication (3)
- SPCO 324 Family Communication (3)
- SPCO 331 Organizational Communication (3)
- SPCO 341 Courtroom Communication (3)
- SPCO 350 Communication in the Classroom (3)
- SPCO 404 Rhetorical Theory (3)
- SPCO 422 Directed Study (1-3)
- SPCO 431 Communication and Leadership (3)
- SPCO 444 Argumentation Theory (3)
- SPCO 461 Seminar in Speech Communication (1-3)
- SPCO 492 Undergraduate Internship (6)

#### Required Supporting Credits — 3 semester hours

- JMC 100 Introduction to Journalism and Mass Communications (3)

#### Required PTEP Credits — 40 semester hours

#### Elective General Education Credits — 40 semester hours

**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 Catalog, must be met.

A Speech Communication major may apply for admission to the Professional Teacher Education Program (PTEP) 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.

**EARTH SCIENCES, B.A.****Environmental Earth Sciences Emphasis****Program Requirements**

<b>Required Major Credits</b> .....	<b>20</b>
<b>Elective Major Credits</b> .....	<b>14</b>
<b>Required Supporting Credits</b> .....	<b>16</b>
<b>Required Minor Credits</b> .....	<b>0</b>
<b>Required Specified General Education Credits</b> .....	<b>21</b>
<b>Required PTEP Credits</b> .....	<b>0</b>
<b>Total Program Credits, 71</b>	
<b>Elective General Education Credits</b> .....	<b>22</b>
<b>University Wide Elective Credits</b> .....	<b>27</b>
<b>Total credits required for this degree</b> .....	<b>120</b>

The multidisciplinary Environmental Earth Sciences emphasis is intended for individuals who wish to pursue careers with responsibilities that include environmental monitoring, regulation or management. Students may prepare for entry-level positions in the environmental industry or governmental agencies, or for graduate education in such fields as resource management, environmental public policy and environmental law. The program also is well suited for anyone with a serious interest in the scientific aspect of environmental issues.

**Required Major Credits — 20 semester hours**

GEOL 201 Physical Geology (4)  
 GEOL 202 Historical Geology (4)  
 GEOL 410 Groundwater Geology (2)  
 GEOL 460 Geomorphology (3)  
 MET 421 Climatology (3)  
 OCN 301 Physical and Chemical Oceanography (4)

**Elective Major Credits — 14 semester hours**

Required Elective Credits including at least two earth sciences courses selected in consultation with an academic advisor to explore an area of interest in greater depth. Courses are to be selected based on the following list.

*Earth Science Credits:*

GEOL 320 Mineralogy (4)  
 GEOL 330 Earth Materials (3)  
 GEOL 450 Sedimentology and Stratigraphy (4)  
 GEOL 464 Glacial and Quaternary Geology (3)  
 GEOL 525 Economic Geology (3)  
 MET 360 Physical Meteorology (3)  
 MET 536 Biometeorology (3)  
 OCN 302 Geological and Biological Oceanography (4)

*Supporting Discipline Credits*

CHEM 131 Introductory Organic Chemistry (4)  
 CHEM 360 Environmental Chemistry (2)  
 ECON 356 Water Resource Economics (3)  
 ENST 335 Environmental and Resource Economics (3)  
 ENST 355 Introduction to Environmental Health (3)  
 GEOG 315 Resource Management (3)

**Required Supporting Credits — 16 semester hours**

BIO 110 Principles of Biology (4)  
 BIO 460 Ecology (4)  
 CHEM 112 Principles of Chemistry II (5)  
 STAT 150 Introduction to Statistical Analysis (3)

**Required Specified General Education Credits — 21 semester hours***Category 2. Mathematics*

MATH 124 College Algebra (4)

*Category 5.b. Social Sciences*

ECON 105 Introduction to Economics: Microeconomics (3)

*Category 6. Science and Mathematics*

MET 205 General Meteorology (4) (a. Earth Sciences)  
 BIO 111 Survey of Organismal Biology (5) (b. Life Sciences)  
 CHEM 111 Principles of Chemistry I (5) (d. Physical Science)

**Elective General Education Credits — 22 semester hours****University Wide Elective Credits — 27 semester hours**

**Notes:** 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 courses taken as part of this major is required for graduation.

**EARTH SCIENCES, B.A.**

## General Earth Sciences Emphasis

**Program Requirements**

<b>Required Major Credits</b> .....	<b>26</b>
<b>Elective Major Credits</b> .....	<b>1-11</b>
<b>Required Supporting Credits</b> .....	<b>20-30</b>
<b>Required Minor Credits</b> .....	<b>0</b>
<b>Required Specified General Education Credits</b> .....	<b>4</b>
<b>Required PTEP Credits</b> .....	<b>0</b>
<b>Total Program Credits, 61</b>	
<b>Elective General Education Credits</b> .....	<b>36</b>
<b>University Wide Elective Credits</b> .....	<b>23</b>
<b>Total credits required for this degree</b> .....	<b>120</b>

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.

The following program is recommended for students, including those who plan to be elementary or middle school teachers, who wish to obtain a broad background in the earth sciences and the supporting sciences and mathematics.

**Required Major Credits — 26 semester hours**

Must be selected from courses with AST, ESCI, GEOL, MET or OCN prefixes that may be counted for earth sciences majors. At least two courses must be taken from each of two of the earth science disciplines (AST, GEOL, MET, OCN).

**Core Credits — 26 semester hours**

AST 301 Classical Astronomy (3)  
 AST 302 Modern Astronomy (3)  
 GEOL 201 Physical Geology (4)  
 GEOL 202 Historical Geology (4)  
 MET 421 Climatology (3)  
 ESCI 450 Strategies in Teaching in Earth Sciences (1)  
 OCN 301 Physical and Chemical Oceanography (4)  
 OCN 302 Geological and Biological Oceanography (4)

**Elective Major Credits — 1-11 semester hours**

(selected from the following list in consultation with advisor)

ESCI 265 Earth Science Concepts for Elementary Teachers (3)  
 ESCI 497 Undergraduate Research (1-4)  
 GEOL 330 Earth Materials (3)  
 GEOL 340 Paleontology (4)  
 GEOL 390 Colorado Geology (3)  
 GEOL 460 Geomorphology (3)  
 GEOL 464 Glacial and Quaternary Geology (3)  
 MET 306 Dynamic Meteorology I (3)  
 MET 360 Physical Meteorology (3)

**Required Supporting Credits — 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.

(select from the following list in consultation with advisor)

BIO 110 Principles of Biology (4)  
 BIO 111 Survey of Organismal Biology (5)  
 BIO 265 Life Science Concepts (3)  
 BIO 380 Aquatic Biology (4)  
 BIO 460 Ecology (4)  
 CG 105 Personal Computer Applications (3)  
 CHEM 103 Introductory Chemistry (3)  
 CHEM 108 Fundamentals of Chemistry I (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 Plane Trigonometry (3)  
 MATH 131 Calculus I (4)  
 MATH 132 Calculus II (4)  
 MATH 181 Fundamentals of Mathematics I (3)  
 MATH 182 Fundamentals of Mathematics II (2)  
 PHYS 220 Introductory Physics I (5)  
 PHYS 221 Introductory Physics II (5)  
 PHYS 321 Elementary Modern Physics (3)  
 SCI 265 Physical Science Concepts (4)  
 SCI 391 Computer Applications in Science (2)

**Required Specified General Education Credits — 4 semester hours**

*Category 6. Science and Mathematics*

**MET 205 General Meteorology (4)** (*a. Earth Sciences*)

**Elective General Education Credits — 36 semester hours** (The following courses are listed above)

*Category 2. Mathematics - 3 hours required*

Select one of the following: MATH 124, MATH 131, MATH 181 or MATH 182

*Category 6. Science and Mathematics - 3 semester hours remaining (4 hours specified above)*

Select one of the following: BIO 110, BIO 111, CHEM 108, CHEM 111, PHYS 220 or SCI 265

*Category 7. Interdisciplinary - 6 hours required*

ENST 225

**University Wide Elective Credits — 23 semester hours**

**Notes:** The course of study for this major, including both required and elective courses, must total at least 60 credit hours and must be developed in consultation with and be approved by the student's departmental advisor.

At least one half of the credit hours in AST, ESCI, GEOL, MET and OCN courses must be numbered 300 or above. No more than 8 credit hours of AST, ESCI, GEOL, MET and OCN courses numbered below 200 may be counted toward the major.

Science and mathematics courses approved for General Education that are taken as part of this major may also be used to satisfy General Education requirements.

**EARTH SCIENCES, B. A.**

## Geology Emphasis

**Program Requirements**

Required Major Credits	39
Elective Major Credits	0
Required Supporting Credits	21
Required Minor Credits	0
Required Specified General Education Credits	19
Required PTEP Credits	0
<b>Total Program Credits, 79</b>	
Elective General Education Credits	25
University Wide Elective Credits	16
<b>Total credits required for this degree</b>	<b>120</b>

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 Major Credits — 39 semester hours**

- GEOL 201 Physical Geology (4)
- GEOL 202 Historical Geology (4)
- GEOL 320 Mineralogy (4)
- GEOL 340 Paleontology (4)
- GEOL 421 Optical Mineralogy and Petrography (4)
- GEOL 450 Sedimentology and Stratigraphy (4)
- GEOL 460 Geomorphology (3)
- GEOL 470 Structural Geology (4)
- GEOL 481 Geologic Field Techniques (2)
- GEOL 482 Geology Field Camp (6)

**Required Supporting Credits — 21 semester hours**

- CHEM 112 Principles of Chemistry II (5)
- MATH 131 Calculus I (4)
- MATH 132 Calculus II (4)
- PHYS 221 Introductory Physics II (5)
- Geology elective (GEOL prefix course(s) that are open to majors) (3)

**Note:** 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.

**Required Specified General Education Credits — 19 semester hours***Category 2 — Mathematics*

- MATH 124 College Algebra (4)

*Category 6. Science and Mathematics*

- BIO 111 Survey of Organismal Biology (5) (b. Life Sciences)
- CHEM 111 Principles of Chemistry I (5) (d. Physical Science)
- PHYS 220 Introductory Physics I (5) (1GE credit hr)

**Elective General Education Credits — 25 semester hours****University Wide Elective Credits — 16 semester hours**

**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.

**EARTH SCIENCES, B.A.**

## Meteorology Emphasis

**Program Requirements**

Required Major Credits	25
Elective Major Credits	6
Required Supporting Credits	16
Required Minor Credits	0
Required Specified General Education Credits	18
Required PTEP Credits	0
<b>Total Program Credits, 65</b>	
Elective General Education Credits	25
University Wide Elective Credits	30
<b>Total credits required for this degree</b>	<b>120</b>

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 provides the background necessary for admission to graduate programs in the atmospheric sciences.

**Required Major Credits — 25 semester hours**

- MET 306 Dynamic Meteorology I (3)
- MET 315 Meteorological Instruments and Codes (2)
- MET 360 Physical Meteorology (3)
- MET 407 Dynamic Meteorology II (4)
- MET 421 Climatology (3)
- MET 441 Synoptic Meteorology (3)
- MET 442 Synoptic Meteorology Laboratory (3)
- OCN 301 Physical and Chemical Oceanography (4)

**Elective Major Credits — 6 semester hours**

*select two of the following courses:*

- MET 465 Radar Meteorology (3)
- MET 470 Satellite Meteorology (3)
- MET 536 Biometeorology (3)
- MET 595 Special Topics in Meteorology (1-4)

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

**Required Supporting Credits — 16 semester hours**

- Computer Science courses selected in consultation with advisor (4)
- MATH 132 Calculus II (4)
- PHYS 241 General Physics II (5)
- STAT 150 Introduction to Statistical Analysis (3)

**Required Specified General Education Credits — 18 semester hours***Category 2. Mathematics*

- MATH 131 Calculus I (4)

*Category 6. Science and Mathematics*

- MET 205 General Meteorology (4) (a. Earth Science)
- CHEM 111 Principles of Chemistry I (5) (d. Physical Science)
- PHYS 240 General Physics I (5) (2 GE credit hrs)

**Elective General Education Credits — 25 semester hours****University Wide Elective Credits — 30 semester hours**

**Notes:** CHEM 114 may be taken in lieu of CHEM 111.

A 2.0 grade point average in the major is required for graduation.

Science and mathematics courses approved for General Education that are taken as part of the major may also be used to satisfy General Education requirements.

Federal government requirements for employment as meteorologists and Graduate School admission in the atmospheric sciences usually require MATH 233 and MATH 335.

**EARTH SCIENCES, B.A.**

## Secondary Teaching Emphasis

**Program Requirements**

Required Major Credits	28
Elective Major Credits	0
Required Supporting Credits	19
Required Minor Credits	0
Required Specified General Education Credits	17
Required PTEP Credits	39
<b>Total Program Credits, 103</b>	
Elective General Education Credits	25
University Wide Elective Credits	0
<b>Total credits required for this degree</b>	<b>128</b>

The coursework and experiences in this major are designed to provide the student with a broad background in 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 and the Colorado Commission on Higher Education.

**Required Major Credits — 28 semester hours**

Course selection may vary, depending upon the educational background of the student, with approval of the advisor.

*The following courses are recommended:*

- AST 301 Classical Astronomy (3)
- AST 302 Modern Astronomy (3)
- GEOL 201 Physical Geology (4)
- GEOL 202 Historical Geology (4)
- GEOL 390 Colorado Geology (3)
- MET 421 Climatology (3)
- OCN 301 Physical and Chemical Oceanography (4)
- OCN 302 Geological and Biological Oceanography (4)

**Required Supporting Credits — 19 semester hours**

Science and math 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)
- CHEM 112 Principles of Chemistry II (5)
- PHYS 220 Introductory Physics I (5)
- PHYS 221 Introductory Physics II (5)

**Required Specified General Education Credits — 17 semester hours**

*Category 2. Mathematics*

- MATH 124 College Algebra (4)

*Category 6. Science and Mathematics*

- MET 205 General Meteorology (4) (*a. Earth Sciences*)
- BIO 111 Survey of Organismal Biology (5) (*b. Life Sciences*)
- CHEM 111 Principles of Chemistry I (5) (*4hrs GE credits*)

**Required PTEP Credits — 39 semester hours****Elective General Education Credits — 25 semester hours**

**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* (3) and ESCI 450 *Strategies in Teaching in Earth Sciences* (1).

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.

**ECONOMICS, B.A.****Program Requirements**

Required Major Credits	18
Elective Major Credits	0
Required Supporting Credits	21
Required Minor Credits	0
Required Specified General Education Credits	6
Required PTEP Credits	0
<b>Total Program Credits, 45</b>	
Elective General Education Credits	34
University Wide Elective Credits	41
<b>Total credits required for this degree</b>	<b>120</b>

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 Major Credits — 18 semester hours**

- ECON 105 Introduction to Economics: Microeconomics (3)
- ECON 303 Intermediate Macroeconomics (3)
- ECON 305 Intermediate Microeconomics (3)
- ECON 350 Application of Mathematics to Economics (3)
- ECON 402 Contemporary Economic Problems (3)
- ECON 452 Econometrics (3)

**Required Supporting Credits — 21 semester hours**

- BACS 291 Business Statistics I (3)

*and select 18 semester hours from the following prefixes:*

Eligible electives include all ECON prefix courses, ENST 335 and \*MIND 286.

**Required Specified General Education Credits — 6 semester hours**

*Category 2. Mathematics*

- MATH 175 Topics in Finite Mathematics (3)

*Category 5. Social Sciences (b. Economics)*

- ECON 103 Introduction to Economics: Macroeconomics (3)

**Elective General Education Credits — 34 semester hours**

- \*MIND 286 Value Issues in Political Economy (3)

**University Wide Elective Credits — 41 semester hours**

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

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

A maximum of six directed study credits in Economics may be taken.

For purposes of required electives, minimum grades and calculation of minimum GPA, MIND 286 and ENST 335 will be counted as ECON courses.

**ECONOMICS, B.A.**

## Business Economics Emphasis

**Program Requirements**

Required Major Credits	18
Elective Major Credits	0
Required Supporting Credits	15-16
Required Minor Credits	33-34
Required Specified General Education Credits	6
Required PTEP Credits	0
<b>Total Program Credits, 72-74</b>	
Elective General Education Credits	34
University Wide Elective Credits	12-14
<b>Total credits required for this degree</b>	<b>120</b>

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 must meet the admission requirements for the Business Administration Minor.

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 Major Credits — 18 semester hours**

ECON 105 Introduction to Economics: Microeconomics (3)
ECON 303 Intermediate Macroeconomics (3)
ECON 305 Intermediate Microeconomics (3)
ECON 350 Application of Mathematics to Economics (3)
ECON 402 Contemporary Economic Problems (3)
ECON 452 Econometrics (3)

**Required Supporting Credits — 15-26 semester hours**

MATH 176 Topics in Calculus (3)
BACS 291 Business Statistics I (3)

and select 9-20 semester hours from the following prefixes:

Eligible electives include all ECON prefix courses, ENST 335 and \*MIND 286.

**Required \*Business Minor Credits — 33-34 semester hours****Required Specified General Education Credits — 6 semester hours***Category 2. Mathematics*

MATH 175 Topics in Finite Mathematics (3)

*Category 5. Social Sciences (b. Economics)*

ECON 103 Introduction to Economics: Macroeconomics (3)

**\*Elective General Education Credits — 34 semester hours**

\*MIND 286 Value Issues in Political Economy (3)

**University Wide Elective Credits — 9-20 semester hours**

**Notes:** A maximum of 6 directed study credits in Economics may be taken.

Majors must meet the admission requirements for both the business economics major and the business administration minor.

**ENGLISH, B.A.**

## Liberal Arts Emphasis

**Program Requirements**

Required Major Credits	18
Elective Major Credits	18-24
Required Supporting Credits	0
Required Minor Minimum Credits	18
Required Specified General Education Credits	3
Required PTEP Credits	0
<b>Total Program Credits, 57-63</b>	
Elective General Education Credits	37
University Wide Elective Credits	20-26
<b>Total credits required for this degree</b>	<b>120</b>

The English major is excellent preparation for any profession or occupation that stresses language usage, such as writing and teaching-related fields. 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.

**Required Major Credits — 18 semester hours**

ENG 131 Introduction to Literature (3)
ENG 211 Survey of American Literature (3)
ENG 213 Survey of British Literature I (3)
ENG 214 British Literature II (3)
ENG 245 Critical Approaches to Literature (3)
ENG 497 Senior Seminar (3)

**Elective Major Credits — 18-24 semester hours**

and select one of the following courses:

ENG 303 The Essay (3)
ENG 319 Advanced Expository Techniques (3)
ENG 340 Creative Writing - Advanced (3)
ENG 408 Advanced Topics in Rhetoric and Composition (3)

and select one of the following courses:

ENG 318 Traditional and Modern Grammars (3)
ENG 418 Advanced Topics in Linguistics (3)
ENG 419 Language and the History of English (3)

and select at least two courses that cover all three categories.

Only one may be at the 100 or 200 level. Other courses may be designated by the department (6-9 semester hours)

*Women's Literature*

AFS 230 Black Women in Literature (3)
ENG 239 Topics in Women's Literature (3)
ENG 335 World Literature By and About Women (3)*

*Postcolonial or World Literature*

ENG 235 World in Literature (3)
ENG 238 Introduction to Folklore (3)
ENG 262 Masterpieces of World Literature (3)
ENG 335 World Literature By and About Women (3)*
ENG 414 Greek and Comparative Mythology (3)
ENG 430 Advanced Studies in World Literature (3)

*Ethnic American Literature*

**HISP 111 Introduction to Hispanic Literature (3)
ENG 236 Ethnic American Literature (3)
AFS 305 Survey of African American Literature (3)
ENG 336 European Immigrant Literature (3)
ENG 436 Major Ethnic Writers (3)

and select two-three courses at the 300-400 level (6-9 semester hours)

\*Covers two categories.

**Required Minor Credits — 18 semester hours****Required Specified General Education Credit — 3 semester hours**

*Recommended General Education Credits*

*Category 1.b. Intermediate Composition*

ENG 225 Communications on a Theme (3) (Writing About Literature)
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**\*\*Elective General Education Credits — 37 semester hours****University Wide Elective Credits — 20-26 semester hours**

**Notes:** . ENG 122, ENG 123, ENG 223, ENG 225, and ENG 227 may NOT be counted toward the English major. All other courses with an ENG prefix may be counted for elective credit. Qualified students may be exempted by examination from ENG 131.

**ENGLISH, B.A.****Middle School and Secondary Teaching Emphasis****Program Requirements**

<b>Required Major Credits</b> .....	<b>27</b>
<b>Elective Major Credits</b> .....	<b>12-18</b>
<b>Required Supporting Credits</b> .....	<b>0</b>
<b>Required Minor Minimum Credits</b> .....	<b>0</b>
<b>Required Specified General Education Credits</b> .....	<b>3</b>
<b>Required PTEP Credits</b> .....	<b>36-43</b>
<b>Total Program Credits, 75-91</b>	
<b>Elective General Education Credits</b> .....	<b>37</b>
<b>University Wide Elective Credits</b> .....	<b>0-</b>
<b>Total credits required for this degree</b> .....	<b>115-128</b>

Graduates of the program will be prepared to enter the teaching profession in 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.

**Required Major Credits — 27 semester hours**

ENG 131 Introduction to Literature (3)  
 ENG 211 Survey of American Literature (3)  
 ENG 213 Survey of British Literature I (3)  
 ENG 214 British Literature II (3)  
 ENG 245 Critical Approaches to Literature (3)  
 ENG 311 Shakespeare (3)  
 ENG 318 Traditional and Modern Grammars (3)  
 ENG 419 Language and the History of English (3)  
 ENG 497 Senior Seminar (3)

**Elective Major Credits — 12-18 semester hours**

*and select one of the following two courses:*

ENG 303 The Essay (3)  
 ENG 319 Advanced Expository Techniques (3)

*and select at least two courses that cover all three categories from the following courses - 6-9 semester hours: (Only one may be at the 100 or 200 level. Other courses may be designated by the department.)*

**Women's Literature**

AFS 230 Black Women in Literature (3)  
 ENG 239 Topics in Women's Literature (3)  
 ENG 335 World Literature By and About Women (3)\*

**Postcolonial or World Literature**

ENG 235 World in Literature (3)  
 ENG 238 Introduction to Folklore (3)  
 ENG 262 Masterpieces of World Literature (3)  
 \*ENG 335 World Literature By and About Women (3)  
 ENG 414 Greek and Comparative Mythology (3)  
 ENG 430 Advanced Studies in World Literature (3)

**Ethnic American Literature**

HISP 111 Introduction to Hispanic Literature (3)  
 ENG 236 Ethnic American Literature (3)  
 AFS 305 Survey of African American Literature (3)  
 ENG 336 European Immigrant Literature (3)  
 ENG 436 Major Ethnic Writers (3)

One-Two ENG or EED courses at the 300-400 level. - 3-6 semester hours

\*Covers two categories.

**Required Specified General Education Credits — 3 semester hours**

*Recommended General Education Credits*  
 ENG 225 Communications on a Theme (3)

**Required PTEP Credits — 36-43 semester hours**

Elementary, 43

Middle School, 41

\*Secondary, 36-42

*\*Required Credits for Secondary Licensure only — 7 semester hours*

*STEP 363 (clinical) must be taken concurrently with one of these:*

EED 341 Teaching Language and Composition (3)  
 EED 402 Methods and Materials for Teaching Young Adult Literature in the Secondary Schools (4)

**Elective General Education Credits — 37 semester hours**

**Notes:** English majors pursuing teacher licensure must complete Professional Teacher Education Program (PTEP) requirements listed separately in this Catalog, and they must pass the appropriate PLACE examinations required by the State of Colorado.

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 achieves a minimum grade point average of 2.5 in the major.

Before student teaching, an English major with a teaching emphasis must:

- complete at least 30 hours in the major with a grade point average of 2.75 and no grade lower than a C.
- retake major courses in which she/he receives grades of D or F for a grade of C or better.
- complete the appropriate PTEP courses.

No minor is required.

ENG 122, ENG 123, ENG 223, ENG 225, and ENG 227 may NOT be counted toward the English major. All other 300-400 courses with an ENG or EED prefix may be counted for elective credit.

Qualified students may be exempted by examination from ENG 131.

**FRENCH, B.A.****Liberal Arts Emphasis****Program Requirements**

<b>Required Major Credits</b> .....	<b>23</b>
<b>Elective Major Credits</b> .....	<b>6</b>
<b>Required Supporting Credits</b> .....	<b>0</b>
<b>Required Minor Minimum Credits</b> .....	<b>18</b>
<b>Required Specified General Education Credits</b> .....	<b>6</b>
<b>Required PTEP Credits</b> .....	<b>0</b>
<b>Total Program Credits, 53</b>	
<b>Elective General Education Credits</b> .....	<b>34</b>
<b>University Wide Elective Credits</b> .....	<b>33</b>
<b>Total credits required for this degree</b> .....	<b>120</b>

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 contemporary issues in the French-speaking world, a basic knowledge of French civilization, and a facility for reading and interpreting French literature. The faculty encourages and assists students in arranging study opportunities with our exchange program at the Université de Tours, elsewhere in France, or in another French-speaking country.

Participation in such a program creates opportunities for improved language proficiency and first-hand experience with French culture. The department's extracurricular activities likewise encourage cultural awareness and communication skills.

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, government, social work, publishing, or the arts.

**Required Major Credits — 23 semester hours**

FR 201 Listed under Specified General Education

FR 202 Listed under Specified General Education

FR 251 Intermediate French Lab I (1)

FR 252 Intermediate French Lab II (1)

FR 301 France: Its People and Culture (3)

FR 302 Current Events in France (3)

FR 311 French Civilization and Literature Survey I (3)

FR 312 French Civilization and Literature Survey II (3)

FR 407 French for Oral Proficiency (3)

*and select two offerings from the two repeatable, variable-topic courses (6 semester hours)*

FR 450 Readings in French Literature (3)

FR 475 Research Seminar: French Texts and Contexts (3)

**Elective Major Credits — 6 semester hours**

*and select three of the following courses:*

FR 411 France Then and Now (2)

FR 412 French Politics and Society (2)

FR 413 The Francophone World (2)

FR 414 Language and Society (2)

**Required Minor Minimum Credits — 18 semester hours****Required Specified General Education Credits — 6 semester hour**

Category 4.b. Arts and Letters

FR 201 Intermediate French I (3)

FR 202 Intermediate French II (3)

**Elective General Education Credits — 34 semester hours****University Wide Elective Credits — 33 semester hours**

**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.

Unless otherwise noted, all courses with the FR prefix are conducted in French.

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 appropriate situations in a French language environment. Consult department advisor.

Students must complete a minor approved by the department.

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.



**FRENCH, B.A.**

## Teaching Emphasis

**Program Requirements**

<b>Required Major Credits</b> .....	<b>26</b>
<b>Elective Major Credits</b> .....	<b>6</b>
<b>Required Supporting Credits</b> .....	<b>0</b>
<b>Required Minor Minimum Credits</b> .....	<b>0</b>
<b>Required Specified General Education Credits</b> .....	<b>6</b>
<b>Required PTEP Credits</b> .....	<b>37-39</b>
<b>Total Program Credits, 75-77</b>	
<b>Elective General Education Credits</b> .....	<b>34</b>
<b>University Wide Elective Credits</b> .....	<b>11</b>
<b>Total credits required for this degree</b> .....	<b>120-122</b>

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 contemporary issues in the French-speaking world, a basic knowledge of French civilization, and a facility for reading and interpreting French literature. The faculty encourages and assists students in arranging study opportunities in France or another French-speaking country. Participation in such a program creates opportunities for improved language proficiency and first-hand experience with French culture. The department's extracurricular activities likewise encourage cultural awareness and communication skills while developing leadership and organizational and promotional abilities important to the foreign language teaching profession. Teaching skills are developed through advising and consultation with Department faculty, through FL 341, and through the courses in the Secondary Professional Teacher Education (PTEP).

Completion of the French teaching major prepares the student for State of Colorado Licensure to teach French in the secondary school and for graduate study in French. 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, government, social work, publishing, or the arts.

**Required French Credits — 26 semester hours**

FR 201 Listed under Specified General Education

FR 202 Listed under Specified General Education

FL 341 Methods of Teaching in the Secondary School (3)

FR 251 Intermediate French Lab I (1)

FR 252 Intermediate French Lab II (1)

FR 301 France: Its People and Culture (3)

FR 302 Current Events in France (3)

FR 311 French Civilization and Literature Survey I (3)

FR 312 French Civilization and Literature Survey II (3)

FR 407 French for Oral Proficiency (3)

*Select two offerings from the two repeatable, variable-topic courses - 6 semester hours*

FR 450 Readings in French Literature (3)

FR 475 Research Seminar: French Texts and Contexts (3)

**Elective Major Credits — 6 semester hours**

FR 411 France Then and Now (2)

FR 412 French Politics and Society (2)

FR 413 The Francophone World (2)

FR 414 Language and Society (2)

**Required Specified General Education Credits — 6 semester hours***Category 4.b. Arts and Letters*

FR 201 Intermediate French I (3)

FR 202 Intermediate French II (3)

**Required PTEP Credits — 37-39 semester hours****Elective General Education Credits — 34 semester hours****University Wide Elective Credits — 11 semester hours**

**Notes:** All work to be counted toward the B.A. in French, teaching emphasis, must be beyond the first year level.

Unless otherwise noted, all courses with the FR prefix are conducted in French.

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 appropriate situations in a French language environment. Consult department advisor.

A 2.5 grade point average is required before students may seek approval for full admission to the Secondary Professional Teacher Education Program. To graduate with a French teaching 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. Likewise, in order to be recommended for teacher licensure, a 2.5 grade point average is required at the completion of the program in those courses that count toward the major and that were taken at UNC.

Students must meet all requirements for the Secondary Professional Teacher Education Program as described in this Catalog, including STEP 363, Clinical Experience (3 credit hours) to be taken along with the Methods course, FL 341.

In order to obtain approval for a student teaching assignment, a French teaching major must have obtained a grade of "B" or better in FL 341 and have successfully passed the department oral proficiency exam. (Consult advisor.)

**GEOGRAPHY, B.A.**

## Applied Geography Emphasis

**Program Requirements**

<b>Required Major Credits</b> .....	<b>22</b>
<b>Elective Major Credits</b> .....	<b>18</b>
<b>Required Supporting Credits</b> .....	<b>0</b>
<b>Required Minor Minimum Credits</b> .....	<b>18</b>
<b>Required Specified General Education Credits</b> .....	<b>3</b>
<b>Required PTEP Credits</b> .....	<b>0</b>
<b>Total Program Credits, 61</b>	
<b>Elective General Education Credits</b> .....	<b>37</b>
<b>University Wide Elective Credits</b> .....	<b>22</b>
<b>Total credits required for this degree</b> .....	<b>120</b>

The use of geographic concepts of location, distribution and diffusion for the analysis of patterns of economic, social, political and environmental behavior is at the core of applied geography. Beyond analysis, the dynamic application of these concepts makes possible the prediction and planning of significant human activities.

Those electing an applied major in geography are generally preparing for careers in cartography, location analysis, urban and regional planning, or geographic information systems. Examples of specific employment opportunities include computer map design and construction, market research, commercial site and industrial location analysis. Additional positions include transportation planning, land use and real estate analysis and planning, environmental management and community development. Students should select either the applied geography or the liberal arts emphasis in conjunction with their career goals.

**Required Major Credits — 22 semester hours**

- GEOG 110 Geography of the United States and Canada (3)
- GEOG 200 Human Geography (3)
- GEOG 232 Physical Geography (4)
- GEOG 264 Maps and Imagery (3)
- GEOG 302 Cartography (3)
- GEOG 375 Quantitative Techniques in Geography (3)
- GEOG 495 Senior Seminar (3)

**Elective Major Credits — 18 semester hours***Advanced Thematic Credits — 9 semester hours (minimum)*

- GEOG 312 Economic Geography (3)
- GEOG 315 Resource Management (3)
- GEOG 320 Population Geography (3)
- GEOG 325 Advanced Physical Geography: Topics (3)
- GEOG 360 Political Geography (3)
- GEOG 370 Urban Geography (3)
- GEOG 432 Rural Development in the American West (3)

*Advanced Techniques Credits — 9 semester hours (maximum)*

- GEOG 392 Field Course in Geography (1-6)
- GEOG 407 Geographic Information Science (3)
- GEOG 412 Advanced Cartography (3)
- GEOG 422 Directed Studies (3)
- GEOG 492 Internship (3)

Students may take 3 of the above hours in related electives from outside the department with advisor approval. GEOG 325 may be taken for credit more than once. GEOG 422 and GEOG 492 may be taken for credit more than once, but only 3 hours for each course will count toward the major.

**Required Minor Minimum Credits — 18 semester hours****Required Specified General Education Credits — 3 semester hours***Category 2. Mathematics*

- STAT 150 Introduction to Statistical Analysis (3)

**Elective General Education Credits — 37 semester hours****University Wide Elective Credits — 22 semester hours**

## GEOGRAPHY, B.A.

### Liberal Arts Emphasis

#### Program Requirements

Required Major Credits	19
Elective Major Credits	21
Required Supporting Credits	0
Required Minor Minimum Credits	18
Required Specified General Education Credits	3
Required PTEP Credits	0
<b>Total Program Credits, 61</b>	
Elective General Education Credits	37
University Wide Elective Credits	27
<b>Total credits required for this degree</b>	<b>120</b>

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 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 Major Credits — 19 semester hours

- GEOG 110 Geography of the United States and Canada (3)
- GEOG 200 Human Geography (3)
- GEOG 232 Physical Geography (4)
- GEOG 264 Maps and Imagery (3)
- GEOG 302 Cartography (3)
- GEOG 495 Senior Seminar (3)

#### Elective Major Credits — 21 semester hours

##### Advanced Regional Credits — 8 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:** GEOG 438 and GEOG 453 are also offered for graduate credit under the numbers GEOG 538 and GEOG 553. Majors must take a minimum of 8 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 375 Quantitative Techniques in Geography (3)
- GEOG 392 Field Course in Geography (1-3)
- GEOG 407 Geographic Information Science (3)
- GEOG 412 Advanced Cartography (3)
- GEOG 422 Directed Studies (1-3)
- GEOG 432 Rural Development in the American West (3)
- GEOG 492 Internship (1-6)

#### Required Minor Minimum Credits — 18 semester hours

#### Required Specified General Education Credits — 3 semester hours

##### Category 2 — Mathematics

- STAT 150 Introduction to Statistical Analysis (3)

#### Elective General Education Credits — 37 semester hours

#### University Wide Elective Credits — 22 semester hours

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.

**GEOGRAPHY, B.A.****Secondary Teaching Emphasis****Program Requirements**

<b>Required Major Credits</b> .....	<b>19</b>
<b>Elective Major Credits</b> .....	<b>15</b>
<b>Required Supporting Credits</b> .....	<b>15</b>
<b>Required Minor Credits</b> .....	<b>0</b>
<b>Required Specified General Education Credits</b> .....	<b>15</b>
<b>Required PTEP Credits (Secondary)</b> .....	<b>39</b>
<b>Total Program Credits, 103</b>	
<b>Elective General Education Credits</b> .....	<b>25</b>
<b>University Wide Elective Credits</b> .....	<b>0</b>
<b>Total credits required for this degree</b> .....	<b>128</b>

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 Major Credits — 19 semester hours**

GEOG 100 World Geography (3)  
 GEOG 200 Human Geography (3)  
 GEOG 232 Physical Geography (4)  
 GEOG 264 Maps and Imagery (3)  
 GEOG 302 Cartography (3)  
 GEOG 495 Senior Seminar (3)

**Elective Major Credits — 15 semester hours***Regional Credits — 3 semester hours (minimum)*

GEOG 110 Geography of the United States and Canada (3)  
 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 432 Rural Development in the American West (3)  
 GEOG 438 South America (3)  
 GEOG 453 Geography of the Great Plains (3)

*Systematic Credits — 12 semester hours (minimum)*

GEOG 300 Advanced Human Geography: Topics (3)  
 GEOG 312 Economic Geography (3)  
 GEOG 315 Resource Management (3)  
 GEOG 320 Population Geography (3)  
 GEOG 325 Advanced Physical Geography: Topics (3)  
 GEOG 360 Political Geography (3)  
 GEOG 370 Urban Geography (3)

**Required Supporting Credits — 15 semester hours**

HIST 101 Survey of American History from 1877 to the Present (3)  
 PSCI 100 United States National Government (3)  
 SOSCI 300 Social Studies Methods of Inquiry (3)

*and select one of the following two courses:*

HIST 110 African Civilization (3)  
 HIST 113 Asian Civilization II: The Modern Transformation (3)

*and select one of the following two courses:*

HIST 120 Western Civilization from Ancient Greece to 1689 (3)  
 HIST 121 Western Civilization from 1689 to the Present (3)

**Required Specified General Education Credits — 15 semester hours***Category 2. Mathematics*

STAT 150 Introduction to Statistical Analysis (3)

*Category 4.c. Arts and Letters*

HIST 100 Survey of American History from Its Beginnings to 1877 (3)

*Category 5. Social Science*

ECON 103 Introduction to Economics: Macroeconomics (3) (5.b.)

*and select one of the following three courses:*

ANT 100 Introduction to Anthropology (3) (5.a.)  
 PSY 120 Principles of Psychology (4) (5.e.)  
 SOC 100 Principles of Sociology (3) (5.f.)

*Category 7.b. Interdisciplinary, Multicultural and Internat. Studies*

*Select one of the following courses:*

AFS 101 Crisis of Identity (3) (7.b.)  
 HISP 102 Hispanic Cultures in the United States (3) (7.b.)  
 WS 101 Women in Contemporary Society (3) (7.b.)

**Notes:** No minor is required for this major emphasis area.

All requirements for the Secondary Professional Teacher Education program, as described in this Catalog, must be met.

No geography teaching major may apply for admission to the Professional Teacher Education (PTEP) program until he or she has passed at least 15 semester hours of courses in the major, at least 6 hours of which must have been taken at the University of Northern Colorado.

To be admitted to PTEP, a student must have a 2.75 grade point average in those courses counting toward his or her major that were taken at UNC and must have taken at least three courses with the GEOG prefix.

In the Secondary PTEP, students must take both SOSCI 341 and GEOG 410.

Before being permitted to apply for student teaching, a student must have successfully completed at least 30 hours in the major and maintained a 2.75 grade point average in major courses taken at UNC.

**GERMAN, B.A.**

## Liberal Arts Emphasis

**Program Requirements**

<b>Required Major Credits</b> .....	<b>23</b>
<b>Elective Major Credits</b> .....	<b>6</b>
<b>Required Supporting Credits</b> .....	<b>0</b>
<b>Required Minor Credits</b> .....	<b>18</b>
<b>Required Specified General Education Credits</b> .....	<b>6</b>
<b>Required PTEP Credits (Secondary)</b> .....	<b>0</b>
<b>Total Program Credits, 53</b>	
<b>Elective General Education Credits</b> .....	<b>34</b>
<b>University Wide Elective Credits</b> .....	<b>33</b>
<b>Total credits required for this degree</b> .....	<b>120</b>

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 contemporary issues in the German-speaking world, a basic knowledge of German civilization, and a facility for reading and interpreting German literature. The German program participates in a student exchange agreement between UNC and the Universität Oldenburg, the Pädagogische Hochschule Karlsruhe, and the Fachhochschule Furtwangen. Participation in this exchange can provide first-hand experience with German life and society and helps improve language proficiency. The Department's extracurricular activities likewise encourage cultural awareness and communication skills.

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, they may become involved in careers in international business, government, social work or the arts.

**Required Major Credits — 23 semester hours**

GER 201 Listed under Specified General Education

GER 202 Listed under Specified General Education

GER 251 Intermediate German Lab I (1)

GER 252 Intermediate German Lab II (1)

GER 301 Germany and the Germans I (3)

GER 302 Germany and the Germans II (3)

GER 311 German Civilization and Literature Survey I (3)

GER 312 German Civilization and Literature Survey II (3)

GER 407 German for Oral Proficiency (3)

*and select two offerings from the two repeatable, variable-topic courses (6 semester hours)*

GER 450 Literature, Self and Society (3)

GER 475 Research Seminar: German Texts and Contexts (3)

**Elective Major Credits — 6 semester hours**

*Select three of the following courses:*

GER 411 Germany Then and Now (2)

GER 412 Politics and Society (2)

GER 413 German Cultural Identity (2)

GER 414 Language, Society and the Profession (2)

**Required Minor Credits — 18 semester hours****Required Specified General Education Credits — 6 semester hours**

*Category 4.b. Arts and Letters*

GER 201 Intermediate German I (3)

GER 202 Intermediate German II (3)

**Elective General Education Credits — 34 semester hours****University Wide Elective Credits — 33 semester hours**

**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.

Unless otherwise noted, all courses with the GER prefix are conducted in German.

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.

**GERMAN, B.A.****Teaching Emphasis****Program Requirements**

<b>Required Major Credits</b> .....	<b>23</b>
<b>Elective Major Credits</b> .....	<b>6</b>
<b>Required Supporting Credits</b> .....	<b>3</b>
<b>Required Minor Credits</b> .....	<b>0</b>
<b>Required Specified General Education Credits</b> .....	<b>6</b>
<b>Required PTEP Credits (Secondary)</b> .....	<b>37-39</b>
<b>Total Program Credits, 75-77</b>	
<b>Elective General Education Credits</b> .....	<b>34</b>
<b>University Wide Elective Credits</b> .....	<b>11</b>
<b>Total credits required for this degree</b> .....	<b>120-122</b>

In preparing majors for careers in secondary school teaching of German, this program stresses acquisition of the four language skills (listening, speaking, reading, writing) through performance-oriented classes at all levels, conducted in German. Students develop skills in critical thinking as they acquire familiarity with contemporary issues in the German-speaking world, a basic knowledge of German civilization, and a facility for reading and interpreting German literature. The German program participates in a student exchange agreement between UNC and the Universität Oldenburg, the Pädagogische Hochschule Karlsruhe, and the Fachhochschule Furtwangen. Participation in this exchange provides first-hand experience with German life and society and helps improve language proficiency. The department's extracurricular activities likewise encourage cultural awareness and communication skills while developing leadership and organizational and promotional abilities important to the foreign language teaching profession. Teaching skills are developed through advising and consultation with Department faculty, through FL 341, and through the courses in the Secondary Professional Teacher Education Program (PTEP).

Completion of the German teaching major prepares the student for State of Colorado Licensure to teach German in the secondary school and for graduate study in German. 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, government, social work, publishing, or the arts.

**Required Major Credits — 23 semester hours**

GER 201 Listed under Specified General Education  
 GER 202 Listed under Specified General Education  
 GER 251 Intermediate German Lab I (1) (two semesters)  
 GER 252 Intermediate German Lab II (1)  
 GER 301 Germany and the Germans I (3)  
 GER 302 Germany and the Germans II (3)  
 GER 311 German Civilization and Literature Survey I (3)  
 GER 312 German Civilization and Literature Survey II (3)  
 GER 407 German for Oral Proficiency (3)  
*and select two offerings from the two repeatable, variable-topic courses (6 semester hours)*  
 GER 450 Literature, Self and Society (3)  
 GER 475 Research Seminar: German Texts and Contexts (3)

**Elective Major Credit — 6 semester hours**

*and select three of the following courses:*

GER 411 Germany Then and Now (2)  
 GER 412 Politics and Society (2)  
 GER 413 German Cultural Identity (2)  
 GER 414 Language, Society and the Profession (2)

**Required Supporting Credits — 3 semester hours**

FL 341 Methods of Teaching in the Secondary School (3)

**Required Specified General Education Credits — 6 semester hours**

*Category 4.b. Arts and Letters*

GER 201 Intermediate German I (3)  
 GER 202 Intermediate German II (3)

**Required PTEP Credits (Secondary) — 37-39 semester hours****Elective General Education Credits — 34 semester hours****University Wide Elective Credits — 11 semester hours**

**Notes:** All work to be counted toward the B.A. in German, teaching emphasis, must be beyond the first year level.

Unless otherwise noted, all courses with the GER prefix are conducted in German.

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.

Student must complete a minor approved by the department.

A 2.5 grade point average is required before students may seek approval for full admission to the Secondary Professional Teacher Education Program. To graduate with a German teaching 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. Likewise, in order to be recommended for teacher licensure, a 2.5 grade point average is required at the completion of the program in those courses that count toward the major and that were taken at UNC.

Students must meet all requirements for the Professional Teacher Education program as described in this Catalog, including STEP 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).

**HISTORY, B.A.**

## Liberal Arts Emphasis

**Program Requirements**

<b>Required Major Credits</b> . . . . .	<b>12</b>
<b>Elective Major Credits</b> . . . . .	<b>24</b>
<b>Required Supporting Credits</b> . . . . .	<b>0</b>
<b>Required Minor Minimum Credits</b> . . . . .	<b>18</b>
<b>Required Specified General Education Credits</b> . . . . .	<b>6</b>
<b>Required PTEP Credits</b> . . . . .	<b>0</b>
<b>Total Program Credits, 60</b>	
<b>Elective General Education Credits</b> . . . . .	<b>34</b>
<b>University Wide Elective Credits</b> . . . . .	<b>26</b>
<b>Total credits required for this degree</b> . . . . .	<b>120</b>

Historical study is concerned with the record of the human past and forms the indispensable background for all other areas of knowledge in the humanities, the social sciences and the sciences. A well-rounded curriculum of American and world history courses is provided in which students are encouraged to be critical and analytical in thought as well as to be incisive and cogent in their writing. The capstone of a student's study is a seminar during the senior year, which includes an extensive research paper as the central component.

Graduates with a bachelor's degree in history generally enter teaching or affiliated academic professions. They also go into law, government service or medicine, or occupy various positions in the business world; additionally, they are qualified to do graduate study in history. The University has designated the Department of History as a Center of Excellence.

**Required Major Credits — 12 semester hours**

HIST 100 Listed under Specified General Education

HIST 101 Listed under Specified General Education

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)

*and select one of the following courses:*

HIST 110 African Civilization (3)

HIST 112 Asian Civilization I: From Prehistory to the 1600s (3)

HIST 113 Asian Civilization II: The Modern Transformation (3)

HIST 118 History of Mexico (3)

**Elective Major Credits — 24 semester hours**

In addition to the required credits, each major will also take twenty-four hours of electives. Twelve of these must be in a concentration area (Europe; United States; Africa/Asia/Latin America). Of the remaining twelve hours, six must be in each of the other areas. For example: if the major's concentration area is Europe, the student must take six hours in African/Asia/Latin America and six hours in United States history. At least eighteen of the twenty-four hours must be taken from courses numbered 300 or 400.

**Required Minor Minimum Credits — 18 semester hours****Required Specified General Education Credits — 6 semester hours***Category 4.c. Arts and Letters*

HIST 100 Survey of American History from Its Beginnings to 1877 (3)

HIST 101 Survey of American History from 1877 to the Present (3)

*3 additional hours from a., b., d., or e. are required to complete the Gen.Ed. requirement for Category 4. (Only 6 hours of HIST prefixes may be counted toward Gen.Ed.)*

**Elective General Education Credits — 34 semester hours****University Wide Elective Credits — 26 semester hours**

**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.

**HISTORY, B.A.**

## Teaching Emphasis

**Program Requirements**

<b>Required Major Credits</b> .....	<b>12</b>
<b>Elective Major Credits</b> .....	<b>24</b>
<b>Required Supporting Credits</b> .....	<b>12</b>
<b>Required Minor Minimum Credits</b> .....	<b>0</b>
<b>Required Specified General Education Credits</b> .....	<b>15</b>
<b>Required PTEP Credits</b> .....	<b>39</b>
<b>Total Program Credits, 102</b>	
<b>Elective General Education Credits</b> .....	<b>26</b>
<b>University Wide Elective Credits</b> .....	<b>0</b>
<b>Total credits required for this degree</b> .....	<b>128</b>

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 the UNC/partner school program and the 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 middle school teaching. The University has designated the Department of History as a Center of Excellence.

**Required Major Credits — 12 semester hours**

HIST 100 Listed under Specified General Education  
 HIST 101 Listed under Specified General Education  
 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)

*and select one of the following courses:*

HIST 110 African Civilization (3)  
 HIST 112 Asian Civilization I: From Prehistory to the 1600s (3)  
 HIST 113 Asian Civilization II: The Modern Transformation (3)  
 HIST 118 History of Mexico (3)

**Elective Major Credits — 24 semester hours**

*Complete the following requirements (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.

**Required Supporting Credits — 12 semester hours***Social Sciences*

ANT 100 Introduction to Anthropology (3)  
 SOC 100 Principles of Sociology (3)

Standards based social science electives: a minimum of two courses, numbered 200 or higher chosen from the following prefixes: ECON, GEOG, PSCI (6 semester hours)

**Required Specified General Education Credits — 15 semester hours***Category 4.c. Arts and Letters*

HIST 100 Survey of American History from Its Beginnings to 1877 (3)  
 HIST 101 Survey of American History from 1877 to the Present (3)

*3 additional hours from a., b., d., or e. are required to complete the Gen.Ed. requirement for Category 4. (Only 6 hours of HIST prefixes may be counted toward Gen.Ed.)*

*Category 5. Social Sciences*

ECON 103 Introduction to Economics: Macroeconomics (3) (b.)

GEOG 100 World Geography (3) (c.)

PSCI 100 United States National Government (3) (d.)

**Required PTEP Credits — 39 semester hours****Elective General Education Credits — 26 semester hours**

**Notes:** No minor is required in the History Education program for students seeking middle school or secondary school licensure.

All history courses numbered 300 or higher will include a research and writing component.

Secondary Professional Teacher Education (SPTEP) is required for this program. All SPTEP students majoring in history are required to take:

SOSC 341 Teaching Secondary Social Studies (3) and  
 HIST 400 Teaching History in the Secondary Curriculum (1).

The History Secondary Education major should follow the phase program delineated by the STEP program.

No history major may apply for admission to the PTEP program until completion of at least 15 semester hours in the major. At least 9 of these hours must have been taken at the University of Northern Colorado.

Before being permitted to apply for student teaching, a history major must have completed successfully 27 hours in the major and have at least a 2.8 grade point average in major courses taken at UNC.

History majors must obtain a grade of "C" or better in all history courses taken at UNC. Majors receiving a grade of "D" or lower in a history course must retake the course -- or an equivalent approved by the academic advisor -- and receive a grade of "C" or higher to have the course counted toward the major.



## INTERDISCIPLINARY STUDIES, B.A.

Administered by the College of Arts and Sciences

### Program Requirements

Required Major Credits	3
Elective Major Credits	57
Required Supporting Credits	0
Required Minor Credits	0
Required Specified General Education Credits	0
Required PTEP Credits (Secondary)	0
<b>Total Program Credits, 60</b>	
Elective General Education Credits	40
University Wide Elective Credits	20
<b>Total credits required for this degree</b>	<b>120</b>

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 Major 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).

### Elective Major Credits — 57 semester hours

Complete an approved, coherent multi- or interdisciplinary program of electives.

### Elective General Education Credits — 40 semester hours

### University Wide Elective Credits — 20 semester hours

**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.

## INTERDISCIPLINARY STUDIES, B.A.

### Anthropology Emphasis

#### Program Requirements

Required Major Credits	9
Elective Major Credits	24
Required Supporting Credits	27
Required Minor Credits	0
Required Specified General Education Credits	0
Required PTEP Credits	0
Total program credits, 60	
Elective General Education Credits	40
University Wide Elective Credits	20
Total credits required for this degree	120

This interdisciplinary emphasis focuses on the power of the integrated, interdisciplinary nature of anthropology to understand human cultural and biological variation in an historic, prehistoric and global context. Anthropology is devoted to understanding what it means to be human. This knowledge is valuable, not only for itself, but also for how it can be applied to a variety of professional settings. The interdisciplinary complement of the emphasis allows students to draw on a variety of disciplines to extend their knowledge and skills beyond anthropology into related fields.

The core of the program provides a blend of content and inquiry based instruction. Courses in anthropology emphasize both theory and methods through which students learn a variety of qualitative and quantitative techniques for analyzing anthropological problems. The individually designed interdisciplinary complement allows students to integrate anthropology with a wide range of fields that offer opportunity for applying anthropology in numerous career choices.

Interdisciplinary students with an anthropology emphasis often pursue graduate study and academic careers. They also follow careers in both the public and private sectors, finding work in almost every area of society, including public planning, public health, education, journalism, social services, rural development, urban planning, immigration, public archaeology, public policy evaluation, business, international development, public and private research and a variety of advocacy and public interest occupations. The interdisciplinary structure of this program greatly enhances career options for students preparing for life in the modern world.

#### Required Major Credits — 9 semester hours

##### Foundation courses

- \*ANT 110 Introduction to Cultural Anthropology (3) (GE 7.c)
- ANT 310 World Cultures (3)
- ANT 470 Seminar in Anthropology (3)

#### Elective Major Credits — 24 semester hours

(Minimum of 12 credits in courses numbered 300 or above)

##### Core and Methods

Select one of the following courses in consultation with an advisor:

- \*ANT 120 World Archaeology (3) (GE 5.a.)
- \*ANT 130 Introduction to Physical Anthropology (3) (GE 6.b.)

and select two of the following courses in consultation with an advisor:

- ANT 210 Field Methods in Cultural Anthropology (3)
- ANT 220 Archaeological Research Methods (3)
- ANT 230 Anthropometrics (3)

##### Cultural Anthropology

Select two of the following courses in consultation with an advisor:

- ANT 311 Latin American Cultures (3)
- ANT 312 North American Indians (3)
- ANT 313 Modernization and Development (3)
- \*ANT 314 Sex Roles in a Cross-Cultural Perspective (3) (GE 7.c.)
- \*ANT 315 Life History and Culture (3) (GE 1.b.)
- \*ANT 317 Contemporary Native American Issues (3) (GE 7.c.)
- ANT 318 Native American Women (3)

##### Archaeology

Select two of the following courses in consultation with an advisor:

- ANT 121 Archaeology of Colorado (3)
- ANT 321 Prehistory of the Americas (3)
- ANT 323 Ancient Civilizations (3)
- ANT 325 Fieldwork in Archaeology (4)

##### Physical Anthropology

Select one of the following courses in consultation with an advisor:

- ANT 330 Forensic Anthropology (3)
- ANT 430 Human Evolutionary Anatomy (3)
- ENST 331 Global Population and Human Needs (3)

#### \*\*Required Supporting Credits — 27 semester hours (Interdisciplinary Complement)

(A minimum of 12 credits in courses 300 or above)

#### Elective General Education Credits — 40 semester hours

#### University Wide Elective Credits — 20 semester hours

**Note:**\*No more than six semester hours of anthropology courses listed in the university catalog for general education credit may be "double-counted" for both the major and general education. The student may choose any two anthropology courses marked with an asterisk(\*) above for "double-counting" purposes.

\*\*Courses for the interdisciplinary complement of this major are selected and approved in consultation with an anthropology faculty advisor. Courses are to be selected from at least two disciplines outside of anthropology, including directed studies courses (XXXX 422) and/or internship courses (XXXX 492) offered by anthropology and other programs. Course selection is to be guided by the student's career goals and academic interests. Course selections should have a clear thematic focus. No fewer than 50% of interdisciplinary complement courses must be 300 level or above. Students emphasizing cultural anthropology should look to the social sciences and humanities (africana studies, economics, English, geography, history, hispanic studies, political science, psychology, sociology, women's studies or the performing and visual arts) for their course selections.

Students emphasizing archaeology should consider courses in biology, earth sciences, geography, history, physics and/or chemistry. Students emphasizing physical anthropology should consider courses in biology, community health, nutrition and/or kinesiology. Other disciplines may also be relevant for particular career objectives and may be included in the interdisciplinary complement.

This major does not require a minor.

**INTERDISCIPLINARY STUDIES, B.A.****Business Administration/Sociology: Not-for-Profit Human Service Organization Emphasis****Program Requirements**

<b>Required Major Credits</b> .....	<b>51</b>
<b>Elective Major Credits</b> .....	<b>18</b>
<b>Required Supporting Credits</b> .....	<b>0</b>
<b>Required Concentration Area Credits</b> .....	<b>0</b>
<b>Required Specified General Education Credits</b> .....	<b>10</b>
<b>Required PTEP Credits</b> .....	<b>0</b>
<b>Total Program Credits, 79</b>	
<b>Elective General Education Credits</b> .....	<b>30</b>
<b>University Wide Elective Credits</b> .....	<b>11</b>
<b>Total credits required for this degree</b> .....	<b>120</b>

The program is designed to prepare individuals for entry-level positions in not-for-profit organizations such as the American Red Cross, Partners and other human service agencies. The program couples study in Business Administration with study in Sociology and related areas. This blend provides the student with a background to blend the business side of the organization with the human service needs of its clients. It is an attractive mix that provides the entry-level employee with a formidable set of skills to address the not-for-profit concerns.

The program is jointly developed by the Monfort College of Business and the Department of Sociology. There are coordinators from each department with primary advising and administration completed in the Monfort College of Business. Administration includes reviews for admissions, continuation and graduation.

**Program Admission Requirements**

Admission to the program as a freshman requires an index score of 98. Admission as a change of major or transfer with at least 30 semester credits requires a 2.75 GPA. Students with less than 30 credits must meet the freshman admission requirements. To continue in the program, the student must meet the continuation requirements established for the programs offered by the Monfort College of Business and Sociology. To graduate, the student must meet the graduation requirements established for the programs offered by the Monfort college of Business and the Sociology Department.

**Required Major Credits — 51 semester hours***Sociology (27 semester hours)*

SOC 272 The Community (3)  
 SOC 361 Social Research (3)  
 SOC 362 Social Statistics (3)  
 SOC 425 Sociology of Work and Occupations (3)  
 SOC 447 Introduction to Grant Proposal Writing (3)  
 SOC 452 Applied Social Theory (3)  
 SOC 480 Social Policy Analysis (3)  
 SOC 490 Internship (3)  
 SOC 494 Research Practicum (3)

*Business Administration (24 semester hours)*

BAAC 220 Principles of Accounting I (3)  
 BAAC 221 Principles of Accounting II (3)  
 BACS 300 Information Systems (3)  
 BAFN 231 Legal Environment of Business (3)  
 BAFN 370 Business Finance (3)  
 BAMG 350 Management of Organizations (3)  
 BAMK 360 Marketing (3)  
 BAMG 494 Not-For-Profit Management (3)

**Required Supporting Credits — 18 semester hours**

ECON 105 Introduction to Economics: Microeconomics (3)  
 MATH 176 Topics in Calculus (3)  
 STAT 251 Statistics for Business and Economics (3)  
 or  
 BACS 291 Business Statistics I (3)  
 PHIL 305 Ethics in Theory and Practice (3)  
 CH 410 Introduction to Program Planning and Evaluation (3)  
 HRS 480 Human Service Helping Skills (3)

**Required Specified General Education Credits — 10 semester hours***Category 2. Mathematics*

MATH 124 College Algebra (4)

*Category 5. Social Sciences*

ECON 103 Introduction to Economics: Macroeconomics (3)  
 SOC 100 Principles of Sociology (3)

**Elective General Education Credits — 30 semester hours****University Wide Elective Credits — 11 semester hours**

**Note:** Students are also expected to meet the Monfort College of Business Computing Proficiency Requirement.

**INTERDISCIPLINARY STUDIES, B.A.****International Studies Emphasis****Program Requirements**

<b>Required Major Credits</b> .....	<b>30</b>
<b>Elective Major Credits</b> .....	<b>9</b>
<b>Required Supporting Credits</b> .....	<b>0</b>
<b>Required Concentration Area Credits</b> .....	<b>18</b>
<b>Required Specified General Education Credits</b> .....	<b>9</b>
<b>Required PTEP Credits</b> .....	<b>0</b>
<b>Total Program Credits, 66</b>	
<b>Elective General Education Credits</b> .....	<b>31</b>
<b>University Wide Elective Credits</b> .....	<b>23</b>
<b>Total credits required for this degree</b> .....	<b>120</b>

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 Major Credits — 30 semester hours**

ECON 303 Intermediate Macroeconomics (3)  
 ECON 305 Intermediate Microeconomics (3)  
 ECON 344 International Economics (3)  
 HIST 240 Modern America, 1914-Present (3)  
 PSCI 318 The Politics of the Developing States (3)  
 Foreign Language credits at the intermediate level (12)  
 Thesis (3)

**Elective Major Credit — 9 semester hours**

and select one of the following groups:

MATH 175 Topics in Finite Mathematics (3)  
 MATH 176 Topics in Calculus (3)  
 ECON 452 Econometrics (3)

or

SOC 351 Classical Social Theory (3)  
 SOC 361 Social Research (3)  
 SOC 362 Social Statistics (3)

**Required Concentration Area Credits — 18 semester hours**

In addition to the core requirements, the student is to take 18 additional hours (at least 1 course each in anthropology, geography, history and political science) in one of the following concentration areas that complements the student's language training. No more than three hours of internship may be used to complete any concentration area. Internships for more than three hours are available above the 15 hour requirement.

**Concentration Area: African and Middle Eastern**

ANT 110 Introduction to Cultural Anthropology (3)  
 ANT 310 World Cultures (3)  
 AFS 104 Survey of Africa (3)  
 AFS 332 Pan-Africanism (3)  
 AFS 396 African and African American World Views (3)  
 ECON 320 Comparative Economic Systems (3)  
 ECON 360 Economics of Growth and Development (3)  
 GEOG 326 Africa (3)  
 GEOG 392 Field Course in Geography (1-6)  
 HIST 110 African Civilization (3)  
 HIST 130 Middle East History I (3)  
 HIST 131 Middle East History II (3)  
 HIST 300 Themes in Middle Eastern History (3)  
 HIST 318 Modern Africa (3)  
 PSCI 325 Conflict in the Middle East (3)  
 PSCI 328 International Law and Organizations (3)

**Concentration Area: Asian**

ANT 110 Introduction to Cultural Anthropology (3)  
 ANT 313 Modernization and Development (3)  
 ECON 320 Comparative Economic Systems (3)  
 ECON 360 Economics of Growth and Development (3)  
 GEOG 344 Asia: Special Topics (3)  
 HIST 112 Asian Civilization I: From Prehistory to the 1600s (3)  
 HIST 113 Asian Civilization II: The Modern Transformation (3)  
 HIST 309 Modern Southeast Asia (3)  
 HIST 310 Modern China (3)

HIST 311 Modern Japan (3)  
 HIST 313 India (3)  
 MIND 181 Great Traditions of Asia: India, China and Japan (3)  
 PSCI 328 International Law and Organizations (3)  
 SOC 270 World Population Problems (3)

**Concentration Area: European**

ANT 110 Introduction to Cultural Anthropology (3)  
 ECON 320 Comparative Economic Systems (3)  
 ECON 360 Economics of Growth and Development (3)  
 FR 116 Contemporary France (3)  
 GEOG 340 Europe (3)  
 GEOG 365 Russia and Eurasia (3)  
 GEOG 392 Field Course in Geography (Europe) (3)  
 GER 116 Contemporary Germany (3)  
 HIST 120 Western Civilization from Ancient Greece to 1689 (3)  
 HIST 121 Western Civilization from 1689 to the Present (3)  
 HIST 216 History of Spain and Portugal (3)  
 HIST 263 European Intellectual History (3)  
 HIST 369 Britain in the Modern Age, 1689 to the Present (3)  
 HIST 376 France from 1848 (3)  
 HIST 385 History of the Holocaust, 1933 to the Present (3)  
 HIST 386 Twentieth Century Russia (3)  
 HIST 389 Modern Europe (3)  
 PSCI 210 Politics in the European Community (3)  
 PSCI 310 Politics of Central and East European States (3)  
 PSCI 328 International Law and Organizations (3)

**Concentration Area: Latin American**

ANT 110 Introduction to Cultural Anthropology (3)  
 ANT 311 Latin American Cultures (3)  
 ECON 320 Comparative Economic Systems (3)  
 ECON 360 Economics of Growth and Development (3)  
 GEOG 335 Geography of Middle America (3)  
 GEOG 392 Field Course in Geography (Latin America) (3)  
 GEOG 438 South America (3)  
 HISP 131 Latin American Civilization and Culture (3)  
 MAS 141 Mexican Civilization and Culture (3)  
 HIST 118 History of Mexico (3)  
 HIST 314 History of Latin America to 1855 (3)  
 HIST 315 History of Latin America: 1855 to the Present (3)  
 PSCI 328 International Law and Organizations (3)

**Required Specified General Education Credits — 9 semester hours****Category 5. Social Science**

GEOG 200 Human Geography (3) (c.Geography)  
 PSCI 220 Introduction to International Relations (3)  
 (d.Political Science)

**Category 7.c. Interdisciplinary, Multicultural and Internat. Studies**

SPCO 323 Intercultural Communication (3)

**Elective General Education Credits — 31 semester hours****University Wide Elective Credits — 29 semester hours**

**Notes:** At least one half of all courses (including both core and elective courses) taken must be at the 300-400 level. ECON 103 and ECON 105 are prerequisites for ECON 303 and ECON 305 to be taken under general education. Students who plan to attend graduate school may substitute MATH 131 and prerequisites for MATH 175 and MATH 176.

Language proficiency is estimated to require at least 12 hours of study at the intermediate level or above. Demonstrated proficiency at the intermediate/ high level on the ACTFL/ETS Oral Proficiency Interview fulfills the language requirement regardless of the actual number of language credits taken.

UNC offers a full complement of courses in French, Spanish and German. Students who wish to pursue other languages are responsible for supplementing UNC course offerings with outside language study (e.g., regular courses at other universities, long distance education, and/or tutoring) in order to achieve proficiency.

A thesis is required to graduate from the program. The thesis topic and faculty thesis advisor must be approved by the ITR Director. It is recommended that the student begin the thesis two semesters before graduation. Thesis credit will be taken as a directed study in the department of the thesis advisor.

No more than three hours of internship may be used to complete any concentration area. Internships for more than three hours are available above the 18 hour requirement.

Students must formally apply to the ITR Committee (970) 351-2739 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.

## INTERDISCIPLINARY STUDIES, B.A.

### Liberal Arts Emphasis

#### Program Requirements

<b>Required Major (Core) Credits</b> .....	<b>22</b>
<b>Elective Major Credits</b> .....	<b>0</b>
<b>Required Supporting Credits</b> .....	<b>0</b>
<b>Required Concentration Area Credits</b> .....	<b>18</b>
<b>Required Specified General Education Credits</b> .....	<b>40</b>
<b>Select either PTEP or Additional Concentration or Minor</b> .....	<b>44</b>
<b>Required PTEP Credits - 41</b>	
<b>Required Supporting Credits - 3</b>	
<b>OR</b>	
<b>Additional Concentration or Minor - 18-22</b>	
<b>Elective Credits - 22-26</b>	
<b>Total Program Credits, 120</b>	
<b>Elective General Education Credits</b> .....	<b>0</b>
<b>University Wide Elective Credits</b> .....	<b>0</b>
<b>Total credits required for this degree</b> .....	<b>124</b>

The coursework in this major is designed to provide students with an interdisciplinary liberal arts education. The general education courses provide the broad foundation, with courses from seven general categories required. The required core courses narrow the focus to four disciplines or clusters of disciplines - math, science, history and the social sciences and language and literature. These courses examine ways of thinking within and across broadly related disciplines. Concentration areas provide students with more in depth study of academic disciplines.

Elementary licensure candidates also must complete the PTEP courses and the required supporting courses in Speech communications. Those not completing the PTEP and Speech Communications courses must, in consultation with their advisors, choose a minor or a second Concentration area which is complementary to the first and may also, with advisor's permission, substitute appropriate courses for those marked here with this symbol: ++

#### Required Specified General Education Credits — 40 semester hours

**Note:** Students are strongly recommended to take the courses listed with the full course titles. Courses listed in brackets are acceptable alternatives.

- Category 1.a. - ENG 122 College Composition (3)
- 1.b. - one course from Intermediate Composition (3)\*
- Category 2. - MATH 181 Fundamentals of Mathematics I (3)\*\* and MATH 182 Fundamentals of Mathematics II (2)
- Category 3. - one course from Physical Activity (1)
- Category 4.c. - HIST 100 Survey of American History from Its Beginnings to 1877 (3) or [HIST 101 or HIST 121]
- 4.d. - ENG 131 Introduction to Literature (3) or [ENG 211, ENG 214 or ENG 262]
- 4.a./b./e. - one course from ART/MUS/FL/PHIL/MIND or
- Category 5.a./e./f. - one course from ANT/PSY/SOC
- 5.b./d. - ECON 103 Introduction to Economics: Macroeconomics (3) or [ECON 105 or ECON 101] or PSCI 100 United States National Government (3) or [PSCI 105]
- Category 5.c. - GEOG 100 World Geography (3) or GEOG 110 Geography of the United States and Canada (3) or [GEOG 200]

Category 6. - Science-select one course from each of two of the following areas. The two courses must total at least 7 credit hours.

- ESCI 265 Earth Science Concepts for Elementary Teachers (3) or [AST 100, GEOL 100, MET 205 or OCN 200]
- SCI 265 Physical Science Concepts (4) or [CHEM 108, CHEM 111, PHYS 200 or PHYS 240]
- BIO 265 Life Science Concepts (3) or [BIO 110 or BIO 111]

Category 7.a. - one course from Interdisciplinary Studies (3)\*\*\*

- or
- 7.c. - one course from International Cultures
- 7.b. - one course from Multicultural Courses\*\*\*\*

\* select any course except BA 205, AFS 305 and MUS 152

\*\* students selecting the Mathematics concentration take MATH 131 instead of MATH 181

\*\*\* select any course except GERO 205, NURS 200 and BA 251

\*\*\*\*select any course except CH 236 and HRS 290

#### Required Major (Core) Credits — 22 semester hours

##### Social Studies

HIST 224 History of Colorado (3)

##### Science

Students must select one course from the following three courses not taken for General Education credit:

- BIO 265 Life Science Concepts (3)
- ESCI 265 Earth Science Concepts for Elementary Teachers (3)
- SCI 265 Physical Science Concepts (4) or [CHEM 108, CHEM 111, PHYS 220 or PHYS 240]

##### Social Studies

SOSC 300 Social Studies Methods of Inquiry (3)

##### Language Arts

ENG 404 Modern Literature About Childhood and Adolescence (3)

or

EDRD 414 Literature for Children, Adolescents and Young Adults (3)

##### Language Arts

ENG 419 Language and the History of English (3)

or

EDRD 419 Language and Literacy Development of Preschool and Elementary School Children (3)

##### Science

SCI 465 Principles of Scientific Inquiry: Finding Order in Chaos (3)

##### Math

MATH 387 Mathematics in Our Technological World (4)

#### SELECT EITHER: PTEP or Additional Concentration, or Minor — 44 semester hours

Students in the PTEP program must satisfy an oral proficiency requirement. This can be done by taking the two courses listed below or by passing a proficiency exam administered by the Department of Speech Communication.

PTEP requirement, other students are exempted from this requirement.

SPCO 100 Basics of Public Speaking (1)

SPCO 103 Speaking Evaluation (2)

#### Required Concentration Area Credits — 18 semester hours (Select Area of Concentration - 20 areas) .....

Math & Science	Social Studies	Language Arts
1-Biology	6-Civics	10-Bilingual/Bicultural
2-Chemistry	7-Economics	11- English
3-Earth Science	8-Geography	12-ESL
4-Mathematics	9-History	13-French
5-Physics		14-German

<b>Integrated Studies</b>	15-Spanish
17-Environmental Studies	16-Speech Communication
18-Ethnic and Gender Studies	
19-Fine Arts	

### Bilingual/Bicultural Concentration - 18 semester hours

HISP 395 Historical, Philosophical, Legal and Cultural Dimensions of Bilingual Education (3)  
HISP 400 Methods and Assessment for Bilingual Education and ESL (3)  
SPAN 411 Spanish for Bilingual Education I (3)\*  
SPAN 412 Spanish for Bilingual Education II (3)\*  
*and select one of the following two course:*  
MAS 101 Introduction to Mexican American Studies (3)  
HISP 102 Hispanic Cultures in the United States (3)  
*and select one of the following two courses:*  
ANT 210 Field Methods in Cultural Anthropology (3)  
SPCO 323 Intercultural Communication (3)

**Notes:** \*Students must have completed the Intermediate Spanish courses and the 300-level skill-building courses, or equivalent, before enrolling.

Students must pass the Hispanic Studies Department's oral proficiency interview at the intermediate level before being allowed to enter student teaching. Students who have not completed SPAN 202, or who have not completed a minimum of four years of high school Spanish, or are native speakers with no formal training in Spanish may have to complete additional Spanish courses to meet requirements.

### Biology Concentration — 18 semester hours

BIO 111 Survey of Organismal Biology (5)  
BIO 220 Genetics (4)  
BIO 460 Ecology (4)  
One upper division BIO, BOT or ZOO (4)  
++BIO 494 Practicum in College Biological Science Instruction (1)

**Notes:** Students must take BIO 110 instead of BIO 265 as the General Education science requirement. They must also take BIO 494 and act as an Elementary Laboratory Assistant for BIO 265.

++Non-licensure students may substitute another course for this requirement with approval of their advisor.

### Chemistry Concentration - 18 semester hours

CHEM 112 Principles of Chemistry II (5)  
CHEM 331 Organic Chemistry I (5)  
CHEM 360 Environmental Chemistry (2)  
++CHED 495 Seminar in Teaching Chemistry (2)  
++CHEM 422 Directed Studies, Lab Assistant (1)  
++PHYS 475 Seminar in Teaching Physics (2)

**Notes:** Students must take CHEM 111 instead of SCI 265 as the General Education science requirements. They must also take CHEM 422 and act as an Elementary Laboratory Assistant for SCI 265.

The total number of hours in this concentration is 17 because the number of hours of general education in chemistry is increased from four to five hours.

++Non-licensure students may substitute another course for this requirement with approval of their advisor.

### Earth Science Concentration — 18 semester hours

GEOL 202 Historical Geology (4)  
MET 205 General Meteorology (4)  
OCN 301 Physical and Chemical Oceanography (4)  
or  
OCN 302 Geological and Biological Oceanography (4)  
AST 301 Classical Astronomy (3)  
or  
AST 302 Modern Astronomy (3)  
++ESCI 450 Strategies in Teaching in Earth Sciences (1)  
++*and select one of the following four courses (1):*

AST 422 Directed Studies Lab Assistant  
GEOL 422 Directed Studies Lab Assistant  
MET 422 Directed Studies Lab Assistant  
OCN 422 Directed Studies Lab Assistant

**Notes:** Students must take GEOL 201 instead of ESCI 265 as the General Education science requirement. They must also take one of the Directed Studies listed above and act as an Elementary Laboratory Assistant for SCI 265.

The total number of hours in this concentration is 17 because the number of hours of general education in earth science is increased from three to four hours.

++Non-licensure students may substitute another course for this requirement with approval of their advisor.

### Mathematics Concentration — 18 semester hours

Students entering this program are expected to have the equivalent of four years of high school mathematics that will enable them to begin a study of calculus; students without these prerequisites may be required to take additional courses in algebra and trigonometry before beginning the calculus sequence.

STAT 150 Introduction to Statistical Analysis (3)  
MATH 228 Discrete Mathematics (3)  
MATH 341 Introduction to Modern Geometry (4)  
MATH 391 Introduction to Number Theory (3)  
++MATH 395 Topics in Mathematics for Teachers (3)  
++MATH 422 Directed Studies (2)

**Notes:** Students must take MATH 131 instead of MATH 181 to satisfy part of the general education mathematics requirement. The other part of the requirement is MATH 182.

The total number of hours in this concentration is 17 because the number of hours of general education in Mathematics is increased from five to six.

++Non-licensure students may substitute another course for this requirement with approval of their advisor.

### Physics Concentration — 18 semester hours

PHYS 221 Introductory Physics II (5)  
PHYS 301 Seminar in Physics (1)  
PHYS 321 Elementary Modern Physics (3)  
PHYS 422 Directed Studies Lab Assistant (1)  
++PHYS 475 Seminar in Teaching Physics (2)  
PHYS 495 Special Topics in Physics: Heat, Waves, Light & Sounds (3)  
++CHED 495 Seminar in Teaching Chemistry (2)

**Notes:** Students must take PHYS 220 instead of SCI 265 as the General Education science requirement. They must also take PHYS 422 and act as an Elementary Laboratory Assistant for SCI 265.

Students with this concentration will need to have a good working knowledge of algebra and trigonometry.

A student with this concentration may substitute MATH 125 MATH 127 or MATH 131 for MATH 182 in General Education.

The total number of hours in this concentration is 17 because the number of hours of general education in physics is increased from four to five hours.

++Non-licensure students may substitute another course for this requirement with approval of their advisor.

### Civics Concentration — 18 semester hours

\*PSCI 100 United States National Government (3)  
\*PSCI 105 Fundamentals of Politics (3)  
Select two upper division Political Science courses (6)  
Select one upper division course from a second standards-based area:  
Economics, Geography or History (3)  
Select one upper division course from the following areas:  
Anthropology, Psychology or Sociology (3)

**Note:** \*If PSCI 100 or PSCI 105 is used to satisfy General Education requirements, an additional upper division Political Science course must be selected.

### Economics Concentration — 18 semester hours

\*ECON 103 Introduction to Economics: Macroeconomics (3)  
\*ECON 105 Introduction to Economics: Microeconomics (3)  
Select two upper division Economics courses (6)

Select one upper division course from a second standards-based area:

Political Science, Geography or History (3)

Select one upper division course from the following areas:

Anthropology, Psychology or Sociology (3)

**Note:** \*If ECON 103 or ECON 105 is used to satisfy General Education requirements, an additional upper division Economics course must be selected.

### Geography Concentration – 18 semester hours

GEOG 200 Human Geography (3)

GEOG 264 Maps and Imagery (3) (Students may substitute GEOG 232 Physical Geography for this course; this selection would add one additional credit hour.)

*Regional Geography - Select one upper-division course from this list:*

GEOG 318 Australia (2) (may be taken only if GEOG 232 is chosen)

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)

*Systematic Geography - Select one upper-division course from this list:*

GEOG 300 Advanced Human Geography: Topics (3)

GEOG 312 Economic Geography (3)

GEOG 320 Population Geography (3)

GEOG 360 Political Geography (3)

GEOG 370 Urban Geography (3)

GEOG 432 Rural Development in the American West (3)

Select one upper division course from a second standards-based area:

Political Science, History, Economics

Select one lower or upper division course from the following areas:

Anthropology, Sociology, Psychology

### History Concentration – 18 semester hours

Select one of the following courses not to include credit taken for General Education area 4c: - 3 semester hours:

HIST 100 Survey of American History from Its Beginnings to 1877 (3)

HIST 120 Western Civilization from Ancient Greece to 1689 (3)

HIST 121 Western Civilization from 1689 to the Present (3)

Select three upper division History courses. One course must be from a Non-Western Civilization course (9)

Select one upper division course from a second standards-based area:

Political Science, Economics or Geography (3)

Select one upper division course from the following areas:

Anthropology, Psychology or Sociology (3)

### English Concentration – 18 semester hours

\*ENG 211 Survey of American Literature (3)

++EED 341 Teaching Language and Composition (3)

*Select one of the following two courses:*

ENG 238 Introduction to Folklore (3)

ENG 414 Greek and Comparative Mythology (3)

*Select one of the following three courses:*

ENG 213 Survey of British Literature I (3)

\*ENG 214 British Literature II (3)

\*ENG 262 Masterpieces of World Literature (3)

*Select one of the following two courses:*

ENG 303 The Essay (3)

ENG 319 Advanced Expository Techniques (3)

*Select one of the following two courses:*

ENG 318 Traditional and Modern Grammars (3)

ENG 418 Advanced Topics in Linguistics (3)

**Notes:** \*Students who have taken this course to satisfy a General Education requirement must take ENG 131 to complete the requirements for this area of concentration. Qualified students may be exempted by examination from ENG 131.

++Non-licensure students may substitute another course for this requirement with approval of their advisor.

### ESL Concentration – 18 semester hours

ENG 318 Traditional and Modern Grammars (3)

ENG 419 Language and the History of English (3)

HISP 395 Historical, Philosophical, Legal and Cultural

Dimensions of Bilingual Education (3)

SPCO 323 Intercultural Communication (3)

TESL 301 TESL Practicum I (2)

TESL 302 TESL Practicum II (1-2)

TESL 400 Methods and Approaches of ESL/EFL (3)

**Note:** Students must complete a second language requirement equivalent to one year of college level studies.

### French Concentration – 18 semester hours

FR 116 Contemporary France (3)

\*FR 201 Intermediate French I (3)

FR 202 Intermediate French II (3)

FR 301 France: Its People and Culture (3)

FR 302 Current Events in France (3)

\*\*++FL 440 Teaching Foreign Language in K-6 (3)

**Notes:** All 200-300 level FR courses are conducted in French.

\*Students must have completed FR 102 or have demonstrated proficiency. Consent of instructor required.

\*\*FR 202 is a prerequisite for FL 400.

++Non-licensure students may substitute another course for this requirement with approval of their advisor.

### German Concentration – 18 semester hours

GER 116 Contemporary Germany (3)

\*GER 201 Intermediate German I (3)

GER 202 Intermediate German II (3)

GER 301 Germany and the Germans I (3)

GER 302 Germany and the Germans II (3)

\*\*++FL 440 Methods of Teaching Foreign Language in K-6 (3)

**Notes:** All 200-300 level GER courses are conducted in German.

\*Students must have completed GER 102 or have demonstrated proficiency. Consent of instructor required.

\*\*GER 202 is a prerequisite for FL 440.

++Non-Licensure students may substitute another course for this requirement with approval of their advisor.

### Spanish Concentration – 18 semester hours

\*SPAN 201 Intermediate Spanish I (3)

SPAN 202 Intermediate Spanish II (3)

SPAN 301 Spanish Grammar (3)

SPAN 302 Spanish Composition (3)

\*\*++FL 440 Methods of Teaching Foreign Language in K-6 (3)

*Select one of the following three courses:*

SPAN 411 Spanish for Bilingual Education I (3)

SPAN 412 Spanish for Bilingual Education II (3)

SPAN 455 Spanish Readings (3)

**Notes:** All courses with a SPAN prefix are taught in Spanish.

\*Students must have the equivalent of one year of college-level Spanish as a prerequisite for SPAN 201.

\*\*SPAN 202 is a prerequisite for FL 400.

++Non-licensure students may substitute another course for this requirement with approval of their advisor.

### Speech Communication Concentration – 18 semester hours

SPCO 102 Introduction to Speech Communication (3)

SPCO 201 Inquiry in Speech Communication (3)

SPCO 321 Interpersonal Theory (3)

SPCO 330 Small Group Communication (3)

SPCO 343 Persuasion (3)

++SPCO 350 Communication in the Classroom (3)

**Note:** ++Non-licensure students may substitute another course for this requirement with approval of their advisor.

### Environmental Studies Concentration – 18 semester hours

*General Education Category 7.a.*

ENST 100 Introduction to Environmental Studies (3)

**Required Core**

ENST 380 Sustainable Living (3)

**Social Processes (at least 2 of the following courses, 6 hours)**

ENST 205 Environment, Politics and Law (3)  
 ENST 215 Human Behavior and Environment (3)  
 ENST 335 Environmental and Resource Economics (3)  
 ENST 331 Global Population and Human Needs (3)  
 GEOG 315 Resource Management (3)

**Physical Resources (at least 2 of the following courses, 4-6 hours)**

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)  
 ENST 355 Introduction to Environmental Health (3)

**Sensory Perceptions (at least 1 of the following courses, 2-3 hours)**

ENST 375 Literature and the Environment (3)  
 ENST 385 Art and the Environment (2)

**Note:** The intent of this concentration is to provide an avenue of preparation for those who wish to become environmentally literate and competent elementary education teachers, not environmental science or policy professionals. To this end the proposed core courses have a strong focus on educational applications or environmental topics. The remainder of the program is comprised of a required distribution of courses in the current ENST Minor. Students must take at least 18 credit hours.

**Ethnic and Gender Studies Concentration – 18 semester hours**

Select one course from each of the four areas below. Select two additional courses from any of the four.

**Africana Studies**

AFS 100 Introduction to Black Studies (3)  
 AFS 305 Survey of African American Literature (3)  
 AFS 395 Aspects of the African-American Experience (3)

**Anthropology**

ANT 312 North American Indians (3)  
 ANT 314 Sex Roles in a Cross-Cultural Perspective (3)  
 ANT 318 Native American Women (3)

**Hispanic Studies**

MAS 101 Introduction to Mexican American Studies (3)  
 MAS 300 Social Stratification in the Mexican-American Community (3)  
 MAS 325 History of the Chicano in the Southwest (3)

**Women's Studies**

WS 101 Women in Contemporary Society (3)  
 WS 350 Feminist Theory (3)  
 WS 420 Representations of Women in Popular Culture (3)

**Fine Arts Concentration – 18 semester hours****General Education Category 4a - select one course as an elective**

ART 181 History of Art I (4)  
 ART 182 History of Art II (4)  
 MUS 140 Introduction to Music (3)  
 THEA 130 Introduction to the Theatre (3)

**Lower division courses - 9 semester hours**

MUS 241 Perceiving the Arts (3)

and select 2 courses with 2 different prefixes

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 190 Art Appreciation (3)  
 ART 241 Basic Crafts Design (3)  
 MIND 288 Contemporary Arts Connections (3)  
 MUS 140 Introduction to Music (3)  
 MUS 204 Music Fundamentals and Experiences (3)  
 THEA 130 Introduction to the Theatre (3)  
 THEA 160 Beginning Acting (3)

**Upper division courses - 8 semester hours**

Select at least 3 courses to equal a minimum of 8 credit hours with 2 different prefixes:

ART 356 Monotypes (3) (by consent of instructor)  
 ART 357 Artist's Books: Structures and Concepts (3) (by consent of instructor)  
 ART 381 Tribal Art (4)  
 ART 383 Pre-Columbian Art (4)  
 ART 388 19th Century Art (4)

ART 389 Twentieth Century Art (4)

ART 437 Computer Art (3)

ART 441 Cultural Studies in the K-12 Curriculum (2)

ART 443 Computer Technology in Art Education (2)

MUS 340 Survey of History and Literature of Jazz (3)

MUS 480 Mixed Concert Choir (1)

MUS 481 Women's Glee Club (1)

MUS 484 Men's Glee Club (1)

MUS 488 Concert Band (1-3)

MUS 490 Symphonic Band (1-3)

MUS 491 Wind Ensemble (1-3)

MUS 467 University Symphony Orchestra (1-3)

MT 330 History of Musical Theatre (3)

THEA 330 History of Theatre I (3)

THEA 331 History of Theatre II (3)

++THEA 385 Methods of Teaching Drama (3)

**Notes:** Credit hours must total a minimum of 18 semester

hours of lower and upper division courses.

A course cannot count for both general education and the area of concentration. Catalog prerequisites may be waived for students in this area of concentration. Please see the interdisciplinary Fine Arts advisor.

++Non-licensure students may substitute another course for this requirement with approval of their advisor.



## JOURNALISM AND MASS COMMUNICATIONS MAJOR REQUIREMENTS

To become a major in the Department of Journalism and Mass Communications, you first become a pre-JMC major. This is done by filling out a “Change of Major/Minor” form, available from the department. The pre-major should be declared in the freshman or sophomore year.

Application for admission to full JMC-major status should take place during the sophomore year. It is important to note that the JMC major is a two-year program beyond the time at which a pre-major is admitted with full JMC major status. Whether admitted as a sophomore, junior or senior, the newly admitted JMC major will often need two full academic years to complete the major course requirements. In particular, seniors and transfer students who are considering applying to become JMC majors are advised that it is not usually possible to complete the process of application to the major and all the required coursework in fewer than four regular semesters.

Students may apply to become a JMC major after completing JMC 100 and 30 hours of undergraduate semester credit. To apply:

- Complete and submit an “Application for Admission to Journalism and Mass Communications Major” form, available from the department three weeks before each deadline;
- Submit official transcripts from all colleges and universities attended other than UNC, if any, with the form noted above.

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

Your application must reach the Department Office by the deadlines indicated below:

- Fall semester admission: February 15
- Spring semester admission: October 15
- No admission decisions are made during the summer.

Students are permitted to apply to the major only once a semester, for only one emphasis per semester.

Should the number of qualified applicants exceed space available in required courses, the department will admit only those students ranking highest in cumulative grade point averages.

JMC majors may not take the Media Studies minor. Students cannot declare a minor until they have been admitted to the major.

JMC majors must complete courses for only one JMC emphasis, and changing from one emphasis to another after admission to the major may be prohibited by the department.

The JMC department is committed to liberal arts education. For this reason, students majoring in JMC are not permitted to apply more than 30 hours with a JMC prefix toward meeting the required 120 semester hours for graduation. Students taking more than 30 hours in JMC will need 90 hours outside of JMC in order to graduate, making the total number of hours needed for graduation exceed 120. JMC majors are also required to take 65 hours of the total 120 needed for graduation in liberal arts courses outside the JMC department.

## JOURNALISM, B.A.

### News-Editorial Emphasis

#### Program Requirements

Required Major Credits	21
Elective Major Credits	9
Required Supporting Credits	0
Required Minor Credits	18
Required Specified General Education Credits	0
Required PTEP Credits	0
<b>Total Program Credits, 48</b>	
Elective General Education Credits	40
University Wide Elective Credits	32
<b>Total credits required for this degree</b>	<b>120</b>

The news-editorial emphasis is designed to provide a professional learning experience in reporting, writing and editing. Under the guidance of experienced news people, students perform news-oriented tasks of progressively greater complexity and scope. Students receive individualized assessments of their work on a regular basis.

Graduates of the news-editorial emphasis are qualified for employment in a wide variety of news organizations. These include, but are not limited to, weekly and daily newspapers, radio, TV and cable outlets and magazines. For some students, the news-editorial emphasis is a preparation for careers in related professions, such as law and government.

#### Required Major Credits — 21 semester hours

JMC 100 Introduction to Journalism and Mass Communications (3)
JMC 210 Newswriting (3)
JMC 350 News Editing and Layout (3)
JMC 390 Impact of Mass Communications on Society (3)
JMC 397 History of Mass Communication (3)
JMC 410 Advanced News and Feature Writing (3)
JMC 497 Mass Communications Law (3)

#### Elective Major Credits — 9 semester hours

##### Group A — News-Editorial Elective Credits

Select one of the following courses:

JMC 340 Broadcast Newswriting (3)
JMC 380 Public Relations (3)
JMC 460 Media Management (3)
JMC 492 Mass Communications Internship (1-3) (Internship strongly recommended)
ART 271 Basic Photography (3)

##### Group B — Journalism and Mass Communications Elective Credits

Take six additional hours in courses with a JMC prefix (6)

#### Required Minor Credits — 18 semester hours

#### Elective General Education Credits — 40 semester hours

#### University Wide Elective Credits — 32 semester hours

**JOURNALISM, B.A.**Public Relations and Advertising Media  
Emphasis**Program Requirements**

Required Major Credits	27
Elective Major Credits	3
Required Supporting Credits	0
Required Minor Credits	18
Required Specified General Education Credits	0
Required PTEP Credits	0
<b>Total Program Credits, 48</b>	
Elective General Education Credits	40
University Wide Elective Credits	32
<b>Total credits required for this degree</b>	<b>120</b>

Students in this emphasis learn the theory, writing skills and professional competencies they need to practice effective public relations and to effectively use media for advertising and promotion.

Students successful in the emphasis learn techniques and tools for entry-level employment in public relations, community relations, media relations, advertising or promotion. Students also become familiar with the history, ethical issues and professional problems in these areas and are thereby prepared to assume professional careers and/or undertake graduate study in these areas.

**Required Major Credits — 27 semester hours**

JMC 100 Introduction to Journalism and Mass Communications (3)  
 JMC 210 Newswriting (3)  
 JMC 345 Broadcast Advertising and Promotion (3)  
 JMC 350 News Editing and Layout (3)  
 JMC 380 Public Relations (3)  
 JMC 385 Media Planning and Research (3)  
 JMC 390 Impact of Mass Communications on Society (3)  
 JMC 481 Public Relations Techniques (3)  
 JMC 497 Mass Communications Law (3)

**Elective Major Credits — 3 semester hours in JMC**

(Internship strongly recommended)

*The following courses are recommended:*

BAMK 360 Marketing (3)  
 BAMK 365 Advertising (3)  
 BAMK 461 Advertising Campaigns (3)  
 BAMK 470 Direct Marketing (3)  
 ECON 105 Introduction to Economics: Microeconomics (3)  
 SPCO 100 Basics of Public Speaking (1)  
 SPCO 103 Speaking Evaluation (2)  
 SPCO 212 Professional Speaking (3)  
 SPCO 330 Small Group Communication (3)  
 SPCO 331 Organizational Communication (3)  
 SPCO 343 Persuasion (3)  
 SPCO 444 Argumentation Theory (3)

**Required Minor Credits — 18 semester hours****Elective General Education Credits — 40 semester hours****University Wide Elective Credits — 32 semester hours****JOURNALISM, B.A.**

## Telecommunications Emphasis

**Program Requirements**

Required Major Credits	23
Elective Major Credits	6-7
Required Supporting Credits	0
Required Minor Credits	18
Required Specified General Education Credits	0
Required PTEP Credits	0
<b>Total Program Credits, 47-48</b>	
Elective General Education Credits	40
University Wide Elective Credits	32-33
<b>Total credits required for this degree</b>	<b>120</b>

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 Major Credits — 23 semester hours**

JMC 100 Introduction to Journalism and Mass Communications (3)  
 JMC 210 Newswriting (3)  
 JMC 342 Television Production (4)  
 JMC 390 Impact of Mass Communications on Society (3)  
 JMC 443 Electronic Field Production (4)  
 JMC 497 Mass Communications Law (3)  
*and select one of the following two courses:*  
 JMC 241 Radio Production and Broadcast Announcing (3)  
 JMC 340 Broadcast Newswriting (3)

**Elective Major Credits — 6-7 semester hours****Required Minor Credits — 18 semester hours****Elective General Education Credits — 40 semester hours****University Wide Elective Credits — 32-33 semester hours**

Take additional hours in courses with JMC prefixes.  
 (Internship strongly recommended)

## MATHEMATICS, B.A.

### Actuarial Science Emphasis

#### Program Requirements

Required Major Credits	19
Elective Major Credits	9
Required Supporting Credits	18
Required Minor Credits	0
Required Specified General Education Credits	11
Required PTEP Credits	0
<b>Total Program Credits, 57</b>	
Elective General Education Credits	29
University Wide Elective Credits	34
<b>Total credits required for this degree</b>	<b>120</b>

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 Major Credits — 19 semester hours

- MATH 131 Listed under Specified General Education
- MATH 132 Listed under Specified General Education
- MATH 233 Calculus III (4)
- MATH 350 Elementary Probability Theory (3)
- MATH 351 Elementary Statistics Theory (3)
- MATH 375 Elementary Numerical Analysis (3)
- Required Statistics Credits (3 semester hours)*
- STAT 150 Introduction to Statistical Analysis (3)
- Required Computer Science Credits (3 semester hours)*
- CG 105 Personal Computer Applications (3)

#### Elective Major Credits — 9 semester hours

- Required Statistics Credits (3 semester hours)*
- Select one of the following courses:*
- STAT 406 Multiple Linear Regression (3)
- or
- STAT 409 Sampling Techniques (3)
- Required Computer Science Credits (3 semester hours)*
- Select one of the following courses:*
- CS 195 Special Topics in Computer Science (C++) - 3 semester hours, CS courses at the 200 level or higher.\*

#### Required Supporting Credits — 18 semester hours

- Required Finance Credits (15 semester hours)*
- BAFN 231 Legal Environment of Business (3)
- BAFN 340 Principles of Risk and Insurance (3)
- BAAC 220 Principles of Accounting I (3)
- BAAC 221 Principles of Accounting II (3)
- BAFN 370 Business Finance (3)
- Required Economics Credits (3 semester hours)*
- ECON 105 Introduction to Economics: Microeconomics (3)

\*These courses have additional prerequisites.

#### Required Specified General Education Credits — 11 semester hours

- Category 2. Mathematics*
- MATH 131 Calculus I (4)
- Category 5.b. Social Sciences*
- ECON 103 Introduction to Economics: Macroeconomics (3)
- Category 6.c. Science and Mathematics*
- MATH 132 Calculus II (4)

#### Elective General Education Credits — 29 semester hours

#### University Wide Elective Credits — 34 semester hours

## MATHEMATICS, B.A.

### Applied Statistics Emphasis

#### Program Requirements

Required Major Credits	25
Elective Major Credits	6
Required Supporting Credits	0
Required Minor Credits	0
Required Specified General Education Credits	8
Required PTEP Credits	0
<b>Total Program Credits, 39</b>	
Elective General Education Credits	32
University Wide Elective Credits	49
<b>Total credits required for this degree</b>	<b>120</b>

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 Major Credits — 25 semester hours

- MATH 131 Listed under Specified General Education
- MATH 132 Listed under Specified General Education
- MATH 221 Elementary Linear Algebra (3)
- MATH 228 Discrete Mathematics (3)
- MATH 233 Calculus III (4)
- MATH 350 Elementary Probability Theory (3)
- MATH 351 Elementary Statistics Theory (3)
- Statistics Core Credits (9 semester hours)*
- STAT 150 Introduction to Statistical Analysis (3)
- STAT 406 Multiple Linear Regression (3)
- STAT 409 Sampling Techniques (3)

#### Elective Major Credits — 6 semester hours

- Required Elective Credits (6 semester hours - minimum)*
- CS 195 Special Topics in Computer Science (C++) 3 hours, CS courses at the 200 level or higher.\* STAT courses at the 400 level, MATH courses at the 300 level or higher, other courses with the approval of the advisor.

\*These courses have additional prerequisites.

#### Required Specified General Education Credits — 8 semester hours

- Category 2. Mathematics*
- MATH 131 Calculus I (4)
- Category 6.c. Science and Mathematics*
- MATH 132 Calculus II (4)

#### Elective General Education Credits — 32 semester hours

#### University Wide Elective Credits — 49 semester hours

**MATHEMATICS, B.A.**

## Computer Science Emphasis

**Program Requirements**

Required Major Credits	49
Elective Major Credits	0
Required Supporting Credits	0
Required Minor Credits	0
Required Specified General Education Credits	8
Required PTEP Credits	0
<b>Total Program Credits, 57</b>	
Elective General Education Credits	32
University Wide Elective Credits	31
<b>Total credits required for this degree</b>	<b>120</b>

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 Major Credits — 49 semester hours**

MATH 131 Listed under Specified General Education  
 MATH 132 Listed under Specified General Education  
 MATH 221 Elementary Linear Algebra (3)  
 MATH 228 Discrete Mathematics (3)  
 MATH 233 Calculus III (4)  
 MATH 350 Elementary Probability Theory (3)  
 MATH 351 Elementary Statistics Theory (3)  
 MATH 375 Elementary Numerical Analysis (3)

*Computer Science Credits*

CS 101 Introduction to Computer Science (3)  
 CS 102 Structured Programming (3)  
 CS 200 Object-Oriented Analysis, Design, and Programming (3)  
 CS 222 Computer Architecture/Organization (3)  
 CS 301 Algorithms and Data Structures (3)  
 CS 302 Programming Languages (3)  
 CS 350 Software Engineering I (3)  
 CS 440 Operating Systems (3)  
 CS 442 Networking (3)  
 CS 497 Senior Project (1-8)

**Required Specified General Education Credits — 8 semester hours***Category 2. Mathematics*

MATH 131 Calculus I (4)

*Category 6.c. Science and Mathematics*

MATH 132 Calculus II (4)

**Elective General Education Credits — 32 semester hours****University Wide Elective Credits — 31 semester hours****MATHEMATICS, B.A.**

## Liberal Arts Emphasis

**Program Requirements**

Required Major Credits	37
Elective Major Credits	0
Required Supporting Credits	0
Required Minor Credits	0
Required Specified General Education Credits	8
Required PTEP Credits	0
<b>Total Program Credits, 45</b>	
Elective General Education Credits	32
University Wide Elective Credits	43
<b>Total credits required for this degree</b>	<b>120</b>

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.

**Required Major Credits — 37 semester hours**

MATH 131 Listed under Specified General Education  
 MATH 132 Listed under Specified General Education  
 MATH 221 Elementary Linear Algebra (3)  
 MATH 228 Discrete Mathematics (3)  
 MATH 233 Calculus III (4)  
 MATH 321 Introduction to Abstract Algebra (4)  
 MATH 335 Differential Equations I (3)  
 MATH 350 Elementary Probability Theory (3)  
 MATH 351 Elementary Statistics Theory (3)  
 MATH 431 Basic Analysis I (4)  
 MATH 432 Basic Analysis II (4)  
 MATH 460 Introduction to Complex Analysis (3)  
 MATH 495 Topics in Mathematics (3)

**Required Specified General Education Credits — 8 semester hours***Category 2. Mathematics*

MATH 131 Calculus I (4)

*Category 6.c. Science and Mathematics*

MATH 132 Calculus II (4)

**Elective General Education Credits — 32 semester hours****University Wide Elective Credits — 43 semester hours**

## MATHEMATICS, B.A.

### Middle School Teacher Education Emphasis

#### Program Requirements

<b>Required Major Credits</b> .....	<b>31</b>
<b>Elective Major Credits</b> .....	<b>0</b>
<b>Required Supporting Credits</b> .....	<b>3</b>
<b>Required Minor Credits</b> .....	<b>0</b>
<b>Required Specified General Education Credits</b> .....	<b>8</b>
<b>Required PTEP Credits</b> .....	<b>41</b>
<b>Total Program Credits, 83</b>	
<b>Elective General Education Credits</b> .....	<b>32</b>
<b>University Wide Elective Credits</b> .....	<b>5</b>
<b>Total credits required for this degree</b> .....	<b>120</b>

This program is designed for prospective 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 middle school level.

#### Required Major Credits — 31 semester hours

MATH 131 Listed under Specified General Education  
 MATH 132 Listed under Specified General Education  
 MATH 181 Fundamentals of Mathematics I (3)  
 MATH 182 Fundamentals of Mathematics II (2)  
 MATH 221 Elementary Linear Algebra (3)  
 MATH 228 Discrete Mathematics (3)  
 MATH 283 Informal Geometry (2)  
 MATH 341 Introduction to Modern Geometry (4)  
 MATH 391 Introduction to Number Theory (3)  
 MATH 395 Topics in Mathematics for Teachers (3)  
 MATH 464 Introduction to History of Mathematics (3)  
 MED 487 Technology, Manipulatives and NCTM Standards (3)  
 STAT 150 Introduction to Statistical Analysis (3)

#### Elective Major Credits — 3 semester hours

Select one of the following courses:

- CG 110 BASIC Programming (3)
- CG 120 Pascal Programming (3)
- CG 125 LOGO Programming (3)

#### Required Specified General Education Credits — 8 semester hours

Category 2. Mathematics

MATH 131 Calculus I (4)

Category 6.c. Science and Mathematics

MATH 132 Calculus II (4)

#### Required PTEP Credits — 41 semester hours

#### Elective General Education Credits — 32 semester hours

#### University Wide Elective Credits — 5 semester hours

**Notes:** Students majoring in mathematics who plan to teach in the middle school must complete the requirements as stated in this Catalog for licensure as a 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;
- 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 Catalog as required courses for the major, or as program electives in the major.

# MATHEMATICS, B.A.

## Secondary Teacher Education Emphasis

### Program Requirements

<b>Required Major Credits</b> .....	<b>36</b>
<b>Elective Major Credits</b> .....	<b>0</b>
<b>Required Supporting Credits</b> .....	<b>0</b>
<b>Required Minor Credits</b> .....	<b>0</b>
<b>Required Specified General Education Credits</b> .....	<b>8</b>
<b>Required PTEP Credits</b> .....	<b>37-39</b>
<b>Total Program Credits, 81-83</b>	
<b>Elective General Education Credits</b> .....	<b>32</b>
<b>University Wide Elective Credits</b> .....	<b>5-7</b>
<b>Total credits required for this degree</b> .....	<b>120</b>

This program prepares students to teach mathematics, such as arithmetic, algebra, geometry, trigonometry and mathematical analysis and applications at the secondary school level (grades 7-12).

Students entering this program are expected to have the equivalent of four years of high school mathematics that will enable them to begin a study of calculus; students without these prerequisites may be required to take additional courses in algebra and trigonometry before beginning the calculus sequence.

Graduates of this program are prepared and will be qualified for licensure to teach mathematics in grades 7-12 in the state of Colorado. The program also prepares students for graduate study in mathematics education.

#### Required Major Credits — 36 semester hours

- MATH 131 Listed under Specified General Education
- MATH 132 Listed under Specified General Education
- MATH 221 Elementary Linear Algebra (3)
- MATH 228 Discrete Mathematics (3)
- MATH 233 Calculus III (4)
- MATH 321 Introduction to Abstract Algebra (4)
- MATH 341 Introduction to Modern Geometry (4)
- MATH 350 Elementary Probability Theory (3)
- MATH 351 Elementary Statistics Theory (3)
- MATH 437 Mathematical Modeling (3)
- MATH 464 Introduction to History of Mathematics (3)
- MED 441 Methods of Teaching Mathematics (3)
- CG 120 Pascal Programming (3)

#### Required Specified General Education Credits — 8 semester hours

##### Category 2. Mathematics

MATH 131 Calculus I (4)

##### Category 6.c. Science and Mathematics

MATH 132 Calculus II (4)

#### Required PTEP Credits — 37-39 semester hours

#### Elective General Education Credits — 32 semester hours

#### University Wide Elective Credits — 5-7 semester hours

**Notes:** Students must meet all requirements of the Professional Teacher Education Program as specified in this Catalog.

*For admission to PTEP, the student must have:*

- completed MATH 131 and MATH 132 (with a grade of “C” or better);
- completed at UNC at least two content courses that may count toward the Math major;
- 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, MATH 321 and MATH 341;
- satisfactorily completed Phases One, Two and Three of the Secondary Teacher Education Program;
- 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 Catalog as required courses for the major, or as program electives in the major.

It is recommended that students take MED 272, Mathematics Tutoring, for two semesters.

It is recommended that students take MATH 341, Introduction to Modern Geometry, before taking MATH 464.

## MEXICAN AMERICAN STUDIES, B.A.

### Liberal Arts Emphasis

#### Program Requirements

Required Major Credits	18
Elective Major Credits	0
Required Supporting Credits	24
Required Minor Minimum Credits	18
Required Specified General Education Credits	6
Required PTEP Credits	0
<b>Total Program Credits, 66</b>	
Elective General Education Credits	34
University Wide Elective Credits	21
<b>Total credits required for this degree</b>	<b>121</b>

The objective of the Bachelor of Arts in Mexican American Studies is to promote the study of the Mexican American experience. The content of the program is designed to develop a knowledge base integrating the academic, professional and personal development domains of the learner.

Prospective students are encouraged to be critical and analytical in thought as well as incisive and cogent in their writing and research as they are guided by experienced faculty through the program. The capstone course is a seminar during the senior year which will include an extensive research project as the central component. This program is designed to enable prospective students to integrate knowledge of literature, history, politics, psychology, sociology, gender, as well as language policy and bilingualism in application to the historical experience of the Mexican American.

After the war between Mexico and The United States ended in 1848 and the subsequent signing of the Treaty of the Guadalupe Hidalgo tens of thousands of Mexican individuals found themselves citizens of a new land dominated by people whose language, heritage and culture were much different from their own and whose primary object was to insure that these citizens became integrated to the United States culture. A major in Mexican American Studies allows the student to examine the development of Mexican history and culture from their origins to the present including the sociopolitical, historical and economic results of direct contact with the United States culture.

This major will enable undergraduate students to pursue careers in law, urban affairs, business relations, environmental protection, human development and international relations as well as other fields of public service.

#### Required Major Credits — 18 semester hours

- MAS 260 Electoral Politics and the Mexican American Community (3)
- MAS 300 Social Stratification in the Mexican-American Community (3)
- MAS 320 La Chicana (3)
- MAS 325 History of the Chicano in the Southwest (3) (prerequisite HISP 101)
- MAS 370 Chicano Psychology (3)
- MAS 414 Contemporary Chicano Issues (3)

#### Required Supporting Credits — 24 semester hours

- ANT 311 Latin American Cultures (3)
- ENG 236 Ethnic American Literature, 3
- ENG 436 Major Ethnic Writers (3)
- HISP 111 Introduction to Hispanic Literature (3)
- MAS 141 Mexican Civilization and Culture (3)
- HISP 395 Historical, Philosophical, Legal and Cultural Dimensions of Bilingual Education (3)
- HISP 400 Methods and Assessment for Bilingual Education and ESL (3)
- HISP 410 Assessment and Diagnostic Testing in Bilingual Classrooms (3)
- HIST 118 History of Mexico (3)
- PSY 467 Psychology of Prejudice (3)
- SOC 237 Sociology of Minorities (3)
- SPAN 201 Intermediate Spanish I (3)
- SPAN 202 Intermediate Spanish II (3)
- SPAN 301 Spanish Grammar (3)
- SPAN 302 Spanish Composition (3)
- SPAN 303 Spanish Conversation (3)

- SPAN 410 Chicano Spanish Linguistics (3)
- SPAN 411 Spanish for Bilingual Education I (3)
- SPAN 412 Spanish for Bilingual Education II (3)
- SPCO 323 Intercultural Communication (3)

#### Required Minor Minimum Credits — 18 semester hours

#### Required Specified General Education Credits — 6 semester hours

*Category 7.b. Interdisciplinary, Multicultural and Internat. Studies (3 semester hours still required from Gen.Ed. 7.)*

- MAS 101 Introduction to Mexican American Studies (3)
- MAS 110 Contemporary Chicano Literature (3)

#### Elective General Education Credits — 34 semester hours

#### University Wide Elective Credits — 21 semester hours

**Notes:** ENG 238, Introduction to Folklore, will fulfill the elective requirement only if taken when the Hispanic folklore is being taught in the series of Introduction to Folklore courses.

A minor of at least 21 semester hours is required with prior approval from the department.

All Spanish language courses to be counted for the major and minor must be beyond the first year level.

Courses with the SPAN prefix are taught in Spanish and courses with the MAS and 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.

**PHILOSOPHY, B.A.****Program Requirements**

Required Major Credits	24
Elective Major Credits	9
Required Supporting Credits	0
Required Minor Minimum Credits	18
Required Specified General Education Credits	0
Required PTEP Credits	0
Total Program Credits, 51	
Elective General Education Credits	40
University Wide Elective Credits	29
Total credits required for this degree	120

Philosophy is the attempt to remain true to the spirit of the Socratic dictum: "The unexamined life is not worth living." It thus entails serious reflection on all our fundamental beliefs with an eye to the clarification of the concepts they involve and the discovery of reasons either for continuing to accept them or for giving them up as false.

The major in philosophy is designed to provide both a solid undergraduate education in philosophy and a foundation for the further study of philosophy at the graduate level. It is an excellent major not only for students interested in philosophy itself but also for pre-professional 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 Major Credits — 24 semester hours**

PHIL 240 Formal Logic I (3)  
 PHIL 241 Formal Logic II (3)  
 PHIL 260 History of Ancient Philosophy (3)  
 PHIL 261 History of Modern Philosophy (3)  
 PHIL 350 Ethics (3)  
 PHIL 385 Epistemology (3)  
 PHIL 390 Metaphysics (3)  
 PHIL 495 Advanced Seminar (3)

**Elective Major Credits — 9 semester hours**

Eligible electives include all other PHIL prefix courses.

**Required Minor Minimum Credits — 18 semester hours****Elective General Education Credits — 40 semester hours****University Wide Elective Credits — 29 semester hours**

**Notes:** At least 50 percent of the courses taken to complete the major must be upper division courses, i.e., courses offered at the 300 or 400 level.

Electives should be chosen in consultation with the major advisor. No more than 6 credit hours of PHIL 497 may be counted toward the major.

A minor of at least 18 hours is required unless the philosophy major is part of a double major. The minor should be chosen in consultation with the major advisor.

In addition, the Department of Philosophy recommends that philosophy majors take at least two years of a foreign language—preferably French or German.

To graduate, students must complete both the department's assessment examination (administered in the Advanced Seminar, PHIL 495) and the department's major evaluation form.

**PHILOSOPHY, B.A.****Ethics and Public Policy Emphasis****Program Requirements**

Required Major Credits	21
Elective Major Credits	12
Required Supporting Credits	0
Required Minor Credits	18
Required Specified General Education Credits	3
Required PTEP Credits	0
Total Program Credits, 54	
Elective General Education Credits	40
University Wide Elective Credits	26
Total credits required for this degree	120

In a society that offers most of its students only technical training, those who wish to distinguish themselves in their chosen fields must pay special attention to questions of ethics and public policy. Many programs claim to teach students how to get where they are going. Applied philosophy teaches them to evaluate their goals—both those they set for themselves and those they set for their society. Applied philosophy is thus relevant to students' vocations in the traditional sense of the word: instead of being just the first in a series of trainings and retrainings designed to keep them abreast of recent developments in the changing job market, it provides students with a firm foundation for further learning, whatever their callings might be.

**Required Major Credits — 21 semester hours**

PHIL 220 The Nature of Legal Reasoning (3)  
 PHIL 260 History of Ancient Philosophy (3)  
 PHIL 261 History of Modern Philosophy (3)  
 PHIL 300 Topics in Philosophy (3)\*  
 PHIL 350 Ethics (3)  
 PHIL 355 Social and Political Philosophy (3)  
 PHIL 495 Advanced Seminar (3)

\* Specific offerings to be chosen in consultation with the major advisor.

**Elective Major Credits — 12 semester hours**

Select one of the following two courses (3 semester hours):

PHIL 100 Introduction to Philosophy (3) (Gen. Ed. 4.e.)  
 PHIL 105 Philosophical Perspectives on Current Issues (3)

and complete the following (9 semester hours)

Coursework in philosophy and/or another discipline chosen in consultation with the major advisor.

**Required Minor Minimum Credits — 18 semester hours****Required Specified General Education Credits — 3 semester hours**

Category 4.e. Arts and Letters

PHIL 305 Ethics in Theory and Practice (3)

**Elective General Education Credits — 40 semester hours****University Wide Elective Credits — 26 semester hours**

**Notes:** A grade of "C" or better is required for all courses that count toward the major.

At least 50 percent of the courses taken to complete the major must be upper division courses, i.e., courses offered at the 300 or 400 level.

A minor of at least 18 hours is required unless the philosophy major is part of a double major. The minor should be chosen in consultation with the major advisor.

To graduate, students must complete both the department's assessment examination (administered in the Advanced Seminar, PHIL 495) and the department's major evaluation form.



**PHYSICS, B.A.****Computer Science Emphasis****Program Requirements**

<b>Required Major Credits</b> .....	<b>52</b>
<b>Elective Major Credits</b>	
<b>Required Supporting Credits</b> .....	<b>22</b>
<b>Required Minor Credits</b> .....	<b>0</b>
<b>Required Specified General Education Credits</b> .....	<b>18</b>
<b>Required PTEP Credits</b> .....	<b>0</b>
<b>Total Program Credits, 92</b>	
<b>Elective General Education Credits</b> .....	<b>25</b>
<b>University Wide Elective Credits</b> .....	<b>3</b>
<b>Total credits required for this degree</b> .....	<b>120</b>

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. A "C" average or better is required in PHYS prefix courses for graduation.

**Required Major Credits — 52 semester hours**

PHYS 240 Listed under Specified General Education

PHYS 241 General Physics II (5)

PHYS 301 Seminar in Physics (1)

PHYS 320 Mathematical Applications (3)

PHYS 321 Elementary Modern Physics (3)

PHYS 325 Graphics and Modeling for Engineering and Physics (3)

PHYS 340 Mechanics I (3)

PHYS 341 Electricity and Magnetism I (3)

PHYS 343 Digital and Analog Electronics (4)

PHYS 345 Atomic and Quantum Physics (5)

PHYS 347 Optics (4)

PHYS 420 Thermodynamics and Statistical Physics (3)

PHYS 421 Mathematical Applications in Physics II (3)

PHYS 440 Mechanics II (2)

PHYS 441 Electricity and Magnetism II (2)

PHYS 443 Electronic Systems and Controls (4)

PHYS 470 Senior Research (4)

**Required Supporting Credits — 22 semester hours**

CS 102 Structured Programming (3)

CS 200 Object-Oriented Analysis, Design, and Programming (3)

CS 222 Computer Architecture/Organization (3)

CHEM 111 Listed under Specified General Education

MATH 131 Listed under Specified General Education

MATH 132 Listed under Specified General Education

MATH 233 Calculus III (4)

Electives in Computer Science numbered above 300 (consent of advisor) (6)

*and select one of the following three courses:*

CG 115 FORTRAN 77 Programming (3)

CG 120 Pascal Programming (3)

CG 130 C++ Programming (3)

**Required Specified General Education Credit — 18 semester hours**

*Category 2 Mathematics*

MATH 131 Calculus I (4)

*Category 6. Science and Mathematics*

MATH 132 Calculus II (4) (*c. Mathematics*)

CHEM 111 Principles of Chemistry I (5) (*d. Physical Science*)

PHYS 240 General Physics I (5) (*d. Physical Science*)

**Elective General Education Credits — 25 semester hours****University Wide Elective Credits — 3 semester hours**

Note: HON 451 may be substituted for PHYS 470. In either case a research advisor from the Physics department is required. CS 101 is waived as a prerequisite to CS 102 if the student takes CG 115 or CG 120 before CS 102.

**PHYSICS, B.A.****Engineering Physics Emphasis****Program Requirements**

<b>Required Major Credits</b> .....	<b>63</b>
<b>Elective Major Credits</b> .....	<b>0</b>
<b>Required Supporting Credits</b> .....	<b>15</b>
<b>Required Minor Credits</b> .....	<b>0</b>
<b>Required Specified General Education Credits</b> .....	<b>18</b>
<b>Required PTEP Credits</b> .....	<b>0</b>
<b>Total Program Credits, 96</b>	
<b>Elective General Education Credits</b> .....	<b>25</b>
<b>University Wide Elective Credits</b> .....	<b>0</b>
<b>Total credits required for this degree</b> .....	<b>121</b>

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. A "C" average or better is required in PHYS prefix courses for graduation.

**Required Major Credits — 63 semester hours**

PHYS 240 Listed under Specified General Education  
 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 325 Graphics and Modeling for Engineering and Physics (3)  
 PHYS 340 Mechanics I (3)  
 PHYS 341 Electricity and Magnetism I (3)  
 PHYS 343 Digital and Analog Electronics (4)  
 PHYS 345 Atomic and Quantum Physics (5)  
 PHYS 347 Optics (4)  
 PHYS 420 Thermodynamics and Statistical Physics (3)  
 PHYS 421 Mathematical Applications in Physics II (3)  
 PHYS 440 Mechanics II (2)  
 PHYS 441 Electricity and Magnetism II (2)  
 PHYS 443 Electronic Systems and Controls (4)  
 PHYS 445 Nuclear and Condensed Matter Physics (5)  
 PHYS 447 Electro-optics (4)  
 PHYS 470 Senior Research (4)

**Required Supporting Credits — 15 semester hours**

CHEM 111 Listed under Specified General Education  
 CHEM 112 Principles of Chemistry II (5)  
 MATH 131 Listed under Specified General Education  
 MATH 132 Listed under Specified General Education  
 MATH 233 Calculus III (4)  
 MATH 335 Differential Equations I (3)  
*and select one of the following three courses:*  
 CG 115 FORTRAN 77 Programming (3)  
 CG 120 Pascal Programming (3)  
 CG 130 C++ Programming (3)

**Required Specified General Education Credit — 18 semester hours***Category 2. Mathematics*

MATH 131 Calculus I (4)

*Category 6. Science and Mathematics*

MATH 132 Calculus II (4) (c. Mathematics)

CHEM 111 Principles of Chemistry I (5) (d. Physical Science)

PHYS 240 General Physics I (5) (d. Physical Science)

**Elective General Education Credits — 25 semester hours**

*Recommended: Category 7.a. Interdisciplinary, Multicultural and Internat. Studies*

ENST 225 Energy and the Environment (3)

**Notes:** Students planning to enter graduate school in physics are strongly advised to take **PHYS 449 Advanced Quantum Mechanics (3)**. HON 451 may be substituted for PHYS 470. A research advisor in the Physics department is required in either case.

**PHYSICS, B.A.**

## Liberal Arts Emphasis

**Program Requirements**

<b>Required Major Credits</b> .....	49
<b>Elective Major Credits</b> .....	0
<b>Required Supporting Credits</b> .....	16
<b>Required Minor Credits</b> .....	0
<b>Required Specified General Education Credits</b> .....	18
<b>Required PTEP Credits</b> .....	0
<b>Total Program Credits, 83</b>	
<b>Elective General Education Credits</b> .....	25
<b>University Wide Elective Credits</b> .....	12
<b>Total credits required for this degree</b> .....	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, PHYS 422 or PHYS 470 or HON 451 is required for this major. A "C" average or better is required in PHYS prefix courses for graduation.

**Required Major Credits — 49 semester hours**

PHYS 240 Listed under Specified General Education  
 PHYS 241 General Physics II (5)  
 PHYS 301 Seminar in Physics (1)  
 PHYS 320 Mathematical Applications (3)  
 PHYS 321 Elementary Modern Physics (3)  
 PHYS 325 Graphics and Modeling for Engineering and Physics (3)  
 PHYS 340 Mechanics I (3)  
 PHYS 341 Electricity and Magnetism I (3)  
 PHYS 343 Digital and Analog Electronics (4)  
 PHYS 345 Atomic and Quantum Physics (5)  
 PHYS 347 Optics (4)  
 PHYS 420 Thermodynamics and Statistical Physics (3)  
 PHYS 421 Mathematical Applications in Physics II (3)  
 PHYS 440 Mechanics II (2)  
 PHYS 441 Electricity and Magnetism II (2)  
 PHYS 445 Nuclear and Condensed Matter Physics (5)

**Required Supporting Credits — 16 semester hours**

CHEM 111 Listed under Specified General Education  
 MATH 131 Listed under Specified General Education  
 MATH 132 Listed under Specified General Education  
 MATH 233 Calculus III (4)  
 Elective Credits in Physics (consent of advisor) (6)  
 Elective Credits in Mathematics (consent of advisor) (3)

and select one of the following three courses:

- CG 115 FORTRAN 77 Programming (3)
- CG 120 Pascal Programming (3)
- CG 130 C++ Programming (3)

**Required Specified General Education Credit — 18 semester hours**

*Category 2 Mathematics*

MATH 131 Calculus I (4)

*Category 6. Science and Mathematics*

MATH 132 Calculus II (4) (c. Mathematics)

CHEM 111 Principles of Chemistry I (5) (d. Physical Science)

PHYS 240 General Physics I (5) (d. Physical Science)

**Elective General Education Credits — 25 semester hours**

*Recommended: Category 7.a. Interdisciplinary, Multicultural and International Studies*

- ENST 225 Energy and the Environment (3)

**University Wide Elective Credits — 12 semester hours**

**Notes:** Students planning to enter graduate school in physics are strongly advised to take PHYS 449 Advanced Quantum Mechanics (3).

PHYS 470 Senior Research (2-4 semester hours) is recommended.

**PHYSICS, B.A.**

## Mathematical Physics Emphasis

**Program Requirements**

<b>Required Major Credits</b> .....	45
<b>Elective Major Credits</b> .....	4
<b>Required Supporting Credits</b> .....	26
<b>Required Minor Credits</b> .....	0
<b>Required Specified General Education Credits</b> .....	18
<b>Required PTEP Credits</b> .....	0
<b>Total Program Credits, 93</b>	
<b>Elective General Education Credits</b> .....	25
<b>University Wide Elective Credits</b> .....	2
<b>Total credits required for this degree</b> .....	120

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, PHYS 422 or PHYS 470 or HON 451, is required for this major. A "C" average or better is required in PHYS prefix courses for graduation.

**Required Major Credits — 45 semester hours**

PHYS 240 Listed under Specified General Education  
 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 345 Atomic and Quantum Physics (5)  
 PHYS 347 Optics (4)  
 PHYS 420 Thermodynamics and Statistical Physics (3)  
 PHYS 421 Mathematical Applications in Physics II (3)  
 PHYS 440 Mechanics II (2)  
 PHYS 441 Electricity and Magnetism II (2)  
 PHYS 445 Nuclear and Condensed Matter Physics (5)  
 PHYS 449 Advanced Quantum Mechanics (3)

**Elective Major Credits — 4 semester hours**

Elective Credits in Physics (consent of advisors) (4)

**Required Supporting Credits — 26 semester hours**

CHEM 111 Listed under Specified General Education  
 MATH 131 Listed under Specified General Education  
 MATH 132 Listed under Specified General Education  
 MATH 233 Calculus III (4)  
 MATH 335 Differential Equations I (3)  
 MATH 221 Elementary Linear Algebra (3)  
 MATH 321 Introduction to Abstract Algebra (4)  
 MATH 460 Introduction to Complex Analysis (3)  
 Elective Credits in Mathematics (consent of advisors) (6)

and select one of the following three courses

- CG 115 FORTRAN 77 Programming (3)
- CG 120 Pascal Programming (3)
- CG 130 C++ Programming (3)

**Required Specified General Education Credit — 18 semester hours**

*Category 2 Mathematics*

MATH 131 Calculus I (4)

*Category 6. Science and Mathematics*

MATH 132 Calculus II (4) (c. Mathematics)

CHEM 111 Principles of Chemistry I (5) (d. Physical Science)

PHYS 240 General Physics I (5) (d. Physical Science)

**Elective General Education Credits — 25 semester hours****University Wide Elective Credits — 2 semester hours**

**PHYSICS, B.A.**

## Physical Science Teaching Emphasis

**Program Requirements**

<b>Required Major Credits</b> .....	<b>19</b>
Physical Science Middle School Licensure (36)	
Physical Science Secondary Licensure credits (39)	
<b>Elective Major Credits</b> .....	<b>0</b>
<b>Required Supporting Credits</b> .....	<b>24-28</b>
<b>Required Minor Credits</b> .....	<b>0</b>
<b>Required Specified General Education Credits</b> .....	<b>21</b>
<b>Required PTEP Credits</b> .....	<b>38-41</b>
PTEP for Middle School Licensure (41)	
PTEP for Secondary Licensure (38)	
Total Program Credits, 105-106	
<b>Elective General Education Credits</b> .....	<b>22</b>
<b>University Wide Elective Credits</b> .....	<b>0</b>
<b>Total credits required for this degree</b> .....	<b>127-128</b>

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. A graduate with this degree and licensure at the middle school level could teach in a middle school, and could be a Science Specialist within a teaching team. Administered by the Physics Department.

A thesis is required. This could be a library study or a research project, and could be completed as part of PHYS 301, or by taking HON 451 or PHYS 470 A "C" average or better is required in the courses listed under Physical Science.

**Required Major Credits — 19 semester hours***Physical Science Credits*

PHYS 240 Listed under Specified General Education  
 PHYS 241 General Physics II (5)  
 PHYS 301 Seminar in Physics (1)  
 PHYS 320 Mathematical Applications (3)  
 PHYS 321 Elementary Modern Physics (3)  
 PHYS 347 Optics (4)  
 PHYS 422 Directed Studies: Lab Assistantship (1)  
 PHYS 475 Seminar in Teaching Physics (2)

**Required Supporting Credits — 24-28 semester hours**

AST 301 Classical Astronomy (3)  
 BIO 110 Listed under Specified General Education  
 CHEM 111 Listed under Specified General Education  
 CHEM 112 Principles of Chemistry II (5)  
 MATH 131 Listed under Specified General Education  
 MATH 132 Calculus II (4)

*and select one course: for Middle or Secondary School*

CHED 495 Seminar in Teaching Chemistry (2) (required only for Middle School)

CHEM 331 Organic Chemistry I (5) (required only for Secondary)

*Elective in Biology, selected from the following courses (3-4 semester hours)*

BIO 220 Genetics (4)  
 BOT 270 Economic Botany (3)  
 ZOO 245 Introduction to Human Anatomy Physiology (4)  
 BIO 111 Survey of Organismal Biology (5) (BIO 111 may be substituted for one of the above courses)

*Elective in Earth Science, selected from the following courses (3 semester hours) (A 200 level course in one of these prefixes may be substituted, as long as two prefixes are used for the Earth Science electives)*

GEOL 110 Our Geological Environment (3)  
 OCN 110 Our Ocean Systems (3)  
 MET 110 Our Violent Atmosphere (3)

*Elective in Earth Science, selected from the following courses (4 semester hours) (Earth Science electives must be of differing prefixes)*

GEOL 201 Physical Geology (4)  
 MET 205 General Meteorology (4)  
 OCN 200 General Oceanography (4)  
 OCN 301 Physical and Chemical Oceanography (4)  
 OCN 302 Geological and Biological Oceanography (4)

**Required Specified General Education — 21 semester hours***Category 2 Mathematics*

MATH 131 Calculus I (4)

*Category 6. Science and Mathematics*

BIO 110 Principles of Biology (4) (b. Life Sciences)

CHEM 111 Principles of Chemistry I (5) (d. Physical Science)

PHYS 240 General Physics I (5) (d. Physical Science)

*Category 7.a. Interdisciplinary, Multicultural and Internat. Studies*

ENST 225 Energy and the Environment (3)

**Required PTEP Credit - 38-41 semester hours****Elective General Education Credits — 22 semester hours**

Notes: PTEP is required for this program.

Recommended Related Course: MATH 395 Topics in Mathematics for Teachers (3)

PHYS 343 or PHYS 345 may be substituted for PHYS 347 by petition.

**PHYSICS, B.A.**

## Teaching Emphasis

**Program Requirements**

Required Major Credits . . . . .	29
Elective Major Credits . . . . .	0
Required Supporting Credits . . . . .	18
Required Minor Credit . . . . .	0
Required Specified General Education Credit . . . . .	21
Required PTEP Credit . . . . .	38
<b>Total Program Credits, 106</b>	
Elective General Education Credits . . . . .	22
University Wide Elective Credits . . . . .	0
<b>Total credits required for this degree . . . . .</b>	<b>128</b>

The program emphasizes the laws, principles and applications of physics and other sciences, along with the communication skills and teaching methods to effectively teach these concepts at the junior high and high school levels (grades 7-12). Graduates of this degree would help to combat a shortage of physical science teachers and help meet the nationwide goals of excellence in science preparation.

With additional physics and mathematics courses, students could qualify for graduate study in physics or for employment in industry or governmental research laboratories.

A thesis is required. This could be a library study or a research project, and could be completed as part of PHYS 301, or by taking HON 451 or PHYS 470. A "C" average or better is required in PHYS prefix courses for graduation.

**Required Major Credits — 29 semester hours**

PHYS 240 Listed under Specified General Education  
 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 345 Atomic and Quantum Physics (5)  
 PHYS 347 Optics (4)  
 PHYS 475 Seminar in Teaching Physics (2)

**Required Supporting Credits — 18 semester hours**

AST 301 Classical Astronomy (3)  
 BIO 110 Listed under Specified General Education  
 CHEM 111 Listed under Specified General Education  
 CHEM 112 Principles of Chemistry II (5)  
 MATH 131 Listed under Specified General Education  
 MATH 132 Calculus II (4)  
 Elective Credits in Biological Sciences (consent of advisor) (3)  
 Elective Credits in Earth Sciences (consent of advisor) (3)

**Required Specified General Education Credits — 21 semester hours***Category 2 — Mathematics*

MATH 131 Calculus I (4)

*Category 6. Science and Mathematics*

BIO 110 Principles of Biology (4) (b. Life Sciences)

CHEM 111 Principles of Chemistry I (5) (d. Physical Science)

PHYS 240 General Physics I (5)

*Category 7.a. Interdisciplinary, Multicultural and Internat. Studies*

ENST 225 Energy and the Environment (3)

**Required PTEP Credits — 38 semester hours****Elective General Education Credits — 22 semester hours**

Notes: PTEP is required for this program.

PHYS 343 Digital and Analog Electronics (4) (Is strongly recommended)

MATH 233 Calculus III (4) (May be substituted for PHYS 320)

## POLITICAL SCIENCE, B.A.

### Program Requirements

Required Major Credits	9
Elective Major Credits	27
Required Supporting Credits	0
Required Minor Credit	0
Required Specified General Education Credit (6)	
Required PTEP Credit	0
Total Program Credits, 36	
Elective General Education Credits	34
University Wide Elective Credits	50
Total credits required for this degree	120

Political Science is the study of how societies are organized and how they change. Political Scientists are, therefore, concerned with how public policy is made and the normative values that undergird political thinking. 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 Major Credits — 9 semester hours

PSCI 100 United States National Government (3)  
PSCI 105 Fundamentals of Politics (3)

and select one of the following courses:

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)

#### Elective Major Credits — 27 semester hours

Select at least two courses from each of the following groups:

##### Group A — American Politics

PSCI 203 Colorado Politics (3)  
ENST 205 Environment, Politics and Law (3)  
PSCI 207 Women and Politics (3)  
PSCI 208 Introduction to Public Administration (3)  
PSCI 301 Electoral Politics in the United States (3)  
PSCI 302 Power in America (3)  
PSCI 303 Public Policy in the United States (3)  
PSCI 305 Politics of Education (3)  
PSCI 306 Constitutional Law (3)  
PSCI 392 Internship (3-10)  
PSCI 405 Problems in American Politics (3)  
PSCI 422 Directed Studies (1-3)

##### Group B — International Relations

PSCI 220 Introduction to International Relations (3)  
PSCI 320 American Foreign Policy (3)  
PSCI 321 War and Peace (3)  
PSCI 325 Conflict in the Middle East (3)  
PSCI 328 International Law and Organizations (3)  
PSCI 422 Directed Studies (1-3)  
PSCI 425 Problems in International Relations (3)

##### Group C — Political Philosophy

PSCI 331 Political Philosophy I (3)  
PSCI 332 Political Philosophy II (3)  
PSCI 335 American Political Philosophy (3)  
PSCI 422 Directed Studies (1-3)  
PSCI 435 Problems in Political Philosophy (3)

##### Group D — Comparative Politics

PSCI 210 Politics in the European Community (3)  
PSCI 230 The Evolution of the Modern State (3)  
PSCI 310 Politics of Central and East European States (3)  
PSCI 315 Comparative Public Policy (3)  
PSCI 318 The Politics of the Developing States (3)

PSCI 319 Pacific Rim Politics (3)  
PSCI 415 Problems in Comparative Politics (3)  
PSCI 422 Directed Studies (1-3)

#### Required Specified General Education Credit (6 semester hours Completed)

##### Category 5.d. Social Sciences

PSCI 100 and PSCI 105 under Required Major Credits meet this requirement. Select an additional course from a different area to complete Category 5 requirements.

#### \*Elective General Education Credits — 34 semester hours

#### University Wide Elective Credits — 50 semester hours

The following courses are recommended but not required for completion of the major.

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)  
\*(Any one of the four courses above will satisfy the General Education requirement for a course in Category 4. c.)  
ECON 103 Introduction to Economics: Macroeconomics (3)  
ECON 105 Introduction to Economics: Microeconomics (3)  
\*(Either course above will satisfy the General Education requirement for a course in Category 5. b.)  
STAT 150 Introduction to Statistical Analysis (3)  
\*(The course above will satisfy the General Education requirement for a course in Category 2.)

**Note:** While PSCI 405, PSCI 415, PSCI 425 or PSCI 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.

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.

## PSYCHOLOGY, B.A.

### Program Requirements

Required Major Credits	16
Elective Major Credits	20
Required Supporting Credits	3-4
Required Minor Credit	0
Required Specified General Education Credit	4
Required PTEP Credit	0
Total Program Credits, 43-44	
Elective General Education Credits	36
University Wide Elective Credits	40-41
Total credits required for this degree	120

Psychology is the scientific study of behavior. The goal of psychology is to understand the processes involved in actions, feelings, thoughts, and experiences. Psychologists study these processes in both humans and animals. Psychologists develop theories to explain behavior and to generate hypotheses that are tested through scientific, both quantitative and qualitative, research methods. Depending on the situation, psychologists may attempt to describe, explain, predict, and change behavior.

The Department of Psychology offers a quality, comprehensive, and coherent program. Students learn the research methods and core theories employed by psychologists. Students are also exposed to the diversity of psychology through a range of elective courses. The variety of courses offered permits students to choose a set of psychology courses that are related to their interests and career goals. All psychology students are given the opportunity to design, conduct, and write up their own research project. Students also participate in a field experience in which they work in a supervised psychology-related setting.

Psychology students develop transferable skills in several areas including research design and analysis, the ability to understand human behavior, recognition of and tolerance for diversity, report writing and presentation, establishing rapport in groups, and critical thinking. With these skills, graduates gain employment in a wide variety of careers including educators, counselors, administrators, managers, personnel analysts, researchers (including market researchers), police and corrections officers, and sales people. Graduates also enter masters and doctoral programs in many areas of psychology and in rehabilitation, special education, business and social work. Recent demographic analyses predict a continued high demand for individuals with a background in psychology.

#### Required Major Credits — 16 semester hours

PSY 200 Psychological Statistics and Design (3)  
 PSY 400 Research Design and Analysis (5)  
 PSY 480 Physiological Psychology (5)  
 PSY 491 Psychology Field Experience (3-6) (minimum 3 hours)

#### Elective Major Credits — 20 semester hours

Select one course from each of the following groups:

##### Foundation Group

PSY 230 Human Growth and Development (4) (Gen.Ed. 5.e.)  
 PSY 265 Social Psychology (3) (Gen.Ed. 5.e.)  
 PSY 271 Psychological Testing 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

MAS 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 Catalog. You may take more than one course from the designated psychology "groups" with the additional semester hours going toward psychology elective credits.

#### Required Supporting Credits — 3-4 semester hours

Select one of the following courses:

BIO 110 Principles of Biology (4) (Gen.Ed. 6.b.)  
 ZOO 115 Human Biology (3) (Gen.Ed. 6.b.)  
 ZOO 245 Introduction to Human Anatomy Physiology (4)

#### Required Specified General Education Credit — 4 semester hours

Category 5.e Social Sciences

PSY 120 Principles of Psychology (4)

#### Elective General Education Credits — 36 semester hours

#### University Wide Elective Credits — 40-41 semester hours

**Notes:** Psychology majors must receive a grade of "C" or better (or S) in all REQUIRED courses in psychology (i.e., PSY 120, PSY 200, PSY 400, PSY 480 and PSY 491). Students receiving a grade of "D" or lower in a course must retake the course.

Students with a grade point average of 3.25 or better are invited to enroll in the Honors program in psychology. MIND courses may count for General Education. Consult the director of the Honors program in psychology. Qualified students are invited to apply for membership in PSI CHI, the national psychology honor society. Applications and qualifications are posted outside the PSI CHI 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.

## SOCIAL SCIENCE, B.A.

### Liberal Arts Emphasis

#### Program Requirements

Required Major Credits . . . . .	15
Elective Major Credits . . . . .	27
Required Supporting Credits . . . . .	0
Required Minor Credit . . . . .	18
Required Specified General Education Credit . . . . .	13
Required PTEP Credit . . . . .	0
<b>Total Program Credits, 73</b>	
Elective General Education Credits . . . . .	27
University Wide Elective Credits . . . . .	20
<b>Total credits required for this degree . . . . .</b>	<b>120</b>

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 human services, research, program planning, graduate school and law school. Examples of human services careers include positions such as agency management, probation counseling, environmental and social impact analysis, city planning and local, state and federal government positions.

Students selecting this emphasis must complete a minor in a discipline of their choice. In addition to the 18-24 credit hours for the minor, these students must take additional elective courses to have sufficient credits for graduation.

#### Required Major Credits — 15 semester hours

ANT 100 Introduction to Anthropology (3) (*Gen.Ed.Cat.5*)

PSCI 100 United States National Government (3)

SOC 100 Principles of Sociology (3)

SOSC 300 Social Studies Methods of Inquiry (3)

*and select one of the following two courses:*

GEOG 100 World Geography (3)

GEOG 110 Geography of the United States and Canada (3)

#### Elective Major Credits — 27 semester hours

In addition to the preceding specified required courses and specified General Education courses:

- 24 semester hours must be taken from the areas of ANT, ECON, GEOG, HIST, PSCI, PSY or SOC.
- No more than 6 semester hours can be taken from any one area.
- 18 of the 24 semester hours must be at the 300-400 level.
- Students taking a minor in one of the social sciences cannot count credit received for Required Elective Credits toward that minor.

An additional 3 semester hours must be taken from one of the following areas: AFS, HISP or WS.

Required Minor Credit — 18 semester hours

#### Required Specified General Education Credit — 13 semester hours

In addition to the preceding required courses:

##### Category 4. Arts and Letters

*Select one of the following courses:*

HIST 100 Survey of American History from Its Beginnings to 1877 (3)

HIST 101 Survey of American History from 1877 to the Present (3)

##### Category 5. Social Science

ECON 103 Introduction to Economics: Macroeconomics (3)

PSY 120 Principles of Psychology (4)

##### Category 7.b. Interdisciplinary, Multicultural and Internat. Studies

*Select one of the following courses:*

AFS 100 Introduction to Black Studies (3)

HISP 102 Hispanic Cultures in the United States (3)

MCS 101 Multiculturalism in the United States: Concepts and Issues (3)

WS 101 Women in Contemporary Society (3)

#### Elective General Education Credits — 27 semester hours

#### University Wide Elective Credits — 20 semester hours



**SOCIAL SCIENCE, B.A.****Middle Grades Education Emphasis****Program Requirements**

<b>Required Major Credits</b> . . . . .	<b>15</b>
<b>Elective Major Credits</b> . . . . .	<b>27</b>
<b>Required Supporting Credits</b> . . . . .	<b>0</b>
<b>Required Minor Credit</b> . . . . .	<b>0</b>
<b>Required Specified General Education Credit</b> . . . . .	<b>13</b>
<b>Required PTEP Credit</b> . . . . .	<b>41-43</b>
<b>Total Program Credits, 96-98</b>	
<b>Elective General Education Credits</b> . . . . .	<b>27</b>
<b>University Wide Elective Credits</b> . . . . .	<b>0</b>
<b>Total credits required for this degree</b> . . . . .	<b>123-125</b>

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 specifically prepares students for careers in teaching in middle schools. These students also must complete the PTEP Program and meet all the requirements described in the Middle Grades Certification program section of this Catalog.

**Required Major Credits — 15 semester hours**

ANT 100 Introduction to Anthropology (3)  
 PSCI 100 United States National Government (3)  
 SOC 100 Principles of Sociology (3)  
 SOSOC 300 Social Studies Methods of Inquiry (3)

and select one of the following two courses:

GEOG 100 World Geography (3)  
 GEOG 110 Geography of the United States and Canada (3)

**Elective Major Credits — 27 semester hours**

In addition to the preceding specified required courses and specified General Education courses:

- 24 semester hours must be taken from the areas of ANT, ECON, GEOG, HIST, PSCI, PSY or SOC.
- No more than 6 semester hours can be taken from any one area.
- 18 of the 24 semester hours must be at the 300-400 level.

An additional 3 semester hours must be taken from one of the following areas: AFS, HISP or WS.

**Required Specified General Education Credit — 13 semester hours**

In addition to the preceding required courses complete the following:

*Category 4. Arts and Letters*

Select one of the following courses:

HIST 100 Survey of American History from Its Beginnings to 1877 (3)  
 HIST 101 Survey of American History from 1877 to the Present (3)

*Category 5. Social Science*

ECON 103 Introduction to Economics: Macroeconomics (3)  
 PSY 120 Principles of Psychology (4)

*Category 7.b. Interdisciplinary, Multicultural and Internat. Studies*

Select one of the following courses:

AFS 100 Introduction to Black Studies (3)  
 HISP 102 Hispanic Cultures in the United States (3)  
 MCS 101 Multiculturalism in the United States: Concepts and Issues (3)  
 WS 101 Women in Contemporary Society (3)

Students in the Middle Grades Education emphasis must earn a grade of "C" or better in all history and social science courses.

Required PTEP Credit — 41-43 semester hours

**Elective General Education Credits — 27 semester hours**

In addition to the courses specified above, the following General Education courses are recommended for students in the Middle Grades Education emphasis:

*Category 1. Composition*

b. ENG 123 College Research Paper (3)

*Category 4. Arts and Letters (6 credits)*

Choose one of the following courses:

d. ENG 131 Introduction to Literature (3)  
 a. ART 190 Art Appreciation (3)  
 MUS 204 Music Fundamentals and Experiences (3)

*Category 6. Science and Math (7 credits)*

Choose one of the following courses:

a. ESCI 265 Earth Science Concepts for Elementary Teachers (3)  
 b. BIO 265 Life Science Concepts (3)  
 c. MATH 181 Fundamentals of Mathematics I (3)  
 d. SCI 265 Physical Science Concepts (4)

## SOCIAL SCIENCE, B.A.

### Social Studies-Secondary Licensure Program Emphasis

#### Program Requirements

Required Major Credits	15
Elective Major Credits	27
Required Supporting Credits	0
Required Minor Credit	0
Required Specified General Education Credit	12-13
Required PTEP Credit	38
<b>Total Program Credits, 92-93</b>	
Elective General Education Credits	27-28
University Wide Elective Credits	0
<b>Total credits required for this degree</b>	<b>120</b>

This multidisciplinary major provides students with the academic subject content background necessary for teaching social studies at the secondary (grades 7-12) level in Colorado. Upon successful completion of this program and the requirements of the Professional Teacher Education Program, students will qualify to be licensed to teach social studies at the secondary level

#### Required Major Credits — 15 semester hours

ECON 105 Introduction to Economics: Microeconomics (3)  
GEOG 100 World Geography (3)  
HIST 101 Survey of American History from 1877 to the Present (3)  
PSCI 100 United States National Government (3)  
SOSC 300 Social Studies Methods of Inquiry (3)

#### Elective Major Credits — 27 semester hours

##### Concentration Courses

In addition to the Required and General Education courses, 27 semester hours must be taken in the Concentration disciplines of Economics, Geography, History, and Political Science distributed as follows:

- History 9 semester credit hours, of which 3 must be taken from history courses in Africa, Asia or Latin America.
- Economics 3-6 semester credit hours.
- Geography 6-9 semester credit hours.
- Political Science 6-9 semester credit hours.

#### Required Specified General Education Credits — 12-13 semester hours

##### Category 4. Arts and Letters

HIST 100 Survey of American History from Its Beginnings to 1877 (3)

##### Category 5. Social Sciences

ECON 103 Introduction to Economics: Macroeconomics (3)  
and select one of the following courses:  
ANT 100 Introduction to Anthropology (3)  
PSY 120 Principles of Psychology (4)  
SOC 100 Principles of Sociology (3)

##### Category 7.b. Interdisciplinary, Multicultural and Internat. Studies

Select one of the following courses:

- AFS 101 Crisis of Identity (3)
- HISP 102 Hispanic Cultures in the United States (3)
- WS 101 Women in Contemporary Society (3)

#### Required PTEP Credit — 38 semester hours

#### Elective General Education Credits — 27-28 semester hours

**Notes:** Students must earn a grade of “C” or better in all history and social sciences courses.

A minimum of 21 semester hours of the total 27 hours required in this concentration must be at the 300-400 level.

All requirements for the Professional Teacher Education Program, as described in this Catalog, must be met. It is recommended that SOSC 300 be taken as soon as introductory classes are completed for the Concentration disciplines.

To be recommended for admission to PTEP the student must have completed a minimum of 12 semester hours in the major (at least 9 hours at UNC) encompassing three different social studies major disciplines and have a 2.75 grade point average or higher in those courses counting toward the major that were taken at UNC. Before being permitted to apply for

student teaching, a social science major must have successfully completed at least 30 hours in the major, and have at least a 2.75 grade point average in those courses taken at UNC. Before being permitted to student teach, a social science major must have completed SOSC 300 and SOSC 341 with a grade of “C” or better.

## SOCIOLOGY, B.A.

### Criminal Justice Emphasis

#### Program Requirements

Required Major Credits	27
Elective Major Credits	12
Required Supporting Credits	0
Required Minor Minimum Credits	18
Required Specified General Education Credits	6
Required PTEP Credits	0
<b>Total Program Credits, 63</b>	
Elective General Education Credits	34
University Wide Elective Credits	23
<b>Total credits required for this degree</b>	<b>120</b>

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 social service Law Enforcement or Correction Agencies.

Graduates with this emphasis will be prepared for knowledgeable and productive citizenship roles, have an understanding of the criminal justice system and have knowledge and skills appropriate for careers in law enforcement, the court system or corrections. A foundation is provided for graduate work in Sociology.

#### Program Admission Requirements

Admission to the Sociology department as a major requires that the student complete a “Change of Major/Minor” form and a major application form (both available in the Sociology department office, Candelaria Hall 2285). See “Sociology Admission Requirements” on page 60.

#### Required Major Credits — 27 semester hours

SOC 141 Introduction to Criminal Justice (3)  
SOC 340 Juvenile Delinquency (3)  
SOC 346 Criminology (3)  
SOC 347 Sociology of Corrections (3)  
SOC 351 Classical Social Theory (3)  
SOC 352 Contemporary Social Theory (3)  
SOC 361 Social Research (3)  
SOC 362 Social Statistics (3)  
SOC 444 Sociology of Criminal Law (3)

#### Elective Major 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.

#### Required Minor Minimum Credits — 18 semester hours

#### Required Specified General Education Credits — 6 semester hours

##### Category 2. Mathematics

STAT 150 Introduction to Statistical Analysis (3)

##### Category 5.f. Sociology

SOC 100 Principles of Sociology (3)

#### Elective General Education Credits — 34 semester hours

#### University Wide Elective Credits — 23 semester hours

**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.

This program does not lead to licensure in elementary education at UNC. Only students admitted to this program prior to fall 2000 can gain teacher certification.

**SOCIOLOGY, B.A.**

## Family Studies Emphasis

This program does not lead to licensure in elementary education at UNC. Only students admitted to this program prior to fall 2000 can gain teacher certification.

**Program Requirements**

<b>Required Major Credits</b> . . . . .	<b>27</b>
<b>Elective Major Credits</b> . . . . .	<b>9</b>
<b>Required Supporting Credits</b> . . . . .	<b>0</b>
<b>Required Minor Minimum Credits</b> . . . . .	<b>18</b>
<b>Required Specified General Education Credits</b> . . . . .	<b>9</b>
<b>Required PTEP Credits</b> . . . . .	<b>0</b>
<b>Total Program Credits, 63</b>	
<b>Elective General Education Credits</b> . . . . .	<b>31</b>
<b>University Wide Elective Credits</b> . . . . .	<b>26</b>
<b>Total credits required for this degree</b> . . . . .	<b>120</b>

The Bachelor of Arts in Sociology with an emphasis in Family Studies includes an examination of major contemporary family issues and social policy. The applied research practicum experience with a social agency or organization that delivers family-relevant services 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 2285).

Admission into the Family Studies emphasis requires an orientation session with the director of Family Studies. A sheet describing the process is available in the Sociology department office.

**Required Major Credits — 27 semester hours**

SOC 221 Sociology of Gender (3)  
 SOC 324 Issues in the Family (3)  
 SOC 326 Sociology of Childhood and Adolescence (3)  
 SOC 351 Classical Social Theory (3)  
 SOC 352 Contemporary Social Theory (3)  
 SOC 361 Social Research (3)  
 SOC 362 Social Statistics (3)  
 SOC 423 Violence and the Family (3)  
 SOC 493 Practicum in Family Studies (3)

**Elective Major 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.

Required Minor Minimum Credits — 18 semester hours

**Required Specified General Education Credits — 9 semester hours**

*Category 2. Mathematics*

STAT 150 Introduction to Statistical Analysis (3)

*Category 5.f. Sociology*

SOC 100 Principles of Sociology (3)

SOC 120 Introduction to Family Studies (3)

**Elective General Education Credits — 31 semester hours****University Wide Elective Credits — 23 semester hours**

**Notes:** Students should purchase a Family Studies Handbook upon their entry into the program.

Students need to attend a required practicum meeting during the fall before their spring senior year practicum and subsequently need to set up their research projects with the agencies before the spring semester begins. Missing the required fall orientation meeting for the subsequent spring practicum (SOC 493) is equivalent to missing the first two class periods and sufficient cause to be dropped from the course, unless other arrangements are made prior to this meeting.

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.

**SOCIOLOGY, B.A.**

## Social Issues Emphasis

**Program Requirements**

Required Major Credits	18
Elective Major Credits	21
Required Supporting Credits	0
Required Minor Minimum Credits	18
Required Specified General Education Credits	6
Required PTEP Credits	0
<b>Total Program Credits, 63</b>	
Elective General Education Credits	34
University Wide Elective Credits	23
<b>Total credits required for this degree</b>	<b>120</b>

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, institutional arrangements, and social activism. 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 2285).

**Required Major Credits — 18 semester hours**

- SOC 272 The Community (3)
- SOC 351 Classical Social Theory (3)
- SOC 352 Contemporary Social Theory (3)
- SOC 361 Social Research (3)
- SOC 362 Social Statistics (3)
- SOC 409 Senior Seminar in Sociology (3)

**Elective Major Credits — 21 semester hours**

Select at least four courses from the following:

- SOC 235 Social Change (3)
- SOC 237 Sociology of Minorities (3)
- SOC 330 Social Organizations (3)
- SOC 332 Social Psychology (3)
- SOC 333 Social Class and Inequality (3)
- SOC 373 Political Sociology (3)
- SOC 491 Internship in Social Issues (3-9)

Additional Sociology courses may be chosen to fulfill the 21 elective major credits. At least half of the total credits must be at or above the 300 level.

Choose ANY three sociology courses but include no more than one course (3 hours) at the 100 or 200 level. Note that SOC 302, SOC 422, SOC 490 and SOC 491 can be repeated for credit but no more than 3 hours of each course will be counted toward the major.

**Required Minor Minimum Credits — 18 semester hours****Required Specified General Education Credits — 6 semester hours**

Category 2. Mathematics

STAT 150 Introduction to Statistical Analysis (3)

Category 5.f. Sociology

SOC 100 Principles of Sociology (3)

**Elective General Education Credits — 34 semester hours****University Wide Elective Credits — 23 semester hours**

**Notes:** Students need to receive approval of their internship proposal from the Social Issues Emphasis Coordinator during the semester prior to taking SOC 491, Internship in Social Issues.

At least 50 percent of the courses taken to complete the major must be upper division, 300-400 level.

The Sociology Department requires a grade of "C" or better for all Sociology classes that count toward the major.

This program does not lead to licensure in elementary education at UNC. Only students admitted to this program prior to fall 2000 can gain teacher certification.

**SOCIOLOGY, B.A.**

## Sociology of Education Emphasis

**Program Requirements**

Required Major Credits	18
Elective Major Credits	9
Required Supporting Credits	0
Required Minor Minimum Credits	18
Required Specified General Education Credits	9
Required PTEP Credits	0
<b>Total Program Credits, 63</b>	
Elective General Education Credits	31
University Wide Elective Credits	26
<b>Total credits required for this degree</b>	<b>120</b>

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 2285).

**Required Major Credits — 27 semester hours**

- 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)
- SOC 409 Senior Seminar in Sociology (3)

**Elective Major 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.

**Required Minor Minimum Credits — 18 semester hours****Required Specified General Education Credits — 9 semester hours**

Category 2. Mathematics

STAT 150 Introduction to Statistical Analysis (3)

Category 5.f. Sociology

SOC 100 Principles of Sociology (3)

SOC 237 Sociology of Minorities (3)

**Elective General Education Credits — 31 semester hours****University Wide Elective Credits — 23 semester hours**

**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.

This program does not lead to licensure in elementary education at UNC. Only students admitted to this program prior to fall 2000 can gain teacher certification.

**SPANISH, B.A.****Bilingual Bicultural Education Emphasis****Program Requirements**

Required Major Credits	24
Elective Major Credits	3
Required Supporting Credits	3
Required Minor Minimum Credits	0
Required Specified General Education Credits	9
Required PTEP Credits	43
<b>Total Program Credits, 82</b>	
Elective General Education Credits	31
University Wide Elective Credits	7
<b>Total credits required for this degree</b>	<b>120</b>

Students develop a functional proficiency in the four language skills (listening, speaking, reading and writing) with an understanding of the role of the bilingual teacher in the classroom at the middle grades (6-9).

Students become competent bilingual/bicultural middle grades teachers.

Competency in the Spanish language must be demonstrated on the Hispanic Studies Department's oral proficiency interview at the advanced level at least one semester prior to the student teaching semester.

**Required Major Credits — 24 semester hours**

HISP 395 Historical, Philosophical, Legal and Cultural Dimensions of Bilingual Education (3)
HISP 400 Methods and Assessment for Bilingual Education and ESL (3)
SPAN 301 Spanish Grammar (3)
SPAN 302 Spanish Composition (3)
SPAN 303 Spanish Conversation (3)
SPAN 407 Spanish for Oral Proficiency (3)
SPAN 411 Spanish for Bilingual Education I (3)
SPAN 412 Spanish for Bilingual Education II (3)

**Elective Major Credits — 3 semester hours**

Select one of the following courses:

SPAN 304 Introduction to Hispanic Literature (3)
SPAN 321 Spanish Civilization and Culture (3)
SPAN 331 Latin American Civilization and Culture (3)
SPAN 406 Introduction to Translation (3)

**Required Supporting Credits — 3 semester hours**

Select one of the following courses:

ANT 210 Field Methods in Cultural Anthropology (3)
SPOCO 323 Intercultural Communication (3) (Gen.Ed. 7.c.)

**Required Specified General Education Credits — 9 semester hours**

*Category 4.b. Arts and Letters*

SPAN 201 Intermediate Spanish I (3)
SPAN 202 Intermediate Spanish II (3)

(3 additional hours are required for *Category 4*.)

*Category 7.b. Interdisciplinary, Multicultural and Internat. Studies*

MAS 101 Introduction to Mexican American Studies (3)
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**Required PTEP Credits — 43 semester hours****Elective General Education Credits — 31 semester hours****University Wide Elective Credits — 7 semester hours**

**Notes:** Students must have at least a 2.5 GPA for admission to this major and emphasis.

Students must complete at least 10 credits in this major before applying to PTEP. PTEP is required for this program.

It is recommended that Spanish majors take HIST 118 and either HIST 314 or HIST 315.

In order to gain permission to apply for student teaching, a Spanish major must successfully pass the department's oral proficiency interview.

All Spanish language courses to be counted for the major must be beyond the first year level.

Courses with the SPAN prefix are taught in Spanish and courses with the MAS and HISP prefix are taught in English.

SPAN 411 need not be taken before SPAN 412.

**SPANISH, B.A.****Liberal Arts Emphasis****Program Requirements**

Required Major Credits	30
Elective Major Credits	3
Required Supporting Credits	0
Required Minor Minimum Credits	18
Required Specified General Education Credits	6
Required PTEP Credits	0
<b>Total Program Credits, 57</b>	
Elective General Education Credits	34
University Wide Elective Credits	29
<b>Total credits required for this degree</b>	<b>120</b>

Students develop a functional proficiency in the four language skills (listening, speaking, reading and writing) and an appreciation and understanding of the civilization and culture of the Hispanic world.

Students become functionally proficient in the Spanish language with a broad understanding and knowledge of the civilization and culture of the Spanish-speaking world.

**Required Major Credits — 30 semester hours**

SPAN 301 Spanish Grammar (3)
SPAN 302 Spanish Composition (3)
SPAN 303 Spanish Conversation (3)
SPAN 304 Introduction to Hispanic Literature (3)
SPAN 321 Spanish Civilization and Culture (3)
SPAN 331 Latin American Civilization and Culture (3)
SPAN 350 Masterpieces of Spanish Literature (3)
SPAN 351 Masterpieces of Latin American Literature (3)
SPAN 405 Spanish Phonetics and Dialects (3)
SPAN 407 Spanish for Oral Proficiency (3)

**Elective Major Credits — 3 semester hours**

SPAN 406 Introduction to Translation (3)
SPAN 452 Mexican Literature (3)
SPAN 453 Spanish Literature of the 20th Century (3)
SPAN 454 Latin American Literature of the 20th Century (3)
SPAN 455 Spanish Readings (3)
SPAN 456 Spanish and Latin American Short Story (3)
SPAN 457 Literature of U. S. Hispanics (3)
SPAN 458 Cervantes (3)
SPAN 459 Hispanic Drama (3)

**Required Minor Minimum Credits — 18 semester hours****Required Specified General Education Credits — 6 semester hours**

*Category 4.b. Arts and Letters*

SPAN 201 Intermediate Spanish I (3)
SPAN 202 Intermediate Spanish II (3)

**Elective General Education Credits — 34 semester hours****University Wide Elective Credits — 29 semester hours**

**Notes:** It is recommended that Spanish majors take HIST 118 and either HIST 314 or HIST 315.

A minor of at least 18 semester hours is required with prior approval from the department.

All Spanish language courses to be counted for the major and minor must be beyond the first year level.

Courses with the SPAN prefix are taught in Spanish and courses with the HISP prefix are taught in English.

In order to gain permission to apply for graduation, a Spanish major must successfully pass the department's oral proficiency interview.

**SPANISH, B.A.**

## Teaching Emphasis

**Program Requirements**

<b>Required Major Credits</b> .....	<b>33</b>
<b>Elective Major Credits</b> .....	<b>3</b>
<b>Required Supporting Credits</b> .....	<b>0</b>
<b>Required Minor Minimum Credits</b> .....	<b>0</b>
<b>Required Specified General Education Credits</b> .....	<b>6</b>
<b>Required PTEP Credits</b> .....	<b>37-39</b>
<b>Total Program Credits, 79-81</b>	
<b>Elective General Education Credits</b> .....	<b>34</b>
<b>University Wide Elective Credits</b> .....	<b>5-7</b>
<b>Total credits required for this degree</b> .....	<b>120</b>

Students develop a functional proficiency in the four language skills (listening, speaking, reading and writing) with an appreciation and understanding of the civilization and culture of the Hispanic world. Students become competent secondary school teachers of Spanish.

**Required Major Credits — 33 semester hours**

SPAN 301 Spanish Grammar (3)  
 SPAN 302 Spanish Composition (3)  
 SPAN 303 Spanish Conversation (3)  
 SPAN 304 Introduction to Hispanic Literature (3)  
 SPAN 321 Spanish Civilization and Culture (3)  
 SPAN 331 Latin American Civilization and Culture (3)  
 SPAN 350 Masterpieces of Spanish Literature (3)  
 SPAN 351 Masterpieces of Latin American Literature (3)  
 SPAN 405 Spanish Phonetics and Dialects (3)  
 SPAN 407 Spanish for Oral Proficiency (3)  
 SPAN 414 Contrastive Features of Spanish and English (3)

**Required Supporting Credits — 3 semester hours**

FL 341 Methods of Teaching in the Secondary School (3)

**Required Specified General Education Credits — 6 semester hours***Category 4.b. Arts and Letters*

SPAN 201 Intermediate Spanish I (3)  
 SPAN 202 Intermediate Spanish II (3)

**Required PTEP Credits — 37-39 semester hours****Elective General Education Credits — 34 semester hours**

**Notes:** PTEP is required for this program.

Students wishing to be licensed must complete FL 341.

It is recommended that Spanish majors take HIST 118 and either HIST 314 or HIST 315.

In order to gain permission to apply for student teaching, a Spanish major must successfully pass the department's oral proficiency interview.

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.

## ENDORSEMENT PROGRAMS

### BILINGUAL BICULTURAL EDUCATION - ENDORSEMENT

Elementary Education and Middle School Education

#### Endorsement Requirements

**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 and Middle School Education students who wish to be licensed to teach in elementary (K-6) and middle school (5-9) Bilingual Bicultural Education programs. Courses are provided in Spanish language skills, culture of the Southwest and of Hispanics in the United States, methodology, language skill assessment theory and practice. For elementary education, this program can be combined with a major in other Arts and Sciences subjects or realized within our Spanish major. For middle school, this program can be combined with an approved major for middle school.

#### Requirements

Students must have completed the Intermediate Spanish courses and 300-level skill-building courses or equivalent before enrolling in SPAN 411 and SPAN 412.

#### Required Credits — 18 semester hours

HISP 395 Historical, Philosophical, Legal and Cultural Dimensions of Bilingual Education (3)  
HISP 400 Methods and Assessment for Bilingual Education and ESL (3)

SPAN 411 Spanish for Bilingual Education I (3)  
SPAN 412 Spanish for Bilingual Education II (3)

*and select one of the following two courses:*

MAS 101 Introduction to Mexican American Studies (3)  
HISP 102 Hispanic Cultures in the United States (3)

*and select one of the following two courses:*

ANT 210 Field Methods in Cultural Anthropology (3)  
SPCO 323 Intercultural Communication (3)

Students must pass the Hispanic Studies Department's oral proficiency interview in Spanish at the intermediate level before being allowed to enter student teaching. Students who have not completed SPAN 202 or who have not completed, as a minimum, 4 years of high school Spanish or are native speakers with no formal training in Spanish may have to complete additional Spanish courses to meet requirements.

### BILINGUAL BICULTURAL EDUCATION - ENDORSEMENT

Secondary Education

#### Endorsement Requirements

**Required endorsement credits . . . . . 20**

**Required elective credits in literacy and reading . . . . . 3**

**Total credits required for this endorsement . . . . . 23**

Courses for Bilingual Bicultural Education Endorsement are provided by several program areas across two colleges: Hispanic Studies, English and Speech Communication in the College of Arts and Sciences; and the School for the Study of Teaching and Teacher Education in the College of Education. The College of Arts and Sciences and the College of Education share a commitment to the TESL endorsement.

Students enrolled in the Secondary Professional Teacher Education Program or who hold teacher licensure at the secondary level (7-12) are eligible to participate in this program.

#### Required Credits — 20 semester hours

HISP 395 Historical, Philosophical, Legal and Cultural Dimensions of Bilingual Education (3)  
TESL 400 Methods and Approaches of ESL/EFL (3)  
HISP 400 Methods and Assessment for Bilingual Education and ESL (3)  
SPAN 411 Spanish for Bilingual Education I (3)  
SPAN 412 Spanish for Bilingual Education II (3)  
EDFE 401 Practicum (2)

*and select one of the following courses:*

MAS 101 Introduction to Mexican American Studies (3)  
HISP 102 Hispanic Cultures in the United States (3)

*and select one of the following two courses:*

SPCO 323 Intercultural Communication (3)  
ANT 210 Field Methods in Cultural Anthropology (3)

#### Required supporting credits in literacy and reading — 3 semester hours

*Courses that meet this requirement can include the following:*

SPAN 304 Introduction to Hispanic Literature (3)  
SPAN 350 Masterpieces of Spanish Literature (3)  
SPAN 351 Masterpieces of Latin American Literature (3)  
SPAN 455 Spanish Readings (3)

#### Requirements

Students must be enrolled in the Secondary Professional Teacher Education Program or hold teacher licensure at the secondary (grades 7-12) level.

Prerequisite: HISP 395 Historical, Philosophical, Legal and Cultural Dimensions of Bilingual Education (3) and HISP 400 Methods and Assessment for Bilingual Education and ESL (3) or TESL 400 Methods and Approaches of ESL/EFL (3) must be taken prior to doing Practica.

Students must take the English as a Second Language PLACE assessment to be eligible for licensure in Colorado.

**Note:** The program is administered by the Department of Hispanic Studies.

## BILINGUAL BICULTURAL EDUCATION - GRADUATE ENDORSEMENT

Elementary and Middle School Education  
Secondary Education

### Endorsement Requirements

This graduate level endorsement program in Bilingual Bicultural Education emphasizes the study of the structures of English and Spanish, second language acquisition, and methodology related to teaching in a dual language classroom. This program leads to recommendation to Colorado's Linguistically Diverse: Bilingual Education endorsement. The Elementary and Middle School Education Program must be completed in conjunction with, or after the completion of the Elementary or Middle School Licensure Program. The Secondary Education Program must be completed in conjunction with, or after the completion of a Secondary Teacher Preparation Program.

### Elementary and Middle School Education Endorsement Requirements

**Total credits required for this endorsement — 18 semester hours**

EDEL 619 Pluralism in Education (3)  
EDLD 600 Literacy and Content Instruction in Spanish Bilingual Classrooms (3)  
EDLD 602 Teaching Linguistically Diverse Learners (3)  
EDLD 603 Methods and Assessment for ESL and Bilingual Education (3)  
EDLD 604 Field Experience in TESOL and Bilingual Education (3)  
SPAN 555 Spanish Readings (3)

### Secondary Education Endorsement Requirements

**Total credits required for this endorsement — 21 semester hours**

EDEL 619 Pluralism in Education (3)  
EDLD 600 Literacy and Content Instruction in Spanish Bilingual Classrooms (3)  
EDLD 602 Teaching Linguistically Diverse Learners (3)  
EDLD 603 Methods and Assessment for ESL and Bilingual Education (3)  
EDLD 604 Field Experience in TESOL and Bilingual Education (3)  
EDRD 620 Reading in the Middle and Secondary Schools (3)  
SPAN 555 Spanish Readings (3)

**Note:** Students are required to take Spanish Oral Proficiency Interview (OPI). Additional language courses may be required if they do not pass the OPI.

## TEACHING ENGLISH AS A SECOND LANGUAGE - ENDORSEMENT

Elementary Education and Middle School Education

### Endorsement Requirements

**Total credits required for this endorsement . . . . . 20**

This endorsement program in Teaching English as a Second Language (ESL) provides the student with the study of the structures of English and with the theory and practice related to the teaching of English as a second language. Students successfully completing this program will be recommended for the Linguistically Diverse: English as a Second Language endorsement in Elementary or Middle grades. This program must be completed in conjunction with the Elementary Education or Middle School Licensure program.

**Prerequisite:** HISP 395 Historical, Philosophical, Legal and Cultural Dimensions of Bilingual Education (3) and HISP 400 Methods and Assessment for Bilingual Education and ESL (3) or TESL 400 Methods and Approaches of ESL/EFL (3) must be taken prior to doing Practica.

### Required Credits — 20 semester hours

ENG 318 Traditional and Modern Grammars (3)  
ENG 419 Language and the History of English (3)  
HISP 395 Historical, Philosophical, Legal and Cultural Dimensions of Bilingual Education (3)  
MCS 101 Multiculturalism in the United States: Concepts and Issues (3)  
SPCO 323 Intercultural Communication (3)  
TESL 301 TESL Practicum I (2)  
TESL 400 Methods and Approaches of ESL/EFL (3)

**Note:** Students must complete a second language requirement equivalent to one year of college level studies.



## TEACHING ENGLISH AS A SECOND LANGUAGE – ENDORSEMENT

### Secondary Education

#### Endorsement Requirements

Required endorsement credits .....	20
Required elective credits in literacy and reading .....	3-4
<b>Total credits required for this endorsement .....</b>	<b>23-24</b>

Courses for Teaching English as a Secondary Language (TESL) Endorsement are provided by several programs across two colleges: Hispanic Studies, English, and Speech Communication in the College of Arts and Sciences; and the School for the Study of Teaching and Teacher Education in the College of Education share a commitment to the TESL endorsement.

Students enrolled in the Secondary Professional Teacher Education Program or who hold teacher licensure at the secondary level (7-12) are eligible to participate in this program.

#### Required credits -- 20 semester hours

HISP 395 Historical, Philosophical, Legal and Cultural Dimensions of Bilingual Education (3)

TESL 301 TESL Practicum I (2)

TESL 400 Methods and Approaches of ESL/EFL (3)

ENG 318 Traditional and Modern Grammars (3)

ENG 419 Language and the History of English (3)

SPCO 323 Intercultural Communication (3)

MAS 101 Introduction to Mexican American Studies (3)

#### Required supporting credits in literacy and reading -- 3 semester hours

*Courses that meet this requirement can include the following:*

EED 341 Teaching Language and Composition (3)

EED 402 Methods and Materials for Teaching Young Adult Literature in the Secondary Schools (4)

#### Requirements

Students must be enrolled in the Secondary Professional Teacher Education Program or hold teacher licensure at the secondary (grades 7-12) level.

Prerequisite: HISP 395 Historical, Philosophical, Legal and Cultural Dimensions of Bilingual Education (3) and HISP 400 Methods and Assessment for Bilingual Education and ESL (3) or TESL 400 Methods and Approaches of ESL/EFL (3) must be taken prior to doing Practica.

Students must take the English as a Secondary Language PLACE assessment to be eligible for licensure in Colorado.

**Note:** The program is administered by the Department of Hispanic Studies.

## TEACHING ENGLISH AS A SECOND LANGUAGE - GRADUATE ENDORSEMENT

### Elementary and Middle School

### Secondary Education

#### Endorsement Requirements

This graduate level endorsement program in the teaching of English as a Second Language (ESL) emphasizes the study of the structures of English, second language acquisition, and methodology related to the teaching of English to speakers of other languages. This program leads to recommendation to Colorado's Linguistically Diverse: ESL endorsement. The Elementary and Middle School Education Program must be completed in conjunction with, or after the completion of the Elementary or Middle School Licensure Program. The Secondary Education Program must be completed in conjunction with, or after the completion of a Secondary Teacher Preparation Program.

#### Elementary and Middle School Education

##### Total credits required for this endorsement — 18 semester hours

EDEL 619 Pluralism in Education (3)

EDLD 602 Teaching Linguistically Diverse Learners (3)

EDLD 603 Methods and Assessment for ESL and Bilingual Education (3)

EDLD 604 Field Experience in TESOL and Bilingual Education (3)

ENG 633 Studies in Linguistics (3)

HISP 508 Teaching the Mexican American Student (3)

EDLD 606 Linguistically Diverse Students and the U.S. Educational System (3)

#### Secondary Education Program Requirements

##### Total credits required for this endorsement — 21 semester hours

EDEL 619 Pluralism in Education (3)

EDLD 602 Teaching Linguistically Diverse Learners (3)

EDLD 603 Methods and Assessment for ESL and Bilingual Education (3)

EDLD 604 Field Experience in TESOL and Bilingual Education (3)

EDRD 620 Reading in the Middle and Secondary Schools (3)

ENG 633 Studies in Linguistics (3)

HISP 508 Teaching the Mexican American Student (3)

EDLD 606 Linguistically Diverse Students and the U.S. Educational System (3)

**Note:** Students must show evidence of familiarity with a second language.

## PRE-DEGREE PROGRAMS

### ENGINEERING PROGRAM (PRE-ENGINEERING)

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)

ENG 122 College Composition (3)

MATH 131 Calculus I (4)

MATH 132 Calculus II (4)

MATH 233 Calculus III (4)

PHYS 240 General Physics I (5)

PHYS 241 General Physics II (5)

PHYS 321 Elementary Modern Physics (3)

and select one of the following two courses:

CG 115 FORTRAN 77 Programming (3)

CG 120 Pascal Programming (3)

**Notes:** Elective courses should be carefully selected in consultation with one's advisor. Consult for optimum transfer of credits to an engineering school. Some engineering fields require a second semester of chemistry.

Students in this program register under a physics major with pre-engineering as a second major and must have an advisor in the physics department.

### HEALTH SCIENCES (PRE-PROFESSIONAL STUDIES)

Students interested in preparing for careers in the Health Sciences (Human Medicine including allopathic, osteopathic and podiatric medicine, dentistry, veterinary medicine, optometry, pharmacy and chiropractic for example) and those interested in various allied health sciences\* (e.g., dental hygiene, physician's assistant, optometry assistant, veterinary assistant, physical therapy) should participate in this program. These students are encouraged to enroll in the seminar course, BIO 192, Careers in the Health Professions, to explore career options.

Professional studies in the health sciences have traditionally been built on a strong liberal arts foundation. Pre-professional studies that prepare students for professional schools are available at UNC. Advisors with knowledge about careers in the health sciences, requirements for admission to professional schools and UNC courses and degree programs assist students planning to apply for admission to professional schools. Competition for admission to these programs is keen and completion of a pre-professional program does not guarantee admission to the professional school. Academic performance, scores on selected examinations, results of interviews, personal characteristics and experiences are all taken into consideration. Special national aptitude or admissions tests are required by many of these programs. Special application processes are used by some of the programs. Pre-professional committee recommendations may be required. UNC's Pre-Professional Committee of faculty is dedicated to providing timely and informed advising to students interested in health-related careers.

Careful program planning is essential and students are encouraged to meet regularly with their pre-professional advisor.

Students will be encouraged to select courses that will meet the requirements of a degree that provides maximum flexibility in career choices. Professional schools have requirements that range from a minimum of two years of undergraduate studies to four years and a bachelor's degree. Although common requirements exist within areas, sufficient differences exist that wise students will work closely with their advisor to be certain that all program and degree requirements are being met.

At a minimum, allied health science programs will require a year of general biology, a year of general chemistry and a year of English composition. A second year of chemistry, additional biology, physics and college mathematics, as well as courses in social sciences and humanities are required in the health science areas.

Although no specific undergraduate major is required by professional schools, students in our program will be encouraged to select a major and work towards a degree. Most students elect a major from one of the biological or physical sciences. For information on the requirements for specific programs contact Dr. Tomasi at (970) 351-2559.

*\* Nursing and Medical Technology are included in this group of careers, but since professional education in these careers is available at UNC they are not listed in this program. For more information about these programs consult the index of this Catalog.*

### LAW PROGRAM (PRE-LAW)

Contact Paul Hodapp, Department of Philosophy, Weber House, (970) 351-2572, for pre-law information and a list of recommended courses.

UNC offers an excellent pre-law program, as well as a number of pre-law activities for undergraduate students interested in pursuing a career in the legal profession. UNC has an active Pre-Law Society as a chartered organization.

It should be noted, however, that like most American universities, UNC does not offer a pre-law major or minor; however, UNC does offer a Minor in Legal Studies.

Law schools do not identify any specific major as most desirable, but they do require a bachelor's degree as a prerequisite for law school admission. Most pre-law programs are built around majors from the College of Arts and Sciences and from the College of Business Administration.

## MINORS – A&S

### ANTHROPOLOGY MINOR

#### Program Requirements

Required Anthropology credits	9
Required elective credits	12
<b>Total credits required for this minor</b>	<b>21</b>

The anthropology minor introduces students to the sub-field of cultural, physical and archaeological anthropology within the context of an inquiry based curriculum. An anthropology minor complements majors in all of the social sciences, humanities and many of the natural sciences. Anthropology minors will learn skills of scientific inquiry and interpretation of issues relating to the human condition within a holistic, comparative and evolutionary context.

#### Required Anthropology Core Credits — 9 semester hours

ANT 110 Introduction to Cultural Anthropology (3)

*and select one of the following courses in consultation with advisor:*

- ANT 120 World Archaeology (3)
- ANT 121 Archaeology of Colorado (3)
- ANT 130 Introduction to Physical Anthropology (3)
- MCS 101 Multiculturalism in the United States: Concepts and Issues (3)

*and select one of the following courses in consultation with advisor:*

- ANT 210 Field Methods in Cultural Anthropology (3)
- ANT 220 Archaeological Research Methods (3)
- ANT 230 Anthropometrics (3)
- ANT 315 Life History and Culture (3)

#### Required Elective Credits — 12 semester hours

*Select four of the following courses in consultation with advisor:*

- ANT 310 World Cultures (3)
- ANT 312 North American Indians (3)
- ANT 313 Modernization and Development (3)
- ANT 314 Sex Roles in a Cross-Cultural Perspective (3)
- ANT 317 Contemporary Native American Issues (3)
- ANT 321 Prehistory of the Americas (3)
- ANT 323 Ancient Civilizations (3)
- ANT 325 Fieldwork in Archaeology (4)
- ANT 330 Forensic Anthropology (3)
- ANT 430 Human Evolutionary Anatomy (3)
- ANT 470 Seminar in Anthropology (3)
- ANT 492 Internship (3)
- ENST 331 Global Population and Human Needs (3)

### ANTHROPOLOGY - MULTICULTURAL ANTHROPOLOGY MINOR

#### Program Requirements

Required Anthropology credits	9
Required elective credits	9
<b>Total credits required for this minor</b>	<b>18</b>

Multicultural Anthropology explores the bases of pluralism and cultural diversity in the U.S. This minor focuses on comparative concepts and issues related to multicultural behavior and group dynamics in contemporary society. The experiences of ethnic groups, social classes and the cultural context of gender and sexuality provide the base for this program.

#### Required content and method courses — 9 semester hours

MCS 101 Multiculturalism in the United States: Concepts and Issues (3)

ANT 110 Introduction to Cultural Anthropology (3)

*and select one of the following courses:*

- ANT 210 Field Methods in Cultural Anthropology (3)
- ANT 315 Life History and Culture (3)

#### Required Elective Courses — 9 semester hours

*Select three courses in consultation with advisor:*

- ANT 310 World Cultures (3)
- ANT 312 North American Indians (3)
- ANT 313 Modernization and Development (3)
- ANT 314 Sex Roles in a Cross-Cultural Perspective (3)
- ANT 317 Contemporary Native American Issues (3)
- ANT 321 Prehistory of the Americas (3)
- ANT 492 Internship (3)
- AFS 305 Survey of African American Literature (3)
- AFS 340 The Black Family (3)
- AFS 360 Music and the Black Experience (3)
- AFS 396 African and African American World Views (3)
- MAS 300 Social Stratification in the Mexican-American Community (3)
- MAS 320 La Chicana (3)
- MAS 325 History of the Chicano in the Southwest (3)
- MAS 370 Chicano Psychology (3)
- HIST 347 United States Women's History to 1877 (3)
- HIST 348 United States Women's History Since 1877 (3)
- PSY 467 Psychology of Prejudice (3)
- WS 350 Feminist Theory (3)
- WS 370 Women-Identified Theory (3)

**Note:** Different courses to fulfill this elective requirement may be chosen with the consent of the minor advisor.

### APPLIED STATISTICS MINOR

#### Program Requirements

Required credits	17
Required elective credits	3-4
<b>Total credits required for this minor</b>	<b>20-21</b>

#### Required Credits — 17 semester hours

*Select one of the following courses:*

- STAT 150 Introduction to Statistical Analysis (3)
- STAT 250 Statistics for Health Sciences (3)

*and complete the following courses:*

- MATH 131 Calculus I (4)
- MATH 132 Calculus II (4)
- MATH 350 Elementary Probability Theory (3)

*and select one of the following courses:*

- STAT 406 Multiple Linear Regression (3)
- STAT 409 Sampling Techniques (3)

#### Required Elective Credits — 3-4 semester hours

STAT courses numbered 300 or higher or MATH 351 with approval of advisor.

## ASIAN STUDIES MINOR

### Program Requirements

Specified General Education .....	5
Required courses .....	8
Electives .....	10
<b>Total credits required for this minor .....</b>	<b>23</b>

This minor is designed to provide students with a broad-based interdisciplinary understanding of Asian culture through a coordinated program of studying language, history, philosophy, art, geography or political science. The program is administered by a faculty coordinator in the Department of English (970-351-2851) and by a faculty committee. All Asian Studies Minors are required to see an advisor to work out a program of study that will meet their specific needs and interests. At least 50% of the courses in the minor must be at the 300- or 400- level, and no more than 9 semester hours of courses with the same prefix may be counted toward the minor.

### Specified General Education — 5 semester hours

CHIN 101 Beginning Chinese (5)

or

JAPN 101 Beginning Japanese (5)

### Required Credits — 8 semester hours

MIND 181 Great Traditions of Asia: India, China and Japan (3)

CHIN 102 Elementary Chinese II (5)

or

JAPN 102 Elementary Japanese II (5)

Students who demonstrate first-year-language competency in either Chinese or Japanese may bypass the 102 course and take 15 hours of electives rather than 10.

### Required Elective Credits — 10 semester hours

\*ANT 310 World Cultures (3)

CHIN 201 Intermediate Chinese I (3)

CHIN 202 Intermediate Chinese II (3)

\*ENG 262 Masterpieces of World Literature (3)

GEOG 344 Asia: Special Topics (3)

HIST 112 Asian Civilization I: From Prehistory to the 1600s (3)

HIST 113 Asian Civilization II: The Modern Transformation (3)

HIST 307 History of China to 1840 (3)

HIST 309 Modern Southeast Asia (3)

HIST 310 Modern China (3)

HIST 311 Modern Japan (3)

HIST 313 India (3)

JAPN 116 Contemporary Japan (3)

JAPN 201 Intermediate Japanese I (3)

JAPN 202 Intermediate Japanese II (3)

\*PHIL 300 Topics in Philosophy (3)

PSCI 319 Pacific Rim Politics (3)

Independent Study (1-4)

**Notes:** \*Variable topic courses must be relevant to Asian Studies and approved by the student's minor advisor.

Independent Study projects must be approved by the minor advisor. These projects may be taken in any of the following departments: Anthropology, Art, Business, Economics, English, Foreign Languages, Geography, History, Philosophy, Political Science, Sociology, Mind, Honors.

ANT 310, GEOG 344 and PSCI 410 have prerequisites.

Students must maintain a grade point average of 2.0 or higher in those courses that count toward the minor.

## BIOLOGICAL SCIENCES/LIBERAL ARTS MINOR

### Program Requirements

Required credits .....	9
Required elective credits .....	9
<b>Total credits required for this minor .....</b>	<b>18</b>

### Required Credits — 9 semester hours

BIO 110 Principles of Biology (4)

BIO 111 Survey of Organismal Biology (5)

### Required Elective Credits — 9 semester hours

Select from BIO, BOT or ZOO prefix (9 semester hours)

## BIOLOGICAL SCIENCES/TEACHING SECONDARY BIOLOGICAL SCIENCE MINOR

### Program Requirements

Required credits .....	21
General Education, Specified .....	5
<b>Total credits required for this minor .....</b>	<b>26</b>

### Required Credits — 21 semester hours

BIO 110 Principles of Biology (4)

BIO 111 Survey of Organismal Biology (5)

BIO 220 Genetics (4)

BOT 350 General Plant Physiology (4)

ZOO 245 Introduction to Human Anatomy Physiology (4)

### General Education, Specified — 5 semester hours

CHEM 111 Principles of Chemistry I (5)

**Note:** State licensure regulations require a minimum of 24 semester hours distributed in appropriate science subject areas to teach any secondary science if someone is licensed in another subject area. Hours required in this minor will apply toward this requirement. See advisor for other courses to meet requirement. This minor does not lead to teacher licensure.

## BLACK STUDIES MINOR

### Program Requirements

Required credits .....	9
Required elective credits .....	9
<b>Total credits required for this minor .....</b>	<b>18</b>

### Required Credits — 9 semester hours

AFS 100 Introduction to Black Studies (3)

AFS 104 Survey of Africa (3)

AFS 240 Dynamics of Racism (3)

### Required Elective Credits — 9 semester hours

AFS 305 Survey of African American Literature (3)

AFS 332 Pan-Africanism (3)

AFS 340 The Black Family (3)

AFS 360 Music and the Black Experience (3)

AFS 386 Modern African World (3)

AFS 395 Aspects of the African-American Experience (3)

AFS 396 African and African American World Views (3)

AFS 399 Community Study Project (1-4)

AFS 420 Black Urban Politics (3)

AFS 422 Directed Studies (1-4)

AFS 456 Leadership and the Black Church (3)

AFS 490 Seminar in Black Studies (3)

AFS 508 Workshop (1-3)

AFS 513 Professional Renewal (1-4)

ID 308 Interpersonal Growth Workshop (3)

**Notes:** AFS 395, Aspects of the African American Experience, is a variable subtitle course that students may take more than once under different subtitles.

AFS 399, AFS 422, AFS 508 or AFS 513, when taken by minors, must always be taken for three semester hours.

**CHEMISTRY/LIBERAL ARTS MINOR****Program Requirements**

Required credits	8-10
Required elective credits	11-13
Total credits required for this minor	21

**Required Credits — 8-10 semester hours**

Select one of the following groups:

- CHEM 111 Principles of Chemistry I (5)
- CHEM 112 Principles of Chemistry II (5)

or

- CHEM 115 General Chemistry II (4)
- CHEM 114 General Chemistry I (4)

**Required Elective Credits — 11-13 semester hours (to total 21 credits in the minor)**

- CHEM 109 Fundamentals of Chemistry II (5)
- CHEM 131 Introductory Organic Chemistry (4)
- CHEM 320 Theory and Use of Analytical Instruments (1)
- CHEM 331 Organic Chemistry I (5)
- CHEM 331 Organic Chemistry I (5)
- CHEM 332 Organic Chemistry II (5)
- CHEM 441 Inorganic Chemistry I (2)
- CHEM 442 Inorganic Chemistry II (2)
- CHEM 481 General Biochemistry I (3)
- CHEM 483 Experimental Biochemistry I (1)

At least half the credit hours for the minor must be at the 300-level or above.

**CHEMISTRY/TEACHING MINOR****Program Requirements**

Required credits	10-12
Required supporting credits	9-11
Total credits required for this minor	21

**Required Credits — 10-12 semester hours**

CHED 495 Seminar in Teaching Chemistry (2)

and select one of the following groups:

- CHEM 111 Principles of Chemistry I (5)
- CHEM 112 Principles of Chemistry II (5)

or

- CHEM 115 General Chemistry II (4)
- CHEM 114 General Chemistry I (4)

**Note:** Students must take CHED 495 or a substitute course in another science discipline with approval of the advisor. If a substitute course for CHED 495 is approved, an additional 2 semester hours of chemistry electives must be taken.

**Required Elective Credits — 9-11 semester hours (to total 21 credits in the minor)**

- CHEM 109 Fundamentals of Chemistry II (5)
- CHEM 131 Introductory Organic Chemistry (4)
- CHEM 320 Theory and Use of Analytical Instruments (1)
- CHEM 321 Chemical Analysis (4)
- CHEM 331 Organic Chemistry I (5)
- CHEM 332 Organic Chemistry II (5)
- CHEM 441 Inorganic Chemistry I (2)
- CHEM 442 Inorganic Chemistry II (2)
- CHEM 481 General Biochemistry I (3)
- CHEM 483 Experimental Biochemistry I (1)

**Notes:** At least half the credit hours for the minor must be at the 300-level or above.

State licensure regulations require a minimum of 24 semester hours distributed in appropriate science subject areas to teach any secondary science if someone is licensed in another subject area. Hours required in this minor will apply toward this requirement. See advisor for other courses to meet requirement. This minor does not lead to teacher licensure.

**COMPUTER SCIENCE MINOR****Program Requirements**

Required credits	15
Required elective credits	6
Total credits required for this minor	21

**Required Credits — 15 semester hours**

- CS 101 Introduction to Computer Science (3)
- CS 102 Structured Programming (3)
- CS 200 Object-Oriented Analysis, Design, and Programming (3)
- CS 222 Computer Architecture/Organization (3)
- CS 301 Algorithms and Data Structures (3)

**Required Elective Credits — 6 semester hours**

Two upper-division CS courses (6)

**CULTURAL STUDIES MINOR****Program Requirements**

Required core credits	9
Required concentration area elective credits	9
Total credits required for this minor	18

Cultural studies is an interdisciplinary field in which the traditional concerns of the humanities and social sciences intersect. Cultural studies' understanding of "cultural" includes objects and practices (popular or mass culture, for example) not normally associated with the definition of culture as art or "taste." Cultural studies is a method which interprets cultural productions (for example: film, fashion, food, popular music, architecture and cityscapes) as if they were texts. The minor will familiarize students with the critical traditions underlying the cultural studies approach and its roots in such disciplines and schools as anthropology and folklore, feminism and post-structuralism, the Frankfurt and Birmingham schools. Students will also learn to employ a critical interpretive vocabulary in analyses of cultural productions.

**Required Core Credits — 9 semester hours**

- ENG 238 Introduction to Folklore (3)
- ENG 250 Introduction to Cultural Studies (3)
- ENG 495 Advanced Cultural Studies (3)

**Required Elective Credits — 9 semester hours**

Elective credits may be chosen from any category, with the advance approval of the minor's advisor. The student will be expected to work closely with the minor advisor to choose a concentration area and sequence of courses tailored to her particular interests. The concentration area should be chosen preferably after the student has completed ENG 238 and ENG 250, and should focus on a particular culture, period, topic, or theme. Courses taken in the concentration area must bear at least two prefixes. Two of these courses must be taken at the 300-400 level.

**EARTH SCIENCES MINOR****Program Requirements**

Required elective credits	20
Total credits required for this minor	20

**Required Elective Credits — 20 semester hours**

Courses with AST, ESCL, GEOL, MET and OCN prefixes may be used for the minor and must be selected in consultation with the minor advisor. No more than 8 semester hours of courses numbered between 100 and 199 may be counted for the minor.

## ECONOMICS MINOR

### Program Requirements

Required Economic credits	6
Required elective credits	12
<b>Total credits required for this minor</b>	<b>18</b>

### Required Credits — 6 semester hours

ECON 103 Introduction to Economics: Macroeconomics (3)  
ECON 105 Introduction to Economics: Microeconomics (3)

### Required Elective Credits — 12 semester hours

#### Group A - Macroeconomics

ECON 301 Money and Banking (3)  
ECON 303 Intermediate Macroeconomics (3)  
ECON 305 Intermediate Microeconomics (3)  
ECON 320 Comparative Economic Systems (3)  
ECON 341 Public Finance (3)  
ECON 360 Economics of Growth and Development (3)  
ECON 362 Economic History of the United States (3)  
ECON 402 Contemporary Economic Problems (3)  
ECON 422 Directed Study (1-4)  
ECON 451 Quantitative Economics (3)  
ECON 452 Econometrics (3)  
ECON 455 Regional Theory and Methods (3)  
ECON 470 History of Economic Thought (3)  
MIND 286 Value Issues in Political Economy (3)

#### Group B - Microeconomics

ECON 245 Urban Planning Economics (3)  
ECON 303 Intermediate Macroeconomics (3)  
ECON 304 Women and the Economy (3)  
ECON 305 Intermediate Microeconomics (3)  
ECON 315 Labor/Management Economics (3)  
ECON 356 Water Resource Economics (3)  
ECON 362 Economic History of the United States (3)  
ECON 400 Managerial Economics (3)  
ECON 402 Contemporary Economic Problems (3)  
ECON 422 Directed Study (3)  
ECON 451 Quantitative Economics (3)  
ECON 452 Econometrics (3)  
ECON 453 Business and Economic Forecasting (3)  
ECON 455 Regional Theory and Methods (3)  
ECON 470 History of Economic Thought (3)  
ENST 335 Environmental and Resource Economics (3)

**Notes:** Students must select the required elective credits from either Group A or Group B. Students selecting Group A must take ECON 303. Students selecting Group B must take ECON 305.

Students that desire a strong theoretical background are encouraged to take both ECON 303 and ECON 305.

At least 9 credit hours must be taken at the 300- or 400- level.

## ENGLISH MINOR

### Program Requirements

Required credits	6
Required elective credits	12
<b>Total credits required for this minor</b>	<b>18</b>

### Required Credits — 6 semester hours

ENG 131 Introduction to Literature (3)  
ENG 211 Survey of American Literature (3)

### Required Elective Credits — 12 semester hours

One 300 OR 400 level elective (3 semester hours)

and select one of the following two courses:

ENG 213 Survey of British Literature I (3)  
ENG 214 British Literature II (3)

and select one of the following two courses:

ENG 303 The Essay (3)  
ENG 319 Advanced Expository Techniques (3)

and select one of the following two courses:

ENG 318 Traditional and Modern Grammars (3)  
ENG 419 Language and the History of English (3)

**Note:** Qualified students may be exempted by examination from ENG 131.

## ENVIRONMENTAL STUDIES MINOR

### Program Requirements

Required Environmental Studies credits	6
Required elective credits	16
<b>Total credits required for this minor</b>	<b>22</b>

The environmental studies minor enhances a student's 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 includes 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 courses):*

ENST 205 Environment, Politics and Law (3)  
ENST 215 Human Behavior and Environment (3)  
ENST 247 Politics of the Nuclear Age (2)  
ENST 331 Global Population and Human Needs (3)  
ENST 335 Environmental and Resource Economics (3)  
GEOG 315 Resource Management (3)

*Physical Resource Science (select two of the following courses):*

ENST 225 Energy and the Environment (3)  
ENST 235 Chemistry and the Environment (2)  
ENST 245 Nuclear, Solar and Alternative Power (3)  
ENST 255 Atmospheric Environment of Humans (2)  
ENST 265 Conservation of Natural Resources (2)  
ENST 355 Introduction to Environmental Health (3)

*Sensory Perception (select one of the following two courses):*

ENST 375 Literature and the Environment (3)  
ENST 385 Art and the Environment (2)

*Special Problems*

ENST 380 Sustainable Living (3)  
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.

## FILM STUDIES MINOR

### Program Requirements

Required credits	9
Required elective credits	9
<b>Total credits required for this minor</b>	<b>18</b>

This minor has been designed for students who wish a coherent study of film as an art form. This interdisciplinary program will allow students to proceed beyond an introduction to film to specialized courses which consider cinema from distinct aesthetic, cultural, historical, and theoretical perspectives. Introductory and variable topics courses will allow students to consider both western and non-Western cinema, however this minor places more emphasis on better understanding American film within the context of western aesthetic and narrative traditions and theories. A capstone course, FL 400, which may be team taught, encourages students to use their interpretational research skills in order to forge connections between differing film traditions and understand contemporary cinema in a more global context.

#### Required Credits — 9 semester hours

HUM 120 Introduction to Film (3)  
 HUM 320 Topics in Film (3)  
 FL 400 Traditions in International Film (3)

#### Required Elective Credits — 9 semester hours

ART 389 Twentieth Century Art (4)  
 \*AFS 395 Aspects of the African-American Experience (3)  
 \*HON 200 Honors Connections Seminar II (2)  
 \*HIST 495 Topics in American History (3)  
 \*HUM 320 Topics in Film (3)  
 \*\*JMC 390 Impact of Mass Communications on Society (3)  
 \*JMC 408 Special Topics (3)  
 \*PHIL 300 Topics in Philosophy (3)

**Notes:** \*These variable topic courses may be taken for credit toward the film studies minor only when they are approved for credit by the student's Film Studies Minor advisor. In addition to the requirement of 3 hours of HUM 320, this course may be taken for an additional 6 hours of elective credit if topic varies.

\*\* This course has a prerequisite. Consult course description in the Catalog.

Students must maintain a grade point average of 2.0 or higher in those courses that count toward the minor.

At least 50% of the courses in the minor must be upper division courses, i.e. 300 or 400 level courses.

No more than 12 semester hours of courses with the same prefix may be counted toward the minor.

For further information and an updated list of offerings, contact the Film Studies Minor director in the English Department, (970) 351-2971.

## FRENCH MINOR

### Program Requirements

Required credits	23
Required elective credits (minimum)	2
<b>Total credits required for this minor</b>	<b>25</b>

#### Required Credits — 23 semester hours

FR 201 Intermediate French I (3)  
 FR 251 Intermediate French Lab I (1)  
 FR 202 Intermediate French II (3)  
 FR 252 Intermediate French Lab II (1)  
 FR 301 France: Its People and Culture (3)  
 FR 302 Current Events in France (3)  
 FR 311 French Civilization and Literature Survey I (3)  
 FR 312 French Civilization and Literature Survey II (3)  
 FR 407 French for Oral Proficiency (3)

#### Required Elective Credits — 2 semester hours (minimum)

\*FR 251 Intermediate French Lab I (1)  
 \*FR 252 Intermediate French Lab II (1)  
 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 411 France Then and Now (2)

FR 412 French Politics and Society (2)  
 FR 413 The Francophone World (2)  
 FR 414 Language and Society (2)  
 FR 450 Readings in French Literature (3)  
 FR 475 Research Seminar: French Texts and Contexts (3)

**Notes:** \* No more than one credit hour of French lab courses (either FR 251 or FR 252) may count as elective credit.

\*\* This variable topic course may be taken for credit toward the French minor only when approved for credit by the student's faculty advisor in French.

Courses with FR prefix are conducted in French unless otherwise noted in course descriptions.

All work to be counted toward the French minor, liberal arts emphasis, must be beyond the first year level.

Students are encouraged to enrich their French language-related cultural awareness through regular participation in program-sponsored activities. Consult department advisor.

Students must maintain a minimum grade point average of 2.5 in those courses that count toward the minor and that are taken at UNC.

Advising with a faculty advisor for the French minor is suggested before registration.

## GEOGRAPHY MINOR

### Program Requirements

Required credits	10
Required elective credits	8
<b>Total credits required for this minor</b>	<b>18</b>

#### Required Credits — 10 semester hours

GEOG 200 Human Geography (3)  
 GEOG 232 Physical Geography (4)  
 GEOG 264 Maps and Imagery (3)

#### Required Elective Credits — 8 semester hours

Elective Credits will be selected with the approval of a faculty advisor, and must be from Geography courses at the 300 or 400 level.

## GERMAN MINOR

### Program Requirements

Required credits	23
Required elective credits (minimum)	2
<b>Total credits required for this minor</b>	<b>25</b>

#### Required Credits — 23 semester hours

GER 201 Intermediate German I (3)  
 GER 251 Intermediate German Lab I (1)  
 GER 202 Intermediate German II (3)  
 GER 252 Intermediate German Lab II (1)  
 GER 301 Germany and the Germans I (3)  
 GER 302 Germany and the Germans II (3)  
 GER 311 German Civilization and Literature Survey I (3)  
 GER 312 German Civilization and Literature Survey II (3)  
 GER 407 German for Oral Proficiency (3)

#### Required Elective Credits — 2 semester hours (minimum)

\*GER 251 Intermediate German Lab I (1)  
 \*GER 252 Intermediate German Lab II (1)  
 \*\*FL 395 Special Topics (1-4 credits)  
 GER 411 Germany Then and Now (2)  
 GER 412 Politics and Society (2)  
 GER 413 German Cultural Identity (2)  
 GER 414 Language, Society and the Profession (2)  
 GER 450 Literature, Self and Society (3)

**Notes:** \* No more that one credit hour of German lab courses (either GER 251 or GER 252) may count as elective credit.

\*\* This variable topic course may be taken for credit toward the German minor when approved for credit by the student's faculty advisor in German.

Courses with GER prefix are conducted in German unless otherwise noted in course descriptions.

All work to be counted toward the German minor, liberal arts emphasis, must be beyond the first year level.

Students are encouraged to enrich their German language-related cultural awareness through regular participation in program-sponsored activities. Consult department advisor. Students must maintain a minimum grade point average of 2.5 in those courses that count toward the minor and that are taken at UNC.

Advising with a faculty advisor for the German minor is suggested before registration.

## HISTORY MINOR

### Program Requirements

**Required elective credits** ..... 18  
**Total credits required for this minor** ..... 18

### Required Elective Credits — 18 semester hours

Note that a minimum of 9 semester hours must be taken at the 200 level or higher.

**Notes:** History minors must obtain a grade of “C” or better in all history courses taken at UNC. Minors receiving a grade of “D” or lower in a history course must retake the course, or an equivalent approved by the academic advisor, and receive a grade of “C” or higher to have the course counted toward the minor.

It is recommended that at least one course should be drawn from the fields of Latin American, African or Asian history.

Students are encouraged to select electives with the advice and approval of their advisors.

## LEGAL STUDIES MINOR

### Program Requirements

**Required credits** ..... 6  
**Required elective credits** ..... 15  
**Total credits required for this minor** ..... 21

### Required Credits — 6 semester hours

PHIL 220 The Nature of Legal Reasoning (3)  
 ID 420 Legal Research and Writing (3)

### Required Elective Credits — 15 semester hours

*Group I — Basic (select 6 credits from the following):*

- BAFN 231 Legal Environment of Business (3)
- BAFN 332 Business Administration and the Law (3)
- ELPS 385 Law and the Classroom Teacher (2)
- ENST 205 Environment, Politics and Law (3)
- HIST 340 American Constitutional History to 1870 (3)
- HIST 341 American Constitutional History from 1870 (3)
- JMC 497 Mass Communications Law (3)
- PHIL 300 Topics in Philosophy (3) (Philosophical Issues in Employment Discrimination Law)
- PSCI 105 Fundamentals of Politics (3)
- PSCI 306 Constitutional Law (3)
- PSCI 328 International Law and Organizations (3)
- PSY 365 Psychology and the Law (3)
- SOC 141 Introduction to Criminal Justice (3)
- SOC 444 Sociology of Criminal Law (3)
- SPCO 341 Courtroom Communication (3)

*Group II — Policy (select 6 credits from the following):*

- BAMG 452 Business, Government and Society (3)
- ECON 402 Contemporary Economic Problems (3)
- HIST 262 American Cultural History (3)
- MIND 286 Value Issues in Political Economy (3)
- PHIL 305 Ethics in Theory and Practice (3)
- PHIL 350 Ethics (3)
- PHIL 355 Social and Political Philosophy (3)
- PSCI 331 Political Philosophy I (3)
- PSCI 332 Political Philosophy II (3)
- PSCI 335 American Political Philosophy (3)
- SOC 346 Criminology (3)
- SOC 347 Sociology of Corrections (3)
- SOC 445 Comparative Justice Systems (3)

*Group III - Skills (select 3 credits from the following):*

- ECON 304 Women and the Economy (3)
- ECON 305 Intermediate Microeconomics (3)
- ENG 319 Advanced Expository Techniques (3)
- ENST 100 Introduction to Environmental Studies (3)
- PSCI 392 Political Science Internship (3) \*
- PSY 265 Social Psychology (3)

- PSY 366 Industrial Psychology (3)
- SPCO 211 Argumentation and Debate (3)
- SPCO 343 Persuasion (3)
- SPCO 444 Argumentation Theory (3)

\*Any other internship must be approved by your legal studies advisor. Students are strongly encouraged to elect an internship as part of a minor, and internships in community service are especially encouraged.

**Notes:** Students must complete 50 percent of their coursework at the 300- and 400-level. No more than 6 hours may be taken in one department.

A grade of “C” is required for a course to receive credit in the minor.

Some advanced courses have prerequisites. Please be certain that you meet the department's prerequisites if you plan to take such a course or you may check with the instructor to see if the prerequisite(s) may be waived, if you are capable of doing the work for the course.

Students are advised that the Required Courses are not offered every semester. Please contact the Legal Studies advisor at 351-2572 as soon as you declare the minor to plan your schedule so that you can graduate on time.

## MATHEMATICS/LIBERAL ARTS MINOR

### Program Requirements

**Required credits** ..... 8  
**Required supporting credits** ..... 12  
**Total credits required for this minor** ..... 20

### Required Credits — 8 semester hours

MATH 131 Calculus I (4)  
 MATH 132 Calculus 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 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 350 Elementary Probability Theory (3)
- MATH 351 Elementary Statistics Theory (3)
- MATH 375 Elementary Numerical Analysis (3)
- MATH 431 Basic Analysis I (4)
- MATH 432 Basic Analysis II (4)
- MATH 464 Introduction to History of Mathematics (3)

**Note:** At least six of the twelve hours of electives must be at the 300-level or above.

## MATHEMATICS/SECONDARY MATHEMATICS TEACHING, GRADES 7-12 MINOR

### Program Requirements

**Required credits** ..... 25  
**Total credits required for this minor** ..... 25

### Required Credits — 25 semester hours

- EDLS 363 Clinical Experience: Secondary (2)
- MATH 131 Calculus I (4)
- MATH 132 Calculus 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 (4)
- MED 441 Methods of Teaching Mathematics (3)

**Note:** Students must meet all requirements for Professional Teacher Education as specified in this Catalog. Does not lead to teacher licensure.



## MEDIA STUDIES MINOR

### Program Requirements

Required credits	9
Required elective credits	9
Total credits required for this minor	18

#### Required Credits — 9 semester hours

JMC 100 Introduction to Journalism and Mass Communications (3)  
 JMC 390 Impact of Mass Communications on Society (3)  
 JMC 397 History of Mass Communication (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.

## MEXICAN-AMERICAN STUDIES MINOR

### Program Requirements

Required credits	15
Required supporting credits (minimum)	3
Total credits required for this minor	18

#### Required Credits — 15 semester hours

MAS 101 Introduction to Mexican American Studies (3)  
 MAS 110 Contemporary Chicano Literature (3)  
 MAS 300 Social Stratification in the Mexican-American Community (3)  
 MAS 320 La Chicana (3)  
 MAS 325 History of the Chicano in the Southwest (3)

#### Required Elective Credits — 3 semester hours

ART 383 Pre-Columbian Art (4)  
 ENG 238 Introduction to Folklore (3)  
 HIST 118 History of Mexico (3)  
 GEOG 335 Geography of Middle America (3)  
 MAS 370 Chicano Psychology (3)  
 SOC 237 Sociology of Minorities (3)  
 SPAN 255 Music of the Hispanic World (3)  
 SPAN 452 Mexican Literature (3)

Notes: ENG 238 will fulfill the elective requirement only if taken when the Hispanic folklore is being taught in the series of Introduction to Folklore courses.

Courses with the HISP prefix are taught in Spanish and courses with the MAS prefix are taught in English.

## PHILOSOPHY MINOR

### Program Requirements

Required credits	9
Required elective credits	9
Total credits required for this minor	18

#### Required Credits — 9 semester hours

PHIL 260 History of Ancient Philosophy (3)  
 PHIL 261 History of Modern Philosophy (3)  
 PHIL 350 Ethics (3)

#### Required Elective Credits — 9 semester hours

PHIL 100 Introduction to Philosophy (3)  
 PHIL 101 Critical Thinking and Writing (3)  
 PHIL 105 Philosophical Perspectives on Current Issues (3)  
 PHIL 110 Figures in Western Philosophy (3)  
 PHIL 115 Philosophy and Current Affairs (1-3)  
 PHIL 220 The Nature of Legal Reasoning (3)  
 PHIL 240 Formal Logic I (3)  
 PHIL 241 Formal Logic II (3)  
 PHIL 300 Topics in Philosophy (3)  
 PHIL 305 Ethics in Theory and Practice (3)  
 PHIL 352 Business Ethics (3)  
 PHIL 355 Social and Political Philosophy (3)  
 PHIL 370 Philosophy of Religion (3)  
 PHIL 385 Epistemology (3)  
 PHIL 390 Metaphysics (3)  
 PHIL 422 Directed Study (1-3)  
 PHIL 495 Advanced Seminar (3)  
 PHIL 497 Student Internship (1-3)

Notes: No more than 3 credit hours of PHIL 497 may be counted toward the minor.

Elective Credits should be chosen in consultation with minor advisor. At least 50 percent of the coursework must be completed at the 300-400 level.

## PHYSICS MINOR

### Program Requirements

Required credits	13
Required supporting credits	12
Required elective credits	6-8
Total credits required for this minor	31-33

#### Required Credits — 13 semester hours

PHYS 240 General Physics I (5)  
 PHYS 241 General Physics II (5)  
 PHYS 321 Elementary Modern Physics (3)

#### Required Supporting Credits — 12 semester hours

MATH 131 Calculus I (4)  
 MATH 132 Calculus II (4)  
 MATH 233 Calculus III (4)

Note: (PHYS 320 Mathematical Applications (3) may be substituted for MATH 233)

#### Required Elective Credits — 6-8 semester hours

Select one course from the following:

PHYS 340 Mechanics I (3)  
 PHYS 341 Electricity and Magnetism I (3)

and select one course from the following:

PHYS 343 Digital and Analog Electronics (4)  
 PHYS 345 Atomic and Quantum Physics (5)  
 PHYS 347 Optics (4)  
 PHYS 420 Thermodynamics and Statistical Physics (3)

## POLITICAL SCIENCE MINOR

### Program Requirements

Required credits	6
Required elective credits	12
Total credits required for this minor	18

#### Required Credits — 6 semester hours

PSCI 100 United States National Government (3)  
 PSCI 105 Fundamentals of Politics (3)

#### Required Elective Credits — 12 semester hours

##### Group A — American Politics

ENST 205 Environment, Politics and Law (3)  
 PSCI 203 Colorado Politics (3)  
 PSCI 207 Women and Politics (3)  
 PSCI 208 Introduction to Public Administration (3)  
 PSCI 301 Electoral Politics in the United States (3)  
 PSCI 302 Power in America (3)  
 PSCI 305 Politics of Education (3)  
 PSCI 306 Constitutional Law (3)  
 PSCI 392 Internship (3-10)  
 PSCI 303 Public Policy in the United States (3)  
 PSCI 405 Problems in American Politics (3)  
 PSCI 422 Directed Studies (1-3)

##### Group B — International Relations

PSCI 220 Introduction to International Relations (3)  
 PSCI 320 American Foreign Policy (3)  
 PSCI 321 War and Peace (3)  
 PSCI 325 Conflict in the Middle East (3)  
 PSCI 328 International Law and Organizations (3)  
 PSCI 422 Directed Studies (1-3)  
 PSCI 425 Problems in International Relations (3)

##### Group C — Political Philosophy

PSCI 331 Political Philosophy I (3)  
 PSCI 332 Political Philosophy II (3)  
 PSCI 335 American Political Philosophy (3)  
 PSCI 422 Directed Studies (1-3)  
 PSCI 435 Problems in Political Philosophy (3)

##### Group D — Comparative Politics

PSCI 210 Politics in the European Community (3)  
 PSCI 230 The Evolution of the Modern State (3)  
 PSCI 310 Politics of Central and East European States (3)  
 PSCI 315 Comparative Public Policy (3)  
 PSCI 318 The Politics of the Developing States (3)

- PSCI 319 Pacific Rim Politics (3)
- PSCI 415 Problems in Comparative Politics (3)
- PSCI 422 Directed Studies (1-3)

**Notes:** The student must complete a block of Required Elective courses, which totals 12 hours, selected from the above in consultation with their advisor.

Students may take up to 6 hours in the Political Science Internship Program, but only a maximum of 3 hours can apply toward the political science minor. Admission to the Internship Program is limited.

Applications are available in the department office and must be submitted to the director, Internship Program, no later than the time of preregistration for the semester of the proposed internship. Students must have accumulated 12 hours in political science at the time of application.

## PSYCHOLOGY MINOR

### Program Requirements

Required credits	10-11
Elective credits	7-8
<b>Total credits required for this minor</b>	<b>18</b>

#### Required Credits — 10-11 semester hours

PSY 120 Principles of Psychology (4)

#### Psychology Elective Credits — 7-8 semester hour

*select at least two courses from the following:*

- PSY 230 Human Growth and Development (4)
- PSY 265 Social Psychology (3)
- PSY 341 Principles of Learning (3)
- PSY 455 Abnormal Psychology (3)
- PSY 467 Psychology of Prejudice (3)

**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.

## SOCIOLOGY MINOR

### Program Requirements

Required credits	3
Required elective credits	15
<b>Total credits required for this minor</b>	<b>18</b>

#### Required Credits — 3 semester hours

SOC 100 Principles of Sociology (3)

#### Required Elective Credits — 15

*Select two of the following courses:*

- 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 semester hours)

**Note:** Nine hours of the minor must be 300- or above- level courses.

## SPANISH MINOR

### Program Requirements

Required credits	21
Required elective credits	3
<b>Total credits required for this minor</b>	<b>24</b>

#### Required Credits — 21 semester hours

- SPAN 201 Intermediate Spanish I (3)
- SPAN 202 Intermediate Spanish II (3)
- SPAN 301 Spanish Grammar (3)
- SPAN 302 Spanish Composition (3)
- SPAN 303 Spanish Conversation (3)
- SPAN 304 Introduction to Hispanic Literature (3)

*and select one of the following two courses:*

- SPAN 321 Spanish Civilization and Culture (3)
- SPAN 331 Latin American Civilization and Culture (3)

#### Required Elective Credits — 3 semester hours

- SPAN 350 Masterpieces of Spanish Literature (3)
- SPAN 351 Masterpieces of Latin American Literature (3)
- SPAN 405 Spanish Phonetics and Dialects (3)
- SPAN 406 Introduction to Translation (3)
- SPAN 407 Spanish for Oral Proficiency (3)
- SPAN 452 Mexican Literature (3)
- SPAN 455 Spanish Readings (3)
- SPAN 456 Spanish and Latin American Short Story (3)
- SPAN 457 Literature of U. S. Hispanics (3)
- SPAN 458 Cervantes (3)
- SPAN 459 Hispanic Drama (3)

**Notes:** It is recommended that Spanish minors take HIST 118 and either HIST 314 or HIST 315.

All Spanish language courses to be counted for the major and minor must be beyond the first year level.

Courses with the SPAN prefix are taught in Spanish and courses with the HISP prefix are taught in English.

## SPEECH COMMUNICATION MINOR

### Program Requirements

Required credits	6
Required elective credits	12
<b>Total credits required for this minor</b>	<b>18</b>

#### Speech Communication Major Requirements

##### Required Credits — 6 semester hours

- SPCO 100 Basics of Public Speaking (1)
- SPCO 102 Introduction to Speech Communication (3)
- SPCO 103 Speaking Evaluation (2)

##### Required Elective Credits — 12 semester hours

*Select one course 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)

**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.

## TEACHING ENGLISH AS A SECOND LANGUAGE (TESL) MINOR

### Program Requirements

Required credits	10
Required supporting credits	12
<b>Total credits required for this minor</b>	<b>22</b>

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 Dimensions of Bilingual Education (3)

TESL 301 TESL Practicum I (2)

TESL 302 TESL Practicum II (1-2)

TESL 400 Methods and Approaches of ESL/EFL (3)

#### Required Supporting Credits — 12 semester hours

ANT 210 Field Methods in Cultural Anthropology (3)

ENG 318 Traditional and Modern Grammars (3)

ENG 419 Language and the History of English (3)

SPCO 323 Intercultural Communication (3)

**Notes:** One year of college-level, beginning foreign language study or its equivalent must be taken in addition to the required courses for this minor.

It is preferred that this minor be chosen by students enrolled in a teacher education program.

If any course required is waived, e.g., in the case of English majors who may not count a course toward both a major and minor, additional courses must be approved so that the student can fulfill the 22 credit hours required for this minor.

Students must follow the requirements of their major department and the School of Education for admission to the PTEP program. This minor may lead to teacher licensure. Please see an advisor.

## WOMEN'S STUDIES MINOR

### Program Requirements

Required Women's Studies credits	9
Required elective credits	9
<b>Total credits required for this minor</b>	<b>18</b>

The basic intent of the Women's Studies Program is to provide information in order to liberate women from systematic oppression.

Students will learn the theories underlying feminism(s) as well as the skills necessary to effectively communicate them.

#### Required General Education Credits — 3 semester hours

*Category 7.b. Interdisciplinary, Multicultural and Internat. Studies*

WS 101 Women in Contemporary Society (3)

#### Required Women's Studies Credits — 9 semester hours

WS 248 Introduction to Women's Studies (3)

WS 350 Feminist Theory (3)

WS 448 Women's Studies Seminar (3)

#### Required Elective Credits — 9 semester hours

Courses should be chosen from among the following and other courses subsequently approved by the Women's Studies Committee.

ANT 313 Modernization and Development (3)

ANT 314 Sex Roles in a Cross-Cultural Perspective (3)

ART 308 Workshop in Art: Artists of Color/Women Artists (3)

ART 395 Special Topics in Art: Women in Art (3)

AFS 102 The Black Woman in America (3)

AFS 230 Black Women in Literature (3)

ECON 304 Women and the Economy (3)

ENG 239 Topics in Women's Literature (3)

ENG 335 World Literature By and About Women (3)

HIST 347 United States Women's History to 1877 (3)

HIST 348 United States Women's History Since 1877 (3)

HUM 331 Images of Women in Literature and the Arts (3)

NURS 200 Women's Health Care (3)

PSCI 207 Women and Politics (3)

PPSY 468 Psychology of Women (2)

SOC 221 Sociology of Gender (3)

SOC 322 Women and Aging (3)

SOC 423 Violence and the Family (3)

WS 308 Women's Studies Workshop (1-3)

WS 370 Women-Identified Theory (3)

WS 420 Representations of Women in Popular Culture (3)

WS 422 Directed Studies (1-3)

WS 430 Gender Equity in Education (3)

WS 460 Feminist Legal Studies (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.

## WRITING MINOR

### Program Requirements

Required credits	6
Required elective credits	12
<b>Total credits required for this minor</b>	<b>18</b>

The Writing Minor is a cross-disciplinary, undergraduate program designed to improve student writing abilities and, thereby, employment opportunities. Students study the writing process as well as the particular requirements of writing in different disciplines, including the arts and sciences, business, education and professional fields.

Students who complete this minor should have competence in more than one kind of writing. Thus, they should have enhanced opportunities for successful careers in a wide variety of fields, including professional writing.

#### Required Credits — 6 semester hours

ENG 303 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)

Undergraduates must have advisor and instructor consent.

*English*

ENG 225 Communications on a Theme (3)

ENG 227 Technical Writing (3)

ENG 240 Introduction to Creative Writing (3) (may be repeated under the different subtitles as listed)

ENG 340 Creative Writing - Advanced (3) (may be repeated under the different subtitles as listed)

ENG 513 Professional Renewal (3)

Undergraduates must have advisor and instructor consent.

*History*

HIST 399 Introduction to Historical Research (3)

*Journalism and Mass Communications*

JMC 210 Newswriting (3)

JMC 410 Advanced News and Feature Writing (3)

*Science*

SCI 291 Scientific Writing (3)

**Notes:** The elective coursework must be designed with and approved by a writing minor advisor. Only one independent study course will be permitted in this program.

ENG 122 and ENG 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.

# MASTER OF ARTS (M.A.)

## BIOLOGICAL SCIENCES, M.A.

### Non-Thesis Emphasis

#### 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 Chair of the Biological Sciences department:

- a letter of intent including research/teaching interests and goals
- three letters of recommendation
- GRE scores (Biology section scores optional).

#### Required Credits — 6 semester hours

BIO 690 Invited Topics in Biological Sciences (0.5)

BIO 691 Seminar in Biological Sciences (0.5)

BIO 694 Foundations of Biological Research (2)

BIO 697 Graduate Research (3)

**Note:** Results of the graduate research project must be presented orally to the biological sciences faculty during the last semester prior to graduation.

#### Required Elective Credits — 24 semester hours

*Basic Elective Credits — 10 semester hours (minimum)*

BIO 525 Molecular Genetics (3)

BIO 550 Cell Physiology (4)

BOT 530 Plant Taxonomy (4)

BOT 533 Morphogenesis of Algae and Fungi (4)

BOT 540 Anatomy and Morphogenesis of Plants (4)

BOT 550 General Plant Physiology (4)

ZOO 533 General Parasitology (4)

ZOO 534 Mammalogy (4)

ZOO 535 Survey of Fishes, Amphibians and Reptiles (4)

**Note:** All of the above courses are double numbered.

*Advanced Study Electives — 8 semester hours (minimum)*

BIO 545 Cytology (3)

BIO 569 Conceptual Issues in Evolution (2)

BIO 621 Advanced Genetics (3)

BIO 655 Advanced Microbiology (4)

BIO 662 Human Ecology (3)

BOT 560 Plant Ecology (4)

BOT 575 Fungal Diseases of Plants (4)

BOT 655 Advanced Plant Physiology (3)

ZOO 542 Vertebrate Histology (4)

ZOO 551 Mammalian Physiology I (4)

ZOO 552 Mammalian Physiology II (4)

ZOO 560 Animal Ecology (4)

ZOO 636 Advanced Invertebrate Zoology (4)

ZOO 645 Comparative Vertebrate Adaptations (4)

*Enrichment and Non-Scheduled Electives — 3 semester hours (minimum)*

BIO 501 Current Issues in Biology (1)

BIO 508 Workshop (1-6)

BIO 513 Professional Renewal (1-10)

BIO 585 Topics in Field Biology (1-10)

BIO 592 Internship in Biological Sciences (1-3)

BIO 595 Special Topics in Biology (3)

BIO 622 Directed Studies (1-3) (non-scheduled)

BOT 595 Special Topics in Botany (2)

BOT 622 Directed Studies (1-3) (non-scheduled)

SCED 508 Workshop (1-6)

SCED 513 Professional Renewal (1-12)

ZOO 595 Special Topics in Zoology (2)

ZOO 622 Directed Studies (1-3) (non-scheduled)

**Note:** Hours can be selected from the above list of enrichment and non-scheduled classes or other appropriate classes in math, supporting sciences or education, with approval of the student's advisor.

*Required Electives — 3 semester hours minimum*

Select with approval of advisor (3 semester hours)

**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 during the first semester of the program to determine a course of study. Electives must be selected to insure background and experience in the fundamental areas of biological sciences.

Written comprehensive examinations are required.

## BIOLOGICAL SCIENCES, M.A.

### Thesis Emphasis

#### 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 chair 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 Sciences (0.5)  
 BIO 691 Seminar in Biological Sciences (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 530 Plant Taxonomy (4)  
 BOT 533 Morphogenesis of Algae and Fungi (4)  
 BOT 540 Anatomy and Morphogenesis of Plants (4)  
 BOT 550 General Plant Physiology (4)  
 ZOO 533 General Parasitology (4)  
 ZOO 534 Mammalogy (4)  
 ZOO 535 Survey of Fishes, Amphibians and Reptiles (4)

**Note:** All of the above courses are double numbered.

##### Advanced Study Electives — 8 semester hours (minimum)

BIO 545 Cytology (3)  
 BIO 569 Conceptual Issues in Evolution (2)  
 BIO 621 Advanced Genetics (3)  
 BIO 655 Advanced Microbiology (4)  
 BIO 662 Human Ecology (3)  
 BOT 560 Plant Ecology (4)  
 BOT 575 Fungal Diseases of Plants (4)  
 BOT 655 Advanced Plant Physiology (3)  
 ZOO 542 Vertebrate Histology (4)  
 ZOO 551 Mammalian Physiology I (4)  
 ZOO 552 Mammalian Physiology II (4)  
 ZOO 560 Animal Ecology (4)  
 ZOO 636 Advanced Invertebrate Zoology (4)  
 ZOO 645 Comparative Vertebrate Adaptations (4)

##### Enrichment and Non-Scheduled Electives — 3 semester hours (minimum)

BIO 501 Current Issues in Biology (1)  
 BIO 508 Workshop (1-6)  
 BIO 513 Professional Renewal (1-10)  
 BIO 585 Topics in Field Biology (1-10)  
 BIO 592 Internship in Biological Sciences (1-3)  
 BIO 595 Special Topics in Biology (3)  
 BIO 622 Directed Studies (1-3) (non-scheduled)  
 BOT 595 Special Topics in Botany (2)  
 BOT 622 Directed Studies (1-3) (non-scheduled)  
 SCED 508 Workshop (1-6)  
 SCED 513 Professional Renewal (1-12)  
 ZOO 595 Special Topics in Zoology (2)  
 ZOO 622 Directed Studies (1-3) (non-scheduled)

**Note:** 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 the sciences or College of Education.

#### Research Elective — 1-6 semester hours

BIO 699 Thesis (1-6)  
 BOT 699 Thesis (1-6)  
 ZOO 699 Thesis (1-6)

**Notes:** Results of the thesis problem must be presented orally to the biological sciences faculty during the last semester prior to graduation.

The student must meet with a graduate advisor and graduate committee during the first semester of the program to determine a course of study. Electives must be selected to insure 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.

## CHEMISTRY, M.A.

### Education Emphasis

#### Program Requirements

Complete the required credits specified here . . . . . 11-18

Complete program electives specified here . . . . . 12-19

Complete program minimum hours to total . . . . . 30

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 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 -- Each student must pass qualifying examinations in three of five areas selected from chemistry content (analytical, biological, inorganic, organic or physical chemistry). 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."

#### Research Credits -- 5-12 semester hours

Required:

CHEM 600 Seminar in Chemistry (2)

and either

CHEM 695 Thesis Proposal (1)

CHEM 699 Thesis (6)

or

CHEM 693 Chemical Research (3-10)

or

CHED 693 Chemical Education Research (3-10)

**Note:** Students must meet a physical chemistry requirement if not previously taken. CHEM 551, CHEM 552, CHEM 453 and CHEM 454 may be taken to meet this requirement.

#### Chemistry Elective Credits -- minimum 6 semester hours

CHEM 520 Theory and Use of Analytical Instruments (1)

CHEM 522 Advanced Analytical Chemistry (3)

CHEM 523 Chemical Spectroscopy (3)

CHEM 533 Organic Synthesis and Stereochemistry (3)

CHEM 534 Theory and Mechanisms of Organic Reactions (3)

CHEM 543 Organometallic Chemistry (3)

CHEM 556 Physical Chemistry of Atomic and 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 586 Biochemical Techniques (3)

CHEM 587 Toxicology (3)

CHEM 590 Advanced Topics in Chemistry (3)

#### Pedagogy Credits -- minimum 6 semester hours

Required:

CHED 682 Problems in Teaching Chemistry (3)

EPSY 540 Theories and Principles of Learning (3)

Electives

EDEL 619 Pluralism in Education (3)

EDSE 501 The Exceptional Learner (3)

EPSY 674 Measurement I: Educational Testing (3)

ET 503 Computers in Education (3)

SRM 600 Introduction to Graduate Research (3)

Courses may be taken with the approval of the candidate's graduate advisor in the natural sciences, mathematics, computer science, education, etc., as necessary to broaden the candidate's background. For students with limited experience in using computers, SCI 591, Computer Applications in Science and SCI 593, The Computer in the Science Classroom, are recommended.

**Notes:** Students completing a thesis must successfully defend the thesis.

All students must successfully complete comprehensive examinations in both chemistry and chemical education.

**CHEMISTRY, M.A.**

## Research Emphasis

**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, CHEM 552, CHEM 453 and CHEM 454 may be taken to meet this requirement.

Qualifier Examinations -- Each student must pass qualifying examinations in three of five areas selected from chemistry content (analytical, biological, inorganic, organic or physical chemistry). 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."

**Research Credits — 12 semester hours**

CHEM 600 Seminar in Chemistry (2)

CHEM 695 Thesis Proposal (1)

CHEM 699 Thesis (9)

**Chemistry Elective Credits — minimum of 12 semester hours**

CHEM 520 Theory and Use of Analytical Instruments (1)

CHEM 522 Advanced Analytical Chemistry (3)

CHEM 523 Chemical Spectroscopy (3)

CHEM 533 Organic Synthesis and Stereochemistry (3)

CHEM 534 Theory and Mechanisms of Organic Reactions (3)

CHEM 543 Organometallic Chemistry (3)

CHEM 556 Physical Chemistry of Atomic and 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 586 Biochemical Techniques (3)

CHEM 587 Toxicology (3)

CHEM 590 Advanced Topics in Chemistry (3)

CHEM 622 Directed Studies (1-3)

**General Electives — 0-6 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).

**COMMUNICATION, M.A.**Human Communication: Non-Thesis Option  
Emphasis**Program Requirements**

Complete the required credits specified here . . . . . 18

Complete program electives specified here . . . . . 15

This program focuses on the study of spoken symbolic interaction. Students will emphasize coursework relevant to rhetorical and communication theory, interpersonal and group communication, and communication research methods.

Successful completion of this program will help persons advance current professional careers, prepare themselves for careers in business and industry requiring expertise in human communication or prepare themselves for a Ph.D. program in speech communication.

**Required Credits — 18 semester hours***Communication Core*

SPCO 600 Graduate Study in Communication (3)

SPCO 601 Qualitative Methods in Communication Research (3)

SPCO 602 Quantitative Methods in Communication Research (3)

SPCO 605 Rhetorical Criticism (3)

and select one of the following two courses:

SPCO 504 Rhetorical Theory (3)

SPCO 603 Communication Theory (3)

and select one of the following two courses:

SPCO 514 Interpersonal Communication (3)

SPCO 515 Group Communication (3)

**Required Elective Credits — 15 semester hours**

500- and/or 600-level coursework

**Notes:** Select any electives with SPCO prefixes. One elective course may be from a related discipline with the approval of your advisor. Students must adhere to the Graduate School policy on double-numbered courses.

Graduates are required to have a minimum of 48 graduate and undergraduate credit hours in the discipline for graduation. Possible deficiencies will be determined after review of the undergraduate transcripts.

All graduate students must pass written and oral comprehensive examinations before graduation. Students may apply for comprehensive examinations after completion of 24 semester hours, all undergraduate requirements and all required courses.

Students selecting the non-thesis option should be aware that this requires three more hours than the thesis option.

A maximum of 9 semester hours, individually or in combination, of courses numbered 508, 513, 561, or 622 may be counted toward the master's degree.

## COMMUNICATION, M.A.

### Human Communication: Thesis Option Emphasis

#### Program Requirements

Complete the required credits specified here .....	24
Complete program electives specified here .....	6

This program focuses on the study of spoken symbolic interaction. Students will emphasize coursework relevant to rhetorical and communication theory, to interpersonal and group communication, and communication research methods.

Successful completion of this program will help persons advance their current professional careers, prepare themselves for careers in business and industry requiring expertise in human communication or prepare themselves to apply for a Ph.D. program in speech communication. The thesis option is recommended for students considering additional graduate study.

#### Required Credits — 24 semester hours

##### *Communication Core*

SPCO 600 Graduate Study in Communication (3)

SPCO 601 Qualitative Methods in Communication Research (3)

SPCO 602 Quantitative Methods in Communication Research (3)

SPCO 605 Rhetorical Criticism (3)

*and select one of the following two courses*

SPCO 504 Rhetorical Theory (3)

SPCO 603 Communication Theory (3)

*and select one of the following two courses*

SPCO 514 Interpersonal Communication (3)

SPCO 515 Group Communication (3)

##### *Thesis*

SPCO 699 Thesis (6)

#### Required Elective Credits — 6 semester hours

500- and/or 600-level coursework

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

**Notes:** Select any electives with SPCO prefixes. One elective course may be from another discipline with the approval of your advisor. Students must adhere to the Graduate School policy on double-numbered courses.

Graduates are required to have a minimum of 45 graduate and undergraduate credit hours in the discipline for graduation. Possible deficiencies will be determined upon review of the undergraduate transcript.

All graduate students must pass written and oral comprehensive examinations before graduation. Students may apply for comprehensive examinations after completion of 24 semester hours, all undergraduate requirements and all required courses.

A maximum of 9 semester hours, individually or in combination, of courses numbered 508, 513, 561 or 622 may be counted toward the master's degree.



## EARTH SCIENCES, M.A.

### 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

ESCI 599 Seminar in Earth Sciences — minimum of (2)

ESCI 600 Introduction to Earth Science Research (2)

ESCI 695 Special Topics in Earth Sciences (2)

ESCI 699 Thesis (6-10)

#### Thesis Option Elective Credits — 14-18 hours

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

#### Non-Thesis Option Required Credits — 8-12 hours

ESCI 599 Seminar in Earth Sciences — minimum of (2)

ESCI 600 Introduction to Earth Science Research (2)

ESCI 695 Special Topics in Earth Sciences (2)

ESCI 697 Graduate Research (2-6)

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

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

AST 500 Survey of Astronomy (3)

AST 595 Special Topics in Astronomy (1-4)

AST 622 Directed Studies (1-4)

ESCI 550 Strategies in Teaching in Earth Sciences (1)

ESCI 584 Earth Sciences Field Experiences (1-15)

GEOL 510 Groundwater Geology (2)

GEOL 521 Optical Mineralogy and Petrography (4)

GEOL 525 Economic Geology (3)

GEOL 533 Sedimentary Petrology (2)

GEOL 535 Tectonics (2)

GEOL 540 Paleontology (4)

GEOL 550 Sedimentology and Stratigraphy (4)

GEOL 560 Geomorphology (3)

GEOL 564 Glacial and Quaternary Geology (3)

GEOL 567 Volcanic Geology (3)

GEOL 581 Geologic Field Techniques (2)

GEOL 582 Geology Field Camp (6)

GEOL 590 Rocky Mountain Geology Seminar (2)

GEOL 595 Special Topics in Geology (1-4)

GEOL 622 Directed Studies (1-4)

MET 500 Survey of Meteorology (3)

MET 507 Dynamic Meteorology II (4)

MET 521 Climatology (3)

MET 536 Biometeorology (3)

MET 541 Synoptic Meteorology (3)

MET 542 Synoptic Meteorology Laboratory (2)

MET 570 Satellite Meteorology (3)

MET 595 Special Topics in Meteorology (1-4)

MET 622 Directed Studies (1-3)

OCN 500 Survey of Oceanography (3)

OCN 622 Directed Studies (1-4)

SCED 671 Elementary and Middle School Science Curriculum (3)

SCED 678 Science Education Seminar (1-2)

SCED 680 Science Curricula in Secondary/College Settings (3)

**Notes:** Other electives, including courses in supporting sciences, mathematics and science pedagogy, may be included with approval of the student's graduate studies committee.

Students must complete all Graduate School requirements as described elsewhere in this Catalog.

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.

## ENGLISH, M.A.

### Program Requirements

Complete the required course specified here . . . . . 3

Complete program electives specified here . . . . . 33

The master's degree program provides focused, in-depth study of literature, practical experiences in literary criticism and research and opportunities for advanced levels of writing. Judicious selection of courses under the guidance of the student's advisor may provide additional focus to the program through special course clusters in areas such as pedagogy, literary theory, or specific periods of interests.

Graduates of the program will be prepared to enter a wide range of fields and/or to pursue additional advanced levels of study such as the Ph.D. in English. The program enables teachers currently in the field to develop special areas of interest, to pursue these in depth, and to enhance their skills in teaching, research, and writing. In addition, graduates can pursue professional study in law, theology, medicine (with appropriate science and mathematics preparation), library science, communications, media, and business. The M.A. in English is excellent preparation for any profession or occupation that stresses language usage, such as writing.

#### Required Credits — 3 semester hours

ENG 600 Introduction to Graduate Study (3)

#### Required Elective Credits — 33 semester hours

A minimum of six courses must be selected from ENG 600-level offering (27)

*Additionally, all students must choose one of the following options:*

- a traditional thesis;
- a creative project, such as a novel or a collection of poetry;
- an additional six semester hours (two ENG 600-level seminars).

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

**FOREIGN LANGUAGES, M.A.****Spanish Teaching Emphasis****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
- by combining summer work with regular academic year program offerings.

Students are required to complete 20 semester hours of coursework within the Department of Hispanic Studies in Spanish and 10 semester hours of coursework outside of the department in areas of pedagogy and civilization and culture. The 20 within the department consist of courses in the following categories:

- 16 hours in language, literature and civilization
- 4 hours in foreign language workshops and/or practica.

**Required Credits — 10 semester hours**

FL 508 Workshop (2)

FL 531 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)

*Literature (select one of the following):*

- SPAN 550 Masterpieces of Spanish Literature (3)
- SPAN 551 Masterpieces of Latin American Literature (3)
- SPAN 570 Readings in United States Hispanic Literature (1-3)
- SPAN 571 Readings in Spanish Literature (1-3)
- SPAN 572 Readings in Latin American Literature (1-3)

*Language (select one of the following):*

- SPAN 501 Spanish Grammar (3)
- SPAN 502 Spanish Composition (3)
- SPAN 505 Spanish Phonetics and Dialects (3)
- SPAN 507 Spanish for Oral Proficiency (3)
- SPAN 580 Grammar Topics (1-3)\*
- SPAN 582 Spanish for Oral Proficiency (2)
- SPAN 584 Spanish Pronunciation and Dialects (2)

\* If offered

**Required Elective Credits within the Department — 10 semester hours**

In addition to the required core of courses, the student is to select 10 additional hours from the graduate level courses offered during the regular academic year or from the courses listed below, which are offered on a rotating basis during summers only.

*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 (3)
- 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)

**Required Elective Credits outside the Department — 10 semester hours**

Students are required to complete 10 semester hours of courses outside of the department in the areas of pedagogy and civilization and culture. Courses selected must relate logically to the teaching of Spanish. A minimum of two courses in each area will be chosen with the consent of the major advisor.

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

# HISTORY, M.A.

## 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 course numbered 500 or 600 with a HIST prefix. Additionally, students are permitted to take up to nine hours of history courses that are double-numbered, i.e. 300/500 or 400/500.

**Notes:** Candidates for the M.A. in history should consult with the chair of the history department and the departmental graduate coordinator as soon as possible during the first semester of graduate work so that a major field advisor may be assigned. A plan of study will be approved by the advisor and the graduate coordinator. Candidates, in consultation with the major field advisor, will select two other department members who together will constitute the candidate's examining committee. Candidates are urged to consult frequently with the faculty who compose their committee.

Each candidate for the master's degree will receive in his or her first week on campus a departmental "packet," containing a description of the program, a reading list to be mastered before the taking of the comprehensive examination or the thesis oral and a bank of comprehensive examination questions.

### Thesis Option

A minimum/maximum of six hours may be earned in HIST 699 by writing a thesis on a subject that falls within the student's concentration. At least 15 hours of coursework, in addition to the six thesis hours, must be concentrated in one of the following areas: United States; European; Africa/Asia/ and Latin American history. The remaining six hours in history that round out the candidate's program should be taken from outside the concentration area. Research and writing of a thesis precludes comprehensive examinations. An oral examination will be held after the student's major professor has accepted the thesis for presentation to the candidate's committee. Students will be responsible on the oral for a mastery of their field, including the reading list they have received during their first week in the program.

Candidates have one opportunity to retake a failed oral examination. At least one full semester must elapse between the failure of the first examination and the reexamination. A failing grade on the second examination will eliminate the student from the master's degree program in history.

### Non-Thesis Option

Candidates must concentrate fifteen hours of coursework in one of the following areas: American History, European History, African/Asian/Latin American History. The area chosen will become the student's major field. Twelve additional hours of history courses at the 500/600 level, or up to nine hours at the 300/500 or 400/500 levels plus three hours at the 500/600 level, must be completed outside the student's concentration area.

Students who elect this option are required to pass written and oral examinations in their concentration area. The written examination will be three hours in length and may be taken no earlier than the second semester of graduate study. Within two weeks of the written examination, candidates receiving a passing grade from each member of their examining committee on the comprehensive will be examined orally, usually for two hours, over the concentration. Students will be responsible on the oral for a mastery of their field of study, including the reading list they have received during their first week in the program.

Candidates have one opportunity to retake a failed written or oral examination. At least one full semester must elapse between the failure of the first examination and the re-examination. A failing grade on the second examination will eliminate the student from the master's degree program in history.

### Comprehensive and Thesis Fields In History:

European	United States	Africa/Asia/Latin American
Ancient Medieval Early Modern Modern	Colonial Period to the Present	Comprehensive or thesis to be developed with candidate's graduate advisor and committee.

**Notes:** Candidates must obtain a permit from the Department of History allowing them to take their comprehensive or thesis/oral examination. The student must return the permit to the department office no later than the end of the sixth week of the semester in which the examination will be taken. At this time a specific date will be set by the department chair with the advice of the candidate's major professor and committee.

The maximum credit that may be earned in HIST 622, Directed Studies, is six hours. Candidates must obtain prior approval and the signatures of their advisor and the department chair before enrolling.

The minimum/maximum credit that may be earned in HIST 699, "Thesis," is six hours.

Only nine hours of designated double numbered courses (300/500) may be applied to the master's degree program.

All students will be examined orally by a department committee during 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. Decreasing 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.

**MATHEMATICS, M.A.**

## Liberal Arts Emphasis

**Program Requirements**

Complete the required credits specified here . . . . . 17

Complete program electives specified here . . . . . 13

The foci of this program are the core areas of algebra and analysis with specialization or breadth available through electives.

A graduate of this program may continue graduate work in mathematics or some other discipline such as statistics. A graduate may also enter a career making use of the knowledge and skills developed in the selected courses; career potential exists in industrial settings, business and governmental service.

**Admission**

In addition to meeting the admission requirements of the Graduate School, students must have:

- an undergraduate major in mathematics
- an essay of approximately 500 words addressing their interest in the Master of Arts in Mathematics: Emphasis in Liberal Arts degree program and their educational goals.

**Required Credits — 17 semester hours**

MATH 510 Seminar in Mathematics (1)\*

MATH 523 Modern Algebra (3)

MATH 525 Linear Algebra I (3)

MATH 540 Introduction to Topology (3)

MATH 545 Introductory Analysis (3)

MATH 560 Introductory Complex Variables (3)

**Required Elective Credits — 13 semester hours**

Electives must have the approval of the advisor. Electives must be selected from 500-600 level MATH or STAT courses not including those designed for the Master of Arts: Teaching Emphasis (Exception: One of MATH 528 or MATH 529 may be selected as an elective).

**Notes:** \*Two semester hours of MATH 510 satisfy the Graduate School requirement, Introduction to Graduate Studies.

The departmental comprehensive examination will consist of two-two hour written examinations over the required sequences MATH 523 - MATH 525 and MATH 540 - MATH 545. An oral examination over the program up to two hours in length will be given upon successful completion of the written comprehensive.

**MATHEMATICS, M.A.**

## Teaching Emphasis

**Program Requirements**

Complete the required credits specified here . . . . . 15

Complete program electives specified here . . . . . 15

This program is designed to prepare teachers to be experts in their own classroom. Upon finishing this program they should be able to teach the content of mathematics, assume leadership roles in mathematics curriculum within their schools, and read and understand the professional literature relating to the teaching and learning of their discipline. The emphasis is on preparing teachers for the 21st century with a dynamic and individualized program of study.

**Admission**

Generally a B.A. in mathematics or mathematics education with strong mathematics courses is required for admission to this program. Students without the B.A. in mathematics are advised to consult the department for a list of recommended undergraduate courses they should take before entering the program.

Students must submit an essay of approximately 500 words addressing their interest in the Master of Arts: Emphasis in Teaching Program and their educational goals.

**Required Credits — 15 semester hours**

MATH 528 Discrete Mathematics (3)

MATH 534 Continuous Mathematics (3)

MATH 543 Modern Geometry (3)

MED 600 Introduction to Research in Mathematics Education (3)

MATH 550 Applied Probability and Statistics (3)

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

**Elective Credits — 15 semester hours**

At least five semester hours must be selected from group A and at least six semester hours must be selected from group B.

**Group A**

MATH 520 Functions and Equations (3)

MATH 521 Vectors and Matrices (2)

MATH 529 Mathematical Problem Solving (2)

MATH 537 Mathematical Modeling (3)

MATH 591 Abstract Algebra and Number Theory (3)

**Group B**

MED 528 Teaching of Discrete Mathematics (2)

MED 534 Teaching Algebra and Trigonometry (2)

MED 543 Teaching Geometry (2)

MED 550 Teaching Applied Probability and Statistics (2)

MED 595 Teaching Advanced Topics in Secondary School Mathematics (2)

MED 673 Teaching and Learning Mathematics on the Elementary Level (3)

MED 674 Teaching and Learning Mathematics on the Secondary Level (3)

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.

## PSYCHOLOGY, M.A.

### General Psychology Emphasis

#### 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. In recent years, the majority of the graduates from this program have entered doctoral programs in psychology.

#### Admission

In addition to meeting the admission requirements of the Graduate School, the student must complete the Graduate Record Examination and submit the scores before admission into the program.

#### Required Credits — 35 semester hours

SRM 603 Statistical Methods II (3)  
 SRM 610 Statistical Methods III (3)  
 PSY 550 Cognitive Development (3)  
 PSY 590 Seminar in History and Systems (3)  
 PSY 600 Graduate Research Methodology (3)  
 PSY 620 Assessment and Interviewing (2)  
 PSY 625 Principles of Neuropsychology (3)  
 PSY 627 Psychometrics (3)  
 PSY 643 Theories of Motivation (3)  
 PSY 664 Advanced Social Psychology (3)  
 PSY 699 Thesis (6)

#### Elective Credits — 3 semester hours

(to complete minimum of 38 semester hours in the program)

EPSY 530 Life Span Developmental Psychology (3)  
 EPSY 630 Child and Adolescent Psychology (3)  
 EPSY 631 Psychology of Youth, Adulthood and Aging (3)  
 EPSY 684 Advanced Seminar in Human Development (3)  
 EPSY 685 Advanced Seminar in Learning and Cognition (3)  
 PPSY 558 Abnormal Psychology (3)  
 PPSY 607 Theories of Counseling (3)  
 PPSY 657 Legal and Ethical Aspects of Counseling and Psychology (3)  
 PPSY 660 Psychological Consultation: Theory and Practice (3)  
 PSY 582 Behavioral Genetics (3)

## PSYCHOLOGY, M.A.

### Human Neuropsychology Emphasis

#### Program Requirements

Complete the required courses specified here .....33

Complete program electives specified here .....3

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. In recent years, the majority of the graduates from this program have entered doctoral programs in psychology.

#### Admission

In addition to meeting the admission requirements of the Graduate School, the student must complete the Graduate Record Examination and submit the scores before admission into the program.

#### Required Credits — 38 semester hours

SRM 603 Statistical Methods II (3)  
 SRM 610 Statistical Methods III (3)  
 PSY 550 Cognitive Development (3)  
 PSY 600 Graduate Research Methodology (3)  
 PSY 620 Assessment and Interviewing (2)  
 PSY 625 Principles of Neuropsychology (3)  
 PSY 626 Introduction to Neuropsychological Assessment (3)  
 PSY 627 Psychometrics (3)  
 PSY 643 Theories of Motivation (3)  
 PSY 664 Advanced Social Psychology (3)  
 PSY 680 Neuroscience Seminar (3)  
 PSY 699 Thesis (6)

**SOCIAL SCIENCE, M.A.**

## Clinical Sociology Emphasis

**Program Requirements**

**Required Sociology credits** ..... 27  
**Required elective credits** ..... 6

**Program Requirements**

**Required Sociology credits** ..... 27  
**Required elective credits** ..... 6

The master's program in clinical sociology emphasizes the application of social science knowledge to various problems experienced by communities, agencies, governmental bodies and businesses. The emphasis of the program is on providing students with social science knowledge and skills which are applicable to solving problems in the above organizations. The program culminates in an internship and a research project resulting in a professional research report.

**Admission**

In addition to meeting the requirements of the Graduate School students must submit a letter of application outlining their educational and career goals they must also provide two letters of recommendation

**Required Sociology Credits — 27 semester hours**

SOC 530 Organizational Analysis (3)  
 SOC 532 Social Psychology and Group Dynamics (3)  
 SOC 539 Seminar in Clinical Sociology (3)  
 SOC 552 Applied Social Theory (3)  
 SOC 580 Social Policy Analysis (3)  
 SOC 660 Applied Social Research (3)  
 SOC 691 Research Internship (6)  
 GERO 665 Grant Development and Administration (3)

**Elective Credits — 6 semester hours**

Elective credits may be any advisor approved 500 or 600 numbered courses and may not have a SOC prefix.

**Professional Research Report Options:**

Courses required for this option are listed above. The professional research report is completed in conjunction with SOC 691 Research Internship. Candidates should consult with the departmental graduate coordinator as soon as possible during the first semester of work so that they can be assigned an advisor. In consultation with their advisor, the committee chair, they should choose another department member to be on their committee. These faculty members plus the internship site supervisor serve as the student's committee which directs the research project, the professional research report and the oral examination over the research. Candidates are urged to consult frequently with the members of their committee.

**Thesis Option:**

The thesis option requires 6 thesis credits, SOSC 699. Thesis credit may be substituted for elective credits and/or for three research internship credits. The thesis option also includes an oral defense of the thesis. The option is primarily for students who wish to continue their graduate work, in another program, toward the Ph.D. students who are interested in this option should consult with the graduate coordinator as soon as possible.

## DOCTOR OF PHILOSOPHY (PH.D.)

### BIOLOGICAL EDUCATION, PH.D.

#### Program Requirements

Complete required research core specified here . . . . .	23-33
Complete program pedagogical electives specified here . . . . .	11-19
Complete program content electives specified here . . . . .	20-21
Complete program minimum hours to total . . . . .	64

This program is designed for graduate students interested in post-secondary discipline-based education in the biological sciences. Areas of emphasis prepare students to conduct and to supervise discipline-based pedagogical research at the university or college level or in content instruction at the two- and four-year college level.

#### Admission

Students must have completed 30 semester hours in the biological sciences and 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 Chair of the Biological Sciences department:

- a letter of intent including research/teaching interest and goals
- three letters of recommendation
- GRE scores (Biology scores optional).

#### Required Research Core — 23-33 semester hours

- BIO 690 Invited Topics in Biological Sciences (0.5)
  - BIO 691 Seminar in Biological Sciences (0.5)
  - BIO 792 Doctoral Supervised Teaching (4)
  - BIO 797 Doctoral Research Proposal (4)
  - BIO 799 Doctoral Dissertation (12)
  - \*SRM 502 Applied Statistics (4)
  - \*SRM 700 Advanced Research Methods (3)
- and select one of the following two courses:
- BIO 694 Foundations of Biological Research (2)
  - SCED 694 Science Education Research (3)

\*May be waived depending on course background of the student.

#### Pedagogical Elective Credits — 11-13 semester hours

- SCED 678 Science Education Seminar (1-2)
- SCED 680 Science Curricula in Secondary/College Settings (3)
- EPSY 540 Theories and Principles of Learning (3)
- SCI 591 Computer Applications in Science (2)
- BIED 682 Problems in Teaching College Biology (3)

#### Content Elective Credits — 20-21 semester hours

- Basic Electives — 8 semester hours (maximum)
- BIO 525 Molecular Genetics (3)
- BIO 550 Cell Physiology (4)
- BOT 530 Plant Taxonomy (4)
- BOT 533 Morphogenesis of Algae and Fungi (4)
- BOT 540 Anatomy and Morphogenesis of Plants (4)
- BOT 550 General Plant Physiology (4)
- ZOO 533 General Parasitology (4)
- ZOO 534 Mammalogy (4)
- ZOO 535 Survey of Fishes, Amphibians and Reptiles (4)

**Note:** All of the above courses are double-numbered. Courses in the support sciences may also be included with approval of the graduate committee.

#### Advanced Electives — 13-14 semester hours (minimum)

- BIO 545 Cytology (3)
- BIO 569 Conceptual Issues in Evolution (2)
- BIO 621 Advanced Genetics (3)
- BIO 655 Advanced Microbiology (4)
- BIO 662 Human Ecology (3)
- BOT 560 Plant Ecology (4)
- BOT 575 Fungal Diseases of Plants (4)
- BOT 655 Advanced Plant Physiology (3)
- ZOO 542 Vertebrate Histology (4)
- ZOO 551 Mammalian Physiology I (4)
- ZOO 552 Mammalian Physiology II (4)
- ZOO 560 Animal Ecology (4)
- ZOO 636 Advanced Invertebrate Zoology (4)
- ZOO 645 Comparative Vertebrate Adaptations (4)

**Notes:** The student must meet with a graduate advisor and graduate committee no later than the second semester of the program to determine a course of study. Electives must be selected to insure 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.

## CHEMICAL EDUCATION, PH.D.

### Program Requirements

Complete the research component specified here	29
Complete chemistry component specified here	12
Complete the pedagogy component specified here	7
Complete program electives to total	64

This program prepares versatile, well-informed chemistry teachers by providing advanced training for chemistry teachers or chemists who wish to pursue educational opportunities beyond the master's degree. Students completing this program are qualified to work in the chemical education field at a variety of levels; such as, science coordinator or supervisor in the secondary school, chemistry instructor at two- and four-year colleges or chemistry educators at a university. At the professional level, program graduates are qualified to do fundamental research in chemical education and to direct chemistry research at the undergraduate level.

### Master's in route to the Ph.D.

Students who have been admitted to the Ph.D. in Chemical Education program may complete a master's degree in Chemistry en route to completion of the doctoral degree. A request for a simultaneous master's degree in a discipline other than Chemistry will not be accepted. The student, in collaboration with the student's advisor, will develop a plan of study that includes clearly distinct master's and doctoral requirements. The student must graduate from the master's degree program a minimum of one semester prior to conferring of the doctoral degree. The maximum time allowed for completion of the doctorate is eight calendar years beginning with the student's first semester of enrollment after admission has been granted.

### Admission

In addition to meeting the admission requirements of the Graduate School, students should have completed requirements of an ACS-certified baccalaureate degree in chemistry. If these requirements are not met, students may be provisionally admitted to the program. Deficiencies are to be removed early in the program.

### General Requirements

**Qualifier Examinations** — Each student must pass qualifying examinations in three of five areas selected from chemistry content (analytical, biological, inorganic, organic or physical chemistry). Students will have two opportunities to pass each area exam. Qualifier examinations are scheduled during the week preceding the beginning of classes each semester. If an examination is failed, the requirement may be satisfied by completing designated undergraduate coursework in the appropriate subdiscipline with a minimum grade of "B."

Students entering the program with a master's degree are required to complete 64 credit hours. Students entering the program with a bachelor's degree are required to complete 94 credit hours.

**Comprehensive Examinations** — Students must pass written and oral comprehensive examinations in chemical education and in two of five chemistry content areas (analytical, biological, inorganic, organic or physical chemistry).

### Research Component — minimum 29 hours

*Required research core:*

- CHEM 793 Doctoral Research Practicum-Chemistry (1-4)
- or
- CHED 793 Doctoral Research Practicum-Chemical Education (1-4)
- SCED 694 Science Education Research (3)
- SRM 610 Statistical Methods III (3)
- and
- SRM 502 Applied Statistics (4)
- or
- SRM 603 Statistical Methods II (3)

*Required research - Select one course from each of the following:*

- CHEM 600 Seminar in Chemistry (1)
- and
- CHEM 693 Chemical Research (1-10)
- or
- CHED 693 Chemical Education Research (1-10)

and

CHEM 797 Doctoral Research Proposal-Chemistry (4)

or

CHED 797 Doctoral Research Proposal-Chemical Education (1-4)

and

CHEM 799 Doctoral Dissertation - Chemistry(12)

or

CHED 799 Doctoral Dissertation-Chemical Education (1-12)

*Additional electives as stipulated in Plan of Study:*

- CHED 793 Doctoral Research Practicum-Chemical Education (1-4)
- CHEM 793 Doctoral Research Practicum-Chemistry (1-4)
- SRM 731 Multivariate Analysis (3)
- SRM 670 Evaluation: Models and Designs (3)
- SRM 770 Evaluation: Advanced Methods (3)
- SRM 680 Introduction to Qualitative Research (3)
- SRM 700 Advanced Research Methods (3)

*Advanced research methods - one of the following:*

SRM 700 Advanced Research Methods (3)

or

SCED 694 Science Education Research (3)

**Research tools** - Students must demonstrate research skills in areas pertinent to the dissertation research topic. The student's competence in these skills will be assessed by the student's dissertation committee members. The skills may include statistical analysis, analytical instrument operation, background and experience in both field-based and quantitative studies in chemical education research, current technology in education and collateral fields of study such as mathematics, computer science, biology and physics. Courses which are recommended to assist in the development of these skills include SCED 694, CHEM 520, SRM 610 and either SRM 502 or SRM 603, Departmental Graduate Committee-approved courses in one or more of the following areas: educational technology, statistics and chemistry/chemical education research (CHEM 693, CHED 693, CHEM 793 or CHED 793), and collateral fields of study (computer science, mathematics, biology and physics).

### Chemistry Component — minimum 12 hours

- CHEM 520 Theory and Use of Analytical Instruments (1)
- CHEM 522 Advanced Analytical Chemistry (3)
- CHEM 523 Chemical Spectroscopy (3)
- CHEM 533 Organic Synthesis and Stereochemistry (3)
- CHEM 534 Theory and Mechanisms of Organic Reactions (3)
- CHEM 543 Organometallic Chemistry (3)
- CHEM 551 Physical Chemistry I (4)
- CHEM 552 Physical Chemistry II (4)
- CHEM 556 Physical Chemistry of Atomic and 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 586 Biochemical Techniques (3)
- CHEM 587 Toxicology (3)
- CHEM 590 Advanced Topics in Chemistry (3)
- CHEM 622 Directed Studies (1-3)

### Pedagogy Component — minimum 7 hours

*Required — 7 semester hours*

- CHED 682 Problems in Teaching Chemistry (3)
- CHED 755 Supervised Practicum in College Teaching (4)

*Electives*

- EPSY 540 Theories and Principles of Learning (3)
- EPSY 674 Measurement I: Educational Testing (3)
- EPSY 675 Measurement II: Advanced Techniques (3)
- EPSY 682 Cognition and Instruction (3)
- SCED 678 Science Education Seminar (1-2)
- SCED 680 Science Curricula in Secondary/College Settings (3)
- SRM 670 Evaluation: Models and Designs (3)
- SRM 770 Evaluation: Advanced Methods (3)
- ET 502 Instructional Design (3)
- ET 503 Computers in Education (3)
- ET 602 Instructional Analysis and Design (3)
- ET 627 Computer Assisted Instruction Authoring Systems (3)



**ET 702 Instructional Design Theory and Research (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 without a master's degree must take a minimum of 24 hours in the Chemistry Component, 16 hours in the Pedagogy Component, and a minimum of 38 hours in the Research Component (all required hours and electives).

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 submit it for publication in a refereed journal as a requirement for this degree.

## EDUCATIONAL MATHEMATICS, PH.D.

### Program Requirements

Complete content courses and seminars in mathematics specified here	26
Complete courses and seminars in education specified here	22
Complete dissertation work	16
Additional electives	6
Complete research tool requirements to total	70

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.

### Master's Degree in route to the Educational Mathematics, Ph.D.

Students may apply for admission to the Ph.D. in Educational Mathematics and complete their M.A. in Mathematics with either a Liberal Arts Emphasis or Teaching Emphasis on the way to completion of the doctoral program. Once admitted, the student will work closely with their academic advisor to develop a Plan of Study that meets both M.A. and Ph.D. program requirements. Students must complete all program requirements for the M.A. in addition to the hours required for the Ph.D. Students must be conferred with the M.A. degree prior to admission to doctoral candidacy.

#### 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. Required Courses - 14 hours

- MATH 609 Abstract Algebra I (3)
- MATH 623 Abstract Algebra II (3)
- MATH 632 Complex Variables (3)
- MATH 635 Real Analysis (3)
- MATH 700 Advanced Seminar (2)

##### B. Minimum of 12 hours chosen from the following courses:

- MATH 633 Geometric Analysis (3)
- MATH 664 Difference Equations and Chaos (3)
- MATH 678 Mathematical Logic (3)
- MATH 691 Number Theory (3)
- MATH 695 Special Topics (3)
- MATH 727 Representation Theory (3)
- MATH 728 Topics in Discrete Mathematics (3)
- MATH 736 Real Analysis II (3)

At most, one of the following may be included:

- MATH 525 Linear Algebra I (3)
- MATH 529 Mathematical Problem Solving (2)
- MATH 540 Introduction to Topology (3)

#### Educational Core — 22 semester hours (minimum)

##### A. Required Courses — 16 hours

Research Core. The four courses MED 610, MED 700, MED 701 and MED 702 constitute the required 12-hour research core. The content of these courses forms the main portion of the material for the mathematics education portion of the comprehensive examination.

- MED 610 Survey of Research in Mathematics Education (3)
- MED 700 Cognitive Processes in Mathematics (3)
- MED 701 Educational Mathematics Research (3)
- MED 702 Qualitative Research in Mathematics Education (3)

- MED 703 Teaching and Learning K-12 Mathematics (3)
- MED 710 Seminar in Post-Secondary Mathematics Teaching (1)

##### B. Elective Courses (Advisor must approve elective courses-6 hours)

- MED 622 Directed Studies (1-3)
- MED 630 Technology in Mathematics Education (2)
- MED 673 Teaching and Learning Mathematics on the Elementary Level (3)
- MED 674 Teaching and Learning Mathematics on the Secondary Level (3)
- MED 675 Teaching and Learning Mathematics on the Post-Secondary Level (3)
- MED 678 Special Topics in Mathematics Education (1-3)
- MED 750 History and Philosophy of Mathematics Education (3)
- MED 765 Mathematical Structures and Education (3)

#### Dissertation — 16 semester hours

- MATH 797 Doctoral Research Proposal (4)
- MATH 799 Doctoral Dissertation (12)

#### Additional Electives — 6 hours

Electives in this category can include any approved 600 or 700 level courses or any two approved additional 500 level courses. Courses taken for one of the two research tools may be counted for these electives.

#### Research Tools

Credits to satisfy the first research tool count as elective hours for the 70 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

This tool consists of three courses: SRM 502, either SRM 608 or SRM 610 and MED 701

SRM 502 Applied Statistics (4) (or approved equivalent)

SRM 608 Experimental Design (3) (or approved equivalent) or SRM 610 Statistical Methods III (3)

##### MED 701 Educational Mathematics Research (3)

#### Select One Additional Tool

B. *Qualitative Research Methods.* Student's doctoral committee will approve a combination of coursework (including at least SRM 680 and MED 702) and experience (evaluated by the committee) to appropriately support the student's proposed dissertation research.

C. *Collateral Field.* Contact the departmental graduate coordinator for a detailed list of approved courses in cognition, instruction, measurement and evaluation, psychology and human development and curricula.

D. *Computer Science.* Student's doctoral committee will approve and evaluate a combination of advanced computer experience, proficiency and/or coursework only if relevant to the proposed dissertation research.

E. *Foreign Language.* Student's doctoral committee will approve and evaluate a combination of foreign language experience, proficiency and/or coursework only if relevant to the proposed dissertation research.

**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 consists of two parts: mathematics and mathematics education. The mathematics portion of the comprehensive examination will consist of a four-hour examination over either: a) the Math 635, Math 632 sequence or b) the MATH 609, MATH 623 sequence. The mathematics education portion will consist of a four-hour examination over the material in the research core (MED 610, MED 700, MED 701 and MED 702) and a list of required readings. The oral examination will be given upon successful completion of the written examination and will cover the entire program of the candidate.

Students must receive a grade of "B" or better in both courses of the required mathematics sequence over which they do NOT take the comprehensive examination. A student who does not receive at least a "B" may, in lieu of repeating the course, elect to take an examination over that sequence.

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.

# THE KENNETH W. MONFORT COLLEGE OF BUSINESS (MCB)

## DEGREES AND PROGRAMS

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### OFFICE OF THE DEAN

**Location:** Kepner 2053      **Telephone:** (970) 351-2764

**Interim Dean:** Joe F. Alexander, D.B.A.

**Interim Associate Dean:** Gerald Shadwick, B.S., J.D.

The Kenneth W. Monfort College of Business 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, Marketing and General Business. The College also offers Minors in Business Administration and Computer Information Systems.

The College of Business was established in the summer of 1968 as an autonomous degree-recommending unit, with a primary mission to provide education for business administration.

Since that time, the College has become an integral part of the University and is committed to advancing the Mission, Goals and Values of UNC (as specified in earlier pages of this Catalog). The College's own mission statement has been developed to support that of the University.

### MISSION STATEMENT

The primary mission of the Kenneth W. Monfort College of Business is to provide high quality undergraduate *instruction* leading to a baccalaureate degree in business administration. The College's programs and faculty are committed to preparing students to function as effective and contributing members of the business and professional community. The College values, encourages, and supports the *scholarly* and *professional service* contributions of its faculty. These activities enrich instruction as well as serve the College's objective of preparing its graduates for entry into and advancement in business and in graduate degree programs.



### AACSB ACCREDITATION

The Monfort College is one of just six undergraduate-only programs in the U.S. to hold AACSB-accredited status in business administration and accounting. AACSB International (The Association to Advance Collegiate Schools of Business) is the premier accrediting agency for business school quality in the U.S. According to a recent Business Week article, "Today, just having the degree isn't as important as where you get it...As corporations become savvier buyers of...talent, they are giving more weight to the AACSB seal...Accreditation shows that a business school cares about the quality of its program." The Monfort College's programs have been AACSB-accredited since 1992.

### MCB ADVISING CENTER

**Location:** Kepner 1055      **Telephone:** (970) 351-1233

**Director:** Robert D. Elton, M.A., C.P.A., MCB Advising Center and Chair, General Business

**Student Specialist:** Mary Graves

The College of Business 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 MCB academic programs and departments. The Advising Center monitors all admissions, transfer credits and continuation requirements.

It administers the MCB Honors Programs for the College and also provides students with information on graduate study in Business Administration.

### ACCOUNTING DEPARTMENT

**Location:** Kepner 2090      **Telephone:** (970) 351-2855

**Chair:** John R. Stewart, Ph.D., C.P.A.

**Professors:** Hank Brown, M.L.L., J.D.; John E. Elsea, Ph.D., C.P.A.; Martha S. Lilly, Ph.D., C.P.A.; Allen W. McConnell, M.S., C.P.A.; Ronald O. Reed, Ph.D., C.P.A.; John R. Stewart, Ph.D., C.P.A.

**Associate Professors:** Bill D. Cox, Ph.D., C.P.A.; Theresa K. Gutierrez, Ph.D., C.P.A.

**Assistant Professors:** Robert D. Elton, M.A., C.P.A.; Ann B. Murphy, Ph.D., CMA, Richard I. Newmark, Ph.D., C.P.A.

### COMPUTER INFORMATION SYSTEMS DEPARTMENT

**Location:** Kepner 1095      **Telephone:** (970) 351-2089

**Chair:** Jay M. Lightfoot, Ph.D.

**Professors:** Charmayne B. Cullom, Ph.D.; William L. Duff, Jr., Ph.D.; Jay M. Lightfoot, Ph.D.; Robert M. Lynch, Ph.D.; Tod A. Sedbrook, Ph.D.

**Associate Professors:** Douglas E. White, Ph.D.

**Assistant Professors:** George E. Heilman, Ph.D.

Tointon Distinguished Professor: John A. Boose, M.B.A.

## FINANCE DEPARTMENT

Location: Kepner 1090 Telephone: (970) 351-2275

Chair: Garth H. Allen, B.B.A, J.D.

Professor: John M. Clinebell, D.B.A.

Associate Professor: Garth H. Allen, B.B.A, J.D.

Assistant Professors: Cris de la Torre, J.D.; Timothy E. Jares, Ph.D.; Rutilio Martinez, Ph.D.; Christine A. McClatchey, Ph.D.; Kenneth P. Moon, Ph.D., CCM

Monfort Distinguished Professor: Junius W. Peake

## GENERAL BUSINESS DEPARTMENT

Location: Kepner 1055 Telephone: (970) 351-1233

Chair: Robert D. Elton, M.A., C.P.A.

Assistant Professor: Keiko Krahnke, Ph.D.

## MANAGEMENT DEPARTMENT

Location: Kepner 1090 Telephone: (970) 351-2088

Chair: Daniel James Rowley, Ph.D.

Professors: Hank Brown, M.L.L., J.D.; Sharon K. Clinebell, D.B.A.; Karen L. Fowler, Ph.D.; D. Lynn Hoffman, Ph.D.; Daniel James Rowley, Ph.D.

Assistant Professor: Terry Stecher, Ph.D.

Monfort Executive Professor: Gerald Shadwick, B.S., J.D.

## MARKETING DEPARTMENT

Location: Kepner 2090 Telephone: (970) 351-2366

Chair: TBA

Professors: Joe F. Alexander, D.B.A.; R. "Vish" Vishwanathan Iyer, Ph.D.

Associate Professors: Nathan D. Kling, Ph.D.; James Reardon, Ph.D.

Assistant Professor: Linda K. Ferrell, Ph.D.

## BUSINESS MAJOR/MINOR REQUIREMENTS

### Admission Requirements

Freshman students are admitted to the College of Business major and minors if they unconditionally meet the Colorado Commission of Higher Education (CCHE) requirement for admission to a level II Colorado institution. At the time of publication, the admission requirement was set at a CCHE composite index of 98.

The CCHE composite index is a sliding scale based on achievement test score and high school rank. A 98 index score centers on an ACT score of 24 or SAT of 1070 and a high school GPA of 3.0. A 98 index score is maintained at lower test scores or high school GPA 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 major and minors 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 College of Business provided they meet the freshman admission requirements specified above.

International students are admitted to the College of Business if they meet the University admission requirements noted above and score 550 or higher on the TOEFL. International students can obtain additional information about admissions from the MCB Advising Center, (970) 351-1233.

### Coursework Requirements

The College requires that the 120 required credits of a Business major's coursework be split evenly between business and non-business courses (courses with and without a BA\_\_ prefix). To comply, a student must have completed a minimum of 60 business credits and 60 non-business credits in order to be eligible for graduation.

The College enforces prerequisites for enrollment in its business courses. Students should check the most current UNC Catalog for a list of course prerequisites being enforced.

The following business courses will not count toward the minimum of 120 credits needed for graduation: BA 100, BA 101, BA 251, BAFN 240 and BAMK 260.

### Change of Major/Minor Requirements

UNC students may change their major to business or may change from one business emphasis area to another provided that:

1. They have completed 30 semester hours of university level coursework with at least 15 semester hours at UNC. UNC students with less than 30 semester hours of university level coursework may change to a business major or minor provided that they have met the freshman entry requirement specified above for admission to MCB and are in good academic standing at UNC.
2. 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 MCB department offices and at MCB's Advising Center. Students must meet all departmental entrance requirements in effect at the time they apply for their business major or minor.

Students enrolled in the Fresh Start Program should contact MCB's Advising Center for information on program-specific policies regarding admission to MCB. The College of Business uses grades from all classes taken at UNC when computing the student's GPA.

### Graduation Requirements

To graduate with a baccalaureate degree in Business Administration a student must:

1. complete a minimum of 120 semester hours of University coursework.
2. satisfy the following requirements:
  - a. University requirements (e.g., General Education, etc.) *and*;
  - b. College of Business requirements (e.g., Required Major Credits, Elective Major Credits, Required Supporting Credits, etc.) *and*;
  - c. elective coursework to bring the total to at least 120 semester hours.
3. meet the following course distribution requirements: MCB requires that the 120 credits required of a Business major's coursework be split evenly between business and non-business courses (courses with and without a BA\_\_ prefix). To comply, a student must have completed a minimum of 60 business credits and 60 non-business credits in order to be eligible for graduation.
4. at least 50 percent of the credit hours in Business Administration required for the degree must be earned at UNC.
5. attain a 2.0 or greater cumulative Business GPA and attain at least a "C" grade in each course in the Business Administration Core. To graduate with a Business minor, a student must attain a 2.0 or greater cumulative business GPA or attain a grade of "C" or better in every course required for the minor. To graduate with a Computer Information Systems minor, a student must attain at least a "C" grade in each course required for the minor.

These requirements apply to the total credits required to complete a business degree, regardless of whether the courses were taken at UNC or in transfer.

## General Education Program Requirements

Students should be aware that the General Education Program at UNC requires a minimum of 40 semester credit hours selected from three skill areas and four content areas. At least 30 credit hours of these shall be taken in content areas (Categories 4-7).

## 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 MCB Advising Center for more information on the Second Bachelor's Degree option.

## 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 MCB's evening classes at the MCB Advising Center, Kepner 1055, phone (970) 351-1233.

## Continuation Requirements

A student who has attempted at least nine UNC credits in Business Administration courses must maintain a 2.00 grade point average in all business core and emphasis courses.

After attempting at least nine business core and emphasis credits at UNC, if a student's cumulative business grade point average falls below 2.00, the student will be placed on academic suspension and his/her business administration major terminated. The student immediately becomes an undeclared major, and his/her business class registration options are limited. If the student raises his/her cumulative GPA to 2.00 or better no later than at the end of the semester in which they have accumulated at least nine additional UNC business credits (may include retaking previous business courses with grades lower than "C"), the student is eligible for automatic readmission to their previous emphasis.

If a student's cumulative business GPA remains below a 2.00 after completing their next semester in residence (or their next nine or more business hours), the student will be denied automatic readmission. Such students may then appeal for readmission to the Dean through the MCB Advising Center. Readmission is not automatic, and the decision of the Dean is final.

## Enrollment in Business Administration Courses

Only students who have a declared major in business administration may count more than 30 semester credits in business administration (courses with a BA\_ \_ prefix) toward their graduation. For more information, please contact the MCB Advising Center, Kepner 1055, phone (970) 351-1233.

## 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. Transfer credit from other institutions will be evaluated for acceptance towards a UNC degree on an individual basis.

Each emphasis notes the limits on transfer credit. The College requires that at least 50 percent of the business credit hours required for the degree in Business Administration must be earned at UNC. In addition, no more than 12 semester hours of the Business Administration Core may be transferred in toward a Business Administration major or minor.

UNC Business majors who plan to earn credit toward their degree from another institution must obtain **prior** written approval from their department chair and the MCB Advising Center, Kepner 1055, (970) 351-1233.

The College offers business students a number of options for participating in an international student exchange program. Participation will require prior approval and may, in some instances, involve validation of courses taken at the foreign institution. All students interested in such programs should contact the MCB Advising Center for more information.

## 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 current UNC Catalog prerequisites in all business courses for which he or she has registered. Students who register for business classes in which they do not have the prerequisites listed in the current UNC Catalog may be dropped from the class 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.

## Computing Proficiency

The College maintains a computing proficiency requirement as a prerequisite to certain business courses. It is expected that most students will demonstrate this proficiency as they enter the program by passing a proficiency exam. Students may also meet the proficiency requirement by substituting a satisfactory grade in **BA 101 Business Computing (3)** or its equivalent from another institution. Students should note, however, that the credits from BA 101 or its equivalent will not count toward the minimum of 120 credits needed for graduation.

## Academic Honesty

MCB students are expected to conduct themselves in accordance with the highest standards of academic honesty. Cheating, plagiarism, illegitimate possession and disposition of examinations, alteration, forgery, or falsification of official records or documents and similar acts or the attempt to engage in such acts are grounds for disciplinary action.

This action can include any of the following, in addition to any University disciplinary action:

- A failing grade for an assignment.
- A failing grade for a class.
- Suspension from the College of Business
- Expulsion from the College of Business

Students are referred to the UNC Student Handbook as to details of "University Standards of Conduct" and "Academic Expectations."

## Incomplete Grades

A grade of "I" is assigned when coursework is incomplete 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.

## STUDENT ORGANIZATIONS

Students enrolled in the Monfort College of Business have the opportunity to join a number of business clubs and organizations. Each of the organizations listed below is chartered by the College to assist students to prepare for careers in their discipline areas. Beyond this, business clubs provide hubs for student social activities within the College.

Student Club	Faculty Advisor	Department Affiliation	National Affiliation
Professional Accounting Association of UNC	Professor Allen McConnell	Accounting	–
Computer Management Association	Dr. Tod Sedbrook	CIS	Data Processing Management Association
Financial Management Association of UNC	Dr. Christine McClatchey	Finance	Financial Management Association
UNC Management Club	Dr. Terry Stecher	Management	Society for Advancement of Management
UNC Marketing Association	Dr. James Reardon	Marketing	American Marketing Association
Delta Sigma Pi	Dr. Keiko Krahnke	The Kenneth W. Monfort College of Business	National Chapter
Beta Alpha Psi	Professor Allen McConnell	Accounting Chapter	National Chapter
Beta Gamma Sigma	Dr. Bill Cox	The Kenneth W. Monfort College of Business	National
Alpha Kappa Psi	Dr. Linda Ferrell	The Kenneth W. Monfort College of Business	National Chapter
African American Business Student Alliance	Dr. Charmayne Cullom	The Kenneth W. Monfort College of Business	–
<p>In addition, the Monfort College of Business Student Representative Council (MCB/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 and at-large representatives from the business student body.</p>			

## FACULTY – MCB

- Joe F. Alexander, D.B.A.
- Garth H. Allen, B.B.A, J.D.
- Joseph R. Bell, M.S., J.D.
- John A. Boose, M.B.A.
- Hank Brown, M.L.L., J.D.
- John M. Clinebell, D.B.A.
- Sharon K. Clinebell, D.B.A.
- Bill D. Cox, Ph.D., C.P.A.
- Charmayne B. Cullom, Ph.D.
- Cris de la Torre, J.D.
- William L. Duff, Jr., Ph.D.
- John E. Elsea, Ph.D., C.P.A.
- Robert D. Elton, M.A., C.P.A.
- Linda K. Ferrell, Ph.D.
- Karen L. Fowler, Ph.D.
- Theresa K. Gutierrez, Ph.D., C.P.A.
- George E. Heilman, Ph.D.
- D. Lynn Hoffman, Ph.D.
- R. “Vish” Vishwanathan Iyer, Ph.D.
- Timothy E. Jares, Ph.d.
- Nathan D. Kling, Ph.D.
- Keiko Krahnke, Ph.D.
- Jay M. Lightfoot, Ph.D.
- Martha S. Lilly, Ph.D., C.P.A.
- Robert M. Lynch, Ph.D.
- Rutilio Martinez, Ph.D.
- Christine A. McClatchey, Ph.D.
- Allen W. McConnell, M.S., C.P.A.
- Kenneth P. Moon, Ph.D., CCM
- Ann B. Murphy, Ph.D., CMA
- Richard I. Newmark, Ph.D., C.P.A.
- Junius W. Peake
- James Reardon, Ph.D.
- Ronald O. Reed, Ph.D., C.P.A.
- Daniel James Rowley, Ph.D.
- Tod A. Sedbrook, Ph.D.
- Gerald Shadwick, B.S., J.D.
- Terry Stecher, Ph.D.
- John R. Stewart, Ph.D., C.P.A.
- Douglas E. White, Ph.D.

# BACHELOR OF SCIENCE (B.S.)

## BUSINESS ADMINISTRATION, B.S.

### Accounting Emphasis

#### Program Requirements

Required Major Credits	51
Elective Major Credits	9
Required Supporting Credits	9-10
Required Minor Credits	0
Required Specified General Education Credits	15-17
Required PTEP Credits	0
Total program credits, 84-87	
Elective General Education Credits	23-25
University Wide Elective Credits	8-13
Total Credits Required for this Degree	120

\*The General Education Program at UNC requires a minimum of 40 semester credit hours selected from three skill areas and four content areas; at least 30 credit hours of these shall be taken in content areas (Categories 4-7).

#### Mission

The primary mission of the program is to facilitate the development of broadly educated graduates with an emphasis in accounting. Graduates are prepared to enter a wide variety of accounting and business careers or to enter graduate school. The program emphasizes high-quality instruction and interaction among students, faculty and the professional community.

The accounting faculty also accept their responsibilities to the university, the Kenneth W. Monfort College of Business, the accounting profession, business, government and not-for-profit organizations. The faculty strive to meet these responsibilities by providing appropriate service to these groups and by participating in a broad range of scholarly activities. These professional services and scholarly activities are an integral part of being a faculty member and complement the primary mission.

#### Required Major Credits – 51 semester hours

*Business Administration Core - 27 semester hours*

- BAAC 220 Principles of Accounting I (3)
- BAAC 221 Principles of Accounting II (3)
- BACS 300 Information Systems (3)
- \*BACS 305 Intermediate Business Statistics (3)
- BAFN 231 Legal Environment of Business (3)
- BAFN 370 Business Finance (3)
- BAMG 350 Management of Organizations (3)
- \*\* BAMG 456 Strategic Management and Business Policy (3)
- BAMK 360 Marketing (3)

\*BACS 305 should be taken prior to enrolling in any 400-level business course.

\*\*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 305, BAMG 350, BAMK 360 and BAFN 370.

*Required Emphasis Credits - 24 semester hours*

- BAAC 320 Intermediate Accounting I (3)
- BAAC 321 Intermediate Accounting II (3)
- BAAC 323 Cost and Managerial Accounting I (3)
- BAAC 328 Accounting Systems (3)
- BAAC 420 Advanced Accounting I (3)
- BAAC 421 Advanced Accounting II (3)
- BAAC 425 Auditing I (3)
- BAAC 428 Income Tax I (3)

#### Elective Major Credits – 9 semester hours

Take a total of three (3) courses with a BA\_\_ prefix excluding: BA 100, BA 101, BA 251, BAFN 240 and BAMK 260.

#### Required Supporting Credits – 9-10 semester hours

- SPCO 100 Basics of Public Speaking (1)
  - SPCO 103 Speaking Evaluation (2)
- and select one of the following two courses:*
- STAT 251 Statistics for Business and Economics (3)
  - BACS 291 Business Statistics I (3)

*and select one of the following two courses:*

- MATH 131 Calculus I (4)
  - MATH 176 Topics in Calculus (3)
- (MATH 176 is recommended)

#### Required Specified General Education Credits – 15-17 semester hours

*Category 1.b. Intermediate Composition*

*Select one of the following two courses:*

- BA 205 Business Communications (3)
- ENG 123 College Research Paper (3)

*Category 2. Mathematics*

- MATH 124 College Algebra (4)

*Category 5. Social Sciences*

- ECON 103 Introduction to Economics: Macroeconomics (3)
- ECON 105 Introduction to Economics: Microeconomics (3)

*and select one of the following three courses:*

- PSY 120 Principles of Psychology (4)
- PSY 265 Social Psychology (3)
- SOC 100 Principles of Sociology (3)

#### Elective General Education Credits – 23-25 semester hours

#### University Wide Elective Credits – 8-13 semester hours

**Notes:** The emphasis in accounting and the Accounting Department are approved under the State Accounting Law of Colorado. Upon completion of the accounting emphasis, the student qualifies to write the CPA and other professional examinations. Candidates who initially apply to write the Uniform CPA Examination after December 31, 2001, must complete a total of at least 150 hours of coursework. Additional coursework is available at UNC to fulfill these requirements. Students completing the program are able to qualify for a broad range of opportunities including public accounting, industrial accounting, governmental and other not-for-profit accounting, as well as entrance to graduate programs.

See "Coursework Requirements" on page 150.

See "Computing Proficiency" on page 151.

See "Transfer Credit" on page 151.

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 (300/400-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 (300/400-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 upper-division accounting 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 120 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.



## BUSINESS ADMINISTRATION, B.S.

### Computer Information Systems Emphasis

#### Program Requirements

Required Major Credits	42
Elective Major Credits	18
Required Supporting Credits	9-10
Required Minor Credits	0
Required Specified General Education Credits	15-17
Required PTEP Credits	0
<b>Total program credits, 84-87</b>	
Elective General Education Credits	23-25
University Wide Elective Credits	8-13
<b>Total Credits Required for this Degree</b>	<b>120</b>

\*The General Education Program at UNC requires a minimum of 40 semester credit hours selected from three skill areas and four content areas; at least 30 credit hours of these shall be taken in content areas (Categories 4-7).

The primary objective of the Computer Information Systems Emphasis is to provide the applicable coursework and experiences to allow graduates to secure industry positions in the fields of programming, systems analysis, systems design, database design/administration and telecommunications.

The program is also designed to prepare students with a solid academic background suitable for graduate work in computer information systems. Within the curriculum, particular attention is paid to the strategic nature of technology. In the CIS program, students acquire knowledge of computer programming, micro and mainframe computers, data communications, systems analysis and design, database management systems and decision support systems.

Graduates of the CIS program usually enter the job market as programmers/analysts or networking personnel. Subsequent positions may include systems analysts, database administrators and data communications specialists. For the most part, the graduate's activities will focus on creating and implementing software and procedures used to service large and small organizations including manufacturing, retail, wholesale, financial, insurance, communications and government groups.

#### Required Major Credits – 42 semester hours

*Business Administration Core - 27 semester hours*

BAAC 220 Principles of Accounting I (3)

BAAC 221 Principles of Accounting II (3)

BACS 300 Information Systems (3)

\*BACS 305 Intermediate Business Statistics (3)

BAFN 231 Legal Environment of Business (3)

BAFN 370 Business Finance (3)

BAMG 350 Management of Organizations (3)

\*\* BAMG 456 Strategic Management and Business Policy (3)

BAMK 360 Marketing (3)

\*BACS 305 should be taken prior to enrolling in any 400-level business course.

\*\*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 305, BAMG 350, BAMK 360 and BAFN 370.

*Required Emphasis Credits – 15 semester hours*

BACS 380 Networking and Data Communications Systems

(3)

BACS 485 Database Management Systems (3)

BACS 487 Systems Analysis and Design (3)

*and select two of the following courses:*

BACS 285 Application Programming Languages (3)

BACS 286 Structured Programming and Applications for

Business (3)

BACS 287 Graphical Interface Programming (3)

#### Elective Major Credits – 18 semester hours

*Elective Business Credits - 9 semester hours*

Take a total of three (3) courses with a BA\_ prefix excluding: BA 100, BA 101, BA 251, BAFN 240 and BAMK 260.

*Elective Emphasis Credits - 9 semester hours*

*Select three of the following courses:*

BACS 381 Object Oriented Systems (3)

BACS 392 Systems Platforms and Network Development (3)

BACS 482 Management Support Systems (3)

BACS 484 Distributed Enterprise Systems (3)

BACS 486 Advanced Database Management (3)

BACS 488 Senior CIS Project (3)

BACS 490 Advanced E-Business Technology (3)

BACS 495 Special Topics in CIS (1-3)

#### Required Supporting Credits – 9-10 semester hours

SPCO 100 Basics of Public Speaking (1)

SPCO 103 Speaking Evaluation (2)

*and select one of the following two courses:*

STAT 251 Statistics for Business and Economics (3)

BACS 291 Business Statistics I (3)

*and select one of the following two courses:*

MATH 131 Calculus I (4)

MATH 176 Topics in Calculus (3)

(MATH 176 is recommended)

#### Required Specified General Education Credits – 15-17 semester hours

*Category 1.b. Intermediate Composition*

*Select one of the following two courses:*

BA 205 Business Communications (3)

ENG 123 College Research Paper (3)

*Category 2. Mathematics*

MATH 124 College Algebra (4)

*Category 5. Social Sciences*

ECON 103 Introduction to Economics: Macroeconomics (3)

ECON 105 Introduction to Economics: Microeconomics (3)

*and select one of the following three courses:*

PSY 120 Principles of Psychology (4)

PSY 265 Social Psychology (3)

SOC 100 Principles of Sociology (3)

#### Elective General Education Credits – 23-25 semester hours

#### University Wide Elective Credits – 8-13 semester hours

#### Notes:

See "Coursework Requirements" on page 150.

See "Transfer Credit" on page 151.

See "Computing Proficiency" on page 151.

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 Emphasis Credits* and *Elective Emphasis Credits* listed in the CIS Emphasis for the courses to count toward graduation.

A maximum of 12 semester credits in 300/400-level required emphasis and elective emphasis courses can be transferred from another four-year institution.

**BUSINESS ADMINISTRATION, B.S.**

## Finance Emphasis

**Program Requirements**

Required Major Credits	42
Elective Major Credits	18
Required Supporting Credits	9-10
Required Minor Credits	0
Required Specified General Education Credits	15-17
Required PTEP Credits	0
<b>Total program credits, 84-87</b>	
Elective General Education Credits	23-25
University Wide Elective Credits	8-13
<b>Total Credits Required for this Degree</b>	<b>120</b>

\*The General Education Program at UNC requires a minimum of 40 semester credit hours selected from three skill areas and four content areas; at least 30 credit hours of these shall be taken in content areas (Categories 4-7).

The primary purpose of the Finance Emphasis is to provide students with a thorough foundation in finance, while providing them with the flexibility to prepare for a wide range of future endeavors. Graduates are prepared for careers in financial management of organizations and financial institutions.

The curriculum is consistent with national standards in finance as required for professional certifications such as the Chartered Financial Analyst (CFA), Certified Financial Planner (CFP) and Certificate in Financial Management (CFM) (see notes below).

The emphasis allows students the opportunity to apply financial concepts to real world situations and to interact with professionals in the finance field. Throughout the program of study, students are also taught how to integrate primary financial databases, online services and other relevant software to the field of finance.

Finance graduates must be able to recognize ethical dilemmas in finance and to make ethical business decisions. They must also be able to address the unique issues of making financial decisions in a global environment and be able to effectively communicate financial information in both oral and written forms.

**Required Major Credits – 42 semester hours**

*Business Administration Core - 27 semester hours*

- BAAC 220 Principles of Accounting I (3)
- BAAC 221 Principles of Accounting II (3)
- BACS 300 Information Systems (3)
- \*BACS 305 Intermediate Business Statistics (3)
- BAFN 231 Legal Environment of Business (3)
- BAFN 370 Business Finance (3)
- BAMG 350 Management of Organizations (3)
- \*BAMG 456 Strategic Management and Business Policy (3)
- BAMK 360 Marketing (3)

\*BACS 305 should be taken prior to enrolling in any 400-level business course.

\*\*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 305, BAMG 350, BAMK 360 and BAFN 370.

*Required Emphasis Credits – 15 semester hours*

- BAFN 371 Financial Markets and Institutions (3)
- BAFN 379 Investments (3)
- BAFN 470 Financial Management (3)
- BAFN 474 Case Problems in Financial Management (3)
- BAFN 475 Multinational Financial Management (3)

**Elective Major Credits – 18 semester hours**

*Elective Business Credits - 9 semester hours*

Take a total of three (3) courses with a BA\_ prefix excluding: BA 100, BA 101, BA 251, BAFN 240 and BAMK 260.

*Elective Emphasis Credits - 9 semester hours*

Select three of the following courses:

- BAAC 320 Intermediate Accounting I (3)
- BAAC 323 Cost and Managerial Accounting I (3)
- BAFN 340 Principles of Risk and Insurance (3)
- BAFN 372 Introduction to Real Estate (3)
- BAFN 441 Estate Planning and Life Insurance (3)

- BAFN 442 Topics in Financial Planning (3)
- BAFN 473 Commercial Bank Management (3)
- BAFN 478 Student-Alumni Foundation Fund (3)
- BAFN 479 Security Analysis (3)

**Required Supporting Credits – 9-10 semester hours**

SPCO 100 Basics of Public Speaking (1)

SPCO 103 Speaking Evaluation (2)

and select one of the following two courses:

STAT 251 Statistics for Business and Economics (3)

BACS 291 Business Statistics I (3)

and select one of the following two courses:

MATH 131 Calculus I (4)

MATH 176 Topics in Calculus (3)

(MATH 176 is recommended)

**Required Specified General Education Credits – 15-17 semester hours**

*Category 1.b. Intermediate Composition*

Select one of the following two courses:

BA 205 Business Communications (3)

ENG 123 College Research Paper (3)

*Category 2. Mathematics*

MATH 124 College Algebra (4)

*Category 5. Social Sciences*

ECON 103 Introduction to Economics: Macroeconomics (3)

ECON 105 Introduction to Economics: Microeconomics (3)

and select one of the following three courses:

PSY 120 Principles of Psychology (4)

PSY 265 Social Psychology (3)

SOC 100 Principles of Sociology (3)

**Elective General Education Credits – 23-25 semester hours****University Wide Elective Credits – 8-13 semester hours**

**Notes:** Students interested in the field of Financial Planning and/or who want to prepare for the CFP Exam should take the following elective courses: BAFN 340, BAFN 441, BAFN 442, BAFN 479, BAAC 320 and BAAC 428.

Students interested in the field of investments and/or who want to prepare for the CFA exam should take the following courses as their *Elective Emphasis Credits*: BAFN 479, BAFN 478, BAAC 320, and one other course from the list of *Elective Emphasis Credits*.

Students interested in the field of corporate financial management and/or want to prepare for the CFM exam should take the following courses as their *Required Emphasis Credits and Elective Emphasis Credits*: BAFN 475, BAAC 320, BAAC 323 and BAFN 479.

Students interested in the field of banking should take the following courses as their *Required Elective Emphasis Credits*: BAFN 473, BAFN 479 and two other courses from the list of *Elective Emphasis Credits*.

See "Coursework Requirements" on page 150.

See "Course Prerequisites" on page 151.

See "Transfer Credit" on page 151.

See "Computing Proficiency" on page 151.

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 Emphasis Credits and Elective Emphasis Credits* can be transferred from other four-year institutions.

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 Emphasis Credits and Elective Emphasis Credits* categories in order for the courses to count toward graduation.

## BUSINESS ADMINISTRATION, B.S.

### General Business Emphasis

#### Program Requirements

Required Major Credits	51
Elective Major Credits	9
Required Supporting Credits	9-10
Required Minor Credits	0
Required Specified General Education Credits	15-17
Required PTEP Credits	0
Total program credit, 84-87	
Elective General Education Credits	23-25
University Wide Elective Credits	8-13
Total Credits Required for this Degree	120

\*The General Education Program at UNC requires a minimum of 40 semester credit hours selected from three skill areas and four content areas; at least 30 credit hours of these shall be taken in content areas (Categories 4-7).

The General Business Emphasis prepares students for a wide variety of careers in business, the management of small or family-owned businesses and graduate study in business administration.

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 MBC Advising Center in Kepner 1055, (970) 351-1233.

#### Required Major Credits - 51 semester hours

*Business Administration Core – 27 semester hours*

- BAAC 220 Principles of Accounting I (3)
- BAAC 221 Principles of Accounting II (3)
- BACS 300 Information Systems (3)
- \*BACS 305 Intermediate Business Statistics (3)
- BAFN 231 Legal Environment of Business (3)
- BAFN 370 Business Finance (3)
- BAMG 350 Management of Organizations (3)
- \*\*BAMG 456 Strategic Management and Business Policy (3)
- BAMK 360 Marketing (3)

\*BACS 305 should be taken prior to enrolling in any 400-level business course.

\*\*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 305, BAMG 350, BAMK 360, and BAFN 370.

*Required Emphasis Credits – 24 semester hours*

- BAAC 327 Managerial Accounting (3)
- BAFN 332 Business Administration and the Law (3)
- BAFN 340 Principles of Risk and Insurance (3)
- BAFN 470 Financial Management (3)
- BAMG 354 Organizational Behavior (3)
- BAMK 368 Marketing Analysis and Research (3)
- BAMK 464 Global Marketing Strategies (3)

*and select one of the following two courses:*

- BAMG 353 Human Resources Management (3)
- BAMG 357 Managing New Business Ventures (3)

#### Elective Major Credits – 9 semester hours

Take a total of three (3) courses with a BA\_\_ prefix **excluding:** BA 100, BA 101, BA 251, BAFN 240 and BAMK 260.

#### Required Supporting Credits – 9-10 semester hours

- SPCO 100 Basics of Public Speaking (1)
- SPCO 103 Speaking Evaluation (2)

*and select one of the following two courses:*

- STAT 251 Statistics for Business and Economics (3)
- BACS 291 Business Statistics I (3)

*and select one of the following two courses:*

- MATH 131 Calculus I (4)
  - MATH 176 Topics in Calculus (3)
- (MATH 176 is recommended)

#### Required Specified General Education Credits – 15-17 semester hours

*Category 1.b. Intermediate Composition*

*Select one of the following two courses:*

- BA 205 Business Communications (3)
- ENG 123 College Research Paper (3)

*Category 2. Mathematics*

- MATH 124 College Algebra (4)

*Category 5. Social Sciences*

- ECON 103 Introduction to Economics: Macroeconomics (3)
- ECON 105 Introduction to Economics: Microeconomics (3)

*and select one of the following three courses:*

- PSY 120 Principles of Psychology (4)
- PSY 265 Social Psychology (3)
- SOC 100 Principles of Sociology (3)

#### Elective General Education Credits - 23-25 semester hours

#### University Wide Elective Credits - 8-13 semester hours

Notes: See "Coursework Requirements" on page 150.

See "Course Prerequisites" on page 151.

See "Computing Proficiency" on page 151.

See "Transfer Credit" on page 151.

With the written approval of the General Business chair, students may make the following course substitutions:

1. Students may substitute a senior-level Special Topics course for a required emphasis course with the same departmental prefix.
2. Students with a 3.0 or higher grade point average may substitute BAMG 407/BAMK 407 Small Business Counseling for any approved BAMG or BAMK required emphasis course.

No more than 9 semester hours of 300/400-level courses can be transferred in for the General Business program required emphasis courses.

**BUSINESS ADMINISTRATION, B.S.****Management Emphasis****Program Requirements**

<b>Required Major Credits</b> .....	<b>39</b>
<b>Elective Major Credits</b> .....	<b>21</b>
<b>Required Supporting Credits</b> .....	<b>9-10</b>
<b>Required Minor Credits</b> .....	<b>0</b>
<b>Required Specified General Education Credits</b> .....	<b>15-17</b>
<b>Required PTEP Credits</b> .....	<b>0</b>
<b>Total program credits, 84-87</b>	
<b>Elective General Education Credits</b> .....	<b>23-25</b>
<b>University Wide Elective Credits</b> .....	<b>8-13</b>
<b>Total Credits Required for this Degree</b> .....	<b>120</b>

\*The General Education Program at UNC requires a minimum of 40 semester credit hours selected from three skill areas and four content areas; at least 30 credit hours of these shall be taken in content areas (Categories 4-7).

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 primary objective of the Management Emphasis is to prepare students for entry-level management positions in business, not-for-profit organizations and government. Such positions include management trainees, supervisors, administrators, and other entry level positions. The emphasis also prepares students for continuing education in MBA or other relevant master's degree programs.

**Required Major Credits – 39 semester hours**

*Business Administration Core – 27 semester hours*

BAAC 220 Principles of Accounting I (3)

BAAC 221 Principles of Accounting II (3)

BACS 300 Information Systems (3)

\*BACS 305 Intermediate Business Statistics (3)

BAFN 231 Legal Environment of Business (3)

BAFN 370 Business Finance (3)

BAMG 350 Management of Organizations (3)

\*\*BAMG 456 Strategic Management and Business Policy (3)

BAMK 360 Marketing (3)

\*BACS 305 should be taken prior to enrolling in any 400-level business course.

\*\*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 305, BAMG 350, BAMK 360 and BAFN 370.

*Required Emphasis Credits – 12 semester hours*

BAFN 470 Financial Management (3)

BAMG 353 Human Resources Management (3)

BAMG 354 Organizational Behavior (3)

BAMG 457 Managing Complex Organizations (3)

**Elective Major Credits – 21 semester hours**

*Elective Business Credits - 9 semester hours*

Take a total of three (3) courses with a BA\_\_ prefix **excluding:** BA 100, BA 101, BA 251, BAFN 240 and BAMK 260.

*Elective Emphasis Credits - 12 semester hours*

*Select four of the following courses:*

BAAC 327 Managerial Accounting (3)

BAMG 357 Managing New Business Ventures (3)

BAMG 452 Business, Government and Society (3)

BAMG 453 Advanced Topics in Human Resources Management (3)

BAMG 455 Labor Relations (3)

BAMG 458 Managing in a Global Environment (3)

BAMG 494 Not-For-Profit Management (3)

BAMG 495 Special Topics in Management (3) (Repeatable, under different subtitles.)

BAMG 407 Small Business Counseling (3)

or

BAMK 407 Small Business Counseling (3)

**Required Supporting Credits – 9-10 semester hours**

SPCO 100 Basics of Public Speaking (1)

SPCO 103 Speaking Evaluation (2)

and select one of the following two courses:

STAT 251 Statistics for Business and Economics (3)

BACS 291 Business Statistics I (3)

and select one of the following two courses:

MATH 131 Calculus I (4)

MATH 176 Topics in Calculus (3)

(MATH 176 is recommended)

**Required Specified General Education Credits – 15-17 semester hours**

*Category 1.b. Intermediate Composition*

Select one of the following two courses:

BA 205 Business Communications (3)

ENG 123 College Research Paper (3)

*Category 2. Mathematics*

MATH 124 College Algebra (4)

*Category 5. Social Sciences*

ECON 103 Introduction to Economics: Macroeconomics (3)

ECON 105 Introduction to Economics: Microeconomics (3)

and select one of the following three courses:

PSY 120 Principles of Psychology (4)

PSY 265 Social Psychology (3)

SOC 100 Principles of Sociology (3)

**Elective General Education Credits – 23-25 semester hours****University Wide Elective Credits – 8-13 semester hours**

Notes: See "Coursework Requirements" on page 150.

See "Course Prerequisites" on page 151.

See "Transfer Credit" on page 151.

See "Computing Proficiency" on page 151.

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 Emphasis Credits and Elective Emphasis Credits*, in order for the courses to count toward graduation.

A maximum of 9 semester credits in 300/400-level *Required Emphasis and Elective Credits* can be transferred from other four-year institutions.

BAMG 453 and BAMG 455 are not offered on a regular basis.

**BUSINESS ADMINISTRATION, B.S.**

## Marketing Emphasis

**Program Requirements**

<b>Required Major Credits</b> .....	<b>39</b>
<b>Elective Major Credits</b> .....	<b>21</b>
<b>Required Supporting Credits</b> .....	<b>9-10</b>
<b>Required Minor Credits</b> .....	<b>0</b>
<b>Required Specified General Education Credits</b> .....	<b>15-17</b>
<b>Required PTEP Credits</b> .....	<b>0</b>
<b>Total program credits, 84-87</b>	
<b>Elective General Education Credits</b> .....	<b>23-25</b>
<b>University Wide Elective Credits</b> .....	<b>8-13</b>
<b>Total Credits Required for this Degree</b> .....	<b>120</b>

\*The General Education Program at UNC requires a minimum of 40 semester credit hours selected from three skill areas and four content areas; at least 30 credit hours of these shall be taken in content areas (Categories 4-7).

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. The emphasis also equips students for graduate study in marketing and business administration.

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.

**Required Major Credits - 39 semester hours***Business Administration Core – 27 semester hours*

- BAAC 220 Principles of Accounting I (3)
- BAAC 221 Principles of Accounting II (3)
- BACS 300 Information Systems (3)
- \*BACS 305 Intermediate Business Statistics (3)
- BAFN 231 Legal Environment of Business (3)
- BAFN 370 Business Finance (3)
- BAMG 350 Management of Organizations (3)
- \* \*BAMG 456 Strategic Management and Business Policy (3)
- BAMK 360 Marketing (3)

\*BACS 305 should be taken prior to enrolling in any 400-level business course.

\*\*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 305, BAMG 350, BAMK 360 and BAFN 370.

*Required Emphasis Credits – 12 semester hours*

- BAMK 361 Consumer Behavior (3)
- BAMK 368 Marketing Analysis and Research (3)
- BAMK 462 Marketing Problems (3)
- BAMK 464 Global Marketing Strategies (3)

**Elective Major Credits – 21 semester hours***Elective Business Credits - 9 semester hours*

Take a total of three (3) courses with a BA\_ \_ prefix **excluding**: BA 100, BA 101, BA 251, BAFN 240 and BAMK 260.

*Elective Emphasis Credits - 12 semester hours*

Take a total of four (4) courses from the 300/400-level courses with a minimum of two (2) from the 400-level courses.

- BAMK 363 Promotional Strategy (3)
- BAMK 364 Selling and Sales Management (3)
- BAMK 365 Advertising (3)
- BAMK 366 Retailing (3)
- BAMK 461 Advertising Campaigns (3)
- BAMK 468 Business-to-Business Marketing (3)
- BAMK 469 Supply Chain Management (3)
- BAMK 470 Direct Marketing (3)
- BAMK 495 Special Topics in Marketing (3)  
(BAMK 495 may be used only once to satisfy the 400-level elective requirement.)
- BAMK 407 Small Business Counseling (3)
- or
- BAMG 407 Small Business Counseling (3)

**Required Supporting Credits – 9-10 semester hours**

- SPCO 100 Basics of Public Speaking (1)
- SPCO 103 Speaking Evaluation (2)  
*and select one of the following two courses:*
- STAT 251 Statistics for Business and Economics (3)
- BACS 291 Business Statistics I (3)  
*and select one of the following two courses*
- MATH 131 Calculus I (4)
- MATH 176 Topics in Calculus (3)  
(MATH 176 is recommended)

**Required Specified General Education Credits – 15-17 semester hours***Category 1.b. Intermediate Composition*

- Select one of the following two courses:*
- BA 205 Business Communications (3)
- ENG 123 College Research Paper (3)

*Category 2. Mathematics*

- MATH 124 College Algebra (4)

*Category 5. Social Sciences*

- ECON 103 Introduction to Economics: Macroeconomics (3)
- ECON 105 Introduction to Economics: Microeconomics (3)  
*and select one of the following three courses:*
- PSY 120 Principles of Psychology (4)
- PSY 265 Social Psychology (3)
- SOC 100 Principles of Sociology (3)

**Elective General Education Credits –23-25 semester hours****University Wide Elective Credits –8-13 semester hours**

**Notes:** See "Coursework Requirements" on page 150.

See "Course Prerequisites" on page 151.

See "Transfer Credit" on page 151.

See "Computing Proficiency" on page 151.

Students may substitute a BA 495 Executive Professor Special Topics II course for an *Elective Emphasis Credit* course with prior written permission from the Marketing Department chair.

A maximum of 9 semester hour credits in 300/400-level *Required Emphasis Credits* and *Elective Emphasis Credits* may be transferred from other four-year institutions.

Students are reminded that to graduate with a Business Administration major, a student must attain a 2.00 or greater cumulative Business GPA and attain at least a "C" grade in each course in the Business Administration Core.

In addition to fulfilling the basic requirements for the Bachelor of Science degree in Business Administration, a grade of "C" or better must be earned in the *Required Emphasis Credits* and *Elective Emphasis Credits* categories in order for the courses to count toward graduation.

## MINORS – MCB

### BUSINESS ADMINISTRATION MINOR

#### Program Requirements

Required Credits .....	30-31
General Education Credits, Specified .....	10
Total Credits Required for this Minor .....	40-41

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 40-41 semester hours depending on the student's selections in General Education.

#### Required Credits – 30-31 semester hours

BAAC 220 Principles of Accounting I (3)  
BAAC 221 Principles of Accounting II (3)  
BACS 291 Business Statistics I (3)

or

STAT 251 Statistics for Business and Economics (3)  
BACS 300 Information Systems (3)  
BACS 305 Intermediate Business Statistics (3)  
BAFN 231 Legal Environment of Business (3)  
BAFN 370 Business Finance (3)  
BAMG 350 Management of Organizations (3)  
BAMK 360 Marketing (3)

and select one of the following two courses:

MATH 131 Calculus I (4)  
MATH 176 Topics in Calculus (3)  
(MATH 176 is recommended)

**Notes:** Students may transfer a maximum of 12 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.

See “Course Prerequisites” on page 151.

See “Computing Proficiency” on page 151.

Students are expected to complete the prerequisites for all courses in the minor. The prerequisites are also part of the General Education program and can be included in General Education preparation. The prerequisites are ECON 105 (BAMK 360), ECON 103 and ECON 105 (BAFN 370) and MATH 124 (MATH 176 or MATH 131).

Only students who have a declared major in Business Administration may count more than 30 semester credits in Business Administration (courses with a BA\_\_ prefix) toward their graduation. For more information, please contact the MCB Advising Center, Kepner 1055 (970) 351-1233.

### COMPUTER INFORMATION SYSTEMS MINOR

#### Program Requirements

Required Credits .....	9
Required Elective Credits .....	9
Total Credits Required for this Minor .....	18

The Computer Information Systems minor is designed for students who wish to pursue collateral work in the computing, technology and communications/networking areas.

Completion of the minor prepares a student to successfully employ technology and integrate information systems into his or her career activities. The CIS minor is attractive to students majoring in other areas of Business Administration as well as to majors from other schools and colleges. It complements their work in these other areas. The program is not designed to prepare individuals to become programmers or systems personnel, but does provide a broad exposure to the area of corporate information systems.

#### Required Credits – 9 semester hours

BACS 286 Structured Programming and Applications for Business (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 and Network Development (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 (1-3)

**Notes:** Business majors who seek admission to a Computer Information Systems minor must obtain written approval from the College of Business Advising Coordinator.

See “Course Prerequisites” on page 151.

See “Computing Proficiency” on page 151.

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.

Only students who have a declared major in Business Administration may count more than 30 semester credits in Business Administration (courses with a BA\_\_ prefix) toward their graduation. For more information, please contact the MCB Advising Center, Kepner 1055 (970) 351-1233.



# COLLEGE OF EDUCATION (COE)

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## OFFICE OF THE DEAN

**Location:** McKee 125      **Telephone:** (970) 351-2817

**Dean:** Eugene P. Sheehan, Ph.D.

**Assistant Deans:** Kay A. Ferrell, Ph.D.; Phillip M. Wishon, Ph.D.

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 the following academic units: School for the Study of Teaching and Teacher Education, Division of Professional Psychology, Division of Educational Leadership and Policy Studies, Division of Special Education, Department of Educational Psychology, Department of Applied Statistics and Research Methods, and Department of Educational Technology.

In addition, the School for the Study of Teaching and Teacher Education provides support to the University-wide professional teacher education programs. Other major units in the College are the Center for Applied Research, the Center for Educator Induction, the Center for Educational Leadership, the Bresnahan-Halstead Center on Mental Retardation and Developmental Disabilities, and the Kephart Memorial Child Study Center.

## DIVISION OF EDUCATIONAL LEADERSHIP AND POLICY STUDIES

**Location:** McKee 418      **Telephone:** (970) 351-2861

**Directors:** Richard A. King, 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, national and international levels.

The ELPS programs and the scholarship of its faculty and students emphasize:

- Formal and informal roles and strategies of educational leaders
- Fiscal, legal and personnel aspects of schools and higher education
- Innovative practices in leadership preparation
- Understanding, facilitating and evaluating the change process
- Innovation and restructuring of schools
- Collaboration in teaching, learning and scholarship
- Adult learning and development and staff development

- Policy development, analysis and implementation
- Service to schools, higher education and policy makers
- Identification of multicultural and gender-based needs

## Educational Leadership Program

**Location:** McKee 418      **Telephone:** (970) 351-2861

**Professors:** Bruce G. Barnett, Ph.D.; Rosemary S. Caffarella, Ph.D.; Michael J. Gimmestad, Ph.D.; Richard A. King, Ph.D.; Kathryn S. Whitaker, Ph.D.

**Associate Professors:** Clifford Brookhart; Florence Guido-DiBrito, Ph.D.

**Assistant Professor:** Thomas J. Gavin, Ph.D.; Gardiner L. Tucker, Jr., M.Ed.

## Higher Education and Student Affairs Leadership

**Location:** McKee 418      **Telephone:** (970) 351-1682

**Associate Professors:** Florence Guido-DiBrito, Ph.D.; Joyce B. Washington, Ed.D.

## SCHOOL FOR THE STUDY OF TEACHING AND TEACHER EDUCATION

**Location:** McKee 216      **Telephone:** (970) 351-2430

**Director:** Frederick J. Bartelheim, Ed.D.

The School for the Study of Teaching and Teacher Education administers programs that prepare students for teacher licensure at the elementary, middle grades, secondary and K-12 program levels. The School also offers graduate programs in the program areas of Early Childhood Education, Elementary Education, Middle Level Education and Reading.

## Early Childhood Education Program

**Location:** McKee 216      **Telephone:** (970) 351-2430

**Professor:** Phillip M. Wishon, Ph.D.

**Associate Professor:** Fong-Yun Lee, Ph.D.

**Assistant Professor:** Marcia L. Broughton, Ph.D.

Early Childhood Education offers a graduate program at the master's level. 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 program is based on an interdisciplinary focus which emphasizes fundamental as well as current educational issues, research competencies, professional skills development, and field-based studies.

## Elementary Education Program

**Location:** McKee 216      **Telephone:** (970) 351-2430

**Professors:** Michael F. Opitz, Ph.D.; Fredrick L. Silverman, Ed.D.; Elaine C. Vilscek, Ph.D.

**Assistant Professors:** Lynne M. Blackburn, Ed.D.; Linda J. Button, Ed.D.; Gary Fertig, Ph.D.; Carol A. Picard, Ph.D.

Elementary Education offers programs at the undergraduate and graduate levels. These programs provide opportunities for students to become teachers and for experienced teachers to enhance their professional expertise. Faculty in these programs are committed to delivering individualized instruction for students in the degree and/or licensure programs. The philosophy of the programs is based on the premise that learning must be efficiently directed to meet pupils' individual needs through varied teaching modes.

## Foundations of Education Program

**Location:** McKee 216      **Telephone:** (970) 351-2430

**Professor:** Michael L. Jacobs, Ed.D.

**Associate Professors:** Frederick J. Bartelheim, Ed.D.; John J. Halcon, Ph.D.; Madeline Milian, Ed.D.

**Assistant Professors:** Thomas A. Griggs, Ph.D.; Madeline Milian, Ed.D.

The academic and professional purpose that unifies the various approaches to foundations of education is the development of interpretive, normative and critical perspectives on education. Foundational study within education relies heavily on the resources and methodologies of the humanities and the social and behavioral sciences.

The primary objectives of foundational studies at UNC are to provide experiences and perspectives that allow students to explain and evaluate educational issues, practices and policies in a manner that leads to the development of a disciplined sense of professional responsibility.

Foundations courses are a major component in the undergraduate professional education core and in many graduate programs. Courses are open to all undergraduate and graduate students. A student pursuing a doctoral degree in any area may take support courses in Foundations of Education.

### Middle Grades Education Program

**Location:** McKee 216      **Telephone:** (970) 351-2430  
**Associate Professor:** **Barbara L. Whinery, Ph.D.**

The Middle Grades Education program is designed to prepare educators at the Undergraduate and Graduate levels to teach young adolescents, ages ten to fifteen, in middle school grades five through nine. The content of the programs include understanding of human growth and development, effective teaching strategies appropriate for young adolescents, and middle level curriculum that is responsive to the developmental characteristics of young adolescents. The knowledge base of the programs integrates the academic, professional and personal development domains of learners.

### Reading Program

**Location:** McKee 216      **Telephone:** (970) 351-2430  
**Professors:** **Karen S. Crabtree, Ed.D.**; **Roger G. Eldridge, Jr., Ph.D.**; **Elaine C. Vilscek, Ph.D.**  
**Associate Professor:** **Carolyn W. Edwards, Ed.D.**

Reading offers graduate programs at the master's level. The programs in reading/literacy are based on a rationale that through wide reading, writing, discussion, and practice, teachers construct, then reflect and act upon their knowledge about learners, reading content and process, and contexts in which teaching and learning occur. Student and faculty research is directed to the study of learners from birth to adult maturity. Research sites available to students include the Campus Child Care Center, the Reading Clinic, the Laboratory School (K-12), and public as well as private schools.

### Secondary Education Program

**Location:** McKee 216      **Telephone:** (970) 351-2430  
**Professor:** **Michael L. Jacobs, Ed.D.**  
**Associate Professor:** **Frederick J. Bartelheim, Ed.D.**

The Secondary Professional Teacher Education Program (PTEP) is designed to prepare students to teach at the 7-12 grade levels within a special content area. Students selecting this program will work with their major advisor to enter the Secondary PTEP Phase One where they will be introduced to program standards and Phases Two, Three and Four to complete their program.

## DIVISION OF PROFESSIONAL PSYCHOLOGY

**Location:** McKee 248      **Telephone:** (970) 351-2731  
**Director:** **David M. Gonzalez, Ph.D.**

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, the Division of 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 Community Counseling, the emphasis area in Marriage and Family Therapy and the doctoral program in Counselor Education are accredited by the Council for Accreditation of Counseling and Related Educational Programs.

The doctoral program in school psychology is accredited by the American Psychological Association and the National Association of School Psychologists. The educational specialist degree program in school psychology is also accredited by the National Association of School Psychologists. The doctoral program in Counseling Psychology is accredited by the American Psychological Association.

### Counselor Education and Supervision

**Location:** McKee 248      **Telephone:** (970) 351-2731  
**Professors:** **Tracy D. Baldo, Ph.D.**; **Sarah F. Shaw, Ed.D.**; **Basilia (Lia) C. Softas-Nall, Ph.D.**; **William M. Walsh, Ph.D.**  
**Associate Professor:**  
**Assistant Professor:** **Linda L. Black, Ed.D.**

### Professional Counseling Programs

**Location:** McKee 248      **Telephone:** (970) 351-2731  
**Professors:** **Tracy D. Baldo, Ph.D.**; **David M. Gonzalez, Ph.D.**; **M. Sean O'Halloran, Ph.D.**; **Sarah F. Shaw, Ed.D.**; **Basilia (Lia) C. Softas-Nall, Ph.D.**; **William M. Walsh, Ph.D.**  
**Associate Professor:** **Brian D. Johnson, Ph.D.**  
**Assistant Professor:** **Linda L. Black, Ed.D.**

### Counseling Psychology Program

**Location:** McKee 248      **Telephone:** (970) 351-2731  
**Professors:** **David M. Gonzalez, Ph.D.**; **M. Sean O'Halloran, Ph.D.**; **Basilia (Lia) C. Softas-Nall, Ph.D.**; **William M. Walsh, Ph.D.**  
**Associate Professor:** **Brian D. Johnson, Ph.D.**  
**Assistant Professor:** **Sandra Magnuson, Ed.D.**

### School Psychology Programs

**Location:** McKee 248      **Telephone:** (970) 351-2731  
**Professors:** **Achilles N. Bardos, Ph.D.**; **Ellis P. Copeland, Ph.D.**; **Rik Carl D'Amato, Ph.D.**  
**Associate Professor:** **Michelle Schicke Athanasiou, Ph.D.**

## APPLIED STATISTICS AND RESEARCH METHODS DEPARTMENT

**Location:** McKee 518      **Telephone:** (970) 351-2807  
**Department Chair:** **Dale Shaw, Ph.D.**  
**Professors:** **Dale Shaw, Ph.D.**; **Ann M. Thomas, Ph.D.**  
**Associate Professor:** **Daniel J. Mundfrom, Ph.D.**  
**Assistant Professors:** **Susan R. Hutchinson, Ph.D.**; **Maria K. E. Lahman, M.S.**; **Jay R. Schaffer, Ph.D.**

The master's and doctoral programs in Applied Statistics and Research Methods are designed to prepare graduates in statistics and education who make important contributions to educational practice. Through the programs, great emphasis is placed on how research design and statistics can be applied to educational issues and problems. Service courses are offered by the department to support other university programs at the graduate level.

## EDUCATIONAL PSYCHOLOGY DEPARTMENT

**Location:** McKee 518      **Telephone:** (970) 351-2808  
**Department Chair:** **Randy J. Lennon, Ph.D.**  
**Professors:** **Kathryn F. Cochran, Ph.D.**; **John B. Cooney, Ph.D.**; **Randy J. Lennon, Ph.D.**; **Teresa M. McDevitt, Ph.D.**; **Steven M. Pulos, Ph.D.**  
**Assistant Professor:** **Jrene Rahm, Ph.D.**

Educational Psychology offers programs and service courses at both the graduate and undergraduate levels. The program faculty provide courses on psychological principles and theories and research methodologies as applied to the educational process. These applications range from everyday concerns in the public school classroom to basic research on learning and human development.

The master's and doctoral 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. Service courses are offered by the department to support other university programs at both the undergraduate and graduate levels.

## **EDUCATIONAL TECHNOLOGY DEPARTMENT**

**Location:** McKee 518      **Telephone:** (970) 351-2816

**Department Chair:** Kay A. Persichitte, Ph.D.

**Professor:** Edward P. Caffarella, Ph.D.

**Associate Professors:** Jeffrey W. Bauer, Ph.D.; Kay A. Persichitte, Ph.D.

**Assistant Professors:** James E. Gall, Ph.D.; Linda L. Lohr, Ed.D.; Heng-Yu Ku, Ph.D.

The Educational Technology faculty administer graduate degree programs in Educational Technology and Educational Media, as well as graduate non-degree programs leading to a School Library Media endorsement by the State of Colorado Department of Education. In addition, the department offers a Master of Arts Degree in Educational Media.

At the master's level these programs of study are designed to develop knowledge and skills in instructional systems analysis and design, computer applications, media design and information management. Application is focused upon improving human performance in applied learning settings.

At the doctoral level students are provided with advanced opportunities to develop knowledge and skills in the area of instructional system design, analysis and evaluation. Emphasis is placed upon the generation of empirically derived strategies to promote instructional practice based upon learning and instructional theory. Service courses are offered by the department to support other university programs at both the undergraduate and graduate levels.

## **DIVISION OF SPECIAL EDUCATION**

**Location:** McKee 29      **Telephone:** (970) 351-2691

**Director:** Barbara G. Rhine, Ed.D.

**Professors:** Clifford D. Baker, Ed.D.; George T. Betts, Ed.D.; Antonio L. Carvajal, Ed.D.; Kay A. Ferrell, Ph.D.; Allen Huang, Ed.D.; Lewis B. Jackson, Ed.D.; J. Melvin Lane, Ed.D.; John L. Luckner, Ed.D.; Harvey Rude, Ed.D.

**Associate Professors:** Diane Bassett, Ph.D.; David L. Kappan, M.A.; Patricia A. Lee, Ed.D.; Francie R. Murry, Ph.D.; Barbara G. Rhine, Ed.D.

**Assistant Professors:** April W. Block, Ph.D.; Sandra K. Bowen, Ph.D.; Robin Diane Brewer, Ed.D.; Madeline Milian, Ed.D.; D. William Muir, M.A.; Stuart N. Omdal, Ph.D.; Debora L. Scheffel, Ph.D.

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 (PTEPs) INTRODUCTION**

The University of Northern Colorado offers four Professional Teacher Preparation Programs (PTEP) that are designed to prepare teacher education candidates for Colorado Licensure. The 2000-2001 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.

Students who complete the University's teacher-education programs will have demonstrated:

- knowledge of content in the subject(s) they teach and their relationship to state and national content standards;
- knowledge of how young people acquire knowledge and skills and how to facilitate learning through a variety of instructional practices appropriate for the age group(s) and subjects they teach;
- the ability to use a variety of assessment approaches to facilitate learning;
- a variety of oral, written and non-verbal skills to communicate effectively with diverse groups and individuals;
- ability to provide an appropriate learning environment and a variety of learning opportunities for young people with diverse experiences, skills, values, and perspectives;
- ability to apply democratic principles to the classroom and school settings;
- professional behaviors and responsibilities appropriate to the teaching profession.

A student interested in obtaining a Colorado Provisional Teacher License must apply, be admitted to, and complete one of the Professional Teacher Education Programs. Students who have completed a baccalaureate degree, but do not hold a Colorado teacher license, are encouraged to contact the School for the Study of Teaching and Teacher Education in McKee 216 to receive information on post-baccalaureate programs for teacher licensure.

Full licensure program descriptions can be found in the section on licensure and endorsement programs at the end of the College of Education section of this catalog.

## **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.

## **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 catalogs, testing dates and more information are available from the School for the Study of Teaching and Teacher Education in McKee 216.

Upon satisfactory completion of a teacher education program and any additional requirements imposed by state law, a student is eligible for institutional recommendation to the Colorado Department of Education for licensure in the State of Colorado. Recommendations for licensure are made only when students have successfully completed an approved

teacher education program. A recommendation for licensure cannot be made when a student has completed only a teaching minor.

Upon completion of an approved program a student may be recommended for licensure in states other than Colorado. Completion of the UNC program does not assure licensure in other states, as there may be specific requirements not found in the Colorado requirements. Students expecting to seek licensure in other states should check with the School for the Study of Teaching and Teacher Education in McKee 216 or correspond with the respective State Department of Education early in their program to learn of any additional requirements.

### Licensure/Endorsement Areas

The following programs have been approved by the Colorado State Board of Education for licensure/endorsement:

- Administrator's 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
- Principal's License, K-12
- Reading Teacher, K-6, 7-12
- Reading Specialist, K-12
- School Counselor, K-6, 7-12
- School Library Media, K-6, K-12, 7-12
- School Nurse, K-12
- School Psychologist, K-12
- Science, 7-12 – Biological Science, Chemistry, Earth Science, Physical Science, Physics
- Social Studies, 7-12 – Geography, History, Social Science
- Special Education Director K-12
- Special Education Teacher – Early Childhood Special Education, ages 0-5; Moderate Needs, ages 5-21; Orientation and Mobility, K-12; Severe Needs-Affective, ages 5-21; Severe Needs-Cognitive, ages 5-21; Severe Needs-Communication, ages 5-21; Severe Needs-Hearing, ages 0-21; Severe Needs-Vision, ages 0-21; Profound Needs, ages 5-21; Special Education K-12 Generalist
- Speech/Language Pathology, K-12
- Theatre Arts (Drama), 7-12
- Visual Arts (Art), K-12

Additional information regarding licensure/endorsement areas is available through the School for the Study of Teaching and Teacher Education in McKee 216.

## FACULTY – COE

- Michelle Schicke Athanasiou, Ph.D.
- Clifford D. Baker, Ed.D.
- Tracy D. Baldo, Ph.D.
- Achilles N. Bardos, Ph.D.
- Bruce G. Barnett, Ph.D.
- Frederick J. Bartelheim, Ed.D.
- Diane Bassett, Ph.D.
- Jeffrey W. Bauer, Ph.D.
- George T. Betts, Ed.D.
- Linda L. Black, Ed.D.
- Lynne M. Blackburn, Ed.D.
- April W. Block, Ph.D.
- Sandra K. Bowen, Ph.D.
- Robin Diane Brewer, Ed.D.
- Cliff Brookhart, Ed.D.
- Marcia L. Broughton, Ph.D.
- Linda J. Button, Ed.D.
- Edward P. Caffarella, Ph.D.
- Rosemary S. Caffarella, Ph.D.
- Antonio L. Carvajal, Ed.D.
- Kathryn F. Cochran, Ph.D.
- John B. Cooney, Ph.D.
- Ellis P. Copeland, Ph.D.
- Karen S. Crabtree, Ed.D.
- Rik Carl D'Amato, Ph.D.
- Carolyn W. Edwards, Ed.D.
- Roger G. Eldridge, Jr., Ph.D.
- Kay A. Ferrell, Ph.D.
- Gary Fertig, Ph.D.
- James E. Gall, Ph.D.
- Thomas J. Gavin, Ph.D.
- Michael J. Gimmestad, Ph.D.
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- John L. Luckner, Ed.D.
- Sandra Magnuson, Ed.D.
- Teresa M. McDevitt, Ph.D.
- Madeline Milian, Ed.D.
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- Jrene Rahm, Ph.D.
- Barbara G. Rhine, Ed.D.
- Harvey Rude, Ed.D.
- Jay R. Schaffer, Ph.D.
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- Joyce B. Washington, Ed.D.
- Barbara L. Whinery, Ph.D.
- Kathryn S. Whitaker, Ph.D.
- Phillip M. Wishon, Ph.D.
- Heng-Yu Ku, Ph.D.

# PROFESSIONAL TEACHER EDUCATION PROGRAMS (PTEPs)

## EARLY CHILDHOOD PROFESSIONAL TEACHER EDUCATION PROGRAM

### Program Requirements

<b>Complete General Education Program</b> .....	<b>40</b>
<b>Complete Required Courses for EC/P PTEP</b> .....	<b>39</b>
<b>Complete the Liberal Arts Interdisciplinary Major</b> .....	<b>40</b>
<b>Total minimum credits</b> .....	<b>120</b>

The Early Childhood/Primary PTEP is designed to prepare students to teach children birth-8 years. Students will be assigned an early childhood education advisor beginning with their unrelenting in EDEC 210.

One of the major features of this program includes affording students in the program opportunities to acquire and demonstrate knowledge of theory and practice necessary to plan and implement curriculum for individual children and groups. In addition, the program is designed to provide opportunities for students to acquire and demonstrate the ability to apply and analyze the core knowledge and to systematically develop curriculum, as well as to develop and conduct assessments of individual children and groups.

Another major feature of this program is the emphasis placed on preparing entry-level early childhood professionals who are able to reflect on their practices so that improved programming for children will result. In addition, the program is designed to help beginning professionals understand the importance of (and generate the will to) advocating for policies designed to improve conditions for all children, families and the profession.

The ultimate goal of the Early Childhood/Primary Teacher Education Program is to help entry-level early childhood professionals acquire the knowledge, skills, and dispositions to teach and perform effectively in the following areas:

- Planning and implementing instruction
- Assessment of Learning, Development and Instruction
- Interpersonal Relations with children with colleagues with Parents
- Personal and Professional Behavior

### Note:

1. A student's program in General Education will be the same requirements as for a student enrolled in the Elementary PTEP.
2. Students in the Early Childhood PTEP must choose the liberal arts interdisciplinary major designed for Early Childhood PTEP students.
3. Prior to admission to the EC/P PTEP, students will have successfully completed PSY 230 or an equivalent course.
4. Beginning with program admission (EDEC 210), the course sequence must be adhered to: Blocks I, II and III must be taken in sequence.

### Prerequisites for Admission to the application process:

Clearance is obtained in McKee 216 no later than the day before the assigned date for pre-registration. In order to obtain clearance necessary to be admitted to the Application Process, students must:

- Establish a minimum of a 3.0 GPA at UNC by the time the student has completed 60 semester hours. First semester transfer students' GPA's will be reviewed at the end of their first semester on campus.
- Hold sophomore standing or above.
- Have completed a minimum of 25 hours of prior volunteer or paid work experience with children in a group care setting (i.e., teacher aiding, recreation programs, youth group leader, scout leader, child care provider, camp counselor, etc.). If you have questions about meeting this requirement, please talk with your advisor, or the Coordinator of Early Childhood.
- Complete PSY 230 or equivalent

### Application to the Early Childhood PTEP

Information related to formal application to the Early Childhood PTEP will be provided in EDEC 210. This is the introductory course for the Early Childhood PTEP. Only students who have passed the clearance process will be admitted to this course. In EDEC 210, students will receive information about:

- Formal Application Process
- Fingerprint and Background Check
- TB Test
- PLACE Assessment
- Documentation of Experience with Children
- Explanation of the Early Childhood PTEP Sequence of Courses and Experiences.
- After completing the Admission Application Process, students may be fully admitted into the Early childhood PTEP, accepted provisionally (\*), or denied admittance
- Early Childhood program faculty will maintain ongoing assessment and counseling of students for purposes of deciding whether students who are admitted may continue in the program.

### Prerequisites to enroll in Cluster I

- Acceptance into the Early Childhood PTEP
- Documentation of oral proficiency: Completion of SPCO 100 and SPCO 103 with a grade of "A" or "B". Students who would like information about testing out of this requirement should contact the UNC Career Services Testing Center at (970) 351-2127.
- Completion of EDEC 210 with a grade of "B" or better.
- Successful completion of the PLACE Basic Skills Test.
- Students with a GPA of less than 3.00 will not be cleared for student teaching.
- \*Students holding "Provisional" status in the Early Childhood PTEP will not be permitted to student teach.

### Required courses - Early Childhood PTEP

Note: Students applying to this program during the Sophomore year: The application process is completed in EDEC 210. Block I is completed during the first semester of the Junior year.

#### Block I

EDEC 333 Development and Guidance of Young Children (3)  
 EPSY 347 Educational Psychology for Elementary Teachers (3)  
 ET 347 Educational Technology Applications for Elementary Teaching (1)

#### Block II: Fall

EDSE 430 Exceptional Student in the Elementary Classroom (2)  
 EDRD 419 Language and Literacy Development of Preschool and Elementary School Children (3)  
 EDEC 450 Family Diversity and Involvement Early Childhood Education (2)  
 EDEC 460 Early Childhood Curriculum (3)  
 EDEC 470 Early Childhood Student Teaching I (6)

#### Block II: Spring

MUS 206 Music Methods and Materials for Elementary Teachers (1)  
 PE 288 Physical Education Activities for the Elementary School (1)  
 ART 344 Methods of Teaching Art in the Elementary School (1)  
 EDRD 410 Achieving Effective Instruction in Developmental Reading (3)  
 EDED 480 Early Childhood Curriculum (3)  
 EDEC 490 Early Childhood Student Teaching II (6)

## ELEMENTARY PROFESSIONAL TEACHER EDUCATION PROGRAM

### Program Requirements

Complete General Education Program .....	40
Complete the required courses for the Elementary PTEP .....	41
*Complete the Interdisciplinary Studies, Liberal Arts Emphasis .....	40
<b>Total (minimum hours) .....</b>	<b>121</b>

The Elementary Professional Teacher Education Program (PTEP) is designed to prepare students to teach at the K-6 level. Students selecting this program are required to complete a liberal arts major. Students will be assigned an elementary education advisor during application to the Elementary PTEP. Students selecting this program will be assigned to cohort groups in Student Teaching Block I and Block II.

### Prerequisites for Initial Application into Elementary PTEP

Students must make formal application to the Elementary Professional Teacher Education Program prior to enrollment in Student Teaching Block I. Initial application into Elementary PTEP will occur concurrently with enrollment in **EDF 366 Conceptions of Schooling: Context and Process (4)**. Students will be assigned to one of the Elementary PTEP Coordinators for advising beginning in EDF 366.

- Sophomore status or above at time of application
- 2.75 grade point average at UNC. First semester transfer students may also apply; the GPA will be reviewed at the end of the applicant's first semester.

### Prerequisites for Student Teaching I and Student Teaching II Application

Students must also apply for admission into Student Teaching Block I and Student Teaching Block II. Students are placed in Partnership Schools in Student Teaching Block I. Students must student teach in a different school during Student Teaching Block II. Student Teaching Block I and Student Teaching Block II can not be taken sequentially. A semester of academic coursework on campus is required the first semester of the senior year.

- Initial admission into Elementary PTEP
- Completion of all prerequisite education courses except ET 347 (EDF 366, EPSY 347, EDSE 430 and ET 247)
- 3.00 UNC Cumulative GPA (must be maintained)
- Oral and Written proficiency
  - SPCO 100/SPCO 103 (grade of “B” or better) or Oral Proficiency Exam
  - Grade of “B” or better in General Education Category I course(s)
- Pass PLACE Basic Skills

### Application Process for Student Teaching Block I and Student Teaching Block II

Application for Student Teaching Block I and Block II will occur the semester prior to the student teaching blocks. Application meetings are held by the first week of September in the fall and the first week in February in the spring. Meeting dates are posted in advance on the bulletin board outside of McKee 216. Contact the School for the Study of Teaching and Teacher Education in McKee 216 for further information.

### Required Courses – Elementary PTEP

#### \*Prerequisite Courses

**EDF 366 Conceptions of Schooling: Context and Process (4)**  
**ET 247 Technology in Education for Elementary Teaching (1)**  
**EPSY 347 Educational Psychology for Elementary Teachers (3)**  
**EDSE 430 Exceptional Student in the Elementary Classroom (2)**  
**ET 347 Educational Technology Applications for Elementary Teaching (1)**

(ET 347 can be taken after Student Teaching Block I but must be completed before Student Teaching Block I)

*Student Teaching Block I - Second Semester of Junior Year (15)*  
**EDEL 460 Integrated Methods I: Reading, Language Arts, Science and Health (9)**

*6 weeks of focused content learning and 10 weeks of supervised field experiences in an assigned partnership School, Monday-Friday*

#### **EDEL 480 Student Teaching Block I and Seminars (6)**

*Field Experiences in Student Teaching Block I will occur in an assigned Partnership School on or around the Greeley area.*

*Student Teaching Block II - Second Semester of Senior Year (15)*

#### **EDEL 470 Integrated Methods II: Math, Social Studies, Art, Music and Physical Education (9)**

*Integrated Methods II: Math, Social Studies, Art, Music and Physical Education (9)*

#### **EDEL 490 Student Teaching and Debriefing Seminar (8)**

*Field experience in Student Teaching Block II will occur in an assigned Partnership or Student Teaching School.*

\*Prerequisite courses must be taken before Student Teaching Block I

## MIDDLE GRADES PROFESSIONAL TEACHER EDUCATION PROGRAM

### Program Requirements

Complete General Education Program .....	40
Complete the required courses for the Middle Grades PTEP .....	41
Required Support Teaching Field .....	0-18
Complete the liberal arts major .....	39-70
<b>Total .....</b>	<b>120-169</b>

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 courses 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 courses.

Students will complete a formal application while enrolled in EDMG 200. A minimum grade point average of 2.50 is required prior to enrollment. First semester transfer students may enroll their first semester on campus, and the GPA will be evaluated at the end of the semester.

### Pre-Professional Cluster (courses are to be taken concurrently)

- EDMG 200 Exploring Teaching: Emphasis in the Middle Grades (2)
- ET 248 Technology in Education for Middle Grades Teaching (1)
  - Introductory Cluster (courses are to be taken concurrently)*
  - EDMG 310 Working with Middle Grades Students in the Classroom (1)
  - EDF 366 Conceptions of Schooling: Context and Process (4)
  - EPSY 348 Educational Psychology for Middle School Teachers (3)
    - Intermediate Cluster 1 (courses are to be taken concurrently)*
    - EDMG 320 Introduction to Middle School Grades Education (2)
    - EDMG 321 Middle Grades Teaching and Learning (3)
    - EDSE 311 Including Exceptional Students in Middle Grades Classroom (1)
      - Intermediate Cluster 2 (courses are to be taken concurrently)*
      - EDMG 440 Middle Grades Integrated Curriculum and Instruction (5)
      - EDRD 340 Developing Language and Literacy in the Content Areas (3)
      - EDSE 411 Strategies for Teaching the Exceptional Student at the Middle Grade Level (2)
      - ET 348 Educational Technology Applications for Middle Grades Teaching (1)
        - Middle Grades Internship (courses are to be taken concurrently)*
        - EDMG 490 Middle Grades Student Teaching (12)
        - EDMG 491 Middle Grades Student Teaching Seminar (1)
          - Clusters are to be taken in sequence.*

## K-12 PROFESSIONAL TEACHER EDUCATION PROGRAM

### Program Requirements

Complete General Education Program .....	40
<b>For additional program requirements, see the specific K-12 program area (Music Education, Physical Education, Visual Arts: Art Education and Special Education)</b>	

The University of Northern Colorado prepares K-12 teachers in the areas of art, music, physical education and special education. The focus of the K-12 Professional Teacher Education Program (PTEP) is to prepare new teachers who will be familiar with the process of reflective teaching in such a way that they are able to continue growing and developing towards becoming master teachers. The emphasis of the K-12 program is on content and pedagogy within the context of the major discipline. Within the K-12 program, prospective teachers are involved in a series of structured clinical and field experiences with kindergarten through high school students in order to integrate effective pedagogical strategies with appropriate classroom content.

In addition to their content program, all prospective teachers in the K-12 PTEP take a common pedagogical core that complements their respective programs. *This core includes the following set of coursework:*

- EDFE 270 Field Based Experience (2)
- EDF 366 Conceptions of Schooling: Context and Process (4)
- EPSY 346 Learning and Development for Teachers (2)
- EDSE 433 Exceptional Students in the Regular Classroom (2)
- EDRD 423 Reading and Writing in the Content Areas (3)
- EDFE 444 Supervised Teaching (1-18)

Students completing a licensure program in Music, Physical Education, Visual Arts and Special Education will make formal application while enrolled in EDFE 270. A minimum grade point average of 2.50 is required prior to enrollment. First semester transfer students may enroll their first semester on campus and the GPA will be evaluated at the end of the semester. In addition to courses required in the major, students will also be required to complete the courses listed under Professional Teacher Education programs located in the beginning of the Catalog. Students wishing to take pedagogical core courses concurrent with EDFE 270 should contact the School for the Study of Teaching and Teacher Education, McKee 216.

## SECONDARY PROFESSIONAL TEACHER EDUCATION PROGRAM

Students who were admitted and began their teacher preparation programs prior to July 1, 2000 may complete the degree requirements published in the 1999-2000 catalog.

### Program Requirements

Complete General Education Program .....	40
Complete Required Content Major .....	38-50
Complete Secondary PTEP .....	38-41
<b>Total (minimum hours) .....</b>	<b>120-128</b>

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 (8 semester hours):*

STEP 161 Observation and Analysis of Secondary Teaching I (2)

EDF 366 Conceptions of Schooling: Context and Process (4)

ET 249 Technology in Education for Secondary Teaching (1)

*The following three courses are to be taken concurrently (8 semester hours):*

STEP 262 Observation and Analysis of Secondary Teaching II (2)

EPSY 349 Educational Psychology for Secondary Teachers (3)

EDSE 360 Adaptation, Modification, and Integration of Curriculum for the Secondary Exceptional Learner (3)

*The following four courses are to be taken concurrently (9-12 semester hours):*

STEP 363 Clinical Experience: Secondary (2)

EDRD 340 Developing Language and Literacy in the Content Areas (3)

ET 349 Educational Technology Applications for Secondary Teaching (1)

XXXX Secondary Methods (3-6)

*Students will select the appropriate method course(s) from these existing classes (3-4 semester hours):*

*Select one of the following two courses:*

EED 341/EED 541 Methods and Materials for Teaching Language and Composition in the Secondary School (3)

EED 402 Methods and Materials for Teaching Young Adult Literature in the Secondary Schools (4)

*and complete the following courses (4 semester hours):*

FL 341 Methods of Teaching in the Secondary School (3)

GEOG 410 Teaching Geography in Secondary Curriculum (1)

*and select one of the following two courses (1-3 semester hours):*

HIST 400 Teaching History in the Secondary Curriculum (1)

SOSC 341 Teaching Secondary Social Studies (3)

*and complete the following (13-26 semester hours):*

SCED 441 Methods of Teaching Secondary School Science (3)

MED 441 Methods of Teaching Mathematics (3)

SPCO 352 Methods of Teaching Speech Communication (3)

THEA 385 Methods of Teaching Drama (3)

STEP 464 Secondary Student Teaching (1-14)

Students will make formal application and complete admission requirements while enrolled in STEP 161. A minimum grade point average of 2.50 is required prior to enrollment. First semester transfer students may enroll their first semester on campus and the GPA will be evaluated at the end of the semester.

### Please Note:

The University of Northern Colorado is redesigning its teacher education programs to meet new statutory requirements adopted by the Colorado General Assembly which include the ability of a student to complete the graduation requirements in four academic years and 800 hours of field experience. The approval of existing teacher preparation programs will terminate on June 30, 2001. The redesigned programs will be reviewed and reauthorized by the Colorado Commission on Higher Education in 2000-2001. Since the new teacher preparation curriculum is not available at the time of this catalog printing, new students who intend to enroll in teacher preparation programs should consult with their assigned advisor or in the School for the Study of Teaching and Teacher Education in the College of Education immediately to plan their curriculum.



## MINORS – COE

### EARLY CHILDHOOD MINOR

#### Program Requirements

**Total credits required for this minor . . . . . 18**

#### Required Credits – 18 semester hours

- EDEC 336 Child Within the Family (3)
- EDEC 333 Development and Guidance of Young Children (3)
- EDEC 439 Parent/Child/Teacher Relationships (3)
- EDEC 460 Early Childhood Curriculum (3)
- EDEC 462 Classroom Management in Early Childhood (3)
- EDEC 463 Diagnostic Teaching in Early Childhood (3)

#### *Child Care Center Director*

- EDEC 231 Development of Infants and Toddlers (3)
- EDEC 334 Preschool/Kindergarten Curriculum and Methods (3)
- EDEC 437 Administration of Programs for Young Children (3)
- FND 250 Principles of 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.

### READING MINOR

#### Program Requirements

**Total credits required for this minor . . . . . 20**

#### Required Credits – 3-9 semester hours

- \*EDRD 410 Achieving Effective Instruction in Developmental Reading (3)
- \*EDRD 411 Elementary Reading Diagnosis and Individualization (3)
- \*EDRD 414 Literature for Children, Adolescents and Young Adults (3)
- \*\*EDRD 423 Reading and Writing in the Content Areas (3)
- \*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 Literacy Workshop (1-10)
- EDRD 401 Practicum in Literacy (1-3)
- EDRD 414 Literature for Children, Adolescents and Young Adults (3)
- EDRD 419 Language and Literacy Development of Preschool and Elementary School Children (3)

Elective courses are to be chosen in consultation with advisor.

### SPECIAL EDUCATION MINOR

#### Program Requirements

**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. Additional requirements in other special education programs must be met before students with a minor are eligible for special education licensure.

#### Required Credits – 6 semester hours

#### *Special Education Core*

- EDSE 201 Culture of Special Education (3)
- EDSE 202 Communication, Consultation, and Collaboration in Special Education (3)

Contact the School for the Study of Teaching and Teacher Education prior to enrollment in EDSE 320, EDSE 323, EDSE 324, EDSE 325, EDSE 326, EDSE 442, or EDSE 443 for clearance to register.

#### Required Elective Credits – 12 semester hours

- EDSE 320 Assessment in Special Education (3)
- EDSE 323 Methods for Elementary Students with Exceptionalities (3)
- EDSE 324 Special Education Practices in Secondary Schools (4)
- EDSE 325 Behavioral Dimensions of Students with Exceptionalities I (3)
- EDSE 326 Behavioral Dimensions of Students with Exceptionalities II (4)
- EDSE 406 Behavior is Language: Special Education Strategies for Managing Disruptive Behavior (3)
- EDSE 440 Introduction to the Education of the Visually Handicapped (3)
- EDSE 442 Language and Literacy for Students with Severe Delays (3)
- EDSE 443 Support System in Special Education (4)
- EDSE 450 Introduction, Severe Needs: Hearing (3)
- EDSE 451 Basic Sign Language (3)

## LICENSURE PROGRAMS

### ADMINISTRATORS' LICENSURE: DISTRICT LEVEL LEADERSHIP (NON-DEGREE)

#### Philosophy

The underlying philosophy of programs in Educational Leadership at UNC is that educational leaders possess knowledge of self, others, organizations and society necessary to perform creatively and effectively in diverse environments. They engage people in identifying and working toward the accomplishment of a shared vision for the organization. Leaders incorporate the ideas, values, and experiences reflective of a pluralistic society and promote continual learning.

The program is exemplified by the following beliefs:

- Human growth and development are lifelong pursuits;
- Organizations are artifacts of a larger society;
- Learning, teaching, and collegiality are fundamental activities of educational organizations;
- Validated knowledge and active inquiry form the basis of practice;
- Moral and ethical imperatives drive leadership behavior;
- Leadership encompasses a learned set of knowledge, skills, and attitudes;
- Effective leadership in educational organizations depends on individual and team efforts;
- Leaders' behavior and actions model their beliefs and values;
- Leaders effect positive change in individuals and organizations.

#### 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 (McKee 418) describes materials for admission review by the faculty: current resume, goals statement, essay regarding an educational issue, and Professional Assessment Forms. Admission decisions are made throughout the year.

#### Program Requirements

The Administrator Licensure Program in the Division of Educational Leadership and Policy Studies provides opportunities for candidates to acquire the knowledge and skills needed for the day-to-day demands of the administrative positions that provide leadership for family-school-community efforts to improve education. The program not only provides opportunities for students to develop an in-depth understanding of district office roles and responsibilities, but also develops a breadth of understanding of leadership, policy development, local school governance, and contemporary educational issues.

Entering students who already possess a Master's Degree in Educational Leadership or a Principal License (or equivalent) need a minimum of 17 semester hours of graduate coursework and an internship (4 hours). The Administrator License requires completion of the Leadership Core as a prerequisite for endorsement for the Administrator License. These core learning experiences may be satisfied by equivalent prior learning experiences.

This total 21 credit hour requirement is a minimum expectation for program completion. Required courses, however, may be waived by the Division if a student has taken an equivalent graduate course within the previous eight (8) years or can demonstrate the knowledge and skills for a Colorado Administrator License (see Standards for School Administrators in Colorado).

#### Required Credits – 21 semester hours (minimum)

ELPS 606 Internship (minimum 2 hours at central office and 2 hours with other agencies) (4)

ELPS 654 Supervision of Curricular and Instructional Programs (5)

ELPS 665 Policy Analysis and Development (3)

ELPS 747 Leadership at the School District Level (3)

and select one of the following two courses:

ELPS 650 School Finance and Budgeting (3)

ELPS 651 School Business Management (3)

and select one of the following two courses:

SRM 670 Evaluation: Models and Designs (3)

EPSY 674 Measurement I: Educational Testing (3)

### EARLY CHILDHOOD EDUCATION, POST-BACCALAUREATE LICENSURE

#### 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 License, endorsed Elementary Education;
- Completion of a minimum of one course in human growth and development or its equivalent;
- Demonstrate appropriate literacy and competency in computer applications. ET 503 or the equivalent may be used to meet this requirement.

#### Required Credits – 18-22 semester hours

EDEC 539 Parent Education and Involvement in Early Childhood/Primary (3)

EDEC 660 Critical Issues in Early Childhood (3)

EDEC 664 Seminar in Early Childhood and Primary Education (3)

EDEC 670 Curriculum and Instruction in Early Childhood and Primary Education (3)

EDEC 675 Play and Psychosocial Development in Early Childhood (3)

EDEC 601 Practicum (1-3)

and select one of the following courses:

EDRD 519 Reading and Writing Development of Preschool/Primary Children (2)

EDEC 648 Psycholinguistics in Early Childhood (3)

**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-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 216 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.

- Middle Grades Education
- Secondary Education

## ELEMENTARY EDUCATION POST-BACCALAUREATE LICENSURE

### Program Requirements

Complete the required credits specified here . . . . . 47

Must apply through the Graduate School.

#### Prerequisites

- For students seeking first time licensure, a completed Baccalaureate degree in liberal arts, humanities, sciences, mathematics, social studies, health or equivalent to those listed in this catalog. Students will have their transcripts evaluated for liberal arts content;
- For students seeking an added endorsement (already hold a Colorado teaching certificate/license in a professional area), there is a 41 semester hour requirement plus any necessary content background courses.

#### Admission for First Time Licensure

Students seeking first time licensure are admitted into the program beginning the first summer session of any year and must attend full time in order to complete all course work and student teaching in three semesters. Applications must be received by February 1st of any year to begin the program the first summer session of that year. All applicants wishing to count licensure hours toward a Master of Arts Degree in Elementary Education must apply to the Graduate School for admission into the Master of Arts Degree Program at the same time he or she applies to the Post-Baccalaureate Licensure Program in Elementary Education.

#### Required Credits — 47 Semester Hours

- CH 303 Health Education in the Elementary School (1)
- EDEL 520 Effective Instruction in Elementary School Mathematics (3)
- EDEL 525 Integrated Methods: Visual Arts, Music and Physical Education (3)
- EDEL 540 Effective Instruction in Elementary School English/Language Arts (3)
- EDEL 544 Student Teaching and Capstone Seminar (12)
- EDEL 550 Effective Instruction in Elementary School Social Studies (3)
- EDEL 602 Elementary School Practicum (3)
- EDF 500 Conceptions of Schooling (3)
- EDRD 510 Achieving Effective Instruction in Developmental Reading (3)
- EDRD 511 Elementary Reading Diagnosis and Individualization (3)
- EDSE 430 Exceptional Student in the Elementary Classroom (2)
- EPSY 347 Educational Psychology for Elementary Teachers (3)
- ET 501 Introduction to Applications of Educational Technology (3)
- SCED 671 Elementary and Middle School Science Curriculum (3)

**Notes:** Applicants must have an overall 3.0 GPA for admission. If the grade point average is below 3.0, the applicant is required to take the Graduate Record Examination receiving a combined score of 1300 or higher. The Basic Skills sub-test of the Colorado PLACE test must be passed prior to admission or concurrently with the first semester of enrollment.

EDEL 520, EDEL 540, EDEL 550 and EDRD 510 must be taken at UNC. Students may petition for course equivalence consideration for a maximum of two classes. 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. EDEL 544 (Student Teaching) must be completed in grades K-6 in an elementary school setting.

#### Admission for Added Endorsement

Students seeking an added endorsement to teach at the elementary school level may apply to the program prior to any semester. All applicants wishing to count licensure hours toward a Master of Arts Degree in Elementary Education must apply to the Graduate School for admission into the Master

of Arts Degree Program at the same time he or she applies to the Post-Baccalaureate Licensure Program in Elementary Education.

#### Required Credits — 41 Semester Hours

- CH 504 Issues in Elementary School Health Education (3)
- EDEL 525 Integrated Methods: Visual Arts, Music and Physical Education (1-3)
- EDEL 544 Student Teaching and Capstone Seminar (12)
- EDEL 602 Elementary School Practicum (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 Application for Instruction in Social Studies, K-9 (3)
- EDRD 612 Reading in the Elementary Schools (3)
- EDRD 511 Elementary Reading Diagnosis and Individualization (3)
- EDRD 614 Literature for Children, Adolescents and Young Adults (3)
- SCED 671 Elementary and Middle School Science Curriculum (3)

**Notes:** EDEL 544 (Student Teaching) must be completed in grades K-6 in an elementary school setting.

For more information about the Post-Baccalaureate Licensure Program in Elementary Education, stop by the SSTTE Office, McKee 216, or call for an appointment with the Coordinator of this program.

## PRINCIPALS' LICENSURE (NON-DEGREE)

### Philosophy

The underlying philosophy of programs in Educational Leadership at UNC is that educational leaders possess knowledge of self, others, organizations, learning, and society necessary to perform creatively and effectively in diverse environments. They engage people in identifying and working toward the accomplishment of a shared vision for the organization. Leaders incorporate the ideas, values, and experiences reflective of a pluralistic society and promote continual learning.

The program is exemplified by the following beliefs:

- Human growth and development are lifelong pursuits;
- Organizations are artifacts of a larger society;
- Learning, teaching, and collegiality are fundamental activities of educational organizations;
- Validated knowledge and active inquiry form the basis of practice;
- Moral and ethical imperatives drive leadership behavior;
- Leadership encompasses a learned set of knowledge, skills, and attitudes;
- Effective leadership in educational organizations depends on individual and team efforts;
- Leaders' behavior and actions model their beliefs and values;
- Leaders effect positive change in individuals and organizations.

### Program Requirements

The principals' licensure program provides opportunities to acquire knowledge about leadership in P-12 educational settings. The program is designed according to the Standards for Principals through the Colorado Department of Education and State Board of Education. Program requirements include thirty semester hours of coursework including a field experience.

Entering students must possess a bachelor's degree from an accredited college or university. Students may work concurrently on the principal's license and a Master of Arts degree (M.A.) or an Educational Specialist degree (Ed.S.) 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 - 6 hours

ELPS 601 Leadership Development Through Inquiry (3)  
 ELPS 603 Shaping Organizations: Management and Leadership in Education (5)  
 ELPS 604 Understanding People: Professional Development and Educational Leadership (3)  
 ELPS 605 External Environments: Social, Political, and Economic Influences in Educational Leadership (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: Leadership at the School Site Level (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 (McKee Hall) describes materials for admission review by the faculty: current resume, goals statement, essay regarding an educational issue, and Professional Assessment Forms. Admission decisions are made throughout the year.

## READING LICENSURE

### Reading Specialist Endorsement

#### Program Requirements

##### Reading Specialist Licensure Endorsement

**Total Hours Required. . . . . 59 semester hours**

##### 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.

The K-12 Reading Specialist Endorsement is designed to prepare students to: 1) provide professional guidance and expertise to school and/or district literacy curriculum, instruction, and assessment programs; 2) develop and conduct inservice programs related to literacy teaching and learning; 3) team teach with classroom teachers; 4) serve as an in-class consultant, collaborator, and/or coach with classroom teachers; and 5) to provide professional guidance and expertise regarding the instructional needs of children with reading/literacy difficulties. As required by the State of Colorado, the K-12 Reading Specialist endorsement program is designed to be a sixth year graduate program of studies. Equivalent graduate courses may be waived by the student's assigned advisor. Most students entering the program will have a Master of Arts Degree in Reading and/or a Reading Endorsement at the Elementary or Secondary level. Students in the K-12 Reading Specialist program are required to obtain the alternate endorsement in Reading.

#### K-12 Specialist: CHANGES

To successfully complete the K-12 Reading Specialist academic program an applicant must:

- Have successfully completed graduate studies in the teaching of reading to qualify for Reading Teacher Endorsement at both the elementary and secondary levels. An elementary or secondary Reading Teacher shall have completed preparation in reading at the level alternate to the initial Reading Teacher Endorsement.
- Have completed all course requirements with a letter grade of "B" or better.

To receive the K-12 Reading Specialist Licensure Endorsement from the State of Colorado, the applicant must also pass the Colorado PLACE Test for Reading Specialist Endorsement.

#### Reading Specialist Licensure Endorsement Course Requirements

##### Required Literacy Courses - 35 semester hours

- EDRD 612 Reading in the Elementary Schools (3)
- EDRD 614 Literature for Children, Adolescents and Young Adults (3)
- EDRD 617 Evaluation and Improvement of Literacy Teaching and Learning (4)
- EDRD 620 Reading in the Middle and Secondary Schools (3)
- EDRD 621 Critical Reading and Thinking in Content Subjects (3)
- EDRD 642 Teaching the Writing Process in Schools (3)
- EDRD 645 Reading/Literacy Research (3)
- EDRD 670 Directing a School-Wide Reading/Writing Program (3)
- EDRD 692 Clinical Practicum in Literacy Coaching (4)
- and select one of the following courses*
- EDRD 694 Reading Center Internship: Adult Reading, Literacy and/or Supervision (3)
- EDRD 701 Advanced Practicum in Literacy (3)
- and select one of the following courses:*
- EDRD 622 Directed Study (3) (Content to be determined with Advisor)
- EDRD 717 Advanced Diagnostic/Instructional Problems in Literacy Development (3)

##### Required Support Courses - 24 semester hours

- EDEL 619 Pluralism in Education (3)
- SRM 600 Introduction to Graduate Research (3)
- SRM 670 Evaluation: Models and Designs (3)
- EDLD 602 Teaching Linguistically Diverse Learners (3)
- EDLD 603 Methods and Assessment for ESL and Bilingual Education (3)
- ELPS 662 Design and Delivery of Professional Development (3)
- ELPS 655 Seminar in Learning in Adulthood (3)
- and select one of the following courses:*
- EED 541 Teaching Language and Composition (3)
- EDEC 670 Curriculum and Instruction in Early Childhood and Primary Education (3)
- EDEL 612 The Elementary School Curriculum (3)
- EDMS 667 Assessment, Design and Evaluation of Middle School Curriculum (3)
- EDRD 618 Literacy Instruction for Emerging Readers and Writers at Risk (3)
- EDSE 500 Field of Special Education (3)
- EDSE 501 The Exceptional Learner (3)

**Notes:** Applicants must have an overall 3.0 GPA on the last 100 quarter/66 semester hours for full admission to this program. Applicants must complete a Reading Program Application in addition to the Graduate School Application.

Students wishing to obtain Colorado licensure in this area are required to pass proficiency examination(s). Students should contact the School for the Study of Teaching and Teacher Education in McKee 216 for information.

## READING LICENSURE

### Reading Teacher Endorsement

#### Program Requirements

Elementary (K-6) .....	32
Secondary (7-12) .....	32

#### Must apply through the Graduate School.

Endorsements are granted by the Colorado Department of Education upon the recommendation of the University of Northern Colorado Licensure Officer. Courses taken at other accredited institutions within the preceding 10 years may be accepted in lieu of courses taken at UNC. However, these courses will be assessed by the UNC Graduate Evaluator before acceptance. Applicants should be prepared to present evidence of course appropriateness (e.g., a catalog and course syllabus) to address questions regarding the content, scope and/or focus of a course completed at another university.

The Reading Teacher Endorsement is designed to prepare students to: 1) provide professional guidance and expertise to school literacy curriculum, instruction and assessment programs; 2) serve as a literacy coach to classroom teachers; 3) to work with students experiencing literacy difficulties; and 4) to provide professional guidance and expertise regarding the instructional needs of children with reading and literacy difficulties. As required by the State of Colorado, the Reading Teacher endorsement program is designed to be a fifth year graduate program of studies. Equivalent graduate courses may be waived by the student's assigned advisor.

#### Reading Licensure: CHANGES

To successfully complete the Reading Teacher Endorsement Program, an applicant must complete all courses with a letter grade of "B" or better. To receive the Reading Teacher Endorsement from the State of Colorado, the applicant must also:

- 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.
- Pass the Colorado PLACE Test for Reading Teacher Endorsement.

#### Elementary Reading Teacher Course Requirements - 32 semester hours

EDRD 612 Reading in the Elementary Schools (3)

EDRD 614 Literature for Children, Adolescents and Young Adults (3)

EDRD 617 Evaluation and Improvement of Literacy Teaching and Learning (4)

EDRD 645 Reading/Literacy Research (3)

EDRD 692 Clinical Practicum in Literacy Coaching (4)

EDEL 619 Pluralism in Education (3)

*and select four elective courses in collaboration with your advisor*

\*EDRD 670 Directing a School-Wide Reading/Writing Program (3)

*(highly recommended)*

#### Secondary Reading Teacher Course Requirements - 32 semester hours

EDRD 614 Literature for Children, Adolescents and Young Adults (3)

EDRD 617 Evaluation and Improvement of Literacy Teaching and Learning (4)

EDRD 620 Reading in the Middle and Secondary Schools (3)

EDRD 645 Reading/Literacy Research (3)

EDRD 692 Clinical Practicum in Literacy Coaching (4)

EDEL 619 Pluralism in Education (3)

*and select four elective courses in collaboration with your advisor*

EDRD 670 Directing a School-Wide Reading/Writing Program (3)

*(highly recommended)*

**Notes:** Applicants must have an overall 3.0 GPA on the last 100 quarter/66 semester hours for full admission to this program. Applicants must complete a Reading Program Application in addition to the Graduate School Application.

Students wishing to obtain Colorado licensure in the area are required to pass proficiency examination(s). Students should contact the School for the Study of Teaching and Teacher Education in McKee 216 for information.

## SPECIAL EDUCATION ADMINISTRATION, POST MASTER'S LICENSURE PROGRAM

### Program Requirements

Complete the required credits specified here . . . . . 38-48

#### Admission

The Special Education Administration Endorsement Program is designed to prepare students to become special education administrators. The endorsement is a post-master's licensure and all students must have completed a master's degree at an accredited institution. Students are admitted to the program if they meet the admission requirements of the Graduate School, are teacher licensed and have completed three years of successful teaching experience or its equivalent. In addition to the admission requirements, a student must hold or be eligible for Colorado licensure as Special Education Teacher I: Moderate Needs or the equivalent.

The course of study is a highly individualized program based on the background of the student and is designed to provide broad knowledge base for all areas of special education.

Depending upon the licensure of the student, a program is designed to provide an in-depth knowledge of the field of special education, emphasizing the wide variety of needs of special children with regard to delivery systems, evaluation, programming, identification, finance, law and due process.

#### Required Credits — 38-48 semester hours

##### Special Education Core

- EDSE 500 Field of Special Education (3)
- EDSE 501 The Exceptional Learner (3)
- EDSE 502 Communication, Collaboration and Consultation for Special Educators (3)
- EDSE 503 Effective School Environments for Learners with Exceptional Needs (3)
- EDSE 505 Assessment of Exceptional Individuals (3)

##### Special Education Administration

- EDSE 520 Survey of Learners with Profound Needs (3)
- EDSE 601 Supporting Special Students in the Mainstream (3)
- EDSE 680 Administration and Supervision of Special Education (3)
- EDSE 681 Administrative Planning and Program Evaluation in Special Education (3)
- EDSE 718 Advanced Seminar in Education of Students with Hearing and/or Visual Handicaps (3)
- EDSE 730 Externship in Special Education (1-12)
- ELPS 650 School Finance and Budgeting (3)
- ELPS 660 Law and the Administrator (3)

Students wishing to obtain Colorado licensure in this area are required to pass proficiency examination(s). Students should contact the School for the Study of Teaching and Teacher Education in McKee 216 for information.

## TEACHER EDUCATION LICENSURE PROGRAM IN SPECIAL EDUCATION

### Program Requirements

Required Special Education credits . . . . .	36-48
Required PTEP core credits . . . . .	8
Required General Education Credits . . . . .	25-40
Required Liberal Arts major with minimum credits (recommended by advisor) . . . . .	40
<b>Total credits required for this degree and licensure program . . . . .</b>	<b>124-136</b>

The Teacher Education Program in Special Education is designed to prepare students to teach students with special needs in school settings (K-12) and prepare students who seek licensure as special education teachers.

Students will make formal application to the Teacher Education Program in Special Education in EDFE 270. Provisional admission to the program is required prior to enrollment in EDSE 300 level courses. Full admission to the program is required prior to enrollment in 400 level courses in the program.

Students should consult with a Special Education advisor about selecting an appropriate Liberal Arts major that integrates well with this licensure program and enables completion of the program in 128 semester hours or less.

Students will:

- Become familiar with current best practices, research, and problem-solving methods.
- Develop appropriate curriculum and deliver effective instruction.
- Think critically and communicate effectively.
- Be a responsible and collaborative change agent.
- Attain a capacity for self-directed learning with a corresponding commitment to lifelong learning.
- Adhere to professional ethics standards.

#### Prerequisites for provisional admission to professional education:

- Sophomore status or above at time of application.
- 2.75 grade point average at UNC. First semester transfer students may apply; the GPA will be reviewed at the end of the semester.

#### Prerequisites for full admission to professional education:

- 2.75 grade point average at UNC.
- 3.00 grade point average in required courses in the program.
- Completion of professional teacher education admission requirements as designated in EDFE 270.

Contact the Division of Special Education in McKee 29 for further information.

##### PTEP Requirements - 8 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)

##### Required Credits - 48 semester hours

- EDSE 201 Culture of Special Education (3)
- EDSE 202 Communication, Consultation, and Collaboration in Special Education (3)
- EDSE 320 Assessment in Special Education (3)
- EDSE 323 Methods for Elementary Students with Exceptionalities (3)
- EDSE 324 Special Education Practices in Secondary Schools (4)
- EDSE 325 Behavioral Dimensions of Students with Exceptionalities I (3)
- EDSE 326 Behavioral Dimensions of Students with Exceptionalities II (4)
- EDSE 442 Language and Literacy for Students with Severe Delays (3)
- EDSE 443 Support System in Special Education (4)
- EDSE 444 Student Teaching in Special Education (12)
- EDRD 410 Achieving Effective Instruction in Developmental Reading (3)
- EDRD 411 Elementary Reading Diagnosis and Individualization (3)

## ENDORSEMENT PROGRAMS

### BILINGUAL BICULTURAL EDUCATION - ENDORSEMENT

Elementary Education and Middle School Education

#### Endorsement Requirements

**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 and Middle School Education students who wish to be licensed to teach in elementary (K-6) and middle school (5-9) Bilingual Bicultural Education programs. Courses are provided in Spanish language skills, culture of the Southwest and of Hispanics in the United States, methodology, language skill assessment theory and practice. For elementary education, this program can be combined with a major in other Arts and Sciences subjects or realized within our Spanish major. For middle school, this program can be combined with an approved major for middle school.

#### Requirements

Students must have completed the Intermediate Spanish courses and 300-level skill-building courses or equivalent before enrolling in SPAN 411 and SPAN 412.

#### Required Credits — 18 semester hours

- HISP 395 Historical, Philosophical, Legal and Cultural Dimensions of Bilingual Education (3)
- HISP 400 Methods and Assessment for Bilingual Education and ESL (3)
- SPAN 411 Spanish for Bilingual Education I (3)
- SPAN 412 Spanish for Bilingual Education II (3)
- and select one of the following two courses:*
- MAS 101 Introduction to Mexican American Studies (3)
- HISP 102 Hispanic Cultures in the United States (3)
- and select one of the following two courses:*
- ANT 210 Field Methods in Cultural Anthropology (3)
- SPCO 323 Intercultural Communication (3)

Students must pass the Hispanic Studies Department's oral proficiency interview in Spanish at the intermediate level before being allowed to enter student teaching. Students who have not completed SPAN 202 or who have not completed, as a minimum, 4 years of high school Spanish or are native speakers with no formal training in Spanish may have to complete additional Spanish courses to meet requirements.

### BILINGUAL BICULTURAL EDUCATION - ENDORSEMENT

Secondary Education

#### Endorsement Requirements

**Required endorsement credits . . . . . 20**

**Required elective credits in literacy and reading . . . . . 3**

**Total credits required for this endorsement . . . . . 23**

Courses for Bilingual Bicultural Education Endorsement are provided by several program areas across two colleges: Hispanic Studies, English and Speech Communication in the College of Arts and Sciences; and the School for the Study of Teaching and Teacher Education in the College of Education. The College of Arts and Sciences and the College of Education share a commitment to the TESL endorsement.

Students enrolled in the Secondary Professional Teacher Education Program or who hold teacher licensure at the secondary level (7-12) are eligible to participate in this program.

#### Required Credits — 20 semester hours

- HISP 395 Historical, Philosophical, Legal and Cultural Dimensions of Bilingual Education (3)
- TESL 400 Methods and Approaches of ESL/EFL (3)
- HISP 400 Methods and Assessment for Bilingual Education and ESL (3)
- SPAN 411 Spanish for Bilingual Education I (3)
- SPAN 412 Spanish for Bilingual Education II (3)
- EDFE 401 Practicum (2)

*and select one of the following courses:*

- MAS 101 Introduction to Mexican American Studies (3)
- HISP 102 Hispanic Cultures in the United States (3)

*and select one of the following two courses:*

- SPCO 323 Intercultural Communication (3)
- ANT 210 Field Methods in Cultural Anthropology (3)

#### Required supporting credits in literacy and reading — 3 semester hours

*Courses that meet this requirement can include the following:*

- SPAN 304 Introduction to Hispanic Literature (3)
- SPAN 350 Masterpieces of Spanish Literature (3)
- SPAN 351 Masterpieces of Latin American Literature (3)
- SPAN 455 Spanish Readings (3)

#### Requirements

Students must be enrolled in the Secondary Professional Teacher Education Program or hold teacher licensure at the secondary (grades 7-12) level.

Prerequisite: HISP 395 Historical, Philosophical, Legal and Cultural Dimensions of Bilingual Education (3) and HISP 400 Methods and Assessment for Bilingual Education and ESL (3) or TESL 400 Methods and Approaches of ESL/EFL (3) must be taken prior to doing Practica.

Students must take the English as a Second Language PLACE assessment to be eligible for licensure in Colorado.

**Note:** The program is administered by the Department of Hispanic Studies.





## BILINGUAL BICULTURAL EDUCATION - GRADUATE ENDORSEMENT

Elementary and Middle School Education  
Secondary Education

### Endorsement Requirements

This graduate level endorsement program in Bilingual Bicultural Education emphasizes the study of the structures of English and Spanish, second language acquisition, and methodology related to teaching in a dual language classroom. This program leads to recommendation to Colorado's Linguistically Diverse: Bilingual Education endorsement. The Elementary and Middle School Education Program must be completed in conjunction with, or after the completion of the Elementary or Middle School Licensure Program. The Secondary Education Program must be completed in conjunction with, or after the completion of a Secondary Teacher Preparation Program.

### Elementary and Middle School Education Endorsement

**Total credits required — 18 semester hours**

- EDEL 619 Pluralism in Education (3)
- EDLD 600 Literacy and Content Instruction in Spanish Bilingual Classrooms (3)
- EDLD 602 Teaching Linguistically Diverse Learners (3)
- EDLD 603 Methods and Assessment for ESL and Bilingual Education (3)
- EDLD 604 Field Experience in TESOL and Bilingual Education (3)
- SPAN 555 Spanish Readings (3)

### Secondary Education Endorsement

**Total credits required — 21 semester hours**

- EDEL 619 Pluralism in Education (3)
- EDLD 600 Literacy and Content Instruction in Spanish Bilingual Classrooms (3)
- EDLD 602 Teaching Linguistically Diverse Learners (3)
- EDLD 603 Methods and Assessment for ESL and Bilingual Education (3)
- EDLD 604 Field Experience in TESOL and Bilingual Education (3)
- EDRD 620 Reading in the Middle and Secondary Schools (3)
- SPAN 555 Spanish Readings (3)

**Note:** Students are required to take Spanish Oral Proficiency Exam (OPE). Additional language courses may be required if they do not pass the OPE.

## SCHOOL LIBRARY MEDIA ENDORSEMENT

K-6, K-12 and 7-12 Endorsement Levels

### Program Requirements

<b>K-12 School Library Media Endorsement</b>	.....	<b>33</b>
<b>K-6 School Library Media Endorsement</b>	.....	<b>30</b>
<b>7-12 School Library Media Endorsement</b>	.....	<b>30</b>

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 teaching license (or equivalent) teaching license;
- 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 degree or (non-degree) program in Educational Media in an accepted institution of higher education including field experience appropriate for the level of endorsement.

The University of Northern Colorado School Library Media Program has been designed to meet or exceed competency requirements set by the Colorado Department of Education. Students who do not already hold an M.A. degree who are interested in obtaining a School Library Media Endorsement should investigate the M.A. program in Educational Media. The major difference between the M.A. and this program is 6 additional hours.

Endorsements are granted by the Colorado Department of Education upon the recommendation of the University of Northern Colorado Licensure Officer. Students wishing to obtain Colorado licensure in this area are required to pass proficiency examination(s). Students should contact the School for the Study of Teaching and Teacher Education in McKee 418 for information. Courses taken at other accredited institutions within the preceding 10 years may be accepted in lieu of courses taken at UNC. However, these courses will be assessed by the UNC Graduate Evaluator before acceptance. Students should be prepared to present evidence of course appropriateness (e.g., a copy of the course description).

### School Library Media Endorsement Course Requirements

- ET 502 Instructional Design (3)
- ET 503 Computers in Education (3)
- ET 504 Instructional Materials Design (3)
- ET 530 Media Cataloging and Classification (3)
- ET 533 Reference and Information Management (3)
- ET 535 Administration of Instructional Resources (3)
- ET 536 Media Selection, Utilization and Evaluation (3)
- SRM 600 Introduction to Graduate Research (3)
- EDRD 614 Literature for Children, Adolescents and Young Adults (3)
- ET 692 Internship (3)  
(required for K-6, K-12 endorsement and required for 7-12, K-12 endorsement)

## TEACHING ENGLISH AS A SECOND LANGUAGE - ENDORSEMENT

Elementary Education and Middle School Education

### Endorsement Requirements

**Total credits required for this endorsement** ..... **20**

This endorsement program in Teaching English as a Second Language (ESL) provides the student with the study of the structures of English and with the theory and practice related to the teaching of English as a second language. Students successfully completing this program will be recommended for the Linguistically Diverse: English as a Second Language endorsement in Elementary or Middle grades. This program must be completed in conjunction with the Elementary Education or Middle School Licensure program.

**Prerequisite:** HISP 395 Historical, Philosophical, Legal and Cultural Dimensions of Bilingual Education (3) and HISP 400 Methods and Assessment for Bilingual Education and ESL (3) or TESL 400 Methods and Approaches of ESL/EFL (3) must be taken prior to doing Practica.

### Required Credits — 20 semester hours

- ENG 318 Traditional and Modern Grammars (3)
- ENG 419 Language and the History of English (3)
- HISP 395 Historical, Philosophical, Legal and Cultural Dimensions of Bilingual Education (3)
- MCS 101 Multiculturalism in the United States: Concepts and Issues (3)
- SPCO 323 Intercultural Communication (3)
- TESL 301 TESL Practicum I (2)
- TESL 400 Methods and Approaches of ESL/EFL (3)

**Note:** Students must complete a second language requirement equivalent to one year of college level studies.

## TEACHING ENGLISH AS A SECOND LANGUAGE – ENDORSEMENT

### Secondary Education

#### Endorsement Requirements

Required endorsement credits	20
Required elective credits in literacy and reading	3-4
<b>Total credits required for this endorsement</b>	<b>23-24</b>

Courses for Teaching English as a Secondary Language (TESL) Endorsement are provided by several programs across two colleges: Hispanic Studies, English, and Speech Communication in the College of Arts and Sciences; and the School for the Study of Teaching and Teacher Education in the College of Education share a commitment to the TESL endorsement.

Students enrolled in the Secondary Professional Teacher Education Program or who hold teacher licensure at the secondary level (7-12) are eligible to participate in this program.

#### Required credits -- 20 semester hours

HISP 395 Historical, Philosophical, Legal and Cultural Dimensions of Bilingual Education (3)  
 TESL 301 TESL Practicum I (2)  
 TESL 400 Methods and Approaches of ESL/EFL (3)  
 ENG 318 Traditional and Modern Grammars (3)  
 ENG 419 Language and the History of English (3)  
 SPCO 323 Intercultural Communication (3)  
 MAS 101 Introduction to Mexican American Studies (3)

#### Required supporting credits in literacy and reading -- 3 semester hours

*Courses that meet this requirement can include the following:*  
 EED 341 Teaching Language and Composition (3)  
 EED 402 Methods and Materials for Teaching Young Adult Literature in the Secondary Schools (4)

#### Requirements

Students must be enrolled in the Secondary Professional Teacher Education Program or hold teacher licensure at the secondary (grades 7-12) level.

Prerequisite: HISP 395 Historical, Philosophical, Legal and Cultural Dimensions of Bilingual Education (3) and HISP 400 Methods and Assessment for Bilingual Education and ESL (3) or TESL 400 Methods and Approaches of ESL/EFL (3) must be taken prior to doing Practica.

Students must take the English as a Secondary Language PLACE assessment to be eligible for licensure in Colorado.

**Note:** The program is administered by the Department of Hispanic Studies.

## TEACHING ENGLISH AS A SECOND LANGUAGE - GRADUATE ENDORSEMENT

### Elementary and Middle School Secondary Education

#### Endorsement Requirements

This graduate level endorsement program in the teaching of English as a Second Language (ESL) emphasizes the study of the structures of English, second language acquisition, and methodology related to the teaching of English to speakers of other languages. This program leads to recommendation to Colorado's Linguistically Diverse: ESL endorsement. The Elementary and Middle School Education Program must be completed in conjunction with, or after the completion of the Elementary or Middle School Licensure Program. The Secondary Education Program must be completed in conjunction with, or after the completion of a Secondary Teacher Preparation Program.

#### Elementary and Middle School Education

#### Total credits required for this endorsement — 18 semester hours

EDEL 619 Pluralism in Education (3)  
 EDLD 602 Teaching Linguistically Diverse Learners (3)  
 EDLD 603 Methods and Assessment for ESL and Bilingual Education (3)  
 EDLD 604 Field Experience in TESOL and Bilingual Education (3)  
 ENG 633 Studies in Linguistics (3)  
 HISP 508 Teaching the Mexican American Student (3)  
*or*  
 EDLD 606 Linguistically Diverse Students and the U.S. Educational System (3)

#### Secondary Education Program Requirements

#### Total credits required for this endorsement — 21 semester hours

EDEL 619 Pluralism in Education (3)  
 EDLD 602 Teaching Linguistically Diverse Learners (3)  
 EDLD 603 Methods and Assessment for ESL and Bilingual Education (3)  
 EDLD 604 Field Experience in TESOL and Bilingual Education (3)  
 EDRD 620 Reading in the Middle and Secondary Schools (3)  
 ENG 633 Studies in Linguistics (3)  
 HISP 508 Teaching the Mexican American Student (3)  
*or*  
 EDLD 606 Linguistically Diverse Students and the U.S. Educational System (3)

**Note:** Students must show evidence of familiarity with a second language.

## MASTER OF ARTS (M.A.)

### COMMUNITY COUNSELING, M.A.

#### 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 forth by the counseling profession, Colorado state law, Graduate School and job requirements.

The Community 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.

#### 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. If the student's GPA is below 3.0, the Graduate Record Exam (General Test) score must be submitted. It is recommended that the student have a total score that meets or exceeds 1,350 on the Verbal, Quantitative and Analytical subtests. It is highly recommended that the Analytical score meets or exceeds 475. 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:

- 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.

#### Required Credits – 52 semester hours

##### Core Requirements

PPSY 530 Life Span Developmental Psychology (3)  
SRM 600 Introduction to Graduate Research (3)  
PPSY 607 Theories of Counseling (3)  
PPSY 610 Theories of Personality (2)  
PPSY 657 Legal and Ethical Aspects of Counseling and Psychology (3)  
PPSY 670 Psychological Testing and Measurement (2)

##### Additional Requirements

PPSY 558 Abnormal Psychology (3)  
PPSY 565 Psychology of Prejudice (2)  
PPSY 605 Group Laboratory Experience (1)  
PPSY 612 Practicum in Individual Counseling (5)

PPSY 616 Career Theory, Counseling and Assessment (3)  
PPSY 624 Assessment and Treatment of Substance Abuse (3)  
PPSY 655 Community Psychology and Social Systems (3)  
PPSY 662 Group Dynamics and Facilitation (2)  
PPSY 665 Family Systems (3)  
PPSY 673 Individual Tests of Intelligence and Personality (3)  
PPSY 692 Internship (8)

Note: Comprehensive examination required.

## COMMUNITY COUNSELING, M.A.

### Marriage and Family Therapy Emphasis

#### 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 Educational Programs.

This emphasis in marriage and family therapy may be an elected addition to the Master of Arts in Community 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.

#### Admission

Must be admitted and enrolled in the Master of Arts in Community Counseling (see Admission Requirements for this degree).

In addition to meeting the course requirements for the Master of Arts in Community Counseling the following courses are required.

#### Required Emphasis Area Courses – 16 semester hours

PPSY 664 Therapeutic Parenting (2)

PPSY 666 Couples 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)

## EDUCATIONAL LEADERSHIP, M.A.

### Philosophy

The underlying philosophy of programs in Educational Leadership at UNC is that educational leaders possess knowledge of self, others, organizations, learning, and society necessary to perform creatively and effectively in diverse environments. They engage people in identifying and working toward the accomplishment of a shared vision for the organization. Leaders incorporate the ideas, values, and experiences reflective of a pluralistic society and promote continual learning.

The program is exemplified by the following beliefs:

- Human growth and development are lifelong pursuits;
- Organizations are artifacts of a larger society;
- Learning, teaching, and collegiality are fundamental activities of educational organizations;
- Validated knowledge and active inquiry form the basis of practice;
- Moral and ethical imperatives drive leadership behavior;
- Leadership encompasses a learned set of knowledge, skills, and attitudes;
- Effective leadership in educational organizations depends on individual and team efforts;
- Leaders' behavior and actions model their beliefs and values;
- Leaders effect positive change in individuals and organizations.

### Program Requirements

The Master of Arts degree in Educational Leadership and Policy Studies provides opportunities for candidates to acquire knowledge about leadership in P-12, community college, higher education, or other educational settings. The program provides opportunities for students to develop in-depth understanding about leadership roles and responsibilities, working with external environments, policy development, organizational behavior, and contemporary educational issues.

Entering students must possess a bachelor's degree from an accredited college or university. The master's degree requires a minimum of 36 semester hours of graduate study, of which 16 hours are core learning experiences. Depending on career goals, students may choose from five concentration areas in the master's program: P-12 education, higher education, adult and continuing education, college student personnel administration or an individualized program. Students may obtain the master's degree while also working concurrently on a principal or administrator license. The coursework needed to successfully complete the 36 hours required for the master's degree includes:

#### Leadership Core –16 semester hours

ELPS 601 Leadership Development Through Inquiry (3)

ELPS 603 Shaping Organizations: Management and Leadership in Education (5)

ELPS 604 Understanding People: Professional Development and Educational Leadership (3)

ELPS 605 External Environments: Social, Political, and Economic Influences in Educational Leadership (5)

#### Choose one of the following concentration areas: (8-9 semester hours)

*For Concentration in P-12 Education – 8 semester hours*

ELPS 654 Supervision of Curricular and Instructional Programs (5)

ELPS 660 Law and the Administrator (3)

*For Concentration in Higher Education – 9 semester hours*

ELPS 666 Planning and Change in Education (3)

HESA 668 Higher Education in the United States (3)

HESA 655 Multiculturalism in Higher Education (3)

*For Concentration in Adult and Continuing Education – 9 semester hours*

ELPS 655 Seminar in Learning in Adulthood (3)

ELPS 662 Design and Delivery of Professional Development (3)

ELPS 666 Planning and Change in Education (3)

*For Concentration in College Student Personnel Administration - 9 semester hours*

HESA 650 College Student Development: Theory and Research (3)

HESA 653 Services for Environmental and Student Development (3)

HESA 655 Multiculturalism in Higher Education (3)

*For Individually Designed Concentration – 9 semester hours*

ELPS Prefix Courses (6)

#### Additional Requirements

SRM 600 Introduction to Graduate Research (3)

Additional electives appropriate for concentration area to total a minimum of 36 semester hours for program completion.

#### Total, 36 hours

#### Admission

Applicants for the master's program must submit an application form, official transcripts, and processing fee directly to the Graduate School. In addition, an application packet available through the division office (McKee 418) describes materials for admission review by the faculty: current resume, goals statement, essay regarding an educational issue, and Professional Assessment Forms. Admission decisions are made throughout the year.

**Note:** Satisfactory performance on a concluding activity approved by Division faculty, in accordance with Graduate School Policy, must be demonstrated.

## EDUCATIONAL MEDIA, M.A.

### 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 School Library Media endorsement.

#### Admission

Admission to the M.A. degree program is a two-step process. First, the applicant must apply to the UNC Graduate School. Upon meeting the admission criteria for the Graduate School, the candidate's application is forwarded to the program area faculty for review. Reviews by the program area faculty are held each semester (including summer). Decisions regarding admission are communicated to the applicant before the beginning of the semester. Although students may enroll any semester following admission, they are strongly encouraged to begin their program in either the summer or fall semester in order to enter the proper sequencing of courses.

Applications require a description of educationally-related work experience, statement of career goals, three letters of reference, GRE scores and transcripts from previous undergraduate/graduate work.

Multiple criteria for acceptance are considered, including:

- GRE combined score of 1,500 on the verbal, quantitative and analytical sections. The GRE must have been taken within the last five years.
- GPA of 3.0 in the last 60 semester hours of academic work.
- Three letters of recommendation indicating a high potential for academic success and interpersonal competency.
- Congruency between the applicant's career goals and the purpose of the M.A. program.
- Educationally-related work experience is required.

Note that applicants must also complete the Notification of Intent to Seek Endorsement (institutional recommendation).

#### Required Credits – 36-39 semester hours

EPSY 540 Theories and Principles of Learning (3)  
 SRM 600 Introduction to Graduate Research (3)  
 ET 500 Introduction to Educational Technology (3)  
 ET 502 Instructional Design (3)  
 ET 503 Computers in Education (3)  
 ET 504 Instructional Materials Design (3)  
 ET 530 Media Cataloging and Classification (3)  
 ET 533 Reference and Information Management (3)  
 ET 535 Administration of Instructional Resources (3)  
 ET 536 Media Selection, Utilization and Evaluation (3)  
 ET 692 Internship (3)  
 (required for K-6, K-12 endorsement and required for 7-12, K-12 endorsement)  
 EDRD 614 Literature for Children, Adolescents and Young Adults (3)

**Notes:** Students may transfer up to 6 semester hours or 9 quarter hours of approved graduate level credit to the program from other accredited institutions. Any coursework to be transferred must have been completed within five years of the graduation date.

All coursework to be transferred or applied to meet graduate course requirements that was completed before a student's acceptance into a graduate degree program must be approved by the UNC Graduate School.

Students wishing to obtain Colorado licensure in this area are required to pass proficiency examination(s). Students should contact the School for the Study of Teaching and Teacher Education in McKee 216 for information.

Students wishing to obtain an M.A. who do not intend to apply for State of Colorado School Library Media Endorsement should apply to the M.A. program in Educational Technology.

## EDUCATIONAL PSYCHOLOGY, M.A.

### 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. All complete applications received by midterm are processed that term. Decisions regarding admission are communicated to the applicant before the beginning of the next semester. Although students may enroll any semester following admission, they are strongly encouraged to begin their program in either the summer or fall term in order to enter the proper sequencing of courses. 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.

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 (1-3)  
 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.

## EDUCATIONAL TECHNOLOGY, M.A.

### 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). 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 Educational Technology (3)

ET 502 Instructional Design (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. Elective courses must be numbered at the 500 level or above.

## ELEMENTARY EDUCATION, M.A.

### Program Requirements

Complete the required credits specified here . . . . . 24

Complete program elective credits specified here . . . . . 9

### Must apply through the Graduate School.

The Master of Arts Degree in Elementary Education prepares a licensed classroom teacher to address instructional programs more effectively as a master teacher and curricular leader. Students seeking this degree must have evaluations by the College of Education and The School for the Study of Teaching and Teacher Education and also are required to document two years of successful teaching experience, before the awarding of the M.A. degree. Program flexibility allows the experienced teacher to pursue global and specific content. Researched applications in elementary education and related areas are highlighted. Students must also complete a four hour written comprehensive examination.

Demonstration of appropriate literacy and competency in computer applications is required. ET 503 or the equivalent may be used to meet this requirement.

### Required Credits – 15 semester hours

EDEL 601 Practicum (1-3)

EDEL 612 The Elementary School Curriculum (3)

EDEL 619 Pluralism in Education (3)

EDRD 612 Reading in the Elementary Schools (3)

SRM 600 Introduction to Graduate Research (3)

**Note:** EDEL 601, EDRD 612 must be taken and completed at UNC.

### Elective Credits – 6 semester hours

EDEL 620 Researched Applications for Instruction in Mathematics, K-9 (3)

EDEL 640 Researched Applications for Instruction in the English Language Arts, K-9 (3)

EDEL 650 Researched Application for Instruction in Social Studies, K-9 (3)

EDEL 679 Researched Applications in Appraisal, Evaluation and Clinical Supervision of Teaching in the Elementary and Middle School (3)

SCED 671 Elementary and Middle School Science Curriculum (3)

*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, EDSE, ET, etc.), or within other areas in the University that would strengthen professional skills (e.g., 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.

## ELEMENTARY EDUCATION, M.A.

### Middle School Emphasis

#### Program Requirements

Complete the required credits specified here . . . . . 24

Complete program elective credits specified here . . . . . 9

#### Must apply through the Graduate School.

The Master of Arts Degree in Elementary Education Emphasis in Middle School is designed for elementary, middle school, junior high and secondary licensed teachers who wish to pursue graduate work that focuses on the middle level education. Because current licensure standards allow elementary, middle school and secondary licensed teachers to teach at this level, the program is open to all licensed teachers interested in middle school teaching. Students completing this program will not automatically receive middle school licensure. Students must have a teaching license before completing the master's program. Students must also complete a four hour written comprehensive examination.

#### Required Credits – 24 semester hours

##### *Middle School Education Core*

EDMS 601 Practicum (1-3)

EDMS 665 Middle School Theory, Philosophy and Curriculum (3)

EDMS 667 Assessment, Design and Evaluation of Middle School Curriculum (3)

EDMS 669 Integrated Curriculum for Middle Grades (3)

EDMS 670 Instructional Practices in Middle Grades Education (3)

SRM 600 Introduction to Graduate Research (3)

EDEL 619 Pluralism in Education (3)

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*

##### *Select one of the following two courses:*

EDRD 620 Reading in the Middle and Secondary Schools (3)

EDRD 621 Critical Reading and Thinking in Content Subjects (3)

#### Electives – 9 semester hours

Electives are determined by the candidate's need to develop or strengthen understanding and competency in areas related to his or her professional growth and development with approval of student's advisor. Special consideration will be given to the professional growth activities approved and required by the student's school district or institution in planning the M.A. program. The following courses may be relevant to a student's professional development.

EDRD 614 Literature for Children, Adolescents and Young Adults (3)

EDRD 620 Reading in the Middle and Secondary Schools (3)

EDEL 640 Researched Applications for Instruction in the English Language Arts, K-9 (3)

EDEL 650 Researched Application for Instruction in Social Studies, K-9 (3)

EPSY 530 Life Span Developmental Psychology (3)

PPSY 562 Teacher Effectiveness (2)

SCED 671 Elementary and Middle School Science Curriculum (3)

**Notes:** Students may petition for course equivalence consideration for a maximum of two classes in electives and required courses except where otherwise noted.

Applicants must have an overall 3.0 GPA on the last 100 quarter/66 semester hours for full admission to this program. Applicants with a GPA between 2.75 and 3.0 may be admitted by the School on a probationary basis. Applicants admitted under probation must attain a 3.0 GPA on the first 9 semester hours completed in the program.



## ELEMENTARY EDUCATION: EARLY CHILDHOOD EDUCATION, M.A.

### Primary Education Emphasis

#### 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 and Writing Development of Preschool/Primary Children (2)

\*EDEC 539 Parent Education and Involvement in Early Childhood/Primary (3)

\*EDEC 648 Psycholinguistics in Early Childhood (3)

\*EDEC 660 Critical Issues in Early Childhood (3)

\*EDEC 664 Seminar in Early Childhood and Primary Education (3)

\*EDEC 670 Curriculum and Instruction in Early Childhood and Primary Education (3)

\*EDEC 675 Play and Psychosocial Development in Early Childhood (3)

EDRD 612 Reading in the Elementary Schools (3)

SRM 600 Introduction to Graduate Research (3)

#### Elective Credits – 7-9 semester hours.

*Choose additional coursework in consultation with major advisor to total 7-9 semester hours.*

EDEC 508 Early Childhood Workshop (3)

\*EDEC 601 Practicum in Early Childhood (1-3)

EDEC 662 Research in Early Childhood and Primary Education (3)

EDEC 663 Educational Assessment, Evaluation and Prescription for the Young Child (3)

EDEC 677 Problem Solving Strategies 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 Application for Instruction in Social Studies, K-9 (3)

EDRD 614 Literature for Children, Adolescents and Young Adults (3)

EDRD 617 Evaluation and Improvement of Literacy Teaching and Learning (4)

EPSY 630 Child and Adolescent Psychology (3)

SCED 671 Elementary and Middle School Science

Curriculum (3)

(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 216 for information.

#### Endorsement In Early Childhood Education

Students who meet the following prerequisites and who complete courses specified with an asterisk (\*) are eligible to seek institutional recommendation for Endorsement in Early Childhood Education from the Colorado Department of Education.

Prerequisites: 1) Hold or be eligible for a Colorado Teaching License, Endorsed Elementary; 2) completion of a minimum of one course in human growth and development (or its equivalent) before enrolling in the endorsement program; and 3) evaluation of supervised field experiences and teaching experiences to assess practicum placement needs associated with this endorsement.

Required courses for endorsement: EDRD 519 or EDEC 648 and EDEC 539, EDEC 601, EDEC 660, EDEC 664, EDEC 670 and EDEC 675.

# GRADUATE INTERDISCIPLINARY DEGREE PROGRAM, M.A.

## Teacher Education Emphasis

### Program Requirements

**Complete required core courses . . . . . 18**  
**Complete required course concentration . . . . . 12-17**

The Master of Arts in Teacher Education is a comprehensive degree program coordinated by the School for the Study of Teaching and Teacher Education. It provides advanced study focused on the following themes: teacher leadership; alternate teaching and assessment strategies; and teacher as researcher. In addition, students enrolling in this degree program will select an area of concentration from the following: Diversity in Education; Mathematics and Science; Bilingual Education; Teaching English as a Second or Other Language; or Middle Level Education.

#### Admission

Applicants must follow the admission procedures outlined under “Graduate School: Policies and Procedures” and must meet the minimum admission requirements for the master's degree. Applications meeting minimum Graduate School admission requirements will be forwarded to the School for the Study of Teaching and Teacher Education for review and recommendation regarding admission by the Graduate School. In addition to the basic application requirements, applicants are required to document successful teaching experiences, possess or be eligible for a Colorado teaching license, and develop an application portfolio which demonstrates the congruence between their professional background and the program outcomes.

#### Required Core Courses – 18 semester hours

- TED 600 Professional Seminar I (1)
- TED 601 Conceptions of Schooling (3)
- TED 602 Teacher Leadership (3)
- TED 603 Alternative Teaching and Assessment Strategies (3)
- TED 604 Affirming Diversity: Implications for Educators and Schools (3)
- TED 605 Professional Seminar II (2)
- SRM 600 Introduction to Graduate Research (3)

*Course Concentration – 12-17 semester hours (select from one of the following):*

- A) Diversity in Teaching (12 semester hours)*
  - EDSE 506 Teaching Students with Special Needs in Inclusive Settings (3)
  - PPSY 508 Workshop: Family Systems (3)
  - EED 606 Seminar in Literature for Young Adults (3)
  - EDFE 601 Practicum (3)
- B) Mathematics and Science (12 semester hours)*
  - ENST 515 Environment and Environmental Problems (2)
  - EDEL 508 Problem Solving in Mathematics (3)
  - ESCI 550 Strategies in Teaching in Earth Sciences (1)
- C) Linguistically Different: English as a Second Language (17 semester hours)*
  - EDLD 602 Teaching Linguistically Diverse Learners (3)
  - EDLD 603 Methods and Assessment for ESL and Bilingual Education (3)
  - EDLD 604 Field Experience in TESOL and Bilingual Education (3)
  - EDLD 605 Advanced Seminar in Bilingual Education and TESOL (3)
  - ENG 633 Studies in Linguistics (3)
  - HISP 513 Teaching the Mexican American Child (3)
- D) Linguistically Different: Bilingual Education (17 semester hours)*
  - EDLD 602 Teaching Linguistically Diverse Learners (3)
  - EDLD 603 Methods and Assessment for ESL and Bilingual Education (3)
  - EDLD 604 Field Experience in TESOL and Bilingual Education (3)
  - EDLD 605 Advanced Seminar in Bilingual Education and TESOL (3)
  - \*SPAN 513 Contrastive Features (3)
  - \*SPAN 555 Spanish Readings (3)
- E) Middle Level Education (15 semester hours)*

- EDMS 665 Middle School Theory, Philosophy and Curriculum (3)
- EDMS 667 Assessment, Design and Evaluation of Middle School Curriculum (3)
- EDMS 669 Integrated Curriculum for Middle Grades (3)
- EDMS 601 Practicum (3)
- EDRD 620 Reading in the Middle and Secondary Schools (3)

**Notes:** All students are required to pass a written comprehensive examination or defend a program portfolio covering all aspects of the completed coursework.

All Graduate School requirements for the interdisciplinary master's degree must be met. The degree awarded will be an Interdisciplinary Master of Arts degree.

Students pursuing a course concentration for added endorsement to a Colorado teaching license must take and successfully complete the appropriate Program for Licensing Assessments for Colorado Educators (PLACE) examination.



## READING, M.A.

### 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 recommendation and evaluations by the School for the Study of Teaching and Teacher Education for admission and a Reading Program application. Students must meet with their assigned advisor to plan their program of study after formal notification of admission. Students seeking endorsement must provide evidence of two or more years of teaching experience in an accredited and/or established elementary or secondary school while holding a Type A or teaching license equivalent certificate before such recommendation will be made. Supervised practicum experiences and research are arranged by the Reading Center. Students must also complete a four hour written comprehensive examination.

#### Reading Elementary

Students who are not licensed in elementary education must have evaluations by the School for the Study of Teaching and Teacher Education. Students will be required to demonstrate appropriate literacy and competency in computer applications as part of this program. (ET 503 is a recommended course. This may increase the minimum hours to 37.) Students who desire the Elementary Reading Teacher Endorsement should note the specified courses.

#### Required Reading Credits, Elementary – 10 semester hours

*\*Required for Elementary Teacher Endorsement*

*\*\*Only 3 hours of 500-level EDRD courses will apply toward degree.*

EDRD 612 Reading in the Elementary Schools (3)

EDRD 645 Reading/Literacy Research (3)

*and select one of the following two courses:*

EDRD 601 Practicum in Literacy (1-4)

\*EDRD 692 Clinical Practicum in Literacy Coaching (4)

*Electives in Reading and Language Arts – 9 semester hours*

\*\*EDRD 508 Workshop (1-3)

\*\*EDRD 519 Reading and Writing Development of Preschool/Primary Children (2)

\*EDRD 614 Literature for Children, Adolescents and Young Adults (3)

EDRD 615 Topical Seminar in Reading/Literacy (3)

\*EDRD 617 Evaluation and Improvement of Literacy Teaching and Learning (4)

EDRD 620 Reading in the Middle and Secondary Schools (3)

EDRD 621 Critical Reading and Thinking in Content Subjects (3)

EDRD 642 Teaching the Writing Process in Schools (3)

EDRD 670 Directing a School-Wide Reading/Writing Program (3)

(EDRD 670 is strongly recommended for the Endorsement of the Reading Teacher.)

EDRD 694 Reading Center Internship: College Reading, Literacy, Supervision (2)

EDEL 640 Researched Applications for Instruction in the English Language Arts, K-9 (3)

#### Required Professional Credits – 6 semester hours

SRM 600 Introduction to Graduate Research (3)

\*SRM 619 Resampling Methods (3)

#### General Electives – 9 semester hours

General electives must be selected in consultation with the advisor and approved in advance, in writing, by the major advisor. There must be a link among the elective courses in accord with the student's career plans in reading. Prefixes of

suggested related fields are EDEC, EDEL, EDSE, ENG/EED, ELPS, EPSY, ET, MATH/MED, PPSY, PSY, SPAN and SPCO. For students applying for the Elementary Reading Teacher Endorsement, electives must be taken in at least one supporting area, such as tests and measurements, special education, child and adolescent development, speech and hearing, guidance and counseling, language development, curriculum, multicultural/multilingual, and writing/English.

#### Reading Secondary

Students who are not licensed in secondary education must have evaluations by the College of Education and by the School for the Study of Teaching and Teacher Education. Students will be required to demonstrate appropriate literacy and competency in computer applications as part of this program. (ET 503 is a recommended course.)

This may increase the minimum hours to 37.) Students who desire the Secondary Teacher Endorsement should note the specified courses.

#### Required Reading Credits, Secondary – 10 semester hours

*\*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 Schools (3)

\*EDRD 645 Reading/Literacy Research (3)

*and selection one of the following two courses:*

EDRD 601 Practicum in Literacy (1-4) (can be repeated)

\*EDRD 692 Clinical Practicum in Literacy Coaching (4)

#### Electives in Reading and Language Arts – 9 semester hours

\*\*EDRD 508 Workshop (1-3)

EDRD 612 Reading in the Elementary Schools (3)

\*EDRD 614 Literature for Children, Adolescents and Young Adults (3)

EDRD 615 Topical Seminar in Reading/Literacy (3)

\*EDRD 617 Evaluation and Improvement of Literacy Teaching and Learning (4)

EDRD 621 Critical Reading and Thinking in Content Subjects (3)

EDRD 642 Teaching the Writing Process in Schools (3)

EDRD 670 Directing a School-Wide Reading/Writing Program (3)

(EDRD 670 is strongly recommended for the Endorsement of the Reading Teacher.)

EDEL 640 Researched Applications for Instruction in the English Language Arts, K-9 (3)

#### Required Professional Credits – 6 semester hours

SRM 600 Introduction to Graduate Research (3)

\*EDEL 619 Pluralism in Education (3)

#### General Electives – 9 semester hours

General electives must be selected in consultation with the advisor and approved in advance, in writing, by the major advisor. There must be a link among the elective courses in accord with the student's career plans in reading. Prefixes of suggested related fields are ELPS, EDEC, EDEL, EDSE, ENG/EED, EPSY, ET, MATH/MED, PPSY, PSY, SPAN and SPCO. For students applying for the Secondary Reading Teacher Endorsement, electives must be taken in at least three supporting areas, such as: adolescent literature, tests and measurements, special education, adolescent development, speech and hearing, guidance and counseling, language development, curriculum, multicultural/multilingual, and writing/English.

Applicants must have an overall 3.0 GPA on the last 100 quarter/66 semester hours for full admission to this program. Applicants with a GPA between 2.75 and 3.0 may be admitted by the School on a probationary basis. Applicants admitted under probation must attain a 3.0 GPA on the first 9 semester hours completed in the program.

Students wishing to obtain Colorado licensure in this area are required to pass proficiency examination(s). Students should contact the School for the Study of Teaching and Teacher Education in McKee 216 for information.

## SCHOOL COUNSELING, M.A.

### 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 practica. Opportunities for a broad understanding of human behavior and human relationships are included in the education of the student in Counseling.

### Program Objectives

The Counseling faculty is committed to the development of broadly based competent professional counselors skilled in helping people with personal, career and leisure concerns in educational institutions. The requirements of the program are conceptualized within the framework and standards set forth by the counseling profession, Colorado state law, Graduate School and job requirements.

The 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, middle and secondary schools.

### 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. If the student's GPA is below 3.0, the Graduate Record Exam (General Test) score must be submitted. It is recommended that the student have a total score that meets or exceeds 1350 on the Verbal, Quantitative and Analytical subtests. It is highly recommended that the Analytical score meets or exceeds 475. 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:

- 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

Students entering the master's program should have completed a course in Life Span Development or Human Growth and Development. Those who have not completed coursework in this area will need to complete it as deficiency coursework not to be included in the 52 hours required for the degree.

Students wishing to obtain Colorado licensure in this area are required to pass proficiency examination(s). Students should contact the School for the Study of Teaching and Teacher Education in McKee 216 for information.

### Required Credits – 52 semester hours

#### Core Requirements

SRM 600 Introduction to Graduate Research (3)  
 PPSY 607 Theories of Counseling (3)  
 PPSY 610 Theories of Personality (2)  
 PPSY 657 Legal and Ethical Aspects of Counseling and Psychology (3)  
 PPSY 670 Psychological Testing and Measurement (2)

and select one of the following two courses:

EPSY 630 Child and Adolescent Psychology (3)  
 PPSY 603 Counseling Children and Adolescents (3)

#### Additional Requirements

PPSY 565 Psychology of Prejudice (2)  
 PPSY 602 Foundations of School Guidance (3)  
 PPSY 604 Career Development and Occupational Systems (2)  
 PPSY 605 Group Laboratory Experience (1)  
 PPSY 606 Theories and Practices in Group Guidance (2)  
 PPSY 608 Organization, Administration and Consultation in Guidance Services (3)  
 PPSY 612 Practicum in Individual Counseling (5)  
 PPSY 613 Internship: Guidance and Counseling with Children (5)  
 PPSY 614 Internship: Guidance and Counseling with Youth and/or Adults (5)  
 PPSY 624 Assessment and Treatment of Substance Abuse (3)  
 PPSY 671 Testing: Analysis and Interpretation (2)  
 Elective – 3 semester hours

**Note:** Comprehensive examination required.

## SPECIAL EDUCATION, M.A.

### Early Childhood Special Education Emphasis

#### Program Requirements

Complete the required credits specified here . . . . . 42-51

#### Admission

In addition to meeting the admission requirements of the Graduate School, the student must possess a grade point average from the baccalaureate degree of at least 3.0 on a 4.0 scale, provide a minimum of two letters of recommendation from previous employers or academic professors, provide a statement of philosophy and goals of application in relation to the needs in the field and, if possible, arrange for a personal interview.

This master's program is designed to prepare teachers who will work with infants and young children (birth to 5) with special needs. Typically, the duration of this program should be two semesters plus a summer session. However, if a student enters the master of arts program in special education without a current teacher licensure, she or he is required to complete additional (separate) admission requirements and course requirements listed under Professional Teacher Education. The program consists of the required courses and practicum requirements agreed upon by the student and advisor.

#### Required Credits – 42-51 semester hours

##### *Special Education Core*

- EDSE 500 Field of Special Education (3)
- EDSE 501 The Exceptional Learner (3)
- EDSE 502 Communication, Collaboration and Consultation for Special Educators (3)
- EDSE 503 Effective School Environments for Learners with Exceptional Needs (3)
- EDSE 505 Assessment of Exceptional Individuals (3)

##### *Early Childhood/Special Education*

- EDSE 530 Parent/Professional Partnerships (3)
- EDSE 531 Assessing Young Children with Special Needs (3)
- EDSE 533 Methods in Early Childhood Special Education (3)
- EDSE 534 Research and Policy in Early Childhood Special Education (3)
- EDSE 536 Early Intervention for Infants and Toddlers with Special Needs (3)
- EDEC 660 Critical Issues in Early Childhood (3)
- EDEC 675 Play and Psychosocial Development in Early Childhood (3)

##### *Graduate Study*

- SRM 600 Introduction to Graduate Research (3)

##### *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 and Teacher Education in McKee 216 for information.

**SPECIAL EDUCATION, M.A.****Moderate Needs Emphasis****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.

Students who seek Colorado licensure 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); EDEL 620 *Researched Applications for Instruction in Mathematics, K-9* (3); EDRD 612 *Reading in the Elementary Schools* (3)). Students not endorsed in Elementary Education and/or Early Childhood Education are also required to take EDEL 612, EDEL 620 and EDRD 612. The program consists of the required courses and practicum requirements agreed upon by the student and advisor.

Students wishing to obtain Colorado licensure in this area are required to pass proficiency examination(s). Students should contact the School for the Study of Teaching and Teacher Education in McKee 216 for information.

**Required Credits – 36-45 semester hours***Special Education Core*

- EDSE 500 Field of Special Education (3)
- EDSE 501 The Exceptional Learner (3)
- EDSE 502 Communication, Collaboration and Consultation for Special Educators (3)
- EDSE 503 Effective School Environments for Learners with Exceptional Needs (3)
- EDSE 504 Transition Planning and Service Delivery for Students with Special Needs (3)
- EDSE 505 Assessment of Exceptional Individuals (3)

*Special Education Moderate Needs*

- EDSE 601 Supporting Special 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 Moderate Needs Students (3-12)

**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.

## SPECIAL EDUCATION, M.A.

### Profound Needs Emphasis

#### Program Requirements

Complete the required credits specified here . . . . . 42-51

#### Admission

In addition to meeting the admission requirements of the Graduate School, the student must possess a grade point average from the baccalaureate degree of at least 3.0 on a 4.0 scale, provide a minimum of two letters of recommendation from previous employers or academic professors, provide a statement of philosophy and goals of application in relation to the needs in the field and arrange for a personal interview.

This master's program is designed to prepare teachers who will work with profound needs students. Typically, the duration of this program should be two semesters plus a summer session. However, if a student enters the master of arts program in special education without a current teacher licensure, she or he is required to complete course requirements listed under Professional Teacher Education. The program consists of the required additional (separate) admission requirements and courses and practicum requirements agreed upon by the student and advisor.

#### Required Credits – 42-51 semester hours

##### *Special Education Core*

- EDSE 500 Field of Special Education (3)
- EDSE 501 The Exceptional Learner (3)
- EDSE 502 Communication, Collaboration and Consultation for Special Educators (3)
- EDSE 503 Effective School Environments for Learners with Exceptional Needs (3)
- EDSE 504 Transition Planning and Service Delivery for Students with Special Needs (3)
- EDSE 505 Assessment of Exceptional Individuals (3)

##### *Profound Needs*

- EDSE 520 Survey of Learners with Profound Needs (3)
- EDSE 521 Assessment of Learners with Profound Needs (3)
- EDSE 522 Methods of Teaching Learners with Profound Needs: Birth to 8 Years (3)
- EDSE 523 Methods of Teaching Learners with Profound Needs 9 to Adult (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 (3-12)

**Notes:** Evaluation of the student's professional potential will be an ongoing process throughout the program. Continuation/exit requirements will be based on multiple criteria such as: faculty interview, professional recommendations, recommendations of the advisor or other program faculty, academic ethics, successful completion of the comprehensive examination and potential for teaching students with profound needs. The multiple criteria approach does not assume that each of these factors carry equal weights; any one factor might well outweigh all others.

A master's degree or a department approved licensure program is required before the University of Northern Colorado will recommend the student for endorsement in Teacher III Profound Needs. Students who seek a Colorado endorsement in the Special Education Teacher III Profound Needs Program or request an institutional recommendation for licensure from UNC must meet Colorado licensure requirements. Students entering the licensure program must meet the same entrance requirements as the Master's degree students. They must also demonstrate achievement of all program standards through a combination of UNC coursework, prior coursework, or other departmentally approved documentation and completion of a licensure examination. However, a minimum of 15 semester hours must be taken at UNC.

**SPECIAL EDUCATION, M.A.****Severe Needs: Affective Emphasis****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 students with affective needs. Typically, the duration of this program should be two semesters plus a summer session. However, if a student enters the master of arts program in special education without a current teacher licensure, she or he is required to complete additional (separate) admission requirements and course requirements listed under Professional Teacher Education. The program consists of the required courses and practicum requirements agreed upon by the student and advisor.

**Required Credits – 39-48 semester hours***Special Education Core*

- EDSE 500 Field of Special Education (3)
- EDSE 501 The Exceptional Learner (3)
- EDSE 502 Communication, Collaboration and Consultation for Special Educators (3)
- EDSE 503 Effective School Environments for Learners with Exceptional Needs (3)
- EDSE 504 Transition Planning and Service Delivery for Students with Special Needs (3)
- EDSE 505 Assessment of Exceptional Individuals (3)

*Affective Needs*

- EDSE 602 Behavioral Disorders: Characteristics, Identification and Intervention (3)
- EDSE 606 Instructional Methods for Students with Special Needs (3)
- EDSE 608 Case Studies with Students with Special Needs (3)
- EDSE 610 Interventions for Students with Severe Affective Needs (3)
- EDSE 611 Seminar in Severe Affective Needs (3)

*Graduate Study*

- SRM 600 Introduction to Graduate Research (3)

*Practicum*

- EDSE 612 Practicum with Students with Severe Affective Needs, Ages 5-21 (3-12)

**Notes:** Evaluation of the student's professional potential will be an ongoing process throughout the program. Continuation/exit requirements will be based on multiple criteria such as faculty interview, professional recommendations, recommendations of the advisor or other program faculty, academic ethics, successful completion of the comprehensive examination and potential for teaching behaviorally disordered students. The multiple criteria approach does not assume that each of these factors carry equal weights; any one factor might well outweigh all others.

A master's degree or a department approved licensure program is required before the University of Northern Colorado will recommend the student for endorsement in Teacher II Severe Needs: Affective. Students who seek a Colorado endorsement in the Special Education Teacher II Severe Needs: Affective Program or request an institutional recommendation for licensure from UNC must meet Colorado licensure requirements. Students entering the licensure program must meet the same entrance requirements as the Master's degree students. They must also demonstrate achievement of all program standards through a combination of UNC coursework, prior coursework, or other departmentally approved documentation and completion of a licensure examination. However, a minimum of 15 semester hours must be taken at UNC.

Students wishing to obtain Colorado licensure in this area are required to pass proficiency examination(s). Students should contact the School for the Study of Teaching and Teacher Education in McKee 216 for information.



## SPECIAL EDUCATION, M.A.

### Severe Needs: Cognitive Emphasis

#### Program Requirements

Complete the required credits specified here . . . . . 42-48

#### Admission

In addition to meeting the admission requirements of the Graduate School, the student must possess a grade point average from the baccalaureate degree of at least 3.0 on a 4.0 scale, provide a minimum of two letters of recommendation from previous employers or academic professors, provide a statement of philosophy and goals of application in relation to the needs in the field and, if possible, arrange for a personal interview.

This master's program is designed to prepare teachers who will work with students with cognitive needs. Typically, the duration of this program should be two semesters plus a summer session. However, if a student enters the master of arts program in special education without a current teacher licensure, she or he is required to complete additional (separate) admission requirements and course requirements listed under Professional Teacher Education. The program consists of the required courses and practicum requirements agreed upon by the student and advisor.

#### Required Credits – 42-48 semester hours

##### *Special Education Core*

- EDSE 500 Field of Special Education (3)
- EDSE 501 The Exceptional Learner (3)
- EDSE 502 Communication, Collaboration and Consultation for Special Educators (3)
- EDSE 503 Effective School Environments for Learners with Exceptional Needs (3)
- EDSE 504 Transition Planning and Service Delivery for Students with Special Needs (3)
- EDSE 505 Assessment of Exceptional Individuals (3)

##### *Cognitive Needs*

- EDSE 606 Instructional Methods for Students with Special Needs (3)
- EDSE 608 Case Studies with Students with Special Needs (3)
- EDSE 609 Language Development: Disorders of Individuals with Special Needs (3)
- EDSE 620 Psycho-Social Aspects of Students with Severe Cognitive Needs (3)
- EDSE 621 Seminar in Severe Cognitive Needs (3)

##### *Graduate Study*

- SRM 600 Introduction to Graduate Research (3)

##### *Practicum (6 hours minimum required)*

- EDSE 623 Practicum with Students with Severe Cognitive Needs, Ages 5-21 (3-12)

**Notes:** Evaluation of the student's professional potential will be an ongoing process throughout the program.

Continuation/exit requirements will be based on multiple criteria such as faculty interview, professional recommendations, recommendations of the advisor or other program faculty, academic ethics, successful completion of the comprehensive examination and potential for teaching mentally retarded students. The multiple criteria approach does not assume that each of these factors carry equal weights; any one factor might well outweigh all others.

A master's degree or a department approved licensure program is required before the University of Northern Colorado will recommend the student for endorsement in Teacher II Severe Needs: Cognitive. Students who seek a Colorado endorsement in the Special Education Teacher II Severe Needs: Cognitive Program or request an institutional recommendation for licensure from UNC must meet Colorado licensure requirements. Students entering the licensure program must meet the same entrance requirements as the Master's degree students. They must also demonstrate achievement of all program standards through a combination of UNC coursework, prior coursework, or other departmentally approved documentation and completion of a licensure examination. However, a minimum of 15 semester hours must be taken at UNC.

Students wishing to obtain Colorado licensure in this area are required to pass proficiency examination(s). Students should contact the School for the Study of Teaching and Teacher Education in McKee 216 for information.

**SPECIAL EDUCATION, M.A.****Severe Needs: Communication Emphasis****Program Requirements****Complete the required credits specified here . . . . . 42-48****Admission**

In addition to meeting the admission requirements of the Graduate School, the student must possess a grade point average from the baccalaureate degree of at least 3.0 on a 4.0 scale, provide a minimum of two letters of recommendation from previous employers or academic professors, provide a statement of philosophy and professional goals in relation to the needs in the field and, if possible, arrange for a personal interview.

This master's program is designed to prepare teachers who will work with students with communication needs. Typically, the duration of this program should be two semesters plus a summer session. However, if a student enters the master of arts program in special education without a current teacher licensure, she or he is required to complete additional (separate) admission requirements and course requirements listed under Professional Teacher Education. The program consists of the required courses and practicum requirements agreed upon by the student and advisor.

**Required Credits – 42-48 semester hours***Special Education Core*

- EDSE 500 Field of Special Education (3)
- EDSE 501 The Exceptional Learner (3)
- EDSE 502 Communication, Collaboration and Consultation for Special Educators (3)
- EDSE 503 Effective School Environments for Learners with Exceptional Needs (3)
- EDSE 504 Transition Planning and Service Delivery for Students with Special Needs (3)
- EDSE 505 Assessment of Exceptional Individuals (3)

*Communication Needs*

- CMD5 683 Advanced Topics in Language Disorders (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 630 Seminar in Severe Communication Needs (3)

*Graduate Study*

- SRM 600 Introduction to Graduate Research (3)

*Practicum (6 hours minimum required)*

- EDSE 631 Practicum with Students with Severe Communication Needs: Ages 5-21 (3-12)
- EDSE 631 Practicum with Students with Severe Communication Needs: Ages 5-21 (3-12)
- EDSE 633 Practicum with Learning Disabled Students, Ages 13-21 (1-12)

**Notes:** Evaluation of the student's professional potential will be an ongoing process throughout the program. Continuation/exit requirements will be based on multiple criteria such as faculty interview, professional recommendations, recommendations of the advisor or other program faculty, academic ethics, successful completion of the comprehensive examination and potential for teaching learning disabled students. The multiple criteria approach does not assume that each of these factors carry equal weights; any one factor might well outweigh all others.

A master's degree or a department approved licensure program is required before the University of Northern Colorado will recommend the student for endorsement in Teacher II Severe Needs: Communication. Students who seek a Colorado endorsement in the Special Education Teacher II Severe Needs: Communication Program or request an institutional recommendation for licensure from UNC must meet Colorado licensure requirements. Students entering the licensure program must meet the same entrance requirements as the Master's degree students. They must also demonstrate achievement of all program standards through a combination of UNC coursework, prior coursework, or other departmentally approved documentation and completion of a licensure examination. However, a minimum of 15 semester hours must be taken at UNC.

Students wishing to obtain Colorado licensure in this area are required to pass proficiency examination(s). Students should contact the School for the Study of Teaching and Teacher Education in McKee 216 for information.

## SPECIAL EDUCATION, M.A.

### Severe Needs: Hearing Emphasis

#### Program Requirements

Complete the prerequisite credits specified here . . . . . 14

Complete the required credits specified here . . . . . 50-59

#### Admission

In addition to meeting the admission requirements of the Graduate School, the student must complete the following and submit them to the Director of Special Education at the time of application to the Graduate School: 1) a letter of intent stating future goals as a teacher of the hearing impaired; and 2) two letters of recommendation from faculty in major area of study in undergraduate program.

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, she or he is required to complete additional (separate) admission requirements and course requirements listed under the Professional Teacher Education and additional courses addressing competencies in the scope and sequence of regular education curriculum and methodology. (EDEL 612: The Elementary School Curriculum – 3 credit hours; EDEL 620: Researched Applications for Instruction in Mathematics K-9 – 3 credit hours; EDRD 612: Reading in the Elementary School--3 credit hours). Students not endorsed in Elementary Education, Secondary Education, or Early Childhood Education also are required to take EDEL 612, EDEL 620, and EDRD 612. The program consists of the required courses and practicum requirements agreed upon by the student and advisor. This program meets the standards of the Colorado State Department of Education and the Council on Education of the Deaf.

#### Prerequisites – 14 semester hours

CMD5 266 Normal Speech and Language Development (3)

CMD5 370 Basic Audiology (3)

EDSE 450 Introduction, Severe Needs: Hearing (3)

EDSE 451 Basic Sign Language (3)

#### Required Credits – 50-59 semester hours

##### *Special Education Core*

EDSE 500 Field of Special Education (3)

EDSE 501 The Exceptional Learner (3)

EDSE 502 Communication, Collaboration and Consultation for Special Educators (3)

EDSE 503 Effective School Environments for Learners with Exceptional Needs (3)

EDSE 504 Transition Planning and Service Delivery for Students with Special Needs (3)

EDSE 505 Assessment of Exceptional Individuals (3)

##### *Severe Needs: Hearing*

EDSE 551 American Sign Language (4)

EDSE 552 Advanced Sign Language (4)

EDSE 652 Speechreading, Auditory Training and Amplification (3)

EDSE 653 Speech, Severe Needs: Hearing (3)

EDSE 654 Language, Severe Needs: Hearing (3)

EDSE 655 Reading, Severe Needs: Hearing (3)

EDSE 656 Methods of Teaching Content: Severe Needs Hearing (3)

##### *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 in McKee 216 for information.

**SPECIAL EDUCATION, M.A.****Severe Needs: Vision Emphasis****Program Requirements**

Complete the required credits specified here . . . . . 46-74

**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 who are visually impaired. 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 visual impairment (VI), students may complete licensure and degree requirements in a minimum of 46 semester hours if they desire licensure in education of students who are visually impaired only. A minimum of 61 semester hours is required to complete requirements in both visually impaired and orientation and mobility if no prior coursework in VI has been completed. It is preferable for students to enroll fall semester.

**Required Credits – 46-74 semester hours***Special Education Core*

- EDSE 500 Field of Special Education (3)
- EDSE 501 The Exceptional Learner (3)
- EDSE 502 Communication, Collaboration and Consultation for Special Educators (3)
- EDSE 503 Effective School Environments for Learners with Exceptional Needs (3)
- EDSE 504 Transition Planning and Service Delivery for Students with Special Needs (3)
- EDSE 505 Assessment of Exceptional Individuals (3)

*Severe Needs: Vision*

- EDEL 612 The Elementary School Curriculum (3)
- EDSE 540 Independent Living for Individuals with Visual Disabilities (1-2)
- EDSE 542 Assessment and Methods for Teaching Students with Visual/Multiple Disabilities (3)
- EDSE 543 Braille Codes and Formats (3)
- EDSE 544 Technology for Students with Visual Disabilities (2)
- EDSE 545 Advanced Braille Codes and Formats (3)
- 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 Individual Instruction in Orientation and Mobility (4)
- EDSE 647 Applied Methods in Orientation and Mobility (2)
- EDSE 648 Practicum in Orientation and Mobility (9)

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 Individuals with Visual Disabilities (3)
- EDSE 646 Practicum in Rehabilitative Teaching of Individuals with Visual Handicaps, K-12 (6-12)

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 students who are visually impaired. 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 the same entrance requirements as the Master's degree students. They must also demonstrate achievement of all program standards through a combination of UNC coursework, prior coursework, or other departmentally approved documentation and completion of a licensure examination. However, a minimum of 15 semester hours must be taken at UNC.

Students wishing to obtain Colorado licensure in this area are required to pass proficiency examination(s). Students should contact the School for the Study of Teaching and Teacher Education in McKee 216 for information.

## SPECIAL EDUCATION, M.A.

### Teaching the Gifted and Talented Emphasis

#### 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)

PPSY 627 Counseling Interventions and Techniques for

Talented and Gifted Students (2)

##### *Graduate School Requirements*

SRM 600 Introduction to Graduate Research (3)

##### *Practicum*

EDSE 584 Practicum in Teaching the Gifted and Talented (6-12)

A minimum of 6 hours is required during the Summer Enrichment Program. The maximum for the M.A. program is 12 hours.

#### Elective Credits – 3-12 semester hours

Electives will be selected with the approval of the major advisor.

**Note:** In addition to admission to the program and satisfactory completion of all coursework, each student must pass a written comprehensive examination as well as an oral examination before she or he is allowed to graduate.

# MASTER OF SCIENCE (M.S.)

## APPLIED STATISTICS AND RESEARCH METHODS, M.S.

### Program Requirements

**Complete the required and elective credits specified here....30**

This program provides students with a broad understanding of appropriate applications of statistical and research methodology and with experience in using computers effectively for statistical analysis. Emphasis is placed on the concerns that an applied statistician or educational researcher must address in dealing with practical issues.

Completion of this degree will enable the graduate to seek employment in a career field requiring the application of statistical or research methodology, for example: data analysis or experimental design; to teach in a community or junior college; to work as an evaluation/assessment specialist in a public school setting; or to enter a Ph.D. program in statistics, educational research, or a related area.

### Admission

Complete Graduate School admission requirements; and, students planning on concentrating on research methods need a working knowledge of basic statistics from descriptive techniques through analysis of variance and students planning on concentrating on applied statistics need a working knowledge of calculus and linear algebra. Students must also provide a written statement regarding the relationship of the masters program to the student's professional goals.

### Required Credits – 10 semester hours

SRM 502 Applied Statistics (4)  
 SRM 520 Introduction to Statistical Computing (1)  
 SRM 600 Introduction to Graduate Research (3)  
 SRM 650 Research and Statistics Colloquium (2) (1 credit/  
 term)

**Complete one of the following Concentration Area requirements:**

### Applied Statistics Concentration – 20 semester hours

SRM 551 Mathematical Statistics with Applications I (4)  
 SRM 552 Mathematical Statistics with Applications II (4)  
 SRM 608 Experimental Design (3)  
 SRM 614 Linear Models (3)  
 Elective Credits (minimum) (6)

### Research Methods Concentration - 20 semester hours

SRM 670 Evaluation: Models and Designs (3)  
 SRM 680 Introduction to Qualitative Research (3)  
 EPSY 674 Measurement I: Educational Testing (3)  
 Elective Credits (minimum) (11)

### Notes:

1. A comprehensive examination is required.
2. Students enrolled in summers-only or evenings-only programs may substitute SRM 602 and SRM 603 for SRM 502 and SRM 520. They may also substitute two (2) credit hours of SRM 694 for SRM 650.
3. Electives must be approved by advisor prior to enrollment.

## EDUCATIONAL SPECIALIST (ED.S.)

### EDUCATIONAL LEADERSHIP, ED.S.

#### Philosophy

The underlying philosophy of programs in Educational Leadership at UNC is that educational leaders possess knowledge of self, others, organizations and society necessary to perform creatively and effectively in diverse environments. They engage people in identifying and working toward the accomplishment of a shared vision for the organization. Leaders incorporate the ideas, values, and experiences reflective of a pluralistic society and promote continual learning.

The program is exemplified by the following beliefs:

- Human growth and development are lifelong pursuits;
- Organizations are artifacts of a larger society;
- Learning, teaching, and collegiality are fundamental activities of educational organization;
- Validated knowledge and active inquiry form the basis of practice;
- Moral and ethical imperatives drive leadership behavior;
- Leadership encompasses a learned set of knowledge, skills, and attitudes;
- Leaders' behavior and actions model their beliefs and values;
- Effective leadership in educational organizations depends on individual and team efforts;
- Leaders effect positive change in individuals and organizations.

#### Program Requirements

The Ed.S. represents advanced study in educational leadership and policy. Completion of the program may satisfy requirements for the Colorado Principal or Administrator (central office including superintendent) license or provide advanced study for students preparing for leadership roles in post-secondary education.

The Ed.S. Degree requires 30 hours beyond the Master's Degree. The 30 hours are distributed as follows:

#### Educational Leadership – minimum of 15 semester hours

*ELPS Prefix Courses (15)*

*Research – minimum of 3 semester hours*

*Select one of the following courses:*

**SRM 602 Statistical Methods I (3)**

**SRM 670 Evaluation: Models and Designs (3)**

**EPSY 674 Measurement I: Educational Testing (3)**

*Field-Based Learning – minimum of 3 semester hours*

*Select one of the following two courses:*

**ELPS 606 Internship (3)**

**ELPS 695 Practicum in Educational Leadership (1-3)**

*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 (McKee 216) describes materials for admission review by the faculty: current resume, goals statement, an essay regarding an educational issue and Professional Assessment Forms.

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.

## SCHOOL PSYCHOLOGY, ED.S.

### Program Requirements

Complete the required credits specified here . . . . . 73-86

The Ed.S. program is fully accredited by the National Association of School Psychologists.

The specialist program in School Psychology is designed for those persons who wish to become practitioners meeting state and national licensure requirements for school psychologists. Training is primarily oriented toward the acquisition of those skills necessary for effective functioning as a school psychologist working in a public school.

#### Admission

In addition to meeting the admission requirements of the Graduate School, the student must submit the following data to the Professional Psychology Office by January 15. Decisions will be announced by April 15. The master's degree is not required for admission.

- Academic transcripts of all college or university training. A grade point average of at least 3.3 in the last 100 hours of academic work is preferred (sent to the Graduate School by January 15).
- Three letters of recommendation from immediate supervisors or professors. These letters should be addressed to the Graduate School/School Psychology Program.
- A written statement regarding the relationship of the specialist program to the personal and professional goals of the applicant. This statement should be forwarded to the School Psychology Admissions coordinator.

Applications are evaluated competitively for a limited number of positions. The application must demonstrate clear potential for success in a specialist program in School Psychology.

#### Prerequisites

The following program is based on the student's entering with a bachelor's degree. A student with a master's degree in psychology or professional psychology should meet with his or her advisor to develop a specific plan of study. The following graduate courses or areas of study are prerequisite to the program: Tests and Measurements, Abnormal Psychology, Descriptive and Inferential Statistics and Theories of Personality. Students who have not had these courses will be required to complete them upon entry into the program. In consultation with the advisor, a student should select the number of hours and specific courses to meet licensure requirements, complete the program and prepare the student to be a professional school psychologist.

#### Required Credits – 73-86 semester hours

\*Recommended to meet State of Colorado School Psychologist licensure requirements.

##### *Psychological Foundations*

- PPSY 763 Seminar in School Psychology (3)
- \*PPSY 607 Theories of Counseling (3)
- \*PPSY 655 Community Psychology and Social Systems (3)
- \*PPSY 657 Legal and Ethical Aspects of Counseling and Psychology (3)
- \*PPSY 660 Psychological Consultation: Theory and Practice (3)
- \*PPSY 781 Evaluation of Psychological Services (3)

##### *Select one of the following courses:*

- \*EPSY 630 Child and Adolescent Psychology (3)
- \*PSY 550 Cognitive Development (3)

##### *and select one of the following two courses:*

- \*EPSY 540 Theories and Principles of Learning (3)
- \*PPSY 638 Behavioral Approaches to Professional Psychology (3)

##### *Assessment for Intervention*

- \*PPSY 612 Practicum in Individual Counseling (5)
- \*PPSY 674 Assessment for Intervention: Cognitive and Academic (5)
- \*PPSY 676 Assessment for Intervention: Infant and Toddler (3)
- \*PPSY 678 Assessment for Intervention: Personality and Behavior (5)
- \*PPSY 779 Practicum in School Psychology (3)

##### *Select two of the following three courses:*

- \*PPSY 617 Play Therapy: Theory and Practicum (3)
- \*PPSY 681 Systems Intervention Practicum (3)
- \*PPSY 694 Practicum in Family Therapy (4)

Select one of the following three courses:

- \*PPSY 665 Family Systems (3)
- \*PPSY 585 Family Counseling and Education in School Settings (2)
- \*PPSY 605 Group Laboratory Experience (1) and
- \*PPSY 606 Theories and Practices in Group Guidance (2)
- Professional Education (minimum of 9 hours required)*
- \*EDRD 617 Evaluation and Improvement of Literacy Teaching and Learning (4)
- PPSY 580 Computer Applications to Professional Psychology (2)
- \*PPSY 672 Neuropsychology of Learning Disabilities and Traumatic Brain Injuries (3)
- PPSY 603 Counseling Children and Adolescents (3)
- and select one of the following two courses:*
- PPSY 569 Violence Against Women and Children (2)
- PPSY 654 Child Abuse and Neglect (2)

To meet the professional educational requirements, other courses, with advisor approval, from ELPS, EDSE or EDF may be substituted.

##### *Multicultural Understanding*

Select one of the following two courses:

- \*PPSY 565 Psychology of Prejudice (2)
- \*PPSY 623 Counseling Diverse Populations (2)

##### *Supervised Field Work*

PPSY 789 Internship in School Psychology (two semesters) (12)

**Notes:** A written comprehensive examination is a program requirement, which is satisfied through the successful completion of the National Certified School Psychology Examination (NCSP).

#### School Psychologist Licensure

Institutional recommendation for endorsement in School Psychology is based on the completion of the Ed.S. or the Ph.D. program in School Psychology. No prior teaching experience is necessary.

Students wishing to obtain Colorado licensure in this area are required to pass proficiency examination(s). Students should contact the School for the Study of Teaching and Teacher Education: Office of Student and Program Services in McKee 216 for information.

Students desiring licensure in states other than Colorado should note that requirements for licensure are set by each state's Department of Education and should become familiar with the requirements for any other state from which they seek licensure.

Near the end of the semester that the licensure program is to be completed, the candidate should complete application forms in the School for the Study of Teaching and Teacher Education: Office of Student and Program 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 EDUCATION (ED.D.)

## EDUCATIONAL LEADERSHIP, Ed.D.

### Program Requirements

Complete the required credits specified here  
minimum .....64 (beyond M.A.)

The University of Northern Colorado has a long history of preparing individuals to assume leadership roles in education. Over the years, superintendents, principals, deans, program directors, professors, presidents and other persons in leadership positions in Colorado and across the nation have received academic degrees from the University. UNC graduates assume leadership roles in public and private schools, post-secondary institutions and other education-related organizations.

The underlying philosophy of the Doctor of Education (Ed.D.) program is that educational leaders possess knowledge of self, others, organizations, learning and society necessary to perform creatively and effectively in diverse environments. They engage people in identifying and working toward the accomplishment of a shared vision for the organization. Leaders incorporate the ideas, values and experiences reflective of a pluralistic society and promote continual learning.

The doctoral program in Educational Leadership is exemplified by these beliefs:

- Human growth and development are lifelong pursuits;
- Organizations are artifacts of a larger society;
- Learning, teaching, and collegiality are fundamental activities of educational organizations;
- Validated knowledge and active inquiry form the basis of practice;
- Moral and ethical imperatives drive leadership behavior;
- Leadership encompasses a learned set of knowledge, skills, and attitudes;
- Effective leadership in educational organizations depends on individual and team efforts;
- Leaders' behavior and actions model their beliefs and values;
- Leaders effect positive change in individuals and organizations.

The Ed.D. program faculty use a community-of-scholars model of interaction among students and faculty. The students are viewed as colleagues with progressively higher levels of responsibility and expertise. Cooperative research and other scholarly projects are encouraged among faculty members and students.

### The Educational Leadership Approach to Doctoral Study

A sampling of the features which make this program attractive to current and aspiring educational leaders includes:

- a commitment to the professional development of each individual student;
- a content knowledge base which is challenging, provocative, research-based and yet practical and useful;
- a program which is individually designed by each student with guidance by an advisor and program planning committee;
- a cohort approach to learning for two semesters of enrollment;
- instructional techniques and ways of working with students that emphasize the principles and practices of adult learning;
- a commitment by faculty to work with students as colleagues;
- an emphasis on being a student/scholar of leadership;
- a belief that all students who enter the program can successfully complete and in doing so will continue to contribute to the field of education through their coursework, their field-based learning, and their research.

### Admission

Ed.D. program applicants must submit an application form, official transcripts, three 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, an essay on a current educational issue, and Professional Assessment Forms. Applicants complete an interview with the Educational Leadership Program faculty. For students who live out-of-state, the interview may be conducted by a conference call. Although admissions decisions are made throughout the year, students who complete the application process by February 15, including the interview, are given priority screening for Fall admissions of that year and have increased opportunities for financial assistance. The application period normally closes on July 1 for Fall admission.

The doctoral program expands upon the foundation gained in study for the master's, specialist, and/or licensure programs. It provides opportunities for candidates to develop breadth in understanding leadership, policy, and research methodologies, and also depth in one or more areas of specialization. The focus of this program is the refinement of students' understandings of leadership and policy development and analysis, ultimately culminating in the dissertation. The dissertation is meant to contribute to knowledge of a critical issue in educational leadership.

Entering doctoral students who already possess a Master's Degree in Educational Leadership or a related field complete a minimum of 64 semester hours of graduate credit beyond the Master's degree. Students with an Educational Specialist's degree enroll in a minimum of 42 semester hours beyond the specialist's degree. These semester hour requirements are minimum expectations for students' performance. Credit requirements are a function of the types of learning experiences needed by students to achieve their goals.

### Program of Study

The nature of doctoral studies implies a high degree of individualized program development to reflect the personal, professional and academic goals of each student. Consequently, each doctoral student admitted to the program works with an advisor and a program planning committee to develop a learning plan. Despite this flexibility, there are minimum requirements that must be completed by all Ed.D. students.

### Required Courses in Educational Leadership – 15 semester hours

All doctoral students enroll in 12 hours of Doctoral Core courses (two six-hour courses) that are taken sequentially in the Fall and Spring semesters (ELPS 751, ELPS 752). In addition, students take **ELPS 754 Research in Educational Leadership (3)** following the two Doctoral Core courses.

### Concentration Area(s) – 18 semester hours minimum, 9 hours of which must be with ELPS prefix

Students identify one or more concentration areas of study which relate directly to their goals as leaders of educational programs. A concentration area is defined as a body of knowledge represented by a minimum of 9 hours of course work. A minimum of 9 semester hours must be taken that have an ELPS prefix. Concentration areas related to educational leadership include, but are not limited to the following:

- Building Level Leadership
- Central Office Leadership
- Fiscal, Legal, and Policy Aspects of Schools and Higher Education
- Educational Change and Innovation
- Higher Education Leadership
- Human Resource Management in Education
- Professional Development and Adult Learning

In addition, other concentration areas may be designed by the student (for example, educational technology, special education administration, and middle school education).

#### Research Core – 12 semester hours

At least 12 hours of doctoral level work (beyond SRM 600 or its equivalent) are directed toward developing research design and data analysis skills. Six hours include the following courses (or equivalents approved by the doctoral program planning committee): SRM 602, SRM 603. The other courses may be selected from offerings in such fields as Educational Psychology, Sociology, or Statistics.

#### Field-based Learning – 3 semester hours

Besides formal academic coursework, students engage in a field-based learning experience(s) to enhance their practical knowledge and skills. Learning experiences can be an internship (ELPS 606) which is role specific (e.g., taking on the role and responsibilities of a superintendent, principal, or university administrator) and/or a practicum (ELPS 695) which is task specific (e.g., conducting a small-scale study or directing a staff development activity).

#### Electives – as needed

Students select additional course(s) with the guidance of their program committee to meet their specialized career needs.

#### Dissertation – 16 semester hours

Before beginning the dissertation, students identify needed resources and refine their skills in order to develop a scholarly dissertation proposal. As part of this development process they must enroll for 4 hours of doctoral Proposal Research (ELPS 797). Twelve semester hours of dissertation credit (ELPS 799) must be taken after formal approval of the proposal.

Doctoral students, in consultation with their advisors, select a program planning committee, comprised of at least three faculty members. This committee works with the student in designing a course of studies which conforms to the standards of the Graduate School and the Educational Leadership program, and also meets the expectations and goals of the student. The program planning committee is convened early in the student's doctoral program (i.e., no later than the semester following the completion of 9 semester hours) to develop an approved program of studies. The committee is also responsible for the development of the student's comprehensive examination.

#### Course Requirements

*Educational Leadership Required – 15 semester hours, including*

ELPS 751 Doctoral Core I (6)

ELPS 752 Doctoral Core II (6)

ELPS 754 Research in Educational Leadership (3)

*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)

*Research Electives – 6 semester hours*

These six research electives may be taken from the following courses (or equivalents approved by the doctoral program committee):

HESA 755 Advanced Research Seminar (1)

EPSY 674 Measurement I: Educational Testing (3)

EPSY 675 Measurement II: Advanced Techniques (3)

PPSY 670 Psychological Testing and Measurement (2)

PPSY 671 Testing: Analysis and Interpretation (2)

SOC 563 Qualitative Methods (3)

SOC 660 Applied Social Research (3)

SRM 606 Multiple Linear Regression Analysis (3)

SRM 607 Non-Parametric Statistics (3)

SRM 608 Experimental Design (3)

SRM 609 Sampling Methods (3)

SRM 610 Statistical Methods III (3)

SRM 614 Linear Models (3)

SRM 619 Resampling Methods (3)

SRM 731 Multivariate Analysis (3)

SRM 670 Evaluation: Models and Designs (3)

SRM 770 Evaluation: Advanced Methods (3)

SRM 680 Introduction to Qualitative Research (3)

SRM 700 Advanced Research Methods (3)

*Field-Based Learning – minimum 3 semester hours*

*Select one of the following courses:*

ELPS 606 Internship in Educational Leadership (3)

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)

HESA 685 Human Resources in Higher Education (3)

HESA 683 Finance and Resource Management in Higher Education (3)

ELPS 654 Supervision of Curricular and Instructional Programs (5)

ELPS 655 Seminar in Learning in Adulthood (3)

ELPS 657 Families, Communities and Schools (3)

ELPS 660 Law and the Administrator (3)

HESA 680 Law and Higher Education (3)

ELPS 662 Design and Delivery of Professional Development (3)

ELPS 663 Developing Grants and Contracts (3)

ELPS 665 Policy Analysis and Development (3)

ELPS 666 Planning and Change in Education (3)

HESA 668 Higher Education in the United States (3)

HESA 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)

## ELEMENTARY EDUCATION, ED.D.

### 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

SRM 602 Statistical Methods I (3)

SRM 603 Statistical Methods II (3)

SRM 700 Advanced Research Methods (3)

\*EDEL 797 Doctoral Proposal Research (4)

\*EDEL 799 Doctoral Dissertation (12)

Note that SRM 602 is to be taken concurrently with EDEL 710. SRM 603 must be taken concurrently with EDEL 711. Students will be required to demonstrate appropriate literacy and competency in computer applications as part of this program. ET 503: Computer Based Education (3) is a recommended course.

### Required Doctoral Credits – 21-23 semester hours

\*EDEL 725 Seminar in Elementary School Mathematics (2)

\*EDEL 745 Seminar in Elementary School English (2)

\*EDEL 755 Seminar in Elementary Education Social Studies (2)

\*EDEL 790 Supervised Practicum in College Teaching (3)

\*EDRD 745 Topical Seminar in Reading (2-4)

\*EDRD 750 The Contributing Professional in Reading (2-4)

Other credits to be determined

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 Introduction to Qualitative Research (3)

EPSY 674 Measurement I: Educational Testing (3)

ET 503 Computer-Based Education (3)

\*EDEL 612 The Elementary School Curriculum (3)

\*EDEL 619 Pluralism in Education (3)

\*EDEL 612 The Elementary School Curriculum (3)

\*EDEL 601 Practicum in Elementary 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 Application for Instruction in Social Studies, K-9 (3)

\*EDEL 679 Researched Applications in Appraisal, Evaluation and Clinical Supervision of Teaching in the Elementary and Middle School (3)

SCED 671 Elementary and Middle School Science Curriculum (3)

EDEC 660 Critical Issues in Early Childhood (3)

EDEC 662 Research in Early Childhood and Primary Education (3)

EDEC 663 Educational Assessment, Evaluation and Prescription for the Young Child (3)

EDEC 664 Seminar in Early Childhood and Primary Education (3)

EDEC 675 Play and Psychosocial Development in Early Childhood (3)

EDEL 508 Workshop (1-3)(maximum 4)

EDEL 622 Directed Studies (1-3)

EDRD 614 Literature for Children, Adolescents and Young Adults (3)

EDRD 645 Reading/Literacy Research (3)

Students are responsible for course content, for the above \*courses, on doctoral comprehensive exams. In consultation with advisor, students may include 10-21 semester hours from these courses in the doctoral program of study or may elect other approaches to acquire the knowledge and application bases inherent within contexts of formal courses listed.

### External Electives

In consultation with advisor, students may select 10-16 graduate semester hours from other program support areas in the College of Education (i.e., EDEC, EDRD, EDMS, EDSE, 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.

## SPECIAL EDUCATION, ED.D.

### Program Requirements

Complete the required credits specified here . . . . . 56-62  
 Complete elective credits specified here . . . . . 9  
 Total credits required for the degree . . . . . 65-71

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;
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:

- potential for scholarship;
- relevant formal training at the undergraduate and/or graduate level;
- evidence of successful teaching or clinical experience with persons who have exceptionalities for a minimum of two years;
- potential for leadership;
- professional commitment;
- clarity and rationality of professional and personal goals;
- potential for effective teaching;
- 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, she or he should determine courses for the first semester.

In joint planning sessions the student and advisor--in consultation with the doctoral committee, other students and people from outside the university--should establish a tentative doctoral program during the first and second semesters on campus. This program should be based on

past experience and training and on student interests and goals. The program must include an emphasis on critical thinking, breadth and depth of theoretical understanding, apprenticeships that lead to scholarly production before completion of the program, methods of inquiry in education and direct experiences in schools with diverse population. The program plan must include a statement of goals and rationale for proposed coursework and educational experiences. The program and rationale must then be submitted to the Division of Special Education Doctoral Admissions and Review Committee for approval. If the Committee is concerned with elements of the plan, they will make recommendations for revisions or additions. Enrollment in third semester courses without an approved program may lead to the inclusion of courses not ultimately approved as part of the doctoral plan.

### Required Credits – 76 semester hours

Note that students will be required to demonstrate literacy and competency in computer applications as part of the program.

#### Doctoral Core Courses – 26 semester hours

EDSE 720 Professional Development (1)

EDSE 721 Theoretical Foundations of Special Education I (3)

or

EDSE 722 Theoretical Foundations of Special Education II (3)

EDSE 723 Seminar in Facilitating Personal and Professional Development in Special Education (3)

EDSE 727 Seminar in Exceptionalities (3)

EDSE 728 Seminar in Professional Writing (3)

#### Apprenticeships – 9 semester hours

EDSE 729 Apprenticeship in Special Education (9)

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.

#### Externships – 3 semester hours (minimum)

EDSE 730 Externship in Special Education (3)

Externships are taken in one to twelve hour blocks and involve an off-campus experience. Variable titles related to inquiry, university teaching and administration are selected based on the nature of the externship.

#### Topical Seminars – 3 semester hours (minimum)

EDSE 731 Topical Seminar in Special Education (3-9)

Topical seminars are offered as three hour courses. A minimum of one topical seminar is required, and up to three topical seminars may be included in the program of study.

#### Methods of Inquiry Courses – 12 semester hours

SRM 602 Statistical Methods I (3)

SRM 603 Statistical Methods II (3)

SRM 680 Introduction to Qualitative Research (3)

SRM 700 Advanced Research Methods (3)

#### Doctoral Proposal and Dissertation – 16 semester hours

EDSE 797 Doctoral Proposal Research (4)

EDSE 799 Doctoral Dissertation (12)

### Elective Credits – 9 semester hours (minimum)

Students are to select 9 semester hours of courses from outside of the Division of Special Education. Electives are chosen in consultation with the major advisor and are an integral part of the program plan.

#### Areas of Special Interest

The student may select an area of interest (one or more), in conference with his or her advisor, from the following areas: Vocational preparation of children and youth with exceptionalities; education of preschool children with exceptionalities; emphasis in one of the categorical areas of special education (acoustically handicapped, autism, learning disabilities, emotionally disturbed, gifted, mental retardation, visually handicapped, etc.); education of minority, ethnic and cultural groups, curriculum development, appraisal/interpretational/ pupil program prescription; programming and management; special education administration; university teaching; research; other areas as designed by the student and his or her advisor.

**Notes:** 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.

# DOCTOR OF PSYCHOLOGY (Psy.D.)

## COUNSELING PSYCHOLOGY, Psy.D.

### Program Requirements

Complete the required credits specified here ..... 91-140\*

(Accredited by the American Psychological Association)

\*A student entering with previously completed graduate coursework equivalent to coursework required for the Psy.D. degree may have course(s) waived with advisor consent. A plan of study for the degree must contain a *minimum of 72 hours* of coursework in addition to doctoral research (16) and internship hours (3-18).

### Objectives

This program is designed to develop individuals who will be effective counseling psychologists in community, agency or system settings. The program focuses primarily on training effective persons for therapy and assessment of individuals and groups, supervising others in the helping professions and researching and evaluating programs relative to counseling. Secondly, the objectives are to teach and train professionals and paraprofessionals in psychology and to develop skills in documenting the effectiveness of these programs and consulting in prevention and treatment models.

All graduates of the Psy.D. program will meet APA standards which lead to eligibility for licensing as a psychologist.

In addition to formal course requirements, students are required to successfully complete a doctoral comprehensive examination, a dissertation and a one year, 2000 hour internship.

### Admission

- Applications must be complete and on file in the Professional Psychology office by January 1, with decisions announced by the first week of April.
- All entering doctoral students will hold a master's degree in counseling or a related field; a minimum of 1500 combined score on the GRE; 3.25 GPA; and a minimum of two years of counseling or related experience.
- Three letters of recommendation from individuals who are familiar with the students's academic and clinical skills.
- Applicants must first apply to the Graduate School, after which a further review process is conducted for admission. Finalists are invited to attend an admission screening workshop.

Admission decisions are based on the professional judgment of the 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.

### Required Credits – 91-140 semester hours

Some or all of the introductory core may have been taken in the student's master's degree program.

*Introductory Core (All Required) – 33 semester hours*  
SRM 600 Introduction to Graduate Research (3)  
EPSY 530 Life Span Developmental Psychology (3)  
PPSY 558 Abnormal Psychology (3)  
PPSY 605 Group Laboratory Experience (1)  
PPSY 607 Theories of Counseling (3)  
PPSY 610 Theories of Personality (2)  
PPSY 612 Practicum in Individual Counseling (5)  
PPSY 616 Career Theory, Counseling and Assessment (3)  
PPSY 662 Group Dynamics and Facilitation (2)  
PPSY 665 Family Systems (3)  
PPSY 669 Advanced Methods: Marriage and Family Therapy (3)  
PPSY 670 Psychological Testing and Measurement (2)

### *Seminar Requirement – 1 semester hour*

PPSY 701 Professional Development Seminar in Counseling Psychology (1)

### *Research Core (All Required) – 14 semester hours*

SRM 602 Statistical Methods I (3)  
SRM 603 Statistical Methods II (3)  
SRM 700 Advanced Research Methods (3)  
PPSY 733 Research Apprenticeship (2) (1 hour each)  
PPSY 781 Evaluation of Psychological Services (3)

### *Practica (All Required) – 24 semester hours*

PPSY 694 Practicum in Family Therapy (4)  
PPSY 702 Practicum in Counseling (4)  
PPSY 712 Advanced Practicum in Individual Counseling (4)  
PPSY 714 Practicum in Supervision of Counseling (3)  
PPSY 715 Seminar in Counselor Supervision and Theory (2)  
PPSY 762 Practicum in Group Facilitation (4)  
PPSY 793 Psychological Services Clinic I (1)  
PPSY 794 Psychological Services Clinic II (2)

### *Suggested Electives*

PPSY 773 Practicum in Supervision of Group Facilitation (3)  
PPSY 774 Practicum in Supervision of Family Therapy (3)

### *Assessment Core (All Required) – 10 semester hours*

PPSY 674 Assessment for Intervention: Cognitive and Academic (5)  
PPSY 678 Assessment for Intervention: Personality and Behavior (5)

### *Suggested Electives*

PPSY 782 Introduction to Rorschach Administration and Scoring (2)

### *Licensing Core – 23-24 semester hours*

PSY 625 Principles of Neuropsychology (3)

or

PPSY 777 Applied Neuropsychology (4)

PSY 643 Theories of Motivation (3)

or

EPSY 540 Theories and Principles of Learning (3)

PPSY 655 Community Psychology and Social Systems (3)

or

PSY 664 Advanced Social Psychology (3)

PPSY 657 Legal and Ethical Aspects of Counseling and Psychology (3)

PPSY 707 Seminar in Personality and Counseling Theories (3)

PPSY 758 Advanced Psychopathology (3)

PSY 590 Seminar in History and Systems (3)

PPSY 565 Psychology of Prejudice (2)

or

PPSY 623 Counseling Diverse Populations (2)

### *Internship*

PPSY 791 Internship in Counseling Psychology (1-5)

### *Dissertation*

PPSY 797 Doctoral Proposal Research (4)

PPSY 799 Doctoral Dissertation (12)

**Note:** Some or all of the introductory core may have been taken in the student's master's degree program, and may significantly reduce the total number of hours required to complete the program.

# DOCTOR OF PHILOSOPHY (PH.D.)

## APPLIED STATISTICS AND RESEARCH METHODS, PH.D.

### Program Requirements

Complete the required and elective credits specified here ..... 65

The Doctor of Philosophy degree program produces critical thinkers with conceptual and methodological tools for conducting meaningful research. The focus is on the application of statistical concepts and methodology to the solution of practical problems in a variety of disciplines including, but not limited to, educational research.

The doctoral program is designed to qualify individuals to teach courses at the college level in applied statistics or research methodology, to provide leadership in the conduct of research studies, and to serve as consultants in research methodology and data analysis in education, industry, or government.

### Admission

Complete Graduate School admission requirements; and, students planning on concentrating on research methods need a working knowledge of basic statistics from descriptive techniques through analysis of variance and students planning on concentrating on applied statistics need a working knowledge of calculus and linear algebra. Students must also provide a written statement regarding the relationship of the doctoral program to the student's professional goals.

*Required Credits – 35 semester hours*

SRM 610 Statistical Methods III (3)

SRM 611 Advanced Statistical Data Analysis (3)

SRM 650 Research and Statistics Colloquium (4) (1 credit/term)

SRM 689 Internship in Applied Statistics (3)

or

SRM 694 Practicum (3)

SRM 700 Advanced Research Methods (3)

SRM 763 Apprenticeship (3)

SRM 797 Doctoral Proposal Research (4)

SRM 799 Doctoral Dissertation (12)

**Complete one of the following Concentration Area requirements:**

**Applied Statistics Concentration - 27 semester hours**

SRM 606 Multiple Linear Regression Analysis (3)

SRM 607 Non-Parametric Statistics (3)

SRM 609 Sampling Methods (3)

SRM 619 Resampling Methods (3)

SRM 635 Categorical Data Analysis (3)

SRM 731 Multivariate Analysis (3)

Elective Credits (9)

**Research Methods concentration (Any five (5) of the following six (6) courses - 27 semester hours**

SRM 670 Evaluation: Models and Designs (3)

SRM 680 Introduction to Qualitative Research (3)

SRM 770 Evaluation: Advanced Methods (3)

SRM 780 Advanced Qualitative Research Methods (3)

EPSY 674 Measurement I: Educational Testing (3)

EPSY 675 Measurement II: Advanced Techniques (3)

\*Cognate Area Credits (15)

### \*Cognate Area

The student must complete 15 semester hours within a cognate area of his/her choice. These hours must be at the graduate level and must be approved by his/her advisor. The purpose of the cognate is to equip the student in a substantive discipline within which the dissertation may be written.

### Notes:

1. Students who enter the doctoral program without a working knowledge of SAS programming must take SRM 520 early in their doctoral program.
2. Approved electives may be substituted for required courses completed during a masters program.

3. A written comprehensive examination is required.
4. An oral comprehensive examination is required.
5. A dissertation that demonstrates an original contribution to research or statistical methodology or a collateral field is required.
6. An oral defense of the dissertation is required.

### Masters Degree in route to the Ph.D. degree in Applied Statistics and Research Methods

A student may apply for admission to the Ph.D. program in Applied Statistics and Research Methods and obtain the M.S. in Applied Statistics and Research Methods on the way to completion of the doctoral degree. The application process and admission criteria are the same as for the Ph.D. program. The student must complete all program requirements for the M.S. degree in addition to the minimum 65 hours required for the Ph.D. The student must be conferred with the M.S. degree prior to admission to doctoral candidacy.

## COUNSELOR EDUCATION AND SUPERVISION, PH.D.

### Program Requirements

Complete the required credits specified here

(minimum) ..... 89\*-107

\*A student entering with previously completed graduate coursework equivalent to coursework required for the Ph.D. degree may have course(s) waived with advisor consent. A plan of study for the degree must contain a minimum of 67 hours of coursework in addition to proposal, dissertation and internship hours.

This program is accredited by the Council for Accreditation of Counseling and Related Educational Programs.

The Counseling faculty is committed to the development of broadly based competent counselor educators skilled in teaching, supervision, counseling and research. The requirements of the program are conceptualized within the framework and standards set forth by the counseling profession, Colorado state law, the University Graduate School, and job requirements.

The Counselor Education and Supervision program at the doctoral level prepares an individual for employment as a counselor educator and supervisor for colleges and universities offering training in school counseling, community counseling, marriage and family counseling/therapy, and counseling with children and adolescents. Graduates are also qualified for licensure as professional counselors, and may be employed in such sites as community agencies, schools, counseling centers, employee assistance programs, and private practice.

### 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 is required.
- Three letters of recommendation are required from individuals who are familiar with the student's academic and clinical skills.
- Grade Point Average of 3.25 in the last completed degree is desired.
- Written statement must be completed regarding the relationship of the doctoral program to the future career goals of the applicant.

Applicants must first apply to the Graduate School, after which 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 Ph.D. Students

Students entering the doctoral program should have completed courses in the following areas at the graduate level:

- Tests and Measurement
- Learning Theory
- Personality Theories
- Family Systems
- Group Counseling/Guidance
- Abnormal Psychology
- Substance Abuse
- Testing: Analysis and Interpretation
- Career Counseling and Theory
- Counseling Theories
- Developmental Psychology

Students who have not completed coursework in these areas must complete these courses as deficiency coursework not to be counted toward the hours required for the degree. Students

will be required to satisfactorily complete doctoral comprehensive examinations and dissertations in addition to the coursework.

An additional program requirement is that students will submit a proposal to present at least one time at a juried state, regional, national or international conference. This presentation can be done alone, with faculty, or with peers. Students must submit a copy of the presentation proposal for their files. For presentations that are accepted, students must submit a copy of the letter of proposal acceptance and copies of presentation handouts. It is highly recommended that students have manuscripts published, in press, and/or in submission prior to graduation, and it is highly recommended that students have been involved in grant writing as a part of their education.

#### Required Credits – 89 semester hours

##### *Counseling Core - 12 semester hours*

PPSY 702 Practicum in Counseling (4)  
PPSY 712 Advanced Practicum in Individual Counseling (4)  
PPSY 762 Practicum in Group Facilitation (4)

##### *Supervision Core - 11 semester hours*

PPSY 714 Practicum in Supervision of Counseling (6)  
PPSY 715 Seminar in Counselor Supervision and Theory (2)  
PPSY 773 Practicum in Supervision of Group Facilitation (3)

##### *Theory and Instruction Core - 26-40 semester hours*

EPSY 654 Seminar in College Teaching (3)  
PPSY 657 Legal and Ethical Aspects of Counseling and Psychology (3)  
PPSY 660 Psychological Consultation: Theory and Practice (3)  
PPSY 716 Seminar in Personality and Counseling Theories (3)  
PPSY 755 Supervised Practicum in College Teaching (6)  
PPSY 758 Advanced Psychopathology (3)  
PPSY 792 Internship in Counselor Education and Supervision (2-6)

##### *Research and Evaluation Core - 40-42 semester hours*

SRM 700 Advanced Research Methods (3)  
PPSY 797 Doctoral Proposal Research (4)  
PPSY 799 Doctoral Dissertation (12)

##### *Research Tool 1: Applied Statistics*

SRM 602 Statistical Methods I (3)  
SRM 603 Statistical Methods II (3)  
SRM 610 Statistical Methods III (3)

##### *Research Tool 2: Applied Research*

PPSY 703 Professional Development Seminar in Counselor Education (1-3)  
PPSY 716 Research Seminar in Counselor Education (3)  
PPSY 733 Research Apprenticeship (1)  
SRM 680 Introduction to Qualitative Research (3)  
SRM 670 Evaluation: Models and Designs (3)

or

PPSY 781 Evaluation of Psychological Services (3)

##### *Special Populations - 2 semester hours*

PPSY 623 Counseling Diverse Populations (2)

#### Interest Areas (Select a minimum of one of the following)

##### *Marriage and Family - 18 semester hours*

PPSY 666 Couples 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)  
PPSY 774 Practicum in Supervision of Family Therapy (3)

##### *Children and Adolescents - 16 semester hours*

EPSY 630 Child and Adolescent Psychology (3)  
PPSY 603 Counseling Children and Adolescents (3)  
PPSY 617 Play Therapy: Theory and Practicum (3)  
PPSY 654 Child Abuse and Neglect (2)  
PPSY 664 Therapeutic Parenting (2)  
PPSY 713 Practicum in Supervision of Play Therapy (3)

##### *School Counseling - 16 semester hours*

PPSY 566 At Risk Students: Opportunities and Strategies (3)  
PPSY 585 Family Counseling and Education in School Settings (2)  
PPSY 602 Foundations of School Guidance (3)  
PPSY 603 Counseling Children and Adolescents (3)  
PPSY 608 Organization, Administration and Consultation in Guidance Services (3)  
PPSY 654 Child Abuse and Neglect (2)

## EDUCATIONAL PSYCHOLOGY, PH.D.

### Program Requirements

Complete the required credits specified here . . . . .	45
Complete the program elective credits specified here . . . . .	3
Concentration area requirements . . . . .	17-19
<b>Program Total . . . . .</b>	<b>66</b>

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.

### M.A. Degree in Route to the Ph.D. in Educational Psychology

Students may apply for admission to the Ph.D. in Educational Psychology and complete their M.A. in Educational Psychology on the way to the doctoral degree. The application process and the admission criteria are the same as for the Ph.D. program. Once admitted, the student will work with their academic advisor to develop a plan of study that meets both M.A. and Ph.D. program requirements. Students must complete all program requirements (including Comprehensive Examination) for the M.A. in addition to the minimum 66 hours required for the Ph.D. Students must be conferred with the M.A. degree prior to admission to doctoral candidacy.

### Admission

Admission to the Ph.D. degree program is a two-step process. First, the applicant must apply to the UNC Graduate School. Upon meeting the admission criteria for the Graduate School, the candidate's application is forwarded to the program area faculty for review. Reviews by the program area faculty are typically conducted within four weeks of receipt of the application. All complete applications received by midterm are processed that term. Decisions regarding admission are communicated to the applicant before the beginning of the next semester. Although students may enroll any semester following admission, they are strongly encouraged to begin their program in either the summer or fall term in order to enter the proper sequencing of courses. Minimum criteria for acceptance include:

- GRE combined score of 1,650 on the verbal, quantitative and analytic sections, with a minimum verbal score of 500.
- GPA of 3.5 (4.0 scale) in the last 60 semester hours of academic work.
- Three letters of recommendation indicating a high potential for success in a doctoral research program.
- A written statement of career goals and a resume.
- Congruency between the applicant's career goals and the purpose of the Ph.D. program.

The doctoral program contains a common core of courses and three emphasis areas: Learning and Cognitive Processes, Human Development, and Research, Statistics and Measurement. All students must take the common core and then specialize in one of the emphasis areas. Depending upon the emphasis area chosen, students must take a minimum of 66 hours to graduate.

### Core Requirements – 45 semester Hours – All Doctoral Students

#### *Learning and Cognitive Processes*

EPSY 682 Cognition and Instruction (3)  
EPSY 685 Advanced Seminar in Learning and Cognition (3)

#### *Human Development*

EPSY 630 Child and Adolescent Psychology (3)  
EPSY 631 Psychology of 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 Introduction to Qualitative Research (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 685 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 (3-9)  
PSY 664 Advanced Social Psychology (3)

*and select one of the following courses:*

PSY 625 Principles of Neuropsychology (3)  
BIO 524 Behavioral Genetics (2)

**Required Elective Credits – 6-7 semester hours**

EDEC 539 Parent Education and Involvement in Early Childhood/Primary (3)  
GERO 625 Psychosocial Aspects of Aging (3)  
PPSY 675 Intelligence Assessment (3)  
PPSY 758 Advanced Psychopathology (3)  
EPSY 654 Seminar in College Teaching (3)

**Research, Statistics and Measurement Concentration – 18 semester hours**

*Required Credits – 9 semester hours*

SRM 770 Evaluation: Advanced Methods (3)  
EPSY 675 Measurement II: Advanced Techniques (3)  
SRM 680 Introduction to Qualitative Research (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 608 Experimental Design (3)  
SRM 731 Multivariate Analysis (3)  
SRM 606 Multiple Linear Regression Analysis (3)  
SRM 607 Non-Parametric Statistics (3)  
SRM 609 Sampling Methods (3)

**Program Electives, 3**

Chosen in consultation with student's advisor.

**Research Tools**

Ph.D. students in Educational Psychology must demonstrate competency in two out of the four areas listed below. The following details each research tool and the level of competency required for each:

- Research Design/Applied Statistics – Students must complete the requirements in the Research, Statistics and Measurement concentration with grades of B or better (directed research studies and research-related practica can be counted).
- Computer Applications – Students must complete a minimum of 8 semester hours in courses relating to computer use at the graduate level with grades of B or better.

or

A student can develop and demonstrate a computer program written to meet a specific educational research application. This program will be judged as "acceptable" or "unacceptable" by the student's advisor.

- Evaluation – Demonstration of competency in evaluation will involve completing a minimum of 12 hours in evaluation courses, e.g., SRM 670, SRM 671 and PPSY 781 (or their equivalent in transfer credits) with grades of B or better.

- Foreign Language – Students must pass the ETS (or other faculty approved) examination in any major modern foreign language with a score at the 50th percentile or better. Upon entrance, a candidate must be able to satisfy the core course requirements for the M.A. degree in educational psychology, or must take additional courses to meet those requirements. M.A. core courses that will not count toward the doctoral degree requirements include SRM 600, SRM 602, EPSY 530, EPSY 540 and EPSY 674. The remaining core courses may count as electives in the doctoral program: EPSY 661, SRM 670 and EPSY 663.

Program concentration areas are distinguished on three criteria: course emphasis, dissertation focus and practicum experience. For example, a student selecting the learning and cognition emphasis would take the required coursework in the learning and cognition area, write a dissertation on a problem related to learning and cognition and do a practicum related to that specialty area. Student competencies in the core and specialty areas are examined by both oral and written comprehensive examinations. Written exams are administered twice a year during fall and spring semesters. Specific procedures for comprehensive examinations 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.

## EDUCATIONAL TECHNOLOGY, PH.D.

### Program Requirements

**Complete the required credits specified here . . . . . 52**  
**Complete program elective credits**  
**(approved in plan of study) . . . . . 15**

The Doctor of Philosophy in Educational Technology program focuses around the convergence of three major communication and information industries (broadcasting and motion picture, print and publishing and computer) into a single industry. Educational Technology professionals must be prepared to function within the converged industries rather than in only one historically distinct industry. The UNC doctoral program in educational technology prepares graduates who will be leaders after the convergence. The doctoral program uses a community of scholars model of interaction among the students and the faculty members. The students are viewed as developing colleagues with progressively higher levels of responsibility as they move through the program. Cooperative research and other scholarly projects are encouraged among 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 instructional development/design, interactive technologies, technology integration or distance education.

### Master's Degree in Route to the Ph.D. Educational Technology

Students may apply for admission to the Ph.D. in Educational Technology and complete their M.A. in Educational Technology or Educational Media on the way to completion of the doctoral degree. The application process and the admission criteria are the same as for the Ph.D. program. Once admitted, the student will work closely with their academic advisor to develop a Plan of Study that meets both M.A. and Ph.D. program requirements. Students must complete all program requirements (including comprehensive examination) for the M.A. in addition to the minimum 67 hours required for the Ph.D. Students must be conferred with the M.A. degree prior to admission to doctoral candidacy.

### Western Regional Graduate Program

The Ph.D. program in educational technology is a member of the Western Regional Graduate Program. Under this program any Ph.D. student in educational technology, who is a resident of selected western states pays in-state tuition rather than out-of-state tuition. The selected states include: North Dakota, South Dakota, Montana, Wyoming, Colorado, New Mexico, Idaho, Utah, Nevada, Arizona, Washington, Oregon, Alaska and Hawaii.

### Admission

The program is designed to be rigorous but practical, encouraging the serious, mature, motivated and competent student to apply for admission. Applications are reviewed by the educational technology faculty during the middle of each semester. Although the students may enroll any semester following admission, they are strongly encouraged to begin their program in either the summer or fall semester in order to enter the proper sequencing of courses.

All applications must include the following items:

- Graduate Record Examination Scores
- Transcripts from all previous undergraduate and graduate work
- Two page statement of career goals
- Three letters of recommendation
- Description of previous teaching and other work experience
- In addition, an interview will be arranged with the faculty.

Minimum criteria for acceptance include:

- Minimum combined verbal, quantitative and analytical score of 1,650 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. Students will receive an annual letter of progress providing feedback regarding their individual progress toward completion of their doctoral 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. Two unsuccessful performances on the written examination will result in dismissal from the program. Successful performance on the written comprehensive examination is a prerequisite to entrance to the oral examination. The oral examination may include questions from any part of the student's program and is designed to test the student's understanding of the field of educational technology. Two unsuccessful performances on the oral examination will result in dismissal from the program. Successful performance on both written and oral examination is a prerequisite to both doctoral candidacy and the dissertation.

The dissertation research advisor and the research committee for the dissertation are appointed after the student has passed both written and oral comprehensive examinations. The dissertation proposal and dissertation are completed under the supervision of the research advisor and research committee. Once the dissertation proposal has been accepted by the research committee and by the Graduate School, the student's name will be submitted to the Graduate School for admission to doctoral candidacy. The doctoral dissertation will be examined by members of the research committee in an oral defense.

### Required Credits – 52 semester hours

Since the program of study builds upon the requirements for the M.A. degree in educational technology, students must have taken comparable coursework to satisfy the educational technology core requirements of the UNC M.A. degree in educational technology or must take these courses as electives in the doctoral program. All doctoral students must complete the common educational technology core, the research methodology core, and specialize in at least one of the four emphasis areas.

#### *Educational Technology Core*

ET 524 Design of Computer Assisted Instruction (3)  
 ET 602 Instructional Analysis and Design (3)  
 ET 604 Advanced Design of Instructional Materials (3)  
 ET 692 Internship (3)

or

ET 693 Practicum (3)  
 ET 784 Doctoral Seminar in Educational Technology (3)  
 ET 797 Doctoral Proposal Seminar (4)  
 EPSY 682 Cognition and Instruction (3)

or

ELPS 655 Seminar in Learning in Adulthood (3)

#### *Research Methodology Core*

SRM 602 Statistical Methods I (3)  
 SRM 603 Statistical Methods II (3)

SRM 610 Statistical Methods III (3)  
or  
SRM 680 Introduction to Qualitative Research (3)  
SRM 700 Advanced Research Methods (3)

*Dissertation*

ET 799 Doctoral Dissertation (12)

Each student will complete at least 6 semester hours of coursework in at least one of the four emphasis areas.

*Emphasis Area: Instructional Development/Design*

ET 650 Corporate Course Design (3)  
ET 702 Instructional Design Theory and Research (3)

*Emphasis Area: Interactive Technologies*

ET 627 Computer Assisted Instruction Authoring Systems (3)  
ET 628 Design of Multimedia Learning Environments (3)

*Emphasis Area: Technology Integration*

ET 680 Integration of Technology into Curricula (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 and program required courses (6)

**Research Tools**

Doctoral students in educational technology must demonstrate competency in two out of the four research tools listed below:

1. Research Design/Applied Statistics/Quantitative Methods – Students must complete the 12 semester hours (excluding ET 797) in research methodology courses with an overall GPA of 3.0 or better.

2. Computer Applications – Students must complete a minimum of 9 semester hours in graduate courses relating to computer use with grades of “A” or “B.”

or

A student can develop and demonstrate a computer program written to meet a specific application in education. This program will be judged as “acceptable” or “unacceptable” by the student's doctoral committee.

3. Evaluation – Students must complete a minimum of 9 semester hours in evaluation courses (e.g., SRM 670, SRM 671 and PPSY 781) with grades of “A” or “B.”

4. Foreign Language – Students must pass the Educational Testing Service or other faculty approved examination in any major modern

## HIGHER EDUCATION AND STUDENT AFFAIRS LEADERSHIP, PH.D.

### Program Requirements

Complete the required credits specified here . . . . . 64  
Complete program elective credits specified here . . . . . 11

The program of studies is designed to prepare professionals for college and university leadership positions in higher education and 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 higher education and student affairs positions at the highest levels.

**Program Approach to Doctoral Study.** The division of Educational Leadership and Policy Studies uses 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.

**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.

**Commitment to Diversity.** The Higher Education and Student Affairs Leadership Program recognizes the importance of addressing the needs of an increasingly diverse society. To that end, the program strives to increase the educational opportunities of diverse student populations, as well as create an atmosphere where the values and concerns of diverse populations receive attention and respect. Issues of diversity are integrated into core courses and are explored more fully through special topics courses.

**Prerequisites.** 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 – 64 semester hours

*I. Core Courses Required (15 semester hours)*

ELPS 751 Doctoral Core I (6)  
ELPS 752 Doctoral Core II (6)  
ELPS 754 Research in Educational Leadership (3)

*II. Concentration Required (15 hours with ELPS or HESA prefix - 18 semester hours)*

Students identify one of two concentration areas of study related directly to their goals as leaders of educational programs. A concentration area, in either Higher Education Leadership or Student Affairs Leadership, is defined as a body of knowledge represented by 18 hours of course work. A minimum of 15 semester hours must be taken that have a HESA or ELPS prefix.

*III. Research Core Required (12 semester hours)*

At least 12 hours of doctoral level work (beyond SRM 600 or its equivalent) are directed toward research design and data analysis skills. Nine hours include a background in a combination of both qualitative and quantitative methods courses including SRM 602, SRM 603, SRM 680 or the equivalent approved by the doctoral program planning committee. The other course (research electives) may be selected from Nursing, Educational Psychology, Psychology or other Applied Statistics and Research Methods (SRM) graduate research courses.

SRM 602 Statistical Methods I (3)  
SRM 603 Statistical Methods II (3)  
SRM 680 Introduction to Qualitative Research (3)

For the additional three hours, students may elect courses from Nursing, Educational Psychology or other Applied Statistics and Research graduate courses or HESA courses with a research emphasis including:

- HESA 753 Evaluative Strategies for Student Affairs (2)
- HESA 758 Seminar in College Student Personnel Administration (1)

*IV. Field Based Learning Required (3 semester hours)*

Students engage in field based learning experience(s) to enhance their theoretical and practical knowledge and skills. Learning experiences can be role specific as in ELPS 606 or HESA 675 (e.g., examining the role and responsibilities of a university or student affairs leader) or task specific such as HESA 661 or ELPS 695 (e.g., college teaching or conducting a small research study).

- HESA 661 Practicum in College Teaching for Student Development (2)

- HESA 670 Internship in Student Affairs (6)
- HESA 675 Field Experience in Student Affairs (2)
- ELPS 606 Internship in Educational Leadership (1-9)
- ELPS 695 Practicum in Educational Leadership (1-3)

*V. Dissertation and Proposal Required (16 semester hours)*

Before the dissertation, students identify needed resources and refine their skills in order to develop a dissertation proposal. As part of the development process, students enroll in 4 hours of Doctoral Proposal Research (HESA 797 or ELPS 797). Twelve semester hours of Doctoral Dissertation credit (HESA 799 or ELPS 799) must be taken after committee approval of the proposal.

- HESA 797 Doctoral Proposal Research (4)
- ELPS 797 Doctoral Proposal Research (4)
- HESA 799 Doctoral Dissertation (12)
- ELPS 799 Doctoral Dissertation in Educational Leadership and Policy Studies (12)

*VI. Elective Courses in Higher Education and Student Affairs Leadership (11 semester hours)*

Students select additional course(s) as needed, with the guidance of their program committee, to meet their specialized career needs:

- HESA 622 Directed Studies (1-4)
- HESA 650 College Student Development: Theory and Research (3)
- HESA 651 Philosophical, Historical and Cultural Foundations of Student Affairs in Higher Education (3)
- HESA 652 Enrollment Management Services (3)
- HESA 653 Services for Environmental and Student Development (3)
- HESA 655 Multiculturalism in Higher Education (3)
- HESA 658 Management and Administration in Student Affairs (3)
- HESA 682 Legal Issues in Student Affairs (3)
- HESA 750 College Students: Culture, Characteristics, Campus Life (3)
- HESA 752 Current Issues in College Student Personnel Administration (2)
- HESA 771 Administrative Leadership in Student Affairs (3)
- HESA 758 Seminar in College Student Personnel Administration (1)
- HESA 685 Human Resources in Higher Education (3)
- HESA 683 Finance and Resource Management in Higher Education (3)
- ELPS 655 Seminar in Learning in Adulthood (3)
- HESA 680 Law and Higher Education (3)
- ELPS 662 Design and Delivery of Professional Development (3)
- ELPS 665 Policy Analysis and Development (3)
- HESA 668 Higher Education in the United States (3)
- HESA 669 College and University Curriculum (3)
- ELPS 711 Advanced Theories for Changing Organizations (3)

*VII Research Tools*

Doctoral students in Higher Education and Student Affairs Leadership must demonstrate competency in two of the four research tools listed below:

1. **Research Design.** (Applied Statistics/Quantitative Methods and/or Qualitative Methods). Complete 12 semester hours (excluding HESA 797 and ELPS 797) in research methodology courses with an overall G.P.A. of 3.0 or better.
2. **Computer Applications.** Complete a minimum of 9 semester hours in graduate courses related to computer use

with grades of "B" or better **OR** students can develop and demonstrate a computer program to meet a specific application in higher education or student affairs. This program is judged acceptable or unacceptable by the student's doctoral committee.

3. **Evaluation.** Complete a minimum of 9 semester hours in evaluation courses (e.g. SRM 670, SRM 671, ELPS 662 or PPSY 781) with grades if "B" or better.
4. **Foreign Language.** 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.

## SCHOOL PSYCHOLOGY, PH.D.

### Program Requirements

Complete the required credits specified here . . . . . 117-124

The Ph.D. program is fully accredited by the American Psychological Association and the National Association of School Psychologists.

The principal goal of the doctoral program is the training of a professional psychologist who, in addition to possessing general practitioner skills, has developed proficiency in the areas of psychological intervention, psychological assessment, consultation, systems change, research and evaluation. Doctoral graduates, in addition to being eligible for state and national licensure as school psychologists, may also be qualified to assume positions as therapists, university professors, educational evaluators and private consultants.

Doctoral students in School Psychology are required to engage in research with a school psychology faculty member for five hours per week (equivalent, one semester hour) for a minimum of two semesters.

### Admission

In addition to meeting the admission requirements of the Graduate School, the student must submit the following data to the Professional Psychology Office by January 15. Decisions announced by April 15. The master's degree is not required for admission.

- Academic transcripts of all college or university training. A grade point average of 3.5 in the last 90 hours of academic work is preferred.
- Scores on the Graduate Record Examination. (Transcripts and GRE scores must be sent to the Graduate School before January 15.)
- Three letters of recommendation from immediate supervisors or professors. These letters should be addressed to the Graduate School/School Psychology Program.
- A written statement regarding the relationship of the doctoral program to the personal and professional goals of the applicant. This statement should be forwarded to the school psychology admissions coordinator.

Applications are evaluated competitively for a limited number of positions. The applicant must demonstrate clear potential for success in a doctoral program in School Psychology.

### Prerequisites

The following program is based on the student entering with a bachelor's degree. A student with a master's or specialist's degree in psychology or professional psychology should meet with his or her advisor to develop a specific plan of study. The following graduate courses or areas of study are prerequisites to the program: Tests and Measurements, Abnormal Psychology and Theories of Personality. Students who have not had these courses will be required to complete them upon entry into the program. In consultation with the advisor a student should select the number of hours and specific courses to meet licensure requirements, complete the program and prepare to be a professional school psychologist.

### Required Credits – 117-124 semester hours

*\*Recommended to meet State of Colorado School Psychologist licensure requirements.*

#### *Psychological Foundations*

- 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 660 Psychological Consultation: Theory and Practice (3)
- PPSY 763 Seminar in School Psychology (3)
- PPSY 758 Advanced Psychopathology (3)
- PPSY 777 Applied Neuropsychology (4)

*and select one of the following two courses:*

- \*EPSY 540 Theories and Principles of Learning (3)
- \*PPSY 638 Behavioral Approaches to Professional Psychology (3)

*and select one of the following courses:*

- \*EPSY 630 Child and Adolescent Psychology (3)

- \*PSY 550 Cognitive Development (3)
- \*EPSY 684 Advanced Seminar in Human Development (3) *and select one of the following two courses:*
- \*PPSY 607 Theories of Counseling (3)
- \*PPSY 707 Seminar in Personality and Counseling Theories (3)

#### *Assessment for Intervention*

- \*PPSY 674 Assessment for Intervention: Cognitive and Academic (5)
- \*PPSY 676 Assessment for Intervention: Infant and Toddler (3)
- \*PPSY 678 Assessment for Intervention: Personality and Behavior (5)
- \*PPSY 775 Supervision of Psychological Testing (3-9)
- \*PPSY 779 Practicum in School Psychology (3)

*and select one of the following courses*

- \*PPSY 612 Practicum in Individual Counseling (5)
- \*PPSY 702 Practicum in Counseling (4)

*and select two of the following courses:*

- \*PPSY 559 Introduction to Clinical Hypnosis (2)
- \*PPSY 617 Play Therapy: Theory and Practicum (3)
- \*PPSY 681 Systems Intervention Practicum (3)
- \*PPSY 694 Practicum in Family Therapy (4)
- \*PSY 626 Introduction to Neuropsychological Assessment (3)
- \*PPSY 605 Group Laboratory Experience (1)

#### *Multicultural Understanding*

*Select one of the following courses:*

- \*PPSY 565 Psychology of Prejudice (2)
- PPSY 623 Counseling Diverse Populations (2)

#### *Research*

- \*SRM 700 Advanced Research Methods (3)
- PPSY 797 Doctoral Proposal Research (4)
- PPSY 799 Doctoral Dissertation (12)

#### *Research Tools*

1. *Applied Statistics (choose one of the two options)*

##### *Option one*

- \*SRM 602 Statistical Methods I (3)
- SRM 603 Statistical Methods II (3)
- SRM 610 Statistical Methods III (3)

##### *Option two*

- \*SRM 501 Applied Statistics I (4)
- SRM 502 Applied Statistics (4)

*and elect one of the following three courses:*

- SRM 605 Multivariate Analysis (3)
- SRM 606 Multiple Linear Regression Analysis (3)
- SRM 610 Statistical Methods III (3)

2. *Applied Research*

- PPSY 580 Computer Applications to Professional Psychology (2)

- PPSY 663 Research Apprenticeship: School Psychology (2)

- PPSY 781 Evaluation of Psychological Services (3)

*and select one of the following courses:*

- EPSY 675 Measurement II: Advanced Techniques (3)
- SRM 680 Introduction to Qualitative Research (3)

#### *Supervised Field Work*

- \*PPSY 789 Internship in School Psychology (12) (3 semesters)

*Professional Education – (minimum of 9 hours required)*

- PPSY 568 Psychology of Women (2)
- PPSY 603 Counseling Children and Adolescents (3)
- \*PPSY 672 Neuropsychology of Learning Disabilities and Traumatic Brain Injuries (3)
- \*EDRD 617 Evaluation and Correction of Individual Reading Problems (4)

*and select one of the following courses:*

- PPSY 569 Violence Against Women and Children (2)
- PPSY 654 Child Abuse and Neglect (2)

*Electives in Professional Education – 1 semester hour*

With Advisor approval other courses from ELPS, EDF, or EDSE, may be substituted to meet State of Colorado Licensure Standards.

### Elective Credits

If additional hours are needed, students may choose courses in consultation with their advisors.

**Note:** Written and oral examinations and a dissertation are requirements of this program.

### School Psychologist Licensure

Institutional recommendation for endorsement in School Psychology is based on the completion of the Ed.S. or the Ph.D. programs in School Psychology. No prior teaching experience is necessary.

Students wishing to obtain Colorado licensure in this area are required to pass a proficiency examination(s). Students should contact the School for the Study of Teaching and Teacher Education in McKee 216 for information.

Students desiring licensure in states other than Colorado should note that requirements for licensure are set by each state's Department of Education and should become familiar with the requirements for any other state from which they seek licensure.

Near the end of the semester that the licensure program is to be completed, the candidate should complete application forms in the School for the Study of Teaching and Teacher Education in McKee 216. Applications are processed as soon as official transcripts, ordered by the applicant, are received from the Registrar showing completion of requirements. Departmental recommendations are required before institutional endorsement is granted.

## DOCTORAL MINORS

### APPLIED STATISTICS AND RESEARCH METHODS DOCTORAL MINOR

Complete the required and elective credits specified here . 15 semester hours

A Doctoral Minor in Applied Statistics and Research Methods is available to students in any UNC doctoral program with the approval of their doctoral program advisor.

**Required courses:**

- SRM 610 Statistical Methods III (3)  
*and a minimum of four (4) additional courses completed with a grade of "B" or better from the following courses:*
- SRM 602 Statistical Methods I (3)
- SRM 603 Statistical Methods II (3)
- SRM 606 Multiple Linear Regression Analysis (3)
- SRM 607 Non-Parametric Statistics (3)
- SRM 608 Experimental Design (3)
- SRM 609 Sampling Methods (3)
- SRM 611 Advanced Statistical Data Analysis (3)
- SRM 635 Categorical Data Analysis (3)
- SRM 670 Evaluation: Models and Designs (3)
- SRM 680 Introduction to Qualitative Research (3)
- SRM 770 Evaluation: Advanced Methods (3)
- SRM 780 Advanced Qualitative Research Methods (3)

Note:SRM 502 may be substituted for SRM 602.

**Features and Conditions**

1. Completion of the minor will be noted in the student's transcript as Minor in Applied Statistics and Research Methods.
2. No other course substitutions are permitted.
3. This minor is not available to students in the Applied Statistics and Research Methods degree program.
4. Some or all of the SRM courses used for the minor may be part of a student's program of required or elective classes.

No application to the Applied Statistics and Research methods department is required. In consultation with their doctoral program advisor, students may include sufficient SRM courses in their program of study to meet the requirements for the minor.

### EDUCATIONAL PSYCHOLOGY DOCTORAL MINOR

Complete the required and elective credits specified here . 15 semester hours

**Admission Requirements**

The minor will be open to all students who are enrolled in a doctoral degree program at the University of Northern Colorado. Doctoral students must apply for admission to this minor by submitting a written request to the chair of the Department of Educational Psychology stating: 1) their intent to obtain a minor in Educational Psychology, 2) the emphasis area in Educational Psychology in which they intend to concentrate, 3) their name, their student ID#, 4) the doctoral program in which they are enrolled, 5) the name of their doctoral program advisor, 6) the student's mailing address, and 7) their E-mail address. The application may be sent at any time.

The student must complete a minimum of 15 semester hours of coursework with a grade of "B" or higher. All students enrolled in the minor must abide by the code of Ethics of the American Psychological Association (APA) and the American Education Research Association (AERA).

The student must select one of three emphasis areas in Educational Psychology: *Human Development, Learning and Cognition and Research and Measurement*. Each emphasis area consists of a minimum of 15 semester credit hours (five three-credit hour courses). Substitutions of courses with the EPSY prefix will be allowed, if they are approved by the chair of the Department of Educational Psychology. The required courses in the emphasis area will consist of:

**Courses in the Learning and cognition Emphasis**

- EPSY 540 Theories and Principles of Learning (3)
- EPSY 635 Individual Differences in Cognition (3)
- EPSY 661 Trends and Issues in Educational Psychology (3)
- EPSY 682 Cognition and Instruction (3)
- EPSY 685 Advanced Seminar in Learning and Cognition (3)

**Courses in the Human Development Emphasis**

- EPSY 530 Life Span Developmental Psychology (3)
- EPSY 630 Child and Adolescent Psychology (3)
- EPSY 631 Psychology of Youth, Adulthood and Aging (3)
- EPSY 661 Trends and Issues in Educational Psychology (3)
- EPSY 684 Advanced Seminar in Human Development (3)

**Courses in the Research and Measurement Emphasis**

- EPSY 661 Trends and Issues in Educational Psychology (3)
- EPSY 674 Measurement I: Educational Testing (3)
- EPSY 675 Measurement II: Advanced Techniques (3)
- EPSY 682 Cognition and Instruction (3)
- EPSY 684 Advanced Seminar in Human Development (3)

or  
EPSY 685 Advanced Seminar in Learning and Cognition (3)

### EDUCATIONAL TECHNOLOGY DOCTORAL MINOR

Total number of hours required in minor . . . . .15 semester hours (minimum)

**Admission Requirements**

Doctoral students must apply for admission to this minor. The application materials and admission criteria are the same as those required for the Ph.D. in Educational Technology: cover page (see attached), GRE (minimum scores: 1650 composite, 550 in each section), 3 letters of recommendation, statement of professional goals relevant to this minor. Completed applications packets should be submitted to the Department Chair **prior to the completion of 6 hours of coursework within the minor**. Applications will be considered on an open schedule.

The student must complete a minimum of 15 semester hours of coursework with a grade of "B" or better in each course for this Doctoral Minor. All coursework for the minor must carry an ET prefix. Course substitutions are allowed within this minor only if they have ET prefixes and are approved by both the student's minor advisor and Educational Technology department chairperson. Internships, practica and directed studies may **not** be counted in the 15 hour minimum. Doctoral students completing the Educational Technology minor will include an Educational Technology faculty member on their doctoral research committee.

**Required Coursework - 15 semester hours**

- ET 502 Instructional Design (3)
- ET 503 Computers in Education (3)

and/or  
ET 504 Instructional Materials Design (3)

Total of at least 15 semester hours of ET prefix coursework approved by the student's minor advisor and the Educational Technology department chairperson.

At least 6 hours of ET coursework at the 600 or 700 level. All prerequisite course requirements must be met.

## SPECIAL EDUCATION DOCTORAL MINOR

### Program Requirements

Special Education Required Courses . . . . .	6
Electives Selected Under Advisement . . . . .	9
<b>Total Credits Required for Minor . . . . .</b>	<b>15</b>

A Doctoral Minor in Special Education is available to students in any UNC doctoral program with the approval of their doctoral program advisor. The intent of this program is to encourage doctoral students throughout the University to increase and expand their understanding of the field of special education and disability issues. Completion of the minor will be noted in the student's transcripts as Minor in Special Education. No application to the Division of Special Education is required. In consultation with their doctoral program advisors, students may include sufficient EDSE courses in their programs of study to meet the requirements for the minor. Some or all of the courses used for this minor may be part of a student's program of required or elective classes. The minor consists of additional courses completed with a "B" or better.

This minor is not available to students in the Special Education doctoral program.

### Required Courses — 6 semester hours

EDSE 500 Field of Special Education (3)

or

EDSE 615 *Special Education Law: Cases and Trends* (3)

and

EDSE 503 Effective School Environments for Learners with Exceptional Needs (3)

or

EDSE 505 Assessment of Exceptional Individuals (3)

and select two of the following courses (6 hours):

EDSE 524 Seminar in Education of Learners with Profound Needs (3)

EDSE 525 Research and Policy for Learners with Profound Needs (3)

EDSE 601 Supporting Special Students in the Mainstream (3)

EDSE 602 Behavioral Disorders: Characteristics,

Identification and Intervention (3)

EDSE 606 Instructional Methods for Students with Special Needs (3)

EDSE 608 Case Studies with Students with Special Needs (3)

EDSE 609 Language Development: Disorders of Individuals with Special Needs (3)

EDSE 610 Interventions for Students with Severe Affective Needs (3)

EDSE 611 Seminar in Severe Affective Needs (3)

EDSE 621 Seminar in Severe Cognitive Needs (3)

EDSE 641 Medical and Educational Implications of Visual Handicaps (1-3)

EDSE 642 Advanced Seminar in Education of Students with Visual Handicaps (3)

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)

### and select one of the following courses (3 hours)

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 (3)

EDSE 727 Seminar in Exceptionalities (3)

EDSE 728 Seminar in Professional Writing (3)

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# COLLEGE OF HEALTH AND HUMAN SCIENCES (HHS)

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### OFFICE OF THE DEAN

Location: Gunter 1000

Telephone: (970) 351-2877

Fax: (970) 351-2176

Dean: Vincent A. Scalia, Ed.D.

Associate Dean: Robbyn R. Wacker, Ph.D.



The College of Health and Human Sciences is a multidisciplinary unit offering undergraduate and graduate programs in a wide range of disciplines in the health care, human service and human performance professions. The College recognizes its obligations to serve in the several capacities of teaching, research and service. The fundamental aim of the College is excellence and distinction in these pursuits.

Programs of the College are designed to prepare students for the proficient and successful practice of a profession and to pursue advanced educational opportunities. Students are prepared for careers in Athletic Training, Exercise and Sports Science, Outdoor Physical Education, Physical Education, Recreation, Audiology, Speech-Language Pathology, Dietetics, Gerontology, Nursing, Public Health, Human Rehabilitative Services, Rehabilitation Counseling and Vocational

Evaluation, and Sport Administration. Graduates find employment in schools, hospitals, public and private agencies, business and industry.

The College of Health and Human Sciences is a unique resource in terms of the quality and type of academic programs it offers. The mission of the College is to provide the best possible education for its undergraduate and graduate students, to contribute to knowledge and the solution of significant problems through research and to serve the people of Colorado and the nation.

The College contains five units:

- Department of Communication Disorders
- Department of Community Health and Nutrition
- Department of Human Services
- School of Kinesiology and Physical Education
- School of Nursing

Programs within each unit are approved and/or accredited by appropriate professional organizations. The College provides a wide array of physical activity courses for college credit in order to enrich students' present and future sport, recreation and leisure pursuits.

## HHS ADVISING CENTER

**Location:** Gunter 1000      **Telephone:** (970) 351-1519

**Director:** Sue Kent, M.A., HHS Administrative and Student Services

The College of Health and Human Sciences Advising Center provides academic advising to students considering majors in Health and Human Sciences. Services are designed to support all Health and Human Science majors and assist with general education requirements.

## CLINICS AND LABORATORIES

Faculty and students from all programs in the College participate in the College's multidisciplinary health clinics and human performance laboratories that provide student learning experiences and client care services. Well equipped laboratories for studying physiological, mechanical and psychological kinesiology and a teaching laboratory with state-of-the-art video equipment and computers provide faculty and students with excellent instructional and research capabilities.

The **Speech-Language Pathology Clinic** provides assessment and treatment services for speech and language problems in the areas of articulation, voice, stuttering, language and augmentative/alternative communication devices.

The **Audiology Clinic** provides a full range of services related to hearing including hearing assessment, special hearing tests, hearing aid evaluations, hearing aid analysis and dispensing, speechreading and auditory training, counseling on hearing impairment, noise measurement and other related services. Services are extended to nursing homes and industry on a contractual basis.

The **Dietetics Program** conducts research and offers nutritional assessment and counseling in its Food Science and Nutrition Laboratories.

The **Rehabilitative Services Clinic** provides learning experiences and client services in vocational evaluation, job seeking and placement skills for independent living.

Programs in the **School of Nursing** provide learning experiences and health services in a variety of health areas. Included are health assessment, health counseling, health promotion and illness prevention activities.

An outstanding faculty of teachers and scholars serves the students enrolled in College programs. Among the faculty members are nationally recognized scholars, researchers, master teachers, experts and vigorous groups of talented coaches, all dedicated to providing high quality programs and the personal attention students at UNC have come to expect.

## COMMUNICATION DISORDERS DEPARTMENT

**Location:** Gunter 1400

**Telephone:** (970) 351-2734

**Fax:** (970) 351-2974

**Chair:** Kathryn E. Bright, Ph.D.

**Professors:** R. Steven Ackley, Ph.D.; John M. Baumgartner, Ph.D.; Donna J. Bottenberg, Ph.D.; Kathryn E. Bright, Ph.D.; Ellen Meyer Gregg, Ph.D.; Dennis R-S. Ingrisano, Ph.D.

**Associate Professor:** Kathleen R. Fahey, Ph.D.

**Lecturer:** Julie A. Hanks, M.A.

**Clinical Staff:** Nancy Karr, M.S.; Susan Morrison, M.A.; Nancy Schehr, 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 Clinics. 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 Clinics and various other centers and programs on- and off-campus. The educational programs offered through this department are as follows:

### Audiology

This program prepares students in 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;
- Special test 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 Clinics and ancillary clinics in Colorado. The program is accredited for audiological services through the Professional Services Board (PSB) of the American Speech-Language-Hearing Association (ASHA). The M.A. program leading to certification is accredited by the Colorado Department of Education (CDE) and by the Council on Academic Accreditation (CAA) of the ASHA.

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 in Speech-Language Pathology, a professional certifying master's degree program and a master's degree program that does not lead to certification. The certifying master's degree program is fully accredited and provides excellent academic, research, and clinical preparation. Areas emphasized include:

- The science of communication
- Diagnosis and management of developmental articulation, language and stuttering
- Acquired voice disorders
- Dysphagia
- Psychiatric disorders and neurologic disorders including aphasia, apraxia, post head injury disorders and dementia.

This program offers extensive supervised clinical experience through the well-equipped UNC Speech-Language Pathology and Audiology Clinics and ancillary clinics in Colorado. The program is accredited for audiological services through the Professional Services Board (PSB) of the American Speech-Language-Hearing Association (ASHA). The M.A. program leading to certification is accredited by the Colorado Department of Education (CDE) and by the Council on Academic Accreditation (CAA) of the ASHA.

Career opportunities include: positions in schools, hospitals, practice in association with a range of physicians including otolaryngology, neurology, neurosurgery, psychiatry and pediatrics; rehabilitation centers, and private practice.

Students who pursue a Master of Arts Degree in Communication Disorders will specialize in either speech-language pathology or audiology.

## **COMMUNITY HEALTH AND NUTRITION DEPARTMENT**

**Location:** Gunter 2280      **Telephone:** (970) 351-2755  
**Fax:** (970) 351-1489

**Chair:** Larry R. Harrison, M.S.

### **Community Health**

**Location:** Gunter 2280      **Telephone:** (970) 351-2755

**Chair:** Larry R. Harrison, M.S.

**Professors:** Bryan E. M. Cooke, Ph.D.; Kathleen J. Zavela, Ph.D.

**Associate Professors:** William Ebomoyi, Ph.D.; Larry R. Harrison, M.S.

**Assistant Professor:** Patricia Ann Cost, Ph.D.

**Lecturer:** Robert F. Guthmann Jr., M.S.

The Department of Community Health and Nutrition at the University of Northern Colorado is the only department in Colorado to offer the following undergraduate and graduate degree programs:

- Bachelor of Science in Health: Community Health Emphasis
- Minor in Community Health Education
- Minor in School Health Education
- Master of Public Health; Community Health Education Emphasis

Students in these programs are prepared to work with people of all ages – helping them prevent disease and developing positive healthy life-styles.

Students take a broad range of courses covering health and disease processes, effective educational strategies and community health resources. Coursework in Community Health Education is supported by classes from the behavioral, natural and social sciences. Both undergraduate and graduate programs include pre-professional experiences through practica and internships. In addition, the College of Health and Human Sciences Clinic provides students with opportunities to practice health education skills as part of regular classroom activities.

Students who graduate with a degree in Community Health are expected to possess the knowledge and skills needed to enhance the health and well being of people.

The Master of Public Health program is the only program of its kind in the Rocky Mountain region with Council on Education for Public Health (CEPH) accreditation.

Careers in community health are people-oriented, with employment opportunities available for working with people in all age groups. Examples of such opportunities include: community-wide health promotion programs, smoking cessation programs, employee fitness seminars, adolescent health programs, child abuse prevention and wellness programs for the elderly.

### **Dietetics**

**Location:** Gunter 2280

**Telephone:** (970) 351-2755  
**Fax:** (970) 351-1489

**Chair:** Larry R. Harrison, M.S.

**Program Coordinator:** Jamie M. Erskine, Ph.D.

**Associate Professors:** Jamie M. Erskine, Ph.D.; Sherrie L. Frye, Ph.D.

**Assistant Professor:** Alana D. Cline, Ph.D.

The Dietetics major offers a wide range of studies applicable to community, clinical, private practice and management aspects of nutrition in health care.

The undergraduate dietetics program provides fundamental knowledge and skills necessary to function as a professional dietitian according to the Standards of Education established by the American Dietetics Association.

To complete the professional preparation, graduates must complete a supervised practica program (internship) before taking the registered dietitian examination. Note: The Department of Community Health and Nutrition offers an American Dietetics Association approved Internship Program.

Dietetic graduates are prepared for career opportunities in nutrition, dietetics, education, management and research.

## **HUMAN SERVICES DEPARTMENT**

**Location:** Gunter 1250

**Telephone:** (970) 351-2403  
**FAX:** (970) 351-1255

**Chair:** Juliet H. Fried, Ed.D.

### **Gerontology**

**Location:** Gunter 1250

**Telephone:** (970) 351-2403  
**Fax:** (970) 351-1255

**Professor:** Robbyn R. Wacker, Ph.D.

**Assistant Professor:** Susan M. Collins, M.A.; Carol A. Gosselink, Ph.D.

The Gerontology program provides the student with the opportunity to study the human aging processes and to learn skills needed in working directly with the older population. A broad spectrum of courses is offered covering the social, psychological and biological aspects of aging. Individuals who hold a degree in gerontology are prepared to work as service providers in social service agencies, senior centers, long term care facilities, adult day care and other community organizations. The Gerontology Program offers: Bachelor of Science in Gerontology; Minor in Gerontology; Master of Arts in Gerontology with emphases in Management/Administration, Direct Services or General Studies; and a Graduate Certificate in Gerontology.

### **Rehabilitation**

**Location:** Gunter 1250

**Telephone:** (970) 351-2403  
**Fax:** (970) 351-1255

**Chair:** Juliet H. Fried, Ed.D.

**Professors:** Juliet H. Fried, Ed.D.; Dennis A. Gay, Ph.D.; Raymond E. Nelson, Ph.D.; Joseph N. Ososkie, Ph.D.; Vincent A. Scalia, Ed.D.

The Department of Human Services houses the only rehabilitation degree programs in Colorado. The following undergraduate and graduate degree programs are offered: Bachelor of Science: Human Rehabilitative Services; Master of Arts: Rehabilitation Counseling; Master of Arts: Rehabilitation Counseling with Emphasis in Vocational Evaluation; and a Doctor of Philosophy: Human Rehabilitation.

Students in these programs are prepared at three professional levels to work with people with physical and/or mental disabilities. Both undergraduate and graduate programs include experiences through practica and internships.

Careers in Human Rehabilitation are available in areas of direct service, administration, teaching and research.

In addition to the academic programs, the Department operates the following programs: Region VIII Rehabilitation Continuing Education Program – Morris Hansen, Ed.D., Director

### Recreation

**Location:** Gunter 1250      **Telephone:** (970) 351-2403  
**Fax:** (970) 351-1255

**Professor:** Marcia J. Carter, Re.D.

**Assistant Professor:** Diane B. Gaede, Ph.D.

The Recreation Program has been a pioneer in the design and development of professional recreation curricula since it was established in 1964. The program has been directly responsible for the professional preparation of more than 1,300 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, Campfire, Inc.), universities and city, state and national park and recreation agencies.

The program is committed to providing students with the highest possible quality education. All faculty have had both academic and practical experience in their subject areas and place a special emphasis on excellence in instruction and academic advising.

The program participates in the Human Services Club, subscribes to pertinent job bulletins and maintains detailed files on internship placements available throughout the world. The concept of learning through doing is further emphasized through numerous volunteer opportunities and the internship experience.

## SCHOOL OF KINESIOLOGY AND PHYSICAL EDUCATION

### Kinesiology

**Location:** Gunter 2590      **Telephone:** (970) 351-2535  
**Fax:** (970) 351-1762

**Director:** Jim Stiehl, Ph.D.      **Telephone:** (970) 351-1712

**Professors:** Robert J. Brustad, Ph.D.; Gary D. Heise, Ph.D.; Carole M. Schneider, Ph.D.

**Associate Professor:** Carolyn A. Dennehy, Ph.D.

**Assistant Professor:** Megan L. Babkes, Ed.D.; J. Reid Hayward, Ph.D.; Christina Sinclair, M.Ed.

**Lecturers:** Shannon M. Courtney, M.A.; Carrie Haugen, M.A.; Paul Marsh, M.S.; Mark Peters, M.A.; Tim B. Ramsey, M.A.

Kinesiology is the study of human movement with special emphasis on sport, dance and exercise performance. This study provides a foundation for students entering the professions of physical education, dance, coaching, athletic training and fitness and exercise kinesiology. Undergraduate emphasis areas are available in athletic training, fitness and exercise, biomechanics 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.

Biomechanical facilities include a motion analysis system for three-dimensional data acquisition using video cameras and computerized data reduction to determine the mechanical parameters of total body motion. There is a computerized system for acquiring electronic data through the use of a force platform. Research in social psychological kinesiology is primarily conducted with individuals in natural or “field” settings. In addition, laboratory equipment is also available for motor learning and motor control research.

### Physical Education

**Location:** Gunter 2590      **Telephone:** (970) 351-2535  
**Fax:** (970) 351-1762

**Professors:** Cynthia Carlisle, Ed.D.; Melissa A. Parker, Ph.D.; D. Allen Phillips, Ed.D.; Jim Stiehl, Ph.D.; David K. Stotlar, Ed.D.

**Associate Professors:** Elizabeth R. Bate, Ph.D.; Dianna P. Gray, Ph.D.; Mary Jo Sariscsany, Ed.D.; Linda A. Sharp, B.A., J.D.

**Assistant Professor:** Don Reid Cross, Ed.D.

**Instructor:** Bobby H. Rollins M.A.

Physical Education offers many majors in physical education. Majors in this field provide students an in-depth understanding of pedagogy, kinesiology and the analysis of sport skills.

The strength of Physical Education programs at UNC is based on a unique emphasis. The undergraduate programs prepare students to create and provide meaningful movement experiences for persons from early childhood through adulthood. The curriculum is comprised of both required and elective courses that provide opportunities for developing expertise in understanding human movement. In all classes, the theory and application of physical activity is explained – both the “whys” and “hows” are examined carefully.

Focus is on putting theory into practice to improve human performance and all undergraduate programs provide experiences on the sports fields, in the classrooms and in the laboratories.

Minors in physical education and coaching are offered. The physical education minor is a teaching minor, whereas the minor in coaching is designed to provide skills and theory to students who wish to study coaching in a non-teaching setting.

Graduate programs in Physical Education provide students with an opportunity to go into greater depth in the study of pedagogy, sport administration and coaching. Both theory and professional applications are emphasized.

Many laboratory research opportunities are available within the buildings used by the School of Kinesiology and Physical Education. Facilities are available for the study and analysis of teaching physical education. The teaching research laboratory is equipped with state-of-the-art interactive video and computer equipment that is available for student and faculty use. This laboratory is the focal point for the analysis of teaching physical education. The University also operates a large challenge course and indoor climbing facility.

## SCHOOL OF NURSING

**Location:** Gunter 3080      **Telephone:** (970) 351-2293  
**Fax:** (970) 351-1707

**Director:** Sandra C. Baird, Ed.D.

**Professors:** Sandra C. Baird, Ed.D.; Kathryn A. Blair, Ph.D.; Jane E. Koeckeritz, Ph.D.; Debra Leners, Ph.D.; Judith A. Malkiewicz, Ph.D.; Janice Hoot Martin, Ph.D.; Diane Peters, Ph.D.; Judith Richter, Ph.D.; Nancy E. White, Ph.D.

**Associate Professors:** Vicki Wessman Downey, Ph.D.; Faye I. Hummel, Ph.D.; Carol Roehrs, Ph.D.

**Assistant Professors:** Janice L. Kinch, Ph.D.; Martha Libster, M.S.

**Lecturers:** Gayle Johnson Bohrer, M.S.; Priscilla A. Faulkner, M.S.; Alison D. Merrill, M.S.; Pamela Steockel, M.S. Patricia Walter, M.S.

The undergraduate program in nursing is a nine (9) semester program (4 years including one summer) leading to a bachelor of science degree. Qualified students are prepared to be professional nurses and receive a foundation for graduate study in nursing. The Master of Science in Nursing Program has two emphases available: a clinical emphasis in chronic illness of the adult or child with a role emphasis in education; and the Family Nurse Practitioner emphasis. Full and part-time options are available.

The School of Nursing subscribes to the philosophy that nursing is both an art and a science which promotes, supports and restores optimal health in individuals, families and communities. Nursing is a caring profession that is an integral component of the health care delivery system.

Nursing students have a variety of clinical experiences in hospitals, nursing homes, industry, schools and community agencies, primarily in northern and southeastern Colorado communities. Clinical practice is concurrent with nursing theory (classes) and is guided by nursing faculty. Health policies, OSHA requirements, and CPR certification are required.

## UNDERGRADUATE NURSING MAJOR REQUIREMENTS

### Admission Requirements

**Pre-clinical Major.** Students interested in nursing are accepted as pre-clinical nursing majors if they meet the general admission requirements of the University. Formal application is made to and obtained from the University of Northern Colorado Office of Admissions.

It is highly recommended that students planning a career in nursing include chemistry, biology and algebra in their high school programs. Proficiency in mathematics is essential to success in the nursing program.

Students enrolled in the pre-clinical major will receive academic advisement from members of the School of Nursing faculty.

**Clinical Major.** The designation of pre-clinical nursing major does not assure admission to the clinical nursing program. A separate application and acceptance process during the sophomore year is required for the student to enter clinical nursing courses in the junior year. Forms for applying to the clinical program and information about application procedures are obtained at the School of Nursing during 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, hours at UNC, ethnic background, and rural residency.

The number of students admitted to the clinical nursing program is determined by available resources. Available resources may also limit possibilities for readmission to the program for those students who withdraw for any reason. Scores on selected tests measuring such factors as aptitude, cognitive, affective and psychomotor skills and achievement may be used for advisement.

All students entering the professional clinical nursing major must be certified in cardiopulmonary resuscitation (CPR) for the adult and child as evidenced by current CPR card. This certification must be maintained while in the program. Nurse Aid coursework is also required for application. CNA and 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 on-line 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.

**Progression.** Nursing majors must earn a minimum grade of "C" in all required nursing courses for progression to the next semester in the nursing major. The nursing program faculty reserves the right to place on probation or to require the withdrawal from the nursing program of any student whom in

their professional judgment fails to satisfy the requirements of scholarship, health status and/or performance. A student receiving a grade less than "C" in a nursing course will be readmitted to that course on a space-available basis only.

**RN-BSN Progression.** The length of the program for the registered nurse student depends upon the amount of transfer credit and successful completion of prerequisite course challenge examinations, if needed. The Colorado Nursing Articulation Model permits RNs to receive credit for prior nursing course work without testing. Individuals seeking admission must be admitted to the University of Northern Colorado following the procedures outlined in this Catalog. Students should contact the School of Nursing at the same time for information about R.N. criteria for admission to the nursing major and the specifics of the R.N. program.

**L.P.N. Progression.** As an L.P.N., challenge options are available in certain required prerequisite courses. Progression planning for the LPN through the clinical program is done with the Assistant Director.

**Policies.** Probation/Termination Policy, Critical Behaviors for Satisfactory Achievement in Clinical Nursing Courses, Withdrawal, Alcohol and Drug Abuse, Cheating/Plagiarism and Health Policies are published in the required Student Handbook.

**Missed or Repeated Courses.** Students who must repeat a clinical nursing course or who fail to enroll or complete a course on their scheduled rotation will be readmitted for clinical courses on a space-available basis only. Courses may not be offered every semester.

**Successive Enrollment.** A student who does not enroll for either required support courses or nursing courses for two successive semesters and has not made prior arrangements with the Director will not be considered a nursing major.

**Graduation.** The degree of Bachelor of Science in Nursing will be granted by the Board of Trustees upon recommendation of the faculty of the School of Nursing, to those who have successfully completed the prescribed curriculum with an average of "C" or above.

**Health Policies.** Within the academic year preceding the first clinical course, the student must have met the University's requirements regarding immunizations, received any necessary update in immunizations (such as Rubella Titer, PPD, Diphtheria, Tetanus and Rubeola/Rubella/Mumps) and have on record a completed physical examination. Hepatitis B vaccination is required. Thereafter, an annual PPD is required, as well as completion of OSHA requirements.

**School Nurse Provisional Licensure.** Graduates seeking school nurse Licensure should contact the Teacher Education & Certification Unit of The Colorado Department of Education at 201 E. Colfax Avenue, Denver, Colorado 80203 for an application packet.

**Additional Expenses.** Clinical nursing majors may anticipate the following expenses in the spring semester before the junior year.

- Uniforms – \$100
- Lab coat – \$25
- Chest x-ray – \$20
- White shoes – \$30
- Penlight – \$3
- Scissors – \$4

- Rubella Titer – \$8
- Hepatitis B Vaccine – \$150
- Watch with second hand – \$30
- Nursing Achievement Examinations – \$30
- Stethoscope – \$25
- Travel – Cost varies

Required uniforms are ordered the semester before clinical assignment. Costs listed here are approximate and subject to change.

#### Senior Year Expenses:

- School pin (optional) – Cost varies
- Travel – Cost varies

**Clinical Practice.** Student practica are offered in agencies according to available resources. All placements require transportation and may necessitate moving from the Greeley area. Students are responsible for their own transportation to all clinical practicums.

## FACULTY – HHS

- R. Steven Ackley, Ph.D.
- Megan L. Babkes, Ed.D.
- Sandra C. Baird, Ed.D.
- Elizabeth R. Bate, Ph.D.
- John M. Baumgartner, Ph.D.
- James A. Bitter, Ed.D.
- Kathryn A. Blair, Ph.D.
- Gayle Johnson Bohrer, M.S.
- Donna J. Bottenberg, Ph.D.
- Kathryn E. Bright, Ph.D.
- Robert J. Brustad, Ph.D.
- Cynthia Carlisle, Ed.D.
- Marcia J. Carter, Re.D.
- Alana D. Cline, Ph.D.
- Susan M. Collins, M.A.
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- Gary D. Heise, Ph.D.
- Faye I. Hummel, Ph.D.
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- Alison D. Merrill, M.S.
- Raymond E. Nelson, Ph.D.
- Joseph N. Ososkie, Ph.D.
- Melissa A. Parker, Ph.D.
- Diane Peters, Ph.D.
- Mark Peters, M.A.
- D. Allen Phillips, Ed.D.
- Tim B. Ramsey, M.A.
- Judith Richter, Ph.D.
- Carol Roehrs, Ph.D.
- Bobby H. Rollins M.A.
- Mary Jo Sariscsany, Ed.D.
- Vincent A. Scalia, Ed.D.
- Carole M. Schneider, Ph.D.
- Linda A. Sharp, B.A., J.D.
- Christina Sinclair, M.Ed.
- Pamella Steockel, M.S.
- Jim Stiehl, Ph.D.
- David K. Stotlar, Ed.D.
- Robbyn R. Wacker, Ph.D.
- Patricia Walter, M.S.
- Nancy E. White, Ph.D.
- Kathleen J. Zavela, Ph.D.



## BACHELOR OF ARTS (B.A.)

### COMMUNICATION DISORDERS: AUDIOLOGY, B.A.

#### Program Requirements

Required Major Credits	30
Elective Major Credits	0
Required Supporting Credits	7
Required Minor Credits	0
Required Specified General Education Credits	6
Required PTEP Credits	0
Total program credits, 43	
Elective General Education Credits	34
University Wide Elective Credits	43
Total credits required for this degree	120

In this comprehensive pre-professional program, students take academic courses and observe and participate in supervised clinical practica. These activities are designed to provide a strong base for entry into a professional certifying degree program at the master's degree level. This degree program does not lead to certification of any type. Students cannot find professional employment within Colorado with only the bachelor's degree in Audiology.

The degree program in audiology can be modified to serve as an excellent undergraduate foundation for entry into the master's degree program in Severe Needs: Hearing (Deaf Education). Students interested in pursuing this option should see their advisor.

#### Required Major Credits – 30 semester hours

CMDS 260 Introduction to Phonetics (2)  
 CMDS 265 Fundamentals of Physiological and Biological Acoustics (2)  
 CMDS 266 Normal Speech and Language Development (3)  
 CMDS 267 Anatomy and Physiology of the Speech and Hearing Mechanism (3)  
 CMDS 360 Articulation and Voice Disorders (3)  
 CMDS 365 Language Disorders in Children (3)  
 CMDS 370 Basic Audiology (3)  
 CMDS 386 Basic Clinical Strategies in Speech-Language Pathology/Audiology (2)  
 CMDS 474 Clinical Practicum in Audiology (1)  
 CMDS 478 Aural Rehabilitation and Amplification (3)  
 CMDS 483 Entry/Primary Speech-Language Pathology Practicum (2)  
 CMDS 487 Advanced Audiology (3)

#### Required Supporting Credits - 7 semester hours

EDSE 451 Basic Sign Language (3)  
 ZOO 245 Introduction to Human Anatomy Physiology (4)

#### Required Specified General Education Credits - 6 semester hours

*Category 5.e. Social Sciences (Psychology)*  
 CMDS 160 Introduction to Human Communication and Its Disorders (3)

*Category 6.b. Science and Mathematics (Life Sciences)*

ZOO 115 Human Biology (3)

#### Elective General Education Credits - 34 semester hours

#### University Wide Elective Credits - 43 semester hours

### COMMUNICATION DISORDERS: SPEECH- LANGUAGE PATHOLOGY, B.A.

#### Program Requirements

Required Major Credits	34
Elective Major Credits	0
Required Supporting Credits	4
Required Minor Credits	0
Required Specified General Education Credits	6
Required PTEP Credits	0
Total program credits, 44	
Elective General Education Credits	34
University Wide Elective Credits	42
Total credits required for this degree	120

In this comprehensive pre-professional program, students take academic courses and observe and participate in supervised clinical practica. These activities are designed to provide a strong base for entry into a professional certifying degree program at the master's degree level. This degree program does not lead to certification of any type. Students cannot be employed within Colorado and most other states with only the bachelor's degree in Speech-Language Pathology.

#### Required Major Credits – 34 semester hours

CMDS 260 Introduction to Phonetics (2)  
 CMDS 265 Fundamentals of Physiological and Biological Acoustics (2)  
 CMDS 266 Normal Speech and Language Development (3)  
 CMDS 267 Anatomy and Physiology of the Speech and Hearing Mechanism (3)  
 CMDS 360 Articulation and Voice Disorders (3)  
 CMDS 365 Language Disorders in Children (3)  
 CMDS 366 Language Sampling Processes (1)  
 CMDS 370 Basic Audiology (3)  
 CMDS 386 Basic Clinical Strategies in Speech-Language Pathology/Audiology (2)  
 CMDS 431 Organically-Based Communication Disorders (3)  
 CMDS 467 Diagnostic Methods and Observation (3)  
 CMDS 474 Clinical Practicum in Audiology (1)  
 CMDS 478 Aural Rehabilitation and Amplification (3)  
 CMDS 483 Entry/Primary Speech-Language Pathology Practicum (2)

#### Required Supporting Credits - 4 semester hours

ZOO 245 Introduction to Human Anatomy Physiology (4)

#### Required Specified General Education Credits - 6 semester hours

*Category 5.e. Social Sciences (Psychology)*  
 CMDS 160 Introduction to Human Communication and Its Disorders (3)

*Category 6.b. Science and Mathematics (Life Sciences)*

ZOO 115 Human Biology (3)

#### Elective General Education Credits - 34 semester hours

#### University Wide Elective Credits - 42 semester hours

*Strongly Recommended Elective:*

EDSE 451 Basic Sign Language (3)

## DIETETICS, B.A.

### Program Requirements

Required Major Credits . . . . .	30
Elective Major Credits . . . . .	0
Required Supporting Credits . . . . .	22
Required Minor Credits . . . . .	0
Required Specified General Education Credits . . . . .	24
Required PTEP Credits . . . . .	0
Total program credits, 76	
Elective General Education Credits . . . . .	16
University Wide Elective Credits . . . . .	28
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 Commission on Accreditation for Dietetics Education (CADE) of 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 accredited by CADE of The American Dietetic Association. After completion of the internship the student is eligible to take the registration exam to become a Registered Dietitian.

#### Required Major Credits – 30 semester hours

FND 210 Medical Terminology (2)  
 FND 252 Nutrition in the Life Cycle (3)  
 FND 342 Food Science (4)  
 FND 370 Nutrition Education and Application Strategies (3)  
 FND 410 Professional Development Seminar (2)  
 FND 430 Nutrition Assessment and Intervention (3)  
 FND 431 Medical Nutrition Intervention (3)  
 FND 446 Foodservice Systems Management (4)  
 FND 451 Advanced Nutrition (3)  
 FND 452 Community Nutrition (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)  
 BAMG 350 Management of Organizations (3)

#### Required Specified General Education Credits – 24 semester hours

*Category 1.b. Composition (Intermediate)*  
 SCI 291 Scientific Writing (3)  
*Category 2. Mathematics*  
 STAT 250 Statistics for Health Sciences (3)  
*Category 5.b. Social Sciences (Economics)*  
 ECON 105 Introduction to Economics: Microeconomics (3)  
 PSY 120 Principles of Psychology (4) (e. Psychology)  
*Category 6.b. Science and Mathematics (Life Sciences)*  
 FND 250 Principles of Nutrition (3)  
 CHEM 108 Fundamentals of Chemistry I (5) (d. Physical Science)  
*Category 7.c. Interdisciplinary, Multicultural & International Studies (International Cultures)*  
 Select one of the following two courses:  
 ANT 110 Introduction to Cultural Anthropology (3)  
 SPCO 323 Intercultural Communication (3)

#### Elective General Education Credits - 16 semester hours

#### University Wide Elective Credits - 28 semester hours

**KINESIOLOGY, B.A.****Athletic Training Emphasis****Program Requirements**

<b>Required Major Credits</b> .....	<b>46</b>
<b>Elective Major Credits</b> .....	<b>0</b>
<b>Required Supporting Credits</b> .....	<b>14</b>
<b>Required Minor Credits</b> .....	<b>0</b>
<b>Required Specified General Education Credits</b> .....	<b>15</b>
<b>Required PTEP Credits</b> .....	<b>0</b>
<b>Total program credits, 72</b>	
<b>Elective General Education Credits</b> .....	<b>25</b>
<b>University Wide Elective Credits</b> .....	<b>20</b>
<b>Total credits required for this degree</b> .....	<b>120</b>

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 Major Credits – 46 semester hours**

KINE 220 Anatomical Kinesiology (3)  
 KINE 221 Biomechanics (3)  
 KINE 322 Exercise Physiology I (3)  
 KINE 323 Motor Learning and Development (3)  
 KINE 380 Prevention and Care of Sports Injuries (2)  
 \*KINE 381 Practical Experiences in the Care of Athletic Injuries (15)

\*This course is divided into five modules for three semester hours each. One will be offered each semester. The modules are:

- Anatomy Applied to Injury
- Emergency Care and Referral
- Nutrition/Ergogenic Aids
- Equipment and Biomechanics
- Therapeutic Exercise

KINE 390 Cardiopulmonary Resuscitation Certification (1)  
 KINE 404 Exercise Nutrition and Body Composition (3)  
 KINE 485 Mechanism and Evaluation of Sports Injury (4)  
 KINE 486 Clinical Methods of Sports Injury Rehabilitation (4)  
 KINE 487 Therapeutic Modalities (3)  
 KINE 488 Athletic Training Administration (2)

**Required Supporting Credits – 14 semester hours**

CHEM 109 Fundamentals of Chemistry II (5)  
 PE 233 Advanced First Aid and Cardiopulmonary Resuscitation (2)  
 ZOO 341 Human Anatomy (3)  
 ZOO 350 Human Physiology (4)

**Required Specified General Education Credits – 15 semester hours**

*Category 5.e. – Social Sciences (Psychology)*

PSY 120 Principles of Psychology (4)

*Category 5.f. – Social Sciences (Sociology)*

CH 205 Issues in Health (3)

*Category 6.b. – Science and Mathematics (Life Sciences)*

ZOO 115 Human Biology (3)

*Category 6.d. – Science and Mathematics (Physical Sciences)*

CHEM 108 Fundamentals of Chemistry I (5)

or

CHEM 111 Principles of Chemistry I (5)

**Elective General Education Credits - 25 semester hours****University Wide Elective Credits - 20 semester hours****Admission to the Athletic Training Clinical Program**

The designations of Athletic Training as a major does not assure admission to the Clinical Athletic Training Program. The number of students enrolled to the clinical program is limited to 18 students. Students must make a separate application to the Clinical Athletic Training Program during the semester they are completing the prerequisite courses. The prerequisite courses consist of CHEM 108, KINE 220, KINE

380, ZOO 341, ZOO 115 and PE 233. Students must meet with the program coordinator prior to application. Admission is based on available openings, GPA, experience, and interview. Additional information is available from the program coordinator.

**Notes:** Clinical experience of 1500 clock-hours (minimum 5 semesters) under the supervision of a Certified Athletic Trainer at UNC is required.

Any student receiving a grade of “D” or lower in a course in the major must retake the course until a grade of “C” or higher is achieved.

**KINESIOLOGY, B.A.**

## Exercise and Sport Science Emphasis

**Program Requirements**

Required Major Credits	45
Elective Major Credits	0
Required Supporting Credits	9
Required Minor Credits	0
Required Specified General Education Credits	6
Required PTEP Credits	0
<b>Total program credits, 62</b>	
Elective General Education Credits	34
University Wide Elective Credits	26
<b>Total credits required for this degree</b>	<b>120</b>

The Exercise and Sport Science program is designed to provide students quality academic and professional preparation in the scientific study of human movement. The program offers a sound theoretical foundation and practical applications. Graduates will be prepared to work in one or more of the following areas: cardiac rehabilitation, corporate fitness, occupational fitness, work rehabilitation, gerontological fitness, fitness and exercise program management, conditioning of athletes, biomechanics, ergonomics, sport and exercise leadership, and/or stress management. Students preparing for physical therapy school or a health-related professional school should consult with a faculty advisor.

**Required Major Credits – 45 semester hours**

- KINE 220 Anatomical Kinesiology (3)
- KINE 221 Biomechanics (3)
- KINE 300 Fitness Management (3)
- KINE 322 Exercise Physiology I (3)
- KINE 323 Motor Learning and Development (3)
- KINE 324 Exercise Physiology II (3)
- KINE 380 Prevention and Care of Sports Injuries (2)
- KINE 404 Exercise Nutrition and Body Composition (3)
- KINE 410 Cardiac Rehabilitation (3)
- KINE 490 Exercise Assessment and Programming (4)
- \*KINE 492 Internship in Exercise and Sport Science (12)  
and select one of the following two courses:
  - KINE 333 Psychological Analysis of Sports, Exercise and Physical Activity (3)
  - KINE 436 Social Influences on Sport and Exercise Behavior (3)

\*KINE 492 can be taken in 6-semester hour blocks.

**Required Supporting Credits – 9 semester hours**

- CHEM 109 Fundamentals of Chemistry II (5)
- or
- CHEM 112 Principles of Chemistry II (5)
- ZOO 245 Introduction to Human Anatomy Physiology (4)
- or
- ZOO 350 Human Physiology (4)

**Required Specified General Education Credits – 6 semester hours**

- Category 3. Physical Activity*
- PE 145 Activity for Stress Management (1)
- Category 6.d. Science and Mathematics (Physical Science)*
- CHEM 108 Fundamentals of Chemistry I (5)
- or
- CHEM 111 Principles of Chemistry I (5)

**Elective General Education Credits - 34 semester hours****University Wide Elective Credits - 26 semester hours**

**Notes:** 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.

Prior to taking KINE 404, KINE 410, KINE 436 (or KINE 333), and KINE 490, students must pass Competency Assessment I with a grade of 75% or better. Prior to registering for KINE 492, students must have a GPA of 2.7 or above in the KINE prefix courses and pass Competency Assessment II with a grade of 75% or better. Competency Assessments may be repeated as necessary.

**KINESIOLOGY, B.A.****Physical Education Teacher Education  
(PETE) K-12 Licensure Program****Program Requirements**

<b>Required Major Credits</b> .....	<b>39</b>
<b>Elective Major Credits</b> .....	<b>1</b>
<b>Required Supporting Credits</b> .....	<b>0</b>
<b>Required Minor Credits</b> .....	<b>0</b>
<b>Required Specified General Education Credits</b> .....	<b>1</b>
<b>Required PTEP Credits</b> .....	<b>43</b>
<b>Total program credits, 81</b>	
<b>Elective General Education Credits</b> .....	<b>39</b>
<b>University Wide Elective Credits</b> .....	<b>0</b>
<b>Total credits required for this degree</b> .....	<b>123</b>

**Physical Education Teacher Education Mission Statement:**

The mission of the Kinesiology and Physical Education pedagogy program is to prepare professionals capable of delivering programs that promote self-directed, responsible, physically active lifestyles in school-aged children and youth across the state and region. The focus of Physical Education Teacher Education (sport and fitness focus) is to graduate entry level professional physical educators who possess a personal and professional commitment to physical activity and will demonstrate the knowledge and skills requisite to promoting learning in the area of physical activity.

Students who plan to use this emphasis as a licensure program for teaching physical education must complete the Professional Teacher Education Program. 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 levels. Before student teaching, students must have completed all required Kinesiology and Physical Education K-12 Licensure Program courses (40 semester hours).

**Required Major Credits – 39 semester hours***Foundations of Human Movement*

- KINE 220 Anatomical Kinesiology (3)
- KINE 221 Biomechanics (3)
- KINE 322 Exercise Physiology I (3)
- KINE 323 Motor Learning and Development (3)
- KINE 436 Social Influences on Sport and Exercise Behavior (3)

*Content and Pedagogical Content Knowledge*

and select one of the following (advisor approval required)

- PE 126 Canoeing (1)
  - PE 130 Kayaking (1)
  - PE 237 Analysis and Teaching of Paddle Sports (2)\*
- and select one of the following (advisor approval required)
- PE 111 Bowling (1)
  - PE 113 Fly Fishing/Trap Shooting (1)
  - PE 114 Golf (1)

and select one of the following (advisor approval required)

- PE 116 Water Safety Instructor (2)\*
- PE 118 Swimming (1)
- PE 120 Lifeguard Training (1)
- PE 133 Scuba Diving (1)
- PE 152 Swimming Conditioning (1)s

and all of the following courses are required:

- PE 134 Self Defense (1)
- PE 137 Outdoor Activities (2)
- PE 200 Weight Training and Conditioning (1)
- PE 201 Track and Field (1)
- PE 209 Dance Activities (1)
- PE 210 Developmentally Appropriate Elementary Activities (3)
- PE 240 Games I (2)
- PE 241 Games II (2)
- PE 242 Games III (2)
- PE 341 Learner Assessment and Physical Education Technology (3)
- PE 461 Administration and Law (3)

\* Students who choose this course(s) will have a minimum of 1 hour above the 120 and a maximum of 2 hours above 120.

**Required PTEP Credits – 40 semester hours**

- PE 266 Introduction to Physical Education as a Profession (3)\*\*
- PE 340 Planning and Instructional Design (3)
- PE 340L Planning and Instructional Design Lab (0)
- PE 342 Teaching Health-Related Fitness (3)
- PE 440 Developing Pedagogical Skills in Elementary Physical Education (3)
- PE 440L Developing Pedagogical Skills in Elementary Physical Education Lab (0)
- PE 442 Developing Pedagogical Skills in Secondary Physical Education (3)
- PE 442L Developing Pedagogical Skills in Secondary Physical Education Lab (0)
- PE 444 Teaching Diverse Populations (3)
- EDFE 170 Introduction to Field Based Experience (1)\*\*
- EDFE 444 Supervised Teaching (12)
- EDF 366 Conceptions of Schooling: Context and Process (4)\*\*
- EDRD 340 Developing Language and Literacy in the Content Areas (3)
- EDSE 433 Exceptional Students in the Regular Classroom (2) and select one of the following courses:
  - EPSY 347 Educational Psychology for Elementary Teachers (3)
  - EPSY 348 Educational Psychology for Middle School Teachers (3)
  - EPSY 349 Educational Psychology for Secondary Teachers (3)

\*\*Corequisites

**Required Specified General Education Credit - 1 semester hours**

*Category 3. (Adventure/Risk Activities)*

- PE 132 Challenge Ropes Course (1)

**Elective General Education Credits - 39 semester hours**

**Note:** Admission Criteria for Students

While enrolled in PE 266 formal application and admission requirements for Professional Teacher Education and the Physical Education K-12 Teacher Education Programs will be completed. Prior to enrollment in PE 266 students must have a minimum overall grade point average of 2.5, completed a minimum of 30 credit hours, completed a minimum of 9 credits in the K-12 Physical Education major ("C" or better), and achieved a minimum major GPA of 2.7.

**Transfer Applicants and Change of Major Students**

- First semester transfer applicants who have completed a minimum of 30 credit hours may enroll in PE 266 their first semester on campus if their overall GPA at another institution is a 2.5 or higher. Transfer applicants and change of majors with a GPA of less than a 2.5 may be admitted as a provisional PE K-12 major.
- Transfer and change of major students admitted as provisional must attain a minimum 2.7 GPA on the first 9 major semester hours (approved by a PE advisor) and a 2.5 overall GPA prior to enrollment in PE 266.
- A maximum of 15 hours may be transferred to the major from other institutions.

In addition to requirements for admission to the Professional Teacher Education Program, Physical Education K-12 students must meet the following departmental requirements:

- Must maintain a 2.5 overall and a 2.7 major GPA to retain full admission in both PE
- K-12 and the PTEP. Provisional status will prevent the student from enrolling in upper division courses in the PE K-12 major.
- Have a "C" or better in all required courses in PE K-12. Major courses receiving a grade of "D" or lower must be retaken until a grade of "C" or higher is achieved.
- Demonstrate professional promise as a teacher to the satisfaction of the Physical Education Teacher Education Faculty. Means of evaluation may include, but are not limited to, letters of intent and interviews with the PE faculty.

- Prior to student teaching, students must have successfully completed all required Kinesiology and Physical Education K-12 Licensure Program courses.
- Prior to student teaching, students must be fully admitted to the major and PTEP programs.
- Meet all Physical Education and state standards at a provisional level as listed in the departmental handbook.
- Show continuous growth in becoming a physical education teacher.

Failure to meet the criteria listed above will result in either provisional or denial of full admission to the PTEP and K-12 Physical Education programs.

# BACHELOR OF APPLIED SCIENCE (B.A.S.)

## ALLIED HEALTH, B.A.S.

### Program Requirements

Required Major Credits	48
Elective Major Credits	12
Required Supporting Credits	0
Required Minor Credits	0
Required Specified General Education Credits	0
Required PTEP Credits	0
Total program credits, 41	
Elective General Education Credits	60
*Earned A.A.A. or A.A.S. degree	
University Wide Elective Credits	0
Total credits required for this degree	120

\*Students must have completed an A.A.A. or A.A.S. degree. If their transferred Associates degree program is less than 60 semester hours, students will be required to fulfill the 120 total credit hour requirement through additional coursework.

The Allied Health program is designed for the A.A.A. or A.A.S. degree recipient who is working in the health or human services field and wants to acquire the knowledge or skills necessary to move into management or administrative positions. The program emphasizes personnel management, social policy, legislative issues, program planning and evaluation, interpersonal communication skills, health and social care systems, and cultural issues.

Students holding the A.A.A. or A.A.S. degree should take approximately 24 months (based on continuous enrollment) to complete the degree. The curriculum includes 48 credits of applied disciplined related core credit, internship and 12 credits of elective course work. The curriculum is designed for distance education allowing students to participate at their home, workplace or through their local community college. Required degree courses and electives are listed.

### Required Major Credit – 48 semester hours

BA 205 Business Communications (3)  
 BAMG 350 Management of Organizations (3)  
 BAMG 354 Organizational Behavior (3)  
 CH 299 Community Health Systems (3)  
 CH 405 Health Communications and the Media (3)  
 CH 410 Introduction to Program Planning and Evaluation (3)  
 GERO 465 Management Concepts in Aging Services (3)  
 HHS 431 Informatics for Health Care Professionals (2)  
 HHS 492 Internship in Health and Human Sciences (7)  
 HRS 290 Introduction to Human Rehabilitative Services (3)  
 HRS 480 Human Service Helping Skills (3)  
 NURS 318 Health Care Systems (3)  
 PHIL 101 Critical Thinking and Writing (3)  
 PHIL 305 Ethics in Theory and Practice (3)  
 PSY 366 Industrial Psychology (3)

### University Wide Elective Credits – 12 semester hours

Select from the following courses:

BAAC 220 Principles of Accounting I (3)  
 BAMK 260 Introduction to Marketing (3)  
 HRS 495 Special Topics in Rehabilitation (3)  
 NURS 319 Cultural Issues in Health Care (1)  
 SPCO 323 Intercultural Communication (3)  
 SPCO 431 Communication and Leadership (3)

# BACHELOR OF APPLIED TECHNOLOGY (B.A.T.)

## TECHNICAL AND RESOURCE MANAGEMENT B.A.T.

### Program Requirements

Required Major Credits	48
Elective Major Credits	12
Required Supporting Credits	0
Required Minor Credits	0
Required Specified General Education Credits	0
Required PTEP Credits	0
Total program credits, 41	
Elective General Education Credits	60
*Earned A.A.A. or A.A.S. degree	
University Wide Elective Credits	0
<b>Total credits required for this degree</b>	<b>120</b>

\*Students must have completed an A.A.A. or A.A.S. degree. If their transferred Associates degree program is less than 60 semester hours, students will be required to fulfill the 120 total credit hour requirement through additional coursework.

The Technical and Resource Management program is designed to produce graduates with competencies, skills and attitudes necessary for success in the workplace. The program is designed for the A.A.A. or A.A.S. degree recipient who wants to acquire the knowledge emphasizes personnel management, interpersonal communication skills, program planning and evaluation, management of information technology resources and services and the development of technology systems for use in organization processes.

Students holding the A.A.A. or A.A.S. degree should take approximately 24 months (based on continuous enrollment) to complete the degree. The curriculum includes 48 credits of applied discipline related core credit, internship and 12 credits or elective course work. The curriculum is designed for distance education allowing students to participate at their home, workplace, or through their local community college. Required degree courses and electives are listed.

### Required Major Credit – 48 semester hours

BA 205 Business Communications (3)  
BACS 300 Information Systems (3)

BAMG 350 Management of Organizations (3)  
BAMG 354 Organizational Behavior (3)  
ET 425 Computer Applications (3)  
GERO 465 Management Concepts in Aging Services (3)  
HHS 431 Informatics for Health Care Professionals (2)  
HHS 492 Internship in Technological and Resource Management (7)  
HRS 480 Human Service Helping Skills (3)  
PHIL 101 Critical Thinking and Writing (3)  
PHIL 305 Ethics in Theory and Practice (3)  
PSY 366 Industrial Psychology (3)  
SPCO 323 Intercultural Communication (3)  
SPCO 431 Communication and Leadership (3)

### University Wide Elective Credits – 12 semester hours

Select from the following courses:

BAAC 220 Principles of Accounting I (3)  
BAMG 353 Human Resources Management (3)  
BAMG 457 Managing Complex Organizations (3)  
CH 500 Stress Management (2)  
SPCO 330 Small Group Communication (3)  
SPCO 331 Organizational Communication (3)



# BACHELOR OF SCIENCE (B.S.)

## GERONTOLOGY, B.S.

### Program Requirements

Required Major Credits	22
Elective Major Credits	0
Required Supporting Credits	17
Required Minor Credits	18
Required Specified General Education Credits	16
Required PTEP Credits	0
Total program credits, 73	
Elective General Education Credits	24
University Wide Elective Credits	23
Total credits required for this degree	120

The gerontology program provides the student the opportunity to study the human aging processes and to learn skills needed in working directly with the older population.

Individuals who hold a bachelor of science degree in gerontology are prepared to work as service providers in social service agencies, senior centers, long term care facilities, adult day care and other community organizations.

### Required Major Credits – 22 semester hours

GERO 460 Community Resources for the Elderly (4)  
 GERO 465 Management Concepts in Aging Services (3)  
 GERO 490 Senior Seminar and Research in Gerontology (3)  
 GERO 492 Undergraduate Internship in Gerontology (12)

### Required Supporting Credits – 17 semester hours

HHS 415 Bio-Physical Changes in Aging (3)  
 HRS 480 Human Service Helping Skills (3)  
 PSY 331 Maturity and Aging (3)

### SOC 371 Sociology of Aging (3)

and select 5 hours from the following courses:

CH 236 Health and Life-styles Among the Elderly (3)  
 CMDS 470 Communication Disorders of the Aging (2)  
 FND 252 Nutrition in the Life Cycle (3)  
 GERO 495 Special Topics in Gerontology (1-4)  
 HRS 394 Practicum in Human Services (2)  
 REC 251 Leisure, Recreation and the Older Adult (3)  
 SOC 322 Women and Aging (3)

### Required Minor Credits – 18 semester hours

### Required Specified General Education Credits – 16 semester hours

#### Category 2. Mathematics

STAT 250 Statistics for Health Sciences (3)

#### Category 5. Social Sciences

PSY 230 Human Growth and Development (4) (e. Psychology)

SOC 100 Principles of Sociology (3) (f. Sociology)

#### Category 6. Science and Mathematics

ZOO 115 Human Biology (3) (b. Life Sciences)

#### Category 7. Interdisciplinary Multicultural and International Studies

GERO 205 Introduction to Gerontology (3) (a. Interdisciplinary)

### Elective General Education Credits – 24 semester hours

### University Wide Elective Credits - 23 semester hours

## HEALTH, B.S.

### Community Health Emphasis

### Program Requirements

Required Major Credits	39
Elective Major Credits	18
Required Supporting Credits	3
Required Minor Credits	0
Required Specified General Education Credits	21
Required PTEP Credits	0
Total program credits, 81	
Elective General Education Credits	19
University Wide Elective Credits	20
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.

### Required Credits – 39 semester hours

CH 209 Foundations of Health Promotion/Health Education (3)  
 CH 293 Sophomore Practicum in Community Health (3)  
 CH 299 Community Health Systems (3)  
 CH 320 Introductory Epidemiology and Biostatistics (3)  
 CH 330 Health Promotion/Health Education Strategies (3)  
 CH 342 Modern Concepts of Health and Disease (3)  
 CH 350 Introduction to Environmental Health (3)  
 CH 405 Health Communications and the Media (3)  
 CH 410 Introduction to Program Planning and Evaluation (3)  
 CH 440 Foundations of Health Program Management (3)  
 CH 492 Internship in Health (9)

### Elective Major Credits – 18 semester hours

Electives must be approved by the student's major advisor. An approved minor may be substituted for the required electives.

### Required Supporting Credits - 3 semester hours

BA 101 Business Computing (3)

### Required Specified General Education Credits – 18 semester hours

#### Category 5. Social Sciences

PSY 120 Principles of Psychology (4) (e. Psychology)

CH 205 Issues in Health (3) (f. Sociology)

SOC 100 Principles of Sociology (3) (f. Sociology)

#### Category 6. Science and Mathematics

CHEM 108 Fundamentals of Chemistry I (5) (d. Physical Science)

ZOO 115 Human Biology (3) (b. Life Sciences)

#### Category 7. Interdisciplinary, Multicultural and International Studies

Select one of the following courses:

CH 236 Health and Life-styles Among the Elderly (3) (b. Multicultural)

GERO 205 Introduction to Gerontology (3) (a. Interdisciplinary)

### Elective General Education Credits - 19 semester hours

### University Wide Elective Credits - 20 semester hours

## HUMAN REHABILITATIVE SERVICES, B.S.

### Program Requirements

Required Major Credits	33
Elective Major Credits	0
Required Supporting Credits	0
Required Minor Credits	18
Required Specified General Education Credits	9
Required PTEP Credits	0
Total program credits, 60	
Elective General Education Credits	31
University Wide Elective Credits	29
Total credits required for this degree	120

The Human Rehabilitative Services program educates students in rehabilitative theory and procedures relevant to helping people.

Individuals who hold a bachelor of science degree in Human Rehabilitative Services are prepared to work in a variety of human service settings or to enter into graduate education related to the helping professions.

#### Required Major Credits – 33 semester hours

- HRS 380 Rehabilitation Principles and Case Management (3)
- HRS 385 Working with Families in Rehabilitation (3)
- HRS 394 Practicum in Human Services (3)
- HRS 470 Client Assessment (3)
- HRS 480 Human Service Helping Skills (3)
- HRS 485 Medical/Psychological Aspects of Disability for Human Service Workers (3)
- HRS 490 Career Planning and Placement (3)
- HRS 492 Clinical Internship (12)

#### Required Minor Credits – 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. The student is encouraged to confer with his or her advisor in establishing an area that will meet his or her needs.

#### Required Specified General Education Credits – 9 semester hours

##### Category 2. Mathematics

Select one of the following two courses:

- STAT 150 Introduction to Statistical Analysis (3)
- STAT 250 Statistics for Health Sciences (3)

##### Category 7. Interdisciplinary, Multicultural and International Studies

- GERO 205 Introduction to Gerontology (3) (a. Interdisciplinary)
- HRS 290 Introduction to Human Rehabilitative Services (3) (b. Multicultural)

#### Elective General Education Credits - 31 semester hours

#### University Wide Elective Credits - 29 semester hours

**Note:** Students must make application for practicum and clinical internship five (5) weeks before the semester in which the field experience is planned.

**NURSING, B.S.****Program Requirements**

<b>Required Major Credits (Non-RN Students)</b> .....	<b>68</b>
<b>Elective Major Credits</b> .....	<b>0</b>
<b>Required Supporting Credits</b> .....	<b>18</b>
<b>Required Minor Credits</b> .....	<b>0</b>
<b>Required Specified General Education Credits</b> .....	<b>18</b>
<b>Required PTEP Credits</b> .....	<b>0</b>
<b>Total program credits, 104</b>	
<b>Elective General Education Credits</b> .....	<b>22</b>
<b>University Wide Elective Credits</b> .....	<b>0</b>
<b>Total credits required for this degree</b> .....	<b>126</b>

The undergraduate program in nursing is a nine semester program leading to a bachelor of science degree. Nursing is an independent professional discipline requiring critical inquiry and discriminating judgment to assist individuals, families and communities to attain and maintain health.

Qualified students are prepared as professional nurses and receive a foundation for graduate study in nursing.

The nursing program is accredited by the National League for Nursing and approved by the Colorado State Board of Nursing. Graduates may be eligible to write the National Council Licensure Examination for Licensure as registered nurses. Information about the program may be obtained by contacting the National League for Nursing at 61 Broadway, New York, NY 10006 or 1-800-669-1656.

**Required Major Credits – 68 semester hours (Non-RN students)**

NURS 310 Foundations of Professional Practice I (3)  
 NURS 312 Health Assessment (3)  
 NURS 314 Health Assessment Practicum (1)  
 NURS 324 Therapeutic Interventions (4)  
 NURS 335 Foundations of Professional Practice II (3)  
 NURS 354 Healthy Individuals and Families Practicum (6)  
 NURS 355 Healthy Individuals and Families Across the Lifespan (4)  
 NURS 384 Episodic Alterations in Adult/Child Health Practicum (7)  
 NURS 385 Episodic Alterations in Adult/Child Health I (4)  
 NURS 386 Episodic Alterations in Adult/Child Health II (4)  
 NURS 404 Community and Public Health Nursing Practicum (3)  
 NURS 405 Community and Public Health Nursing (3)  
 NURS 410 Foundations of Professional Practice III (3)  
 NURS 414 Psychiatric Mental Health Nursing Practicum (3)  
 NURS 415 Psychiatric Mental Health Nursing (3)  
 NURS 435 Foundations of Professional Practice IV (3)  
 NURS 465 Professional Roles with Individuals, Families and Communities (10)  
 Nursing Elective - 1 semester hour (minimum)

*Required for RN's seeking a B.S. - 30 semester hours*

NURS 310 Foundations of Professional Practice I (3)  
 NURS 328 Health Assessment (for RNs only) (4)  
 NURS 335 Foundations of Professional Practice II (3)  
 NURS 410 Foundations of Professional Practice III (3)  
 NURS 435 Foundations of Professional Practice IV (3)  
 NURS 453 Community Health Nursing for RNs (4)  
 NURS 454 Community Health Nursing Practicum for RNs (4)  
 NURS 464 Professional Roles for RNs (5)  
 Nursing Elective - 1 semester hour (minimum)

**Note:** The RN student is awarded 37 semester hours of upper division nursing course work per the Colorado Articulation Agreement upon completion of one semester of nursing course work at UNC.

Total credits required for RN's (120)

**Required Supporting Credits – 18 semester hours**

BIO 351 Microbiology (4)  
 FND 357 Nutrition in Health and Illness (4)  
 ZOO 341 Human Anatomy (3)  
 ZOO 350 Human Physiology (4)  
 ZOO 355 Medical Pharmacology (3)

**Required Specified General Education Credits - 18 semester hours**

*Category 1.b. Composition (Intermediate)*  
 ENG 123 College Research Paper (3)

*Category 2. Mathematics*

STAT 250 Statistics for Health Sciences (3)

*Category 5.e. social Sciences (Psychology)*

PSY 230 Human Growth and Development (4)

*Category 6.b. Science and Mathematics (Life Sciences)*

ZOO 115 Human Biology (3)

CHEM 108 Fundamentals of Chemistry I (5) (*d. Physical Science*)

**Elective General Education Credits - 22 semester hours**

## RECREATION, B.S.

### Program Requirements

Required Major Credits	42
Elective Major Credits	0
Required Supporting Credits	15
Required Minor Credits	0
Required Specified General Education Credits	17
Required PTEP Credits	0
Total program credits, 74	
Elective General Education Credits	23
University Wide Elective Credits	23
Total credits required for this degree	120

A student may earn a bachelor of science degree (non-teaching) in Recreation preparing the student to assume entry level leadership roles in municipal, youth, commercial, non-profit, outdoor and therapeutic settings.

The Recreation program is designed to provide the student with leadership and mid-management skills as well as concepts and theories applicable to a variety of employment settings. Students complete a three credit Practicum experience and a 12-credit Internship experience. Current Advanced First Aid and CPR are prerequisites for these experiences as are specified hours of practical experience (50 clock hours for the practicum and 500 clock hours for the 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 are approved for their practicum and their internship by a professional advisory committee. Students must have completed all required courses in the major and have a minimum GPA of 2.5 in major courses before beginning their internship.

#### Required Major Credits – 42 semester hours

- REC 203 Introduction to Recreation and Leisure (3)
- REC 204 Introduction to Therapeutic Recreation (3)
- REC 206 Commercial Recreation and Tourism (3)
- REC 351 Areas and Facilities in Parks and Recreation (3)
- REC 368 Programs in Recreation (3)
- REC 372 Recreation Leadership (3)
- REC 394 Practicum in Recreation and Therapeutic Recreation (3)
- REC 444 Professional Participation and Issues (3)
- REC 451 Administration of Leisure Delivery Systems (3)
- REC 492 Internship in Recreation and Therapeutic Recreation (12)
- REC 494 Recreation Evaluation and Research (3)

#### Required Supporting Courses - 15 semester hours

- CH 299 Community Health Systems (3)
- PE 232 Pedagogy of Outdoor Physical Education (3)
- PE 233 Advanced First Aid and Cardiopulmonary Resuscitation (2)
- PE 461 Administration and Law (3)
- and select two of the following courses:
  - PE 234 Analysis and Teaching of Cycling (2)
  - PE 235 Analysis and Teaching of Backcountry Skiing (2)
  - PE 236 Analysis and Teaching of Technical Rock Climbing (2)
  - PE 237 Analysis and Teaching of Paddle Sports (2)
  - PE 238 Analysis and Teaching of Winter Camping (2)
  - PE 239 Analysis and Teaching of Backpacking (2)

#### Required Specified General Education Credits – 17 semester hours

##### Category 2. Mathematics

Select one of the following two courses:

- STAT 150 Introduction to Statistical Analysis (3)
- STAT 250 Statistics for Health Sciences (3)

##### Category 3. Physical Activity

- PE 132 Challenge Ropes Course (1)

##### Category 4.c. Arts and Letters

Select one of the following two courses (c. History):

- HIST 100 Survey of American History from Its Beginnings to 1877 (3)
- HIST 101 Survey of American History from 1877 to the Present (3)

##### Category 5. Social Sciences (e. Psychology)

##### PSY 230 Human Growth and Development (4)

select one of the following two courses (b. Economics):

- ECON 103 Introduction to Economics: Macroeconomics (3)
- ECON 105 Introduction to Economics: Microeconomics (3)

##### Category 7. Interdis., Multicul., Internat. Studies

##### GERO 205 Introduction to Gerontology (3) (a. Interdis.)

#### Elective General Education Credits - 23 semester hours

#### University Wide Elective Credits - 23 semester hours

**RECREATION, B.S.**

## Therapeutic Recreation Emphasis

**Program Requirements**

<b>Required Major Credits</b> .....	<b>54</b>
<b>Elective Major Credits</b> .....	<b>0</b>
<b>Required Supporting Credits</b> .....	<b>24</b>
<b>Required Minor Credits</b> .....	<b>0</b>
<b>Required Specified General Education Credits</b> .....	<b>21</b>
<b>Required PTEP Credits</b> .....	<b>0</b>
<b>Total program credits, 99</b>	
<b>Elective General Education Credits</b> .....	<b>19</b>
<b>University Wide Elective Credits</b> .....	<b>2</b>
<b>Total credits required for this degree</b> .....	<b>120</b>

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, non-profit, outdoor and therapeutic settings.

The Recreation program is designed to provide the student with leadership and mid-management skills as well as concepts and theories applicable to a variety of employment settings. Students complete a three credit Practicum experience and a 12-credit Internship experience. Current Advanced First Aid and CPR are prerequisites for these experiences as are specified hours of practical experience (50 clock hours for the practicum and 500 clock hours for the 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 are approved for their practicum and their internship by a professional advisory committee. Students must have completed all required courses in the major and have a minimum GPA of 2.5 in major courses before beginning their internship.

Students who elect to complete the Therapeutic Recreation Emphasis will be prepared to work with individuals with disabilities in clinical and community settings. Certification of therapeutic recreation personnel is often required by such agencies and is administered by the National Council for Therapeutic Recreation Certification (NCTRC).

**Required Major Credits – 54 semester hours**

- REC 203 Introduction to Recreation and Leisure (3)
- REC 204 Introduction to Therapeutic Recreation (3)
- REC 206 Commercial Recreation and Tourism (3)
- REC 351 Areas and Facilities in Parks and Recreation (3)
- REC 368 Programs in Recreation (3)
- REC 372 Recreation Leadership (3)
- REC 394 Practicum in Recreation and Therapeutic Recreation (3)
- REC 408 Workshop (3)
- REC 415 Clinical Aspects in Therapeutic Recreation (3)
- REC 416 Techniques of Therapeutic Recreation (3)
- REC 421 Program Design in Therapeutic Recreation (3)
- REC 426 Management and Issues in Therapeutic Recreation (3)
- REC 451 Administration of Leisure Delivery Systems (3)
- REC 492 Internship in Recreation and Therapeutic Recreation (12)
- REC 494 Recreation Evaluation and Research (3)

**Required Supporting Credits - 24 semester hours**

- CH 299 Community Health Systems (3)
- HRS 480 Human Service Helping Skills (3)
- PE 232 Pedagogy of Outdoor Physical Education (3)
- PE 233 Advanced First Aid and Cardiopulmonary Resuscitation (2)
- PE 461 Administration and Law (3)
- PSY 455 Abnormal Psychology (3)
- ZOO 245 Introduction to Human Anatomy Physiology (4)
  - and select two of the following courses:
  - PE 234 Analysis and Teaching of Cycling (2)
  - PE 235 Analysis and Teaching of Backcountry Skiing (2)
  - PE 236 Analysis and Teaching of Technical Rock Climbing (2)
  - PE 237 Analysis and Teaching of Paddle Sports (2)
  - PE 238 Analysis and Teaching of Winter Camping (2)

- PE 239 Analysis and Teaching of Backpacking (2)

**Required Specified General Education Credits – 21 semester hours**

## Category 2. Mathematics

Select one of the following two courses:

- STAT 150 Introduction to Statistical Analysis (3)
- STAT 250 Statistics for Health Sciences (3)

## Category 3. Physical Activity

- PE 132 Challenge Ropes Course (1)

## Category 4.c. Arts and Letters

Select one of the following two courses (c. History):

- HIST 100 Survey of American History from Its Beginnings to 1877 (3)
- HIST 101 Survey of American History from 1877 to the Present (3)

## Category 5. Social Sciences

select one of the following two courses (b. Economics):

- ECON 103 Introduction to Economics: Macroeconomics (3)
- ECON 105 Introduction to Economics: Microeconomics (3)

and complete the following two courses (e. Psychology)

- PSY 120 Principles of Psychology (4)
- PSY 230 Human Growth and Development (4)

## Category 7. Interdis., Multicul., Internat. Studies

- GERO 205 Introduction to Gerontology (3) (a. Interdis.)

**Elective General Education Credits - 19 semester hours****University Wide Elective Credits - 2 semester hours**

## GRADUATE CERTIFICATE PROGRAM

### FAMILY NURSE PRACTITIONER (FNP) GRADUATE CERTIFICATE PROGRAM (NON-DEGREE)

#### Program Requirements

Complete the required credits specified here . . . . . 33

The certificate in FNP at the graduate level provides the nurse who has a master's in nursing for advanced clinical practice in primary care of families. The graduate is eligible to apply for ANA certification upon program completion.

**Prerequisites:** Undergraduate physical assessment course, Master's degree in nursing.

#### Required FNP Certificate Credits – 33 semester hours

NURS 610 Health Assessment (3)  
NURS 612 Advanced Pharmacology (4)  
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 Advanced Practice Role Practicum (9)  
NURS 690 Advanced Clinical Role (2)

### 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. It is offered either on-campus or online.

#### Required Credits – 22 semester hours

GERO 560 Community Resources for the Elderly (4)  
GERO 625 Psychosocial Aspects of Aging (3)  
GERO 630 Intervention Strategies with the Elderly (3)  
GERO 635 Social Policies of Aging (3)  
GERO 640 Health Aspects of Gerontology (3)  
GERO 694 Practicum in Gerontology (3)  
Advisor approved elective (3)

### NURSING EDUCATION GRADUATE CERTIFICATE PROGRAM (NON-DEGREE)

#### Program Requirements

Complete the required credits specified here . . . . . 9

The certificate in nursing education is intended to provide the master's or doctoral level nursing student with advanced knowledge in nursing education and the academic role as an option for required doctoral electives/area of concentration.

Master's prepared nurses and matriculated master's in nursing or doctoral students from other academic institutions may apply for admission. Candidates must possess the baccalaureate degree in nursing and be currently licensed as a registered nurse. Students must complete the required coursework with a grade of "B" or better. Application materials include a cover page with a statement of intent relative to nursing education. Completed packets will be offered on the UNC School of Nursing home page and may be submitted electronically to the School of Nursing prior to enrollment in the online nursing education course work. Applications will be considered on an open schedule.

#### Required Credit — 9 semester hours

NURS 630 Teaching Strategies in Nursing (3)  
NURS 660 Nursing Education Seminar (4)  
NURS 790 Advanced Academic Nursing Roles (2-3)

### TRANSCULTURAL NURSING GRADUATE CERTIFICATE PROGRAM

(Non-Degree)

#### Certificate Requirements

Complete the required courses specified here . . . . . 10-11

Using Leininger theory, the certificate in transcultural nursing prepares the nurse to provide culturally congruent and competent nursing care based upon qualitative analysis and other research methodology. Field experiences are a required component of the program offered in a summers only format. The certificate option is designed for master's in nursing students, post-baccalaureate or post-master's students and senior level undergraduate nursing students.

#### Required Courses

*Transcultural Nursing Courses 7-8 semester hours*  
NURS 510 Concepts in Transcultural Nursing (3)  
NURS 511 Advanced Transcultural Nursing and Research (2)  
NURS 512 Transcultural Nursing Field Experience (2-3)

#### Graduate Elective - 3 semester hours

*One elective from the following at UNC or another university with instructor approval:*

SRM 680 Introduction to Qualitative Research (3)  
ANT 580 Theory and Practice in Anthropology (3)

## MINORS – HHS

### COMMUNICATION DISORDERS MINOR

#### Program Requirements

**Total credits required for this minor** ..... 19

#### Required Credits – 19 semester hours

- CMD5 160 Introduction to Human Communication and Its Disorders (3)
- CMD5 260 Introduction to Phonetics (2)
- CMD5 265 Fundamentals of Physiological and Biological Acoustics (2)
- CMD5 266 Normal Speech and Language Development (3)
- CMD5 267 Anatomy and Physiology of the Speech and Hearing Mechanism (3)
- CMD5 365 Language Disorders in Children (3)
- CMD5 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.

### COMMUNITY HEALTH EDUCATION MINOR

#### Program Requirements

**Required credits** ..... 18

**Required elective credits** ..... 6

**Total credits required for this minor** ..... 24

#### Required Credits – 18 semester hours

- CH 205 Issues in Health (3)
- CH 209 Foundations of Health Promotion/Health Education (3)
- CH 299 Community Health Systems (3)
- CH 330 Health Promotion/Health Education Strategies (3)
- CH 342 Modern Concepts of Health and Disease (3)
- CH 410 Introduction to Program Planning and Evaluation (3)

#### Required Elective Credits – 6 semester hours

Elective units selected with consent of advisor.

### GERONTOLOGY MINOR

#### Program Requirements

**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 331 Maturity and Aging (3)
- SOC 371 Sociology of Aging (3)

#### Required Elective Credits – 6 semester hours (minimum)

- CH 236 Health and Life-styles Among the Elderly (3)
- CMD5 470 Communication Disorders of the Aging (2)
- GERO 495 Special Topics in Gerontology (1-4)
- REC 251 Leisure, Recreation and the Older Adult (3)

**Note:** The minor in Gerontology is designed to provide students who are majoring in other areas a broad overview of the aging process.

### NUTRITION MINOR

#### Program Requirements

**Required credits** ..... 14

**Required elective credits** ..... 6

**Total credits required for this minor** ..... 20

#### Required Credits – 14 semester hours

- FND 250 Principles of Nutrition (3)
- FND 252 Nutrition in the Life Cycle (3)
- FND 370 Nutrition Education and Application Strategies (3)  
*and select one of the following two courses:*
- CHEM 108 Fundamentals of Chemistry I (5)
- CHEM 111 Principles of Chemistry I (5)

#### Elective Credits – 6 hours

- FND 210 Medical Terminology (2)
- FND 370 Nutrition Education and Application Strategies (3)
- FND 420 Maternal and Child Nutrition (3)
- FND 430 Nutrition Assessment and Intervention (3)
- FND 451 Advanced Nutrition (3)
- FND 452 Community Nutrition (3)
- FND 455 Nutrition for Fitness and Athletic Performance (3)

### PHYSICAL EDUCATION — COACHING MINOR

#### Program Requirements

**Total credits required for this minor** ..... 19

#### Required Credits – 19 semester hours

- KINE 380 Prevention and Care of Sports Injuries (2)
- KINE 220 Anatomical Kinesiology (3)
- KINE 322 Exercise Physiology I (3)
- PE 233 Advanced First Aid and Cardiopulmonary Resuscitation (2)
- PE 335 Sports Pedagogy (2)
- PE 461 Administration and Law (3)  
*and select two of the following coaching and officiating courses – 4 semester hours*
- PE 312 Coaching and Officiating of Baseball (2)
- PE 313 Coaching and Officiating of Basketball (2)
- PE 314 Coaching and Officiating of Football (2)
- PE 315 Coaching and Officiating of Gymnastics (2)
- PE 316 Coaching and Officiating Tennis (2)
- PE 317 Coaching and Officiating of Track and Field (2)
- PE 318 Coaching and Officiating of Soccer (2)
- PE 319 Coaching and Officiating of Softball (2)
- PE 320 Coaching and Officiating of Swimming (2)
- PE 321 Coaching and Officiating of Volleyball (2)
- PE 322 Coaching and Officiating of Wrestling (2)

**Notes:** The coaching minor has been designed to prepare students who are not physical education majors 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 high school 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. Physical Education majors cannot take the coaching minor.

## PHYSICAL EDUCATION — OUTDOOR EDUCATION MINOR

### Program Requirements

Total credits required for this minor . . . . . 18

#### Required Credits – 18 semester hours

- PE 116 Water Safety Instructor (2)
- PE 232 Pedagogy of Outdoor Physical Education (3)
- PE 233 Advanced First Aid and Cardiopulmonary Resuscitation (2)

and take four of the following six courses – 8 semester hours

- PE 234 Analysis and Teaching of Cycling (2)
- PE 235 Analysis and Teaching of Backcountry Skiing (2)
- PE 236 Analysis and Teaching of Technical Rock Climbing (2)
- PE 237 Analysis and Teaching of Paddle Sports (2)
- PE 238 Analysis and Teaching of Winter Camping (2)
- PE 239 Analysis and Teaching of Backpacking (2)

and take three of the following courses – 3 semester hours

- 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 (1)
- PE 132 Challenge Ropes Course (1)
- PE 133 Scuba Diving (1)
- PE 135 Rock Climbing (1)

**Notes:** When declaring Outdoor Education as a minor, students are required to meet with their assigned Outdoor Education advisor so that program electives may be tailored to best address each individual student's needs.

The purpose of this minor is to acquaint interested students with various aspects of the Outdoor Education industry. This minor would be appropriate for: teacher education candidates wishing to explore the outdoors as a teaching medium; recreation students interested in outdoor and adventure activities; business students interested in the commercial sector of the outdoor recreation and leisure industry; and to students in other majors with an interest in becoming responsible users and custodians of the outdoors.

## PHYSICAL EDUCATION (K-12) TEACHING MINOR

### Program Requirements

Total credits required for this minor . . . . . 24

#### Required Credits – 12 semester hours

- PE 210 Developmentally Appropriate Elementary Activities (3)
- PE 240 Games I (2)
- PE 241 Games II (2)
- PE 242 Games III (2)

and select one of the following two courses:

- KINE 220 Anatomical Kinesiology (3)
- KINE 322 Exercise Physiology I (3)

#### Physical Education PTEP Courses\* – 12 semester hours

- PE 340 Planning and Instructional Design (3)
- PE 340L Planning and Instructional Design (0) Lab
- PE 342 Teaching Health-Related Fitness (3)
- PE 440 Developing Pedagogical Skills in Elementary Physical Education (3)
- PE 440L Developing Pedagogical Skills in Elementary Physical Education (0) Lab
- PE 442 Developing Pedagogical Skills in Secondary Physical Education (3)
- PE 442L Developing Pedagogical Skills in Secondary Physical Education (0) Lab

**Notes:** \*Students must be fully accepted into PTEP before taking Physical Education PTEP courses. The minor in physical education has been designed primarily for students who would like a second teaching area in physical education.

The strength of this minor is based on the unique integration of courses in skill analysis, movement sciences and teaching methodology.

## RECREATION MINOR

### Program Requirements

Total credits required for this minor . . . . . 18

#### Required Credits – 18 semester hours

- REC 203 Introduction to Recreation and Leisure (3)
- REC 204 Introduction to Therapeutic Recreation (3)
- REC 206 Commercial Recreation and Tourism (3)
- REC 368 Programs in Recreation (3)
- REC 372 Recreation Leadership (3)
- REC 394 Practicum in Recreation and Therapeutic Recreation (3)

**Note:** The minor in recreation prepares students for secondary careers in recreation settings. Students who are required to have a minor will find this program challenging and a useful supporting area that will integrate with most any other major on campus. Students declaring the Recreation minor must possess an overall GPA of 2.3. Grades of "D" and "F" in Recreation courses must be repeated.

## REHABILITATIVE SERVICES MINOR

### Program Requirements

Total credits required for this minor . . . . . 18

#### Required Credits – 18 semester hours

- HRS 290 Introduction to Human Rehabilitative Services (3)
- HRS 385 Working with Families in Rehabilitation (3)
- HRS 394 Practicum in Human Services (3)
- HRS 480 Human Service Helping Skills (3)
- HRS 485 Medical/Psychological Aspects of Disability for Human Service Workers (3)
- HRS 490 Career Planning and Placement (3)

**Note:** The three-hour practicum (HRS 394) should reflect the theme of the student's interest area in the minor.

## SCHOOL HEALTH EDUCATION MINOR

### Program Requirements

Required credits . . . . . 18

Required elective credits . . . . . 6

Total credits required for this minor . . . . . 24

#### Required Credits – 18 semester hours

- CH 205 Issues in Health (3)
- CH 209 Foundations of Health Promotion/Health Education (3)
- CH 238 Contemporary Issues in Drug Abuse (3)
- CH 336 Human Sexuality (3)
- CH 342 Modern Concepts of Health and Disease (3)
- CH 405 Health Communications and the Media (3)

#### Required Elective Credits – 6 semester hours

Elective credits selected with consent of advisor. FND 250, Principals of Nutrition, is strongly recommended.



## MASTER OF ARTS (M.A.)

### COMMUNICATION DISORDERS: AUDIOLOGY, M.A.

#### Certifying Degree Emphasis

#### Program Requirements

Complete the required credits specified here . . . . . 59

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 should see advisor for enrollment options.

#### Required Credits – 59 semester hours

*Academic Core – 35 semester hours*

- CMDS 570 Rehabilitative Audiology (3)
- CMDS 571 Speech and Hearing Science (3)
- CMDS 572 Noise (2)
- CMDS 573 Auditory Physiology and Pathology (3)
- CMDS 582 Pediatric/Educational Audiology (3)
- CMDS 671 Psychoacoustics (2)
- CMDS 675 Differential Diagnosis of Auditory Problems (3)
- CMDS 677 Medical Aspects of Audiology (3)
- CMDS 678 Hearing Aids and Uses of Amplification (3)
- CMDS 685 Advanced Differential Diagnosis of Auditory Problems (4)
- CMDS 688 Hearing Aids II (3)
- HRS 610 Interpretation and Evaluation of Behavioral Research (3)

*Clinical Practicum – 8 semester hours*

- CMDS 574 Clinical Practicum in Audiology (1)
- CMDS 580 Practicum in Rehabilitative Audiology (2)
- CMDS 584 Screening Procedures in Speech-Language Pathology (1)
- CMDS 594 Practicum and Advanced Topics in Audiology (4)

*Internship(s) – 16 semester hours (CMDS 692 or a combination of CMDS 592 and CMDS 692 with a minimum of 6 semester hours in CMDS 692)*

- CMDS 592 Internship in Public Schools (0-15)
- CMDS 692 Internship in Medical Settings (6-16)

**Notes:** Six semester hours of practicum in School Audiology (CMDS 592 or CMDS 673) is required for licensure as an Educational Audiologist by the Colorado Department of Education.

If the student decides to complete a thesis, six hours of CMDS 699, Thesis: Communication Disorders and three hours of SRM 602, Statistical Methods I, are required.

Successful completion of a written comprehensive exam or a master's thesis 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 Council on Academic Accreditation (CAA) of the ASHA and by the Colorado Department of Education.

## COMMUNICATION DISORDERS: AUDIOLOGY, M.A.

### Non-Certifying Degree Emphasis

#### 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

CMD5 515 Referenced and Research Writing (1)  
 CMD5 555 Neuroanatomy and Neurophysiology of Communication (3)  
 CMD5 570 Rehabilitative Audiology (3)  
 CMD5 571 Speech and Hearing Science (3)  
 CMD5 572 Noise (2)  
 CMD5 573 Auditory Physiology and Pathology (3)  
 CMD5 582 Pediatric/Educational Audiology (3)  
 CMD5 671 Psychoacoustics (2)  
 CMD5 675 Differential Diagnosis of Auditory Problems (3)  
 CMD5 678 Hearing Aids and Uses of Amplification (3)  
 HRS 610 Interpretation and Evaluation of Behavioral Research (3)

Required Elective Credits (2)\*

\*Elective Credits selected with consent of advisor.

**Notes:** If the student decides to complete a thesis, six hours of CMD5 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 or a master's thesis is required to complete the Master of Arts program.

## COMMUNICATION DISORDERS: SPEECH-LANGUAGE PATHOLOGY, M.A.

### Certifying Degree Emphasis

#### 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 (NESPA) and to complete the Clinical Fellowship Year (CFY) required by the American Speech-Language-Hearing Association (ASHA) for the Certificate of Clinical Competence (CCC). Certified speech-language pathologists find employment in the public schools, private practice, hospitals, rehabilitation facilities and free-standing clinics.

#### Admission

In addition to meeting the admission requirements of the Graduate School, students will be admitted to this limited-enrollment program on the basis of (1) a letter of intent, (2) at least two letters of recommendation from persons familiar with their academic/clinical performance and (3) Graduate Record Examination scores. Admission to the Graduate School does not guarantee admission to the Speech-Language Pathology graduate program.

#### Prerequisites

This program assumes an undergraduate background in Speech-Language Pathology and related areas. Students who do not have such a background must fulfill academic requirements as determined by their major advisor. Students who are deficient in clinical observation hours should see advisor for enrollment options.

#### Required Credits – 64-70 Semester Hours

CMD5 515 Referenced and Research Writing (1)  
CMD5 555 Neuroanatomy and Neurophysiology of Communication (3)  
CMD5 561 Voice Disorders and Cleft Palate (3)  
CMD5 565 Neurogenic Communication Disorders (4)  
CMD5 569 Advanced Diagnostic Procedures (4)  
CMD5 571 Speech and Hearing Science (3)  
CMD5 583 Entry/Primary Speech-Language Pathology Practicum (2)  
CMD5 585 Advanced Graduate Practicum in Speech-Language Pathology (4)  
CMD5 592 Internship in Public Schools (12 or 15)  
CMD5 616 Speech and Language Services in the Public Schools (1)  
CMD5 660 Clinical Phonology (3)  
CMD5 662 Stuttering (3)  
CMD5 681 Advanced Speech Physiology (3)  
CMD5 683 Advanced Topics in Language Disorders (3)  
CMD5 692 Internship in Medical Settings (12 or 15)  
HRS 610 Interpretation and Evaluation of Behavioral Research (3)

**Notes:** Students who do not pursue a thesis must complete both internships: CMD5 592, Internship in Public Schools and CMD5 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 CMD5 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 or a master's thesis 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 Council on Academic Accreditation (CAA) of the ASHA and by the Colorado Department of Education.

## COMMUNICATION DISORDERS: SPEECH-LANGUAGE PATHOLOGY, M.A.

### Non-Certifying Degree Emphasis

#### Program requirements

Complete the required credits specified here . . . . . 30

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 the 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 – 30 semester hours

CMDS 515 Referenced and Research Writing (1)  
 CMDS 555 Neuroanatomy and Neurophysiology of Communication (3)  
 CMDS 561 Voice Disorders and Cleft Palate (3)  
 CMDS 565 Neurogenic Communication Disorders (4)  
 CMDS 571 Speech and Hearing Science (3)  
 CMDS 616 Speech and Language Services in the Public Schools (1)  
 CMDS 660 Clinical Phonology (3)  
 CMDS 662 Stuttering (3)  
 CMDS 681 Advanced Speech Physiology (3)  
 CMDS 683 Advanced Topics in Language Disorders (3)  
 HRS 610 Interpretation and Evaluation of Behavioral Research (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 or a master's thesis is required to complete the Master of Arts program.

## GERONTOLOGY, M.A.

### Direct Service Emphasis

#### 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:**

1. Two letters of recommendation.
2. Miller Analogies Test scores.
3. A statement of interest covering the following topics (maximum 10 pages double-spaced):
  - a. 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.
  - b. 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?
  - c. 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.
  - d. 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 for Aging Services (3)  
 GERO 625 Psychosocial Aspects of Aging (3)  
 GERO 630 Intervention Strategies with the Elderly (3)  
 GERO 635 Social Policies of Aging (3)  
 GERO 640 Health Aspects of Gerontology (3)  
 GERO 692 Graduate Internship in Gerontology (12)  
 HRS 610 Interpretation and Evaluation of Behavioral Research (3)  
 HRS 630 Human Services Counseling Theories and Techniques (3)  
 HRS 694 Supervised Counseling in Human Services (6)  
 Two advisor-approved electives whose content focuses on direct practice skills or service issues (6)

**Notes:** Successful completion of a written comprehensive exam is required to complete the Master of Arts program.

## GERONTOLOGY, M.A.

### General Studies Emphasis

#### Program Requirements

Complete the required credits specified here . . . . . 47

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:

1. Two letters of recommendation.
2. Miller Analogies Test scores.
3. A statement of interest covering the following topics (maximum 10 pages double-spaced):
  - a. 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.
  - b. What are your career and educational goals? Why have you chosen the General Studies emphasis area? In what role and in what organizational setting would you ultimately like to be employed?
  - c. 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.
  - d. 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 – 47 semester hours

GERO 560 Community Resources for the Elderly (4)  
GERO 565 Management Concepts for Aging Services (3)  
GERO 625 Psychosocial Aspects of Aging (3)  
GERO 630 Intervention Strategies with the Elderly (3)  
GERO 635 Social Policies of Aging (3)  
GERO 640 Health Aspects of Gerontology (3)  
GERO 692 Graduate Internship in Gerontology (12)  
HHS 515 Bio-Physical Changes in Aging (3)  
HRS 610 Interpretation and Evaluation of Behavioral Research (3)

and select one of the following two courses:

GERO 655 Program Planning and Evaluation in Gerontology (3)  
NURS 505 Nursing Research (3)

Advisor approved courses (7)

**Note:** Successful completion of a written comprehensive exam is required to complete the Master of Arts program. The opportunity to complete a thesis is available within this emphasis. Students should contact the Program Coordinator or his/her academic advisor for admission criteria.

## GERONTOLOGY, M.A.

### Management/Administration Emphasis

#### 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:

1. Two letters of recommendation.
2. Miller Analogies Test scores.
3. A statement of interest covering the following topics (maximum 10 pages double-spaced):
  - a. 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.
  - b. What are your career and educational goals? Why have you chosen the Management/Administration emphasis area? In what role and in what organizational setting would you ultimately like to be employed?
  - c. 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.
  - d. 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 for Aging Services (3)  
GERO 625 Psychosocial Aspects of Aging (3)  
GERO 630 Intervention Strategies with the Elderly (3)  
GERO 635 Social Policies of Aging (3)  
GERO 640 Health Aspects of Gerontology (3)  
GERO 650 Personnel Practices of Aging (3)  
GERO 655 Program Planning and Evaluation in Gerontology (3)  
GERO 660 Financial Management and Budgeting for Aging Programs (3)  
GERO 665 Grant Development and Administration (3)  
GERO 692 Graduate Internship in Gerontology (12)  
HRS 610 Interpretation and Evaluation of Behavioral Research (3)  
Advisor approved course (3)

**Note:** Successful completion of a written comprehensive exam is required to complete the Master of Arts program.

**PHYSICAL EDUCATION, M.A.****Kinesiology Emphasis****Program Requirements**

Complete the required credits and the specific concentration area requirements . . . . . 33

Complete specific concentration area electives . . . . . 9-12

Kinesiology is the integrated study of human movement. Concentrations within this discipline include biomechanics, exercise physiology and social psychology of sport and physical activity.

**Biomechanics Concentration – 33 semester hours****Required Credits - 9 semester hours**

PE 602 Introduction to Research in Kinesiology and Physical Education (3)

or

SRM 600 Introduction to Graduate Research (3)  
KINE 625 Laboratory Techniques in Kinesiological Research (3)  
SRM 602 Statistical Methods I (3)

**Concentration area requirements 15 semester hours**

KINE 620 Advanced Anatomical Kinesiology (3)  
KINE 621 Advanced Biomechanics (3)  
KINE 627 Advanced Physiological Kinesiology II (3)  
KINE 629 Concepts in Kinesiology (3) (Cardiopulmonary Physiology)

and select one of the following courses:

KINE 623 Advanced Neuromotor Kinesiology (3)  
KINE 624 Advanced Developmental Kinesiology (3)  
KINE 626 Advanced Physiological Kinesiology I (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 and must satisfy the Thesis option or the Professional Research Project Option.

The following courses are recommended to be used as electives:

HHS 515 Bio-Physical Changes in Aging (3)  
KINE 692 Graduate Internship in Kinesiology (6)  
ZOO 551 Mammalian Physiology I (4)  
ZOO 552 Mammalian Physiology II (4)

**Exercise Physiology Concentration – 33 semester hours****Required Credits - 9 semester hours**

PE 602 Introduction to Research in Kinesiology and Physical Education (3)

or

SRM 600 Introduction to Graduate Research (3)  
KINE 625 Laboratory Techniques in Kinesiological Research (3)  
SRM 602 Statistical Methods I (3)

**Concentration area requirements - 15 semester hours**

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) (Cardiopulmonary Physiology)

and select one of the following courses:

KINE 621 Advanced Biomechanics (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 and must satisfy the Thesis option or the Professional Research Project option. The following courses are recommended electives:

*Research or Pre Med*

BIO 550 Cell Physiology (4)  
CHEM 581 General Biochemistry I (4)  
CHEM 582 General Biochemistry II (4)  
CHEM 586 Biochemical Techniques (3)  
ZOO 551 Mammalian Physiology I (4)  
ZOO 552 Mammalian Physiology II (4)

*Preventative and Rehabilitative Exercise*

KINE 510 Cardiac Rehabilitation (3)  
KINE 692 Graduate Internship in Kinesiology (6)

*Nutrition in Sport and Exercise*

CHEM 581 General Biochemistry I (4)  
CHEM 582 General Biochemistry II (4)  
FND 555 Nutrition for Fitness and Athletic Performance (3)

**Social Psychology of Sport and Physical Activity Concentration – 33 semester hours****Required Credits - 9 semester hours**

PE 602 Introduction to Research in Kinesiology and Physical Education (3)  
KINE 625 Laboratory Techniques in Kinesiological Research (3) (Social Psychological)  
SRM 602 Statistical Methods I (3)

**Concentration area requirements - 12 semester hours**

KINE 635 Exercise and Sports Psychology (3)  
KINE 629 Concepts in Kinesiology (3) (Motivation)  
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 Biomechanics (3)  
KINE 623 Advanced Neuromotor Kinesiology (3)  
KINE 624 Advanced Developmental Kinesiology (3)  
KINE 626 Advanced Physiological Kinesiology I (3)

**Elective Credits – 12 semester hours**

Elective credits in a concentration area must have the approval of the program advisor and must satisfy the Thesis option or the Professional Research Project option.

The following courses are recommended electives:

CH 530 Seminar in Health Promotion Strategies (3)  
GERO 625 Psychosocial Aspects of Aging (3)  
PE 615 Qualitative Research in Physical Education, Recreation and Kinesiology (3)  
PE 680 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 561 Social Research (3)  
SOC 563 Qualitative Methods (3)  
SOC 532 Social Psychology and Group Dynamics (3)  
SRM 680 Introduction to Qualitative Research (3)  
SRM 731 Multivariate Analysis (3)

**Thesis Option – 6 semester hours**

Thesis hours may be included as elective hours within a student's program. The Thesis option requires the completion of an experimental research project (problem development, data collection and analysis, write-up, and defense).

**Professional Research Project Option - 6 semester hours**

The research writing and presentation of a research project is in lieu of completing a thesis. KINE 692 or other graduate coursework may be included as elective hours within a student's program.

**Note:** Students must see an advisor to develop a program matrix.

**PHYSICAL EDUCATION, M.A.**

## Outdoor Education Emphasis

**Program Requirements**

Complete the required credits specified here ..... 21  
 Complete the program electives ..... 9

The Master of Arts in Outdoor Education prepares individuals for professional responsibilities in a diverse array of outdoor and adventure education settings. Possible career paths include public school teaching or administration, working with agencies such as the National Outdoor Leadership School (NOLS), the Wilderness Education Association (WEA) and other similar endeavors within the outdoor education industry. Supervised clinical practica, provided at both on and off-campus sites, together with elective coursework, will guide the nature of a student's program. Students in the program define a concentration area in consultation with their advisor.

**Required Credits – 21 semester hours**

PE 602 Introduction to Research in Kinesiology and Physical Education (3)  
 PE 630 Challenge Course Programming (3)  
 PE 631 Outdoor Education (3)  
 PE 675 Management of Sports Facilities and Equipment (3)  
 PE 688 Legal Aspects of Sport (3)  
 PE 692 Graduate Internship in Physical Education (6)

**Elective Credits – 9 semester hours**

Students in the program define a concentration area in consultation with their advisor, the following list contains a number of possible elective courses.

*Educational Leadership*

ELPS 601 Leadership Development Through Inquiry (3)  
 ELPS 604 Understanding People: Professional Development and Educational Leadership (3)  
 ELPS 666 Planning and Change in Education (3)

*Management and Marketing*

PE 650 Financial Management for Sport Organizations (3)  
 PE 676 Sport Public Relations and Information Systems (3)  
 PE 678 Event Development and Management (3)

*Educational Technology*

ET 503 Computers in Education (3)  
 ET 524 Design of Computer Assisted Instruction (3)  
 ET 628 Design of Multimedia Learning Environments (3)

*Natural Sciences*

ESCI 575 Earth Systems Science Education (1-6)  
 MET 500 Survey of Meteorology (3)  
 GEOG 560 Maps and Mapping in Geographic Education (2)

**Thesis Option – 6 semester hours**

The research and writing of a thesis is in lieu of taking the comprehensive examinations. Thesis hours may be included as elective hours within a student's program. Contact the School of KPE's Graduate Coordinator for additional information.

**Note:** The course PE 692 is recommended to be taken at programs such as National Outdoor Leadership School (NOLS), Colorado Outward Bound School (COBS) and High Mountain Institute. Special consideration will be given to applicants who possess a teaching certificate in physical education, advanced first aid and CPR, and WSI.

**PHYSICAL EDUCATION, M.A.**

## Pedagogy Emphasis

**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 Kinesiology and Physical Education (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 and Sport (3)

**Supporting Area Credits – 9 semester hours**

Choose electives based on emphasis area and career goals. Must have approval of advisor.

*Teaching*

PE 622 Directed Studies (3)  
 PE 630 Challenge Course Programming (3)  
 PE 631 Outdoor Education (3)  
 PE 685 Critical Pedagogy (3)  
 PE 692 Graduate Internship in Physical Education (3)  
 PE 695 Seminar in Physical Education (2)  
 PE 696 College Teaching (3)

**Note:** PE 692 may be taken with approved faculty only.

*Administration*

PE 550 Program Management (3)  
 PE 576 Sport Promotion and Marketing (3)  
 PE 660 Sport Personnel Management (3)  
 PE 675 Management of Sports Facilities and Equipment (3)  
 PE 688 Legal Aspects of Sport (3)

*Kinesiology*

KINE 620 Advanced Anatomical Kinesiology (3)  
 KINE 621 Advanced Biomechanics (3)  
 KINE 623 Advanced Neuromotor Kinesiology (3)  
 KINE 624 Advanced Developmental Kinesiology (3)  
 KINE 626 Advanced Physiological Kinesiology I (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)

**Thesis Option – 6 semester hours**

The research and writing of a thesis is in lieu of taking the comprehensive examinations. Thesis hours may be included as elective hours within a student's program. Contact the School of KPE's Graduate Coordinator for additional information.

## PHYSICAL EDUCATION, M.A.

### Sport Administration Emphasis

#### Program Requirements

Complete the required credits specified here ..... 21  
 Complete program electives ..... 9

The curriculum follows the guidelines set 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 sport in secondary and collegiate athletic programs and professional, olympic and commercial sport business. The M.A. program requires a minimum of 30 hours.

#### Admission

M.A. sport administration applicants must submit an application form, official transcripts, three letters of recommendation from persons who can attest to the applicant's academic ability, Graduate Record Examination General Test Scores and processing fee directly to the Graduate School. In addition, an application packet available through the School of Kinesiology and Physical Education Office (Gunter 2590) describes materials required for admission by the Sport Administration Program: a resume and a written statement of career goals. Applicants are encouraged to visit the campus to meet with the sport administration faculty. Admission to the program occurs in the Fall or Summer semesters only. The Masters Sport Administration curriculum is a limited enrollment degree program. Students who complete the application process by February 15 are given priority screening for Fall or Summer admission of that year. The application period normally closes on August 1 for Fall admission.

#### Required Credits – 21 semester hours

PE 550 Program Management (3)  
 PE 560 Issues and Ethics in Sport Management (3)  
 PE 576 Sport Promotion and Marketing (3)  
 PE 602 Introduction to Research in Kinesiology and Physical Education (3)  
 PE 675 Management of Sports Facilities and Equipment (3)  
 PE 676 Sport Public Relations and Information Systems (3)  
 PE 688 Legal Aspects of Sport (3)

#### Elective Credits – 9 semester hours

Students are allowed 9 hours of electives in the master's program. After consulting with their advisor, students should select courses which contribute to their academic and career goals. The following courses are offered as a guide for elective course selection. Students should also review the *Catalog* for course options in their cognate areas.

ET 501 Introduction to Applications of Educational Technology (3)  
 ET 504 Instructional Materials Design (3)  
 PE 650 Financial Management for Sport Organizations (3)  
 PE 670 Sport and Higher Education (3)  
 PE 678 Event Development and Management (3)  
 PE 692 Graduate Internship in Physical Education (1-6)

**Note:** PE 692 Graduate Internship in Physical Education may be used for up to 6 hours of elective credit and is designed to assist students in gaining experience in the sport industry and/or to bridge the gap between theory and practice. To be eligible to register for PE 692, a student must have 1) a GPA of 3.0, 2) completed (or currently enrolled) five required courses, and 3) completed 20 graduate credits.

#### Thesis Option – 6 semester hours

The research and writing of a thesis is in lieu of taking the comprehensive examinations. Thesis hours may be included as elective hours within a student's program. Contact the School of KPE's Graduate Coordinator for additional information.



## REHABILITATION COUNSELING, M.A.

### Program Requirements

Complete the required core credits specified here . . . . . 45  
Complete advisor approved program electives specified here . . . . . 15

#### Mission Statement

The mission of the Rehabilitation Counseling Program at the University of Northern Colorado is to develop well-educated professional rehabilitation counselors and to improve the quality of life for persons with disabilities in the state, region and the nation through counseling, teaching, learning, the advancement of knowledge, and community service. Graduate education includes the Master's Degree in Rehabilitation Counseling and/or Vocational Evaluation. 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 who are all certified rehabilitation counselors, and some of whom are also certified vocational evaluators.

#### Objectives

1. Students will develop an appreciation for cultural diversity and political values.
2. Students will develop life-long habits of scholarship and service.
3. Students will acquire knowledge and skills that prepare them for careers in Rehabilitation Counseling, Vocational Evaluation, and/or advanced scholarly work.
4. Students will master methods of inquiry to acquire deeper understanding of their discipline.
5. The professional service activities of students will be a resource to the community, state, region and nation.
6. The professional activity of faculty, staff and students extends beyond the boundaries of Colorado, to the region, the nation, and the world.
7. All students who graduate will be qualified to sit for the Certified Rehabilitation Counselor (CRC) examination; those students who graduate with an emphasis in Vocational Evaluation will be qualified to sit for the Certified Vocational Evaluation (CVE) examination as well as for the CRC examination.
8. All students who graduate will be prepared to enter the professional Rehabilitation Counseling field in public and/or private rehabilitation programs.

#### Admission

In addition to meeting the admission requirements of the Graduate School, the student must send DIRECTLY TO THE DEPARTMENT:

1. Two letters of recommendation.
2. Miller Analogies Test scores.
3. A statement of interest covering the following topics (maximum of ten pages doubled-spaced).
  - a. 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.
  - b. 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?
  - c. 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.
  - d. 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 – 45 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 604 Family, Cultural and Psychological Aspects of Disability (3)
- HRS 605 Medical 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 692 Clinical Internship in Rehabilitation (15)
- HRS 694 Supervised Counseling in Human Services (6)

**Note:** Required courses may be waived only by the department chair on written recommendation of the student's advisor.

#### Elective Credits – 15 semester hours

- GERO 665 Grant Development and Administration (3)
- HRS 590 Rehabilitation Services in Facilities and the Private Sector (3)
- HRS 597 Counseling and Treatment of the Substance Abuser (3)
- HRS 611 Vocational Evaluation Planning and Reporting (3)
- HRS 612 Seminar in Vocational Evaluation Systems (3)
- HRS 650 Human Resources System (3)
- HRS 660 Advanced Seminar in Client Assessment (3)
- HRS 693 Practicum in Vocational Evaluation (6)

**Notes:** To complete requirements for rehabilitation counseling, 15 semester hours must be taken from required electives. Substitutions to electives may be made only with department faculty approval on the written petition of the student.

Successful completion of a written comprehensive exam is required to complete the Master of Arts program.

The master's program is fully accredited by the Council on Rehabilitation Education (CORE) and qualifies students for application for national certification as a Rehabilitation Counselor and/or Vocational Evaluator.

**REHABILITATION COUNSELING, M.A.****Vocational Evaluation Emphasis****Program Requirements****Complete the required credits specified here . . . . . 60****Mission Statement**

The mission of the Rehabilitation Counseling Program at the University of Northern Colorado is to develop well-educated professional rehabilitation counselors and to improve the quality of life for persons with disabilities in the state, region and the nation through counseling, teaching, learning, the advancement of knowledge, and community service. Graduate education includes the Master's Degree in Rehabilitation Counseling and/or Vocational Evaluation. 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 who are all certified rehabilitation counselors, and some of whom are also certified vocational evaluators.

**Objectives**

1. Students will develop an appreciation for cultural diversity and political values.
2. Students will develop life-long habits of scholarship and service.
3. Students will acquire knowledge and skills that prepare them for careers in Rehabilitation Counseling, Vocational Evaluation, and/or advanced scholarly work.
4. Students will master methods of inquiry to acquire deeper understanding of their discipline.
5. The professional service activities of students will be a resource to the community, state, region and nation.
6. The professional activity of faculty, staff and students extends beyond the boundaries of Colorado, to the region, the nation, and the world.
7. All students who graduate will be qualified to sit for the Certification of Rehabilitation Counselor (CRC) examination; those students who graduate with an emphasis in Vocational Evaluation will be qualified to sit for the Certified Vocational Evaluation (CVE) examination as well as for the CRC examination.
8. All students who graduate will be prepared to enter the professional Rehabilitation Counseling field in public and/or private rehabilitation programs.

**Admission**

In addition to meeting the admission requirements of the Graduate School, the student must send DIRECTLY TO THE DEPARTMENT:

1. Two letters of recommendation.
2. Miller Analogies Test scores.
3. A statement of interest covering the following topics (maximum of ten pages double-spaced).
  - a. 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.
  - b. What are your career and educational goals? Why have you chosen the Rehabilitation Counseling, M.A., Vocational Evaluation Emphasis as your area of study? In what role and in what organizational setting would you ultimately like to be employed?
  - c. 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.
  - d. How would you describe your strengths and weaknesses? This should cover such areas as academic ability, capacity to work with others, leadership and ability to cope with stress.

**Required Credits – 60 semester hours**

- HRS 580 Rehabilitation Principles and Case Management (3)
- HRS 581 Vocational Evaluation and Assessment of People with Disabilities (3)
- HRS 585 Occupational Information and Job Placement (3)
- HRS 604 Family, Cultural and Psychological Aspects of Disability (3)
- HRS 605 Medical Aspects of Disability (3)
- HRS 610 Interpretation and Evaluation of Behavioral Research (3)
- HRS 611 Vocational Evaluation Planning and Reporting (3)
- HRS 612 Seminar in Vocational Evaluation Systems (3)
- HRS 630 Human Services Counseling Theories and Techniques (3)
- HRS 631 Group Processes in Rehabilitation (3)
- HRS 660 Advanced Seminar in Client Assessment (3)
- HRS 692 Clinical Internship in Rehabilitation (15)
- HRS 693 Practicum in Vocational Evaluation (6)
- HRS 694 Supervised Counseling in Human Services (6)

**Notes:** Required courses may be waived only by the department chair on written recommendation of the student's advisor.

HRS 692, Supervised Clinical Practice in Rehabilitation Counseling, must be completed in an approved rehabilitation evaluation setting.

Successful completion of a written comprehensive exam is required to complete the Master of Arts program.

The master's program is fully accredited by the Council on Rehabilitation Education (CORE) and qualifies students for application for national certification as a Rehabilitation Counselor and/or Vocational Evaluator.

# MASTER OF PUBLIC HEALTH (M.P.H.)

## PUBLIC HEALTH, M.P.H.

### Community Health Education Emphasis

#### Program Requirements

Complete the required credits specified here ..... 36

Complete program electives specified here ..... 9

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 – 36 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 692 Graduate Internship (6)
- SRM 617 Biostatistics and Health Data Analysis (3)  
*and select one of the following two courses:*
  - HRS 610 Interpretation and Evaluation of Behavioral Research (3)
  - SRM 600 Introduction to Graduate Research (3)

#### Required Elective Credits – 9 semester hours

**Notes:** Elective units are selected with consent of advisor.

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.

## MASTER OF SCIENCE (M.S.)

### NURSING, M.S.

#### Education Emphasis

##### Program Requirements

**Complete the required credits specified here . . . . . 43**

The Master of Science in Nursing prepares post baccalaureate nursing students as nurse educators for either academic or inservice settings with clinical emphasis in case management of the chronically ill child or adult. The program is consistent with the characteristics of graduate education accepted by the National League for Nursing and the American Association of Colleges of Nursing. Full-time and part-time options are available. Health policies, OSHA requirements and CPR certification are required.

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. Students who want to be on the Colorado Advanced Practice Registry as Clinical Nurse Specialists (CNS) will be required to take NURS 610 in lieu of the education elective and complete **NURS 680 Advanced Practice Role Practicum (9)**.

The Masters in Nursing program is accredited by the National League for Nursing. Information about the program may be obtained by contacting the National League for Nursing at 61 Broadway, New York, NY 10006 or 1-800-669-1656.

##### Prerequisites: Undergraduate Research.

##### Required Credits – 43 semester hours

*Core – 9 semester hours*

NURS 505 Nursing Research (3)  
NURS 507 Leadership and Nursing Issues (3)  
NURS 600 Nursing Theory (3)

*Clinical – 18 semester hours*

NURS 602 Concepts in Chronic Illness (4)  
NURS 604 Care of Chronically Ill Adult and Child (4)  
NURS 612 Advanced Pharmacology (4)  
NURS 614 Advanced Pathophysiology (3)  
NURS 690 Advanced Clinical Role (3)

*Education – 10 semester hours*

EPSY 540 Theories and Principles of Learning (3)  
NURS 630 Teaching Strategies in Nursing (3)  
NURS 660 Nursing Education Seminar (4)

*Research – 6 semester hours*

NURS 699 Thesis (6)

*or*

NURS 691 Applied Nursing Research (3)

*and*

Education Elective (3 semester hours)

**Note:** Successful completion of a comprehensive exam is required to complete the Master of Science program.

### NURSING, M.S.

#### Family Nurse Practitioner (FNP) Emphasis

##### Program Requirements

**Complete the required credits specified here . . . . . 45**

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. Full-time and part-time options are available. Health policies, OSHA requirements, CPR and ACLS certification are required.

The program provides expertise valuable for generalist primary care practice in a variety of settings. Such practice is both autonomous and interdependent in nature and direct in its care services provision.

The Masters in Nursing program is accredited by the National League for Nursing. Information about the program may be obtained by contacting the National League for Nursing at 61 Broadway, New York, NY 10006 or 1-800-669-1656.

##### Prerequisites: Undergraduate Research, Undergraduate Physical Assessment Course.

##### Required Credits – 45

*Core – 9 semester hours*

NURS 600 Nursing Theory (3)  
NURS 505 Nursing Research (3)  
NURS 507 Leadership and Nursing Issues (3)

*FNP Emphasis – 33 semester hours*

NURS 610 Health Assessment (3)  
NURS 612 Advanced Pharmacology (4)  
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 Advanced Practice Role Practicum (9)  
NURS 690 Advanced Clinical Role (2)

*Research – 3-6 semester hours*

NURS 699 Thesis (6)

*or*

NURS 691 Applied Nursing Research (3)

**Note:** Successful completion of a comprehensive exam is required to complete the Master of Science program.

# DOCTOR OF EDUCATION (Ed.D.)

## PHYSICAL EDUCATION, Ed.D.

### Kinesiology Emphasis

#### Program Requirements

<b>Biomechanics Concentration Area</b> . . . . .	<b>64</b>
<b>Exercise Physiology</b> . . . . .	<b>64</b>
<b>Social Psychology of Sport and Physical Activity</b> . . . . .	<b>64</b>

*Complete the semester hours specified for: concentration area, research, dissertation and elective credits*

The Doctor of Education in Physical Education is offered through the School of Kinesiology and Physical Education. Students pursuing the Kinesiology degree are offered the following concentration areas: biomechanics, exercise physiology, and social psychology of sport and physical activity.

In order to advance to candidacy, students must demonstrate proficiency in theoretical and research foundations, teaching and communication, scholarship and professional service. Criteria for proficiency are identified in the School of Kinesiology and Physical Education Doctoral Evaluation Matrix.

#### Biomechanics Required Concentration Area Credits – 24 semester hours

- KINE 620 Advanced Anatomical Kinesiology (3)
- KINE 621 Advanced Biomechanics (3)
- KINE 622 Directed Studies: Research in Biomechanics (6)
- KINE 623 Advanced Neuromotor Kinesiology (3)
- KINE 626 Advanced Physiological Kinesiology I (3)
- KINE 627 Advanced Physiological Kinesiology II (3)
- KINE 690 Graduate Seminar in Kinesiology (1)

#### Biomechanics Required Research Credits – Select 12 semester hours

- PE 615 Qualitative Research in Physical Education, Recreation and Kinesiology (3)
- PE 703 Research Seminar in Physical Education (3)
- KINE 625 Laboratory Techniques in Kinesiological Research (3)
- SRM 602 Statistical Methods I (3)
- SRM 603 Statistical Methods II (3)
- SRM 610 Statistical Methods III (3)
- SRM 680 Introduction to Qualitative Research (3)
- SRM 731 Multivariate Analysis (3)
- (SRM 600 Introduction to Graduate Research (3) or PE 602 Introduction to Research in Kinesiology and Physical Education (3) may be required if not taken during the Master's program)

#### Biomechanics Required Dissertation Credits – 16 semester hours

- KINE 797 Doctoral Proposal Research (4)
- KINE 799 Doctoral Dissertation (12)

#### Biomechanics Elective Credits (with faculty advisor approval) – 12 semester hours

- KINE 624 Advanced Developmental Kinesiology (3)
- KINE 629 Concepts in Kinesiology (3)
- KINE 635 Exercise and Sports Psychology (3)
- KINE 670 Advanced Sociological Kinesiology (3)
- KINE 692 Graduate Internship in Kinesiology (6)
- KINE 694 Special Topics in Kinesiology (3)
- KINE 755 Supervised Practicum in College Teaching (3)

#### Exercise Physiology Required Concentration Area Credits – 18 semester hours

- KINE 625 Laboratory Techniques in Kinesiological Research (3)
- KINE 626 Advanced Physiological Kinesiology I (3)
- KINE 627 Advanced Physiological Kinesiology II (3)
- KINE 629 Concepts in Kinesiology (3) (Cardiopulmonary)
- KINE 690 Graduate Seminar in Kinesiology (1)
- KINE 755 Supervised Practicum in College Teaching (3)

#### Exercise Physiology Required Research Credits – Select 12 semester hours

- PE 615 Qualitative Research in Physical Education, Recreation and Kinesiology (3)
- PE 703 Research Seminar in Physical Education (3)
- SRM 602 Statistical Methods I (3)

- SRM 603 Statistical Methods II (3)
- SRM 610 Statistical Methods III (3)
- SRM 680 Introduction to Qualitative Research (3)
- SRM 700 Advanced Research Methods (3)
- (SRM 600 Introduction to Graduate Research (3) or PE 602 Introduction to Research in Kinesiology and Physical Education (3) may be required if not taken during the Master's program.)

#### Exercise Physiology Required Dissertation Credits – 16 semester hours

- KINE 797 Doctoral Proposal Research (4)
- KINE 799 Doctoral Dissertation (12)

#### Exercise Physiology Elective Credits (with faculty advisor approval) – 18 semester hours

- KINE 620 Advanced Anatomical Kinesiology (3)
- KINE 621 Advanced Biomechanics (3)
- KINE 622 Directed Studies (1-4)
- KINE 623 Advanced Neuromotor Kinesiology (3)
- KINE 624 Advanced Developmental Kinesiology (3)
- KINE 635 Exercise and Sports Psychology (3)
- KINE 670 Advanced Sociological Kinesiology (3)
- KINE 692 Graduate Internship in Kinesiology (6)
- KINE 694 Special Topics in Kinesiology (3)
- KINE 755 Supervised Practicum in College Teaching (1-3)
- BIO 550 Cell Physiology (4)
- CHEM 581 General Biochemistry I (4)
- CHEM 582 General Biochemistry II (4)
- CHEM 586 Biochemical Techniques (3)
- GERO 665 Grant Development and Administration (3)
- ZOO 551 Mammalian Physiology I (4)
- ZOO 552 Mammalian Physiology II (4)

#### Social Psychology of Sport and Physical Activity Required Concentration Area Credits – 15 semester hours

- KINE 624 Advanced Developmental Kinesiology (3)
- KINE 629 Concepts in Kinesiology (3) (Motivation)
- KINE 635 Exercise and Sports Psychology (3)
- KINE 670 Advanced Sociological Kinesiology (3)
- KINE 690 Graduate Seminar in Kinesiology (1)

#### Social Psychology of Sport and Physical Activity Required Research Credits – 12 semester hours

- PE 615 Qualitative Research in Physical Education, Recreation and Kinesiology (3)
- PE 703 Research Seminar in Physical Education (3)
- SRM 602 Statistical Methods I (3)
- SRM 603 Statistical Methods II (3)
- SRM 610 Statistical Methods III (3)
- KINE 625 Laboratory Techniques in Kinesiological Research (3)
- SRM 680 Introduction to Qualitative Research (3)
- SRM 731 Multivariate Analysis (3)
- (SRM 600 Introduction to Graduate Research (3) or PE 602 Introduction to Research in Kinesiology and Physical Education (3) may be required if not taken during the Master's program.)

#### Social Psychology of Sport and Physical Activity Required Dissertation Credits – 16 semester hours

- KINE 797 Doctoral Proposal Research (4)
- KINE 799 Doctoral Dissertation (12)

#### Social Psychology of Sport and Physical Activity Elective Credits – 21 semester hours

- GERO 625 Psychosocial Aspects of Aging (3)
- KINE 620 Advanced Anatomical Kinesiology (3)
- KINE 621 Advanced Biomechanics (3)
- KINE 622 Directed Studies (1-4)
- KINE 623 Advanced Neuromotor Kinesiology (3)
- KINE 626 Advanced Physiological Kinesiology I (3)
- KINE 627 Advanced Physiological Kinesiology II (3)
- KINE 692 Graduate Internship in Kinesiology (6)
- KINE 755 Supervised Practicum in College Teaching (1-6)
- PE 670 Sport and Higher Education (3)
- PE 680 Perspectives in Physical Education and Sport (3)
- PE 696 College Teaching (3)
- PSY 643 Theories of Motivation (3)
- PSY 664 Advanced Social Psychology (3)
- SOC 532 Social Psychology and Group Dynamics (3)
- SOC 552 Applied Social Theory (3)

## PHYSICAL EDUCATION, ED.D.

### Pedagogy Emphasis

#### 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 (3)  
 KINE 621 Advanced Biomechanics (3)  
 KINE 623 Advanced Neuromotor Kinesiology (3)  
 KINE 624 Advanced Developmental Kinesiology (3)  
 KINE 626 Advanced Physiological Kinesiology I (3)

#### 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 (2)  
 PE 696 College Teaching (3)  
 PE 703 Research Seminar in Physical Education (3)  
 PE 797 Doctoral Proposal Research (4)  
 PE 799 Doctoral Dissertation (12)

**Note:** 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.

## PHYSICAL EDUCATION, ED.D.

### Sport Administration Emphasis

#### Program Requirements

Complete the required credits specified here ..... 54  
Complete program electives ..... 10

This curriculum follows the guidelines set 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. The program is designed primarily to prepare students for academic positions in higher education. Some students may choose to apply their doctoral course work in careers in the management of sport in secondary and collegiate athletic programs and professional, Olympic and commercial sport business.

#### Admission

Ed.D. sport administration applicants must submit an application form, official transcripts, three letters of recommendation from persons who can attest to the applicant's academic ability, Graduate Record Examination General Test Scores and processing fee directly to the Graduate School. In addition, an application packet available through the School of Kinesiology and Physical Education Office (Gunter 2590) describes materials required for admission by the Sport Administration Program: a resume, a written statement of career goals and research interests and an essay on a current issue in sports business. Applicants are encouraged to visit the campus to meet with the sport administration faculty. Although admission decisions are made throughout the academic year, the faculty prefers that students begin the program in the Fall semester. Students who complete the application process by February 15 are given priority screening for Fall admission of that year and have increased opportunities for financial assistance. The application period normally closes on August 1 for Fall admission.

#### Required Credits – 54 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 Sports Facilities and Equipment (3)  
PE 676 Sport Public Relations and Information Systems (3)  
PE 678 Event Development and Management (3)  
PE 688 Legal Aspects of Sport (3)  
PE 703 Research Seminar in Physical Education (3)  
PE 797 Doctoral Proposal Research (4)  
PE 799 Doctoral Dissertation (12)  
KINE 670 Advanced Sociological Kinesiology (3)  
SRM 602 Statistical Methods I (3)  
SRM 603 Statistical Methods II (3)  
Additional research course determined by student and advisor (3)

#### Elective Credits – 10 semester hours

Students are allowed 10 hours of electives in the doctoral program (64 credits beyond the Master's is required for graduation). After consulting with their advisor, students should select courses which contribute to their academic and research goals. The following courses are offered as a guide for elective course selection. Students should also review the *Catalog* for course options in other cognate areas.

ET 501 Introduction to Applications of Educational Technology (3)  
ET 504 Instructional Materials Design (3)  
ELPS 601 Leadership Development Through Inquiry (3)  
ELPS 663 Developing Grants and Contracts (3)  
KINE 755 Supervised Practicum in College Teaching (1-6)  
ELPS 650 School Finance and Budgeting (3)  
HESA 680 Law and Higher Education (3)  
PE 670 Sport and Higher Education (3)  
PE 696 College Teaching (3)  
PE 692 Graduate Internship in Physical Education (1-6)  
SRM 610 Statistical Methods III (3)  
SRM 680 Introduction to Qualitative Research (3)

**Note:** The course PE 692 Graduate Internship in Physical Education may be used for up to 6 hours of electives and is designed to assist students in gaining experience in the sport

industry and/or to bridge the gap between theory and practice. To be eligible to register for PE 692, a student must have 1) a GPA of 3.0, 2) completed (or currently enrolled) five required courses, and 3) completed 20 graduate credits.

# DOCTOR OF PHILOSOPHY (PH.D.)

## HUMAN REHABILITATION, PH.D.

### Program Requirements

Complete the required credits specified here . . . . . 72

#### 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:

1. 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.
2. 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.
3. Meet all University of Northern Colorado Graduate School requirements.
4. Submit all requested materials to the Graduate School.
5. Participate in a personal interview on request. Admission decisions are based on multiple criteria, without fixed weights for any individual criterion.
6. Please submit a statement of interest (double spaced, no more than 12 pages) addressing the following:
  - a. State why you are interested in pursuing a doctorate in the field of rehabilitation. Did any life experiences motivate you to seek this degree?
  - b. What is your career history and what, if any, role did it play in your decision to pursue doctoral studies?
  - c. What are your short-term and long-range educational and career goals? What do you hope to be doing in five years? In ten years? Beyond?
  - d. Express your personal attitudes towards individuals with disabilities.
  - e. Who do you envision your future consumers to be once you graduate?
  - f. Discuss your interest in conducting scholarly research, providing community service, and/or teaching in the field.
  - g. Explain your exposure to the field of rehabilitation. Please talk about any coursework, volunteer activities, or fieldwork you have experienced.
  - h. Identify your top three strengths or assets as a doctoral student. What are the primary areas in which you need to improve? We are interested, among other things, in academic, interpersonal, communication, problem-solving, planning, organizational, and work ethic skills and abilities. Do you consider yourself to be a people person? Are you creative, visionary, goal-oriented? How do you deal with stress? In short, tell us about your aptitudes as well as strengths you hope to develop.

#### Required Core Courses – 39 semester credits

HHS 758 Seminar in Collaborative Research in Human Sciences (3)  
 PE 696 College Teaching (3)  
 HRS 650 Human Resources System (3)  
 HRS 659 Seminar in Rehabilitation Counseling Supervision (2)  
 HRS 660 Advanced Seminar in Client Assessment (3)  
 HRS 695 Seminar in Foundations of Human Rehabilitation (3)  
 HRS 696 Advanced Rehabilitation Counseling Theories and Approaches (3)

HRS 706 Advanced Seminar in Psychosocial Aspects of Disability (3)  
 HRS 797 Doctoral Proposal Research (4)  
 HRS 799 Doctoral Dissertation (12)

#### Research and Statistics Requirements – 15 semester credits

All doctoral students are required to take the following 15 graduate level credits in statistics and research in order to satisfy one of the two university required research tools. These 15 credits may count toward the 69 credits required in the doctoral curriculum.

SRM 602 Statistical Methods I (3)  
 SRM 603 Statistical Methods II (3)  
 SRM 610 Statistical Methods III (3)  
 SRM 680 Introduction to Qualitative Research (3)  
 SRM 700 Advanced Research Methods (3)

or

PE 703 Research Seminar in Physical Education (3)

#### Select One Additional Tool:

##### Computer Applications – 12 semester credits

Satisfactorily complete with a grade of "B" or better a minimum of 12 credits of committee approved computer application courses. These credits, if graduate level, may count toward the required total credits 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.

##### Collateral Field(s) – 12 semester credits minimum

Students must identify a concentration area of study that relates directly to their goals as scholars in the field of rehabilitation. A concentration area is defined as a body of knowledge represented by a minimum of 12 credits of course work. Examples of a collateral field could include, but are not limited to the following: gerontology, community health, nursing, sociology and special education. The specific area of concentration and the specific courses must be approved by the student's doctoral committee.

##### Elective Credits

Students are to select 6 credits from courses listed below in consultation with the doctoral committee.

HRS 755 Supervised Practicum in College Teaching (3)  
 HRS 757 Advanced Seminar in Rehabilitation Administration (3)  
 HRS 759 Advanced Practicum in Rehabilitation Counseling Supervision (3)



# DOCTORAL MINOR

## NURSING EDUCATION MINOR

### Program Requirements

Complete the required courses specified below . . . . . 15-16

#### Admission Requirements

Matriculated UNC doctoral students may apply for admission to the minor. Candidates must possess the baccalaureate and masters degree in nursing and be currently licensed as a registered nurse.

The application materials include a cover page, 3 letters of recommendation and a statement of professional intent relevant to the doctoral nursing minor. Completed packets will be submitted to the School of Nursing prior to enrollment in the nursing minor coursework. Applications will be considered on an open schedule.

#### Required Credits - 15-16 semester hours

NURS 630 Teaching Strategies in Nursing (3)

NURS 660 Nursing Education Seminar (4)

NURS 691 Applied Nursing Research (3)

NURS 780 The Professorial Role in Nursing Education (3)

NURS 790 Advanced Academic Nursing Roles (2-3)

Students must complete a minimum of 15 semester hours with a grade of "B" or better in all courses in the doctoral minor. All coursework for the minor will carry a NURS prefix. Course substitutions may be allowed by the student's advisor within the minor, prior to taking the course.

# COLLEGE OF PERFORMING AND VISUAL ARTS (PVA)

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## OFFICE OF THE DEAN

**Location:** Frasier 101      **Telephone:** (970) 351-2194  
**Dean:** Kathleen Rountree, D.M.

The College of Performing and Visual Arts believes that the arts are the most powerful tools available for refining and broadening human experience. They represent beauty and order in our environment and are important to the perpetuation of our cultural heritage. The specific role of the arts at UNC is to address the aesthetic and creative potentials of students by blending theory with practical study.

The College's performing groups, artists and art works have brought regional and national recognition to UNC, as well as many opportunities for the placement of graduates in prestigious performance and educational positions.

The College of Performing and Visual Arts stresses a rigorous curriculum and maintains an annual calendar of more than 300 cultural events.

The three divisions within the College - the School of Music and the Departments of Theatre Arts/Dance and Visual Arts - provide valuable experiences for students by enabling them to demonstrate their talents through numerous exhibits, concerts, operas, musicals, recitals, dance and theatrical performances.

The college maintains Helen Langworthy Theatre, a 612-seat fully rigged theatre with production areas; Norton Theatre, an experimental space seating up to 125; and Foundation Hall, which seats 550 and is used primarily by the School of Music.

## SCHOOL OF MUSIC

**Location:** Frasier Hall 105      **Telephone:** (970) 351-2194

**Director:** Rob Hallquist, D.M.A.

**Graduate Coordinator:** Robert Ehle, Ph.D.

**Professors:** A. Eugene Aitken, Ph.D.; Vergie Amendola, M.M.; H. Gray Barrier, M.M.; R. Evan Copley, Ph.D.; Robert Ehle, Ph.D.; James A. Fittz, D.M.A.; Richard C. Fuchs, M.M.; Carl Gerbrandt, D.M.A.; Roger Greenberg, M.M.; Rob Hallquist, D.M.A.; Jack Herrick, M.M.; Charlotte R. Mills, D.A.; Kathy Bundock Moore, Ph.D.; William A. Pfund, M.M.; Jack C. Robinson, M.M.; Kenneth Singleton, D.M.A.; Howard M. Skinner, D.Mus.

**Associate Professors:** Jonathan Bellman, D.M.A.; Diane Bolden-Taylor, M.M.; Galen Darrough, D.M.A.; Russell Guyver, D.M.A.; Charles A. Hansen, D.M.A.; Robert Al Harding, D.M.E.; Errol Haun, D.M.A.; C. Gregory Hurley, Ph.D.; Deborah Kauffman, D.M.A.; Richard G. Mayne, Ph.D.; Thomas M. Poole, M.A.E.; Juliet T. White-Smith, M.M.; Nathaniel G. Wickham, D.M.A.

**Assistant Professors:** Melissa Malde, Ph.D.; Lesley Manring, M.M.; John D. McLaird, M.M.; Sharon Wolzien, D.M.A.

Approximately 450 music majors annually have made UNC their choice for many reasons. The School of Music offers nationally recognized faculty with specialists on every instrument, including harp, string bass, harpsichord, tuba and classical guitar. The School maintains more than 50 performing ensembles, a number of which are nationally recognized.

The UNC School of Music, with 34 full-time and eight part-time faculty, is organized into eight departments, each headed by a chairperson and five performance programs, each with a director. The departments are Brass and Percussion, History and Literature, Keyboards, Music Education, Strings, Theory and Composition, Voice and Woodwinds. The performance programs are Bands, Choirs, Opera Theatre, Orchestras and Jazz Studies.

Students may choose from a full range of degrees, bachelor through doctoral programs and from emphases in performance, conducting, pedagogy, music education, music theory, music history and music theatre. Considerable variety and depth of course offerings are available at UNC. The academic year program is augmented by a comprehensive summer schedule with a full complement of music theory, music history, music education and applied music opportunities; and with workshops in special areas such as jazz, strings, Orff Schulwerk, recorder performance, multicultural education, choral issues, music technology, conducting and many others.

In addition, UNC possesses one of the most active summer performance programs in the Rocky Mountain region. The Summer Performing Arts Program, a definite asset for undergraduate and graduate majors, offers concentrated, pre-professional performance experience and association with outstanding guest artists, conductors and clinicians.

General objectives of the University of Northern Colorado School of Music are based on service and leadership in the arts at local, state, regional and national levels.

An integral unit within the University, the School of Music embraces the role and mission statements of the University of Northern Colorado and has designed its goals and objectives to support and enhance institutional purposes and directions. The School of Music lends considerable support through its course offerings to programs in Elementary Education, Special Education and Recreation.

The primary goal of the UNC School of Music is to develop skilled and sensitive musicians at the undergraduate, master's and doctoral levels, including performers, conductors, educators, composers, historians, theorists and administrators. The UNC School of Music maintains a two-fold objective of providing the strongest preparation possible in music education, theory and history, while encouraging the highest standards of performance.

Students planning to major in music are required to submit an application to the School of Music. The music application and appropriate instructions are provided by the Admission's Office upon request, or upon receipt of an Application for Admission that specifically indicates a music major. Auditions are required of all applicants to the School of Music. Information concerning auditions may be requested from the School of Music, University of Northern Colorado, Frasier Hall, Greeley, Colorado 80639, phone (970) 351-2194.

School of Music graduates are well accepted in the professional world. UNC-prepared educators hold positions at universities, colleges, high schools, junior high and elementary schools throughout the United States and Canada. School of Music performance graduates are found in professional symphony orchestras, opera and musical theatre repertory companies, the nation's premier military ensembles, prominent free-lance positions in metropolitan centers and in professional chamber ensembles and jazz bands.

### Individual Performance

Students with education emphasis should enroll for a half-hour lesson each week for two hours credit. Students with performance emphasis should enroll for a one hour lesson each week for four hours credit.

### Performance Organizations

The music major must participate each semester in a major musical organization, in which his or her instrument normally belongs – band, orchestra or choir.

### Major Musical Organizations

- MUS 267/MUS 467/MUS 667 University Symphony Orchestra
- MUS 268/MUS 468/MUS 668 Chamber Orchestra
- MUS 280/MUS 480/MUS 680 Mixed Concert Choir
- MUS 281/MUS 481/MUS 681 Women's Glee Club
- MUS 284/MUS 484/MUS 684 Men's Glee Club
- MUS 287/MUS 487/MUS 687 Summer Symphonic Band
- MUS 288/MUS 488/MUS 688 Concert Band
- MUS 289/MUS 489/MUS 689 University Brass Choir
- MUS 290/MUS 490/MUS 690 Symphonic Band
- MUS 291/MUS 491/MUS 691 Wind Ensemble
- MUS 297/MUS 497/MUS 697 Summer Festival Orchestra

### Graduate Admission

Admission to the Graduate School does not guarantee admission to the School of Music. Prerequisite to admission to any graduate program in Music is completion of an appropriate undergraduate degree. Admission will be based on an evaluation of the student's competencies and the content of the undergraduate program.

## THEATRE ARTS AND DANCE DEPARTMENT

**Location:** Frasier Hall 108    **Telephone:**

**Theatre Arts** – (970) 351-2194

**Dance** – (970) 351-2597

**Chair:** Thomas P. McNally, M.F.A.

**Professors:** Raymond Vance Fulkerson, M.A.; Ronald B. Gloekler, M.A.; Daniel G. Guyette, M.F.A.; Thomas P. McNally, M.F.A.

**Associate Professors:** Karen Sue Genoff–Campbell, D.A.; Heather Hollingsworth, M.F.A.; Charles Houghton, M.F.A.; Mary Schuttler, M.A.

**Assistant Professors:** Monte Black, M.F.A.; Molly Faulkner, Ph.D.; John R. Leonard, M.A.

UNC's Theatre Arts program combines classroom instruction with first-hand experiences in the Little Theatre of the Rockies (LTR), established in 1934. In addition to theatre productions, LTR serves as the production entity for Opera Theatre and provides technical support, scenes, costumes, stage direction, choreography, promotion and general management for UNC's popular Performing Arts Series.

During the summer, the College of Performing and Visual Arts presents the Little Theatre of the Rockies and Concerts Under the Stars events. LTR Summer company members are involved in acting and technical aspects of professional theatre, working under the excitement of a rigorous production schedule. As participants, they encounter a wide variety of opportunities to observe, learn from and share ideas with an experienced faculty, professional actors, singers and technicians.

General objectives of the University of Northern Colorado Department of Theatre Arts and Dance are based on service and leadership in the arts at local, state, regional and national levels. An integral unit within the University, the Department embraces the role and mission of the University and has designed its goals and objectives to support and enhance institutional purposes and directions.

Students planning to major in Musical Theatre are required to submit an additional application to the Musical Theatre Program. The application and appropriate instructions are provided by the College of Performing and Visual Arts. Auditions are required of all applicants to the Musical Theatre Program. Information concerning auditions may be requested from Vance Fulkerson, Coordinator of Musical Theatre Program, University of Northern Colorado, Frasier Hall, Greeley, Colorado 80639, phone (970) 351-2194.

Transfer students planning to major in Musical Theatre are required to submit a separate application to the Musical Theatre Program. The College of Performing and Visual Arts provides a Musical Theatre application and instructions when receiving an inquiry or an Application for Admission that specifies a Musical Theatre major. Auditions are required of all applicants to the Musical Theatre Program. Information concerning auditions may be requested from Vance Fulkerson, Coordinator of Musical Theatre Program, University of Northern Colorado, Frasier Hall, Greeley, Colorado 80639, phone (970) 351-2194.

## VISUAL ARTS DEPARTMENT

**Location:** Guggenheim Hall    **Telephone:** (970) 351-2143

**Chair:** Virginia Jenkins, M.F.A.

**Professors:** Michael A. Coronel, M.A.; Virginia Jenkins, M.F.A.; Dennis Morimoto, Ed.D.; Richard S. Munson, Ph.D.

**Associate Professors:** Thomas Stephens, M.F.A.; Margaret Sunday, M.F.A.; Anna Ursyn, Ph.D.

**Assistant Professors:** Connie Bethards, M.A.; Jane Dillon, M.F.A.; Mark Fetkewicz, 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.

In addition, students pursuing Art Education Studies will have demonstrated the ability to teach art effectively in grades K-12.

## FACULTY – PVA

- A. Eugene Aitken, Ph.D.
- Vergie Amendola, M.M.
- H. Gray Barrier, M.M.
- Jonathan Bellman, D.M.A.
- Connie Bethards, M.A.
- Monte Black, M.F.A.
- Diane Bolden-Taylor, M.M.
- R. Evan Copley, Ph.D.
- Michael A. Coronel, M.A.
- Galen Darrough, D.M.A.
- Jane Dillon, M.F.A.
- Robert Ehle, Ph.D.
- Molly Faulkner, Ph.D.
- Mark Fetkewicz, M.F.A.
- James A. Fittz, D.M.A.
- Richard C. Fuchs, M.M.
- Raymond Vance Fulkerson, M.A.
- Karen Sue Genoff-Campbell, D.A.
- Carl Gerbrandt, D.M.A.
- Ronald B. Gloekler, M.A.
- Roger Greenberg, M.M.
- Daniel G. Guyette, M.F.A.
- Russell Guyver, D.M.A.
- Rob Hallquist, D.M.A.
- Charles A. Hansen, D.M.A.
- Robert Al Harding, D.M.E.
- Errol Haun, D.M.A.
- Jack Herrick, M.M.
- Heather Hollingsworth, M.F.A.
- Charles Houghton, M.F.A.
- C. Gregory Hurley, Ph.D.
- Virginia Jenkins, M.F.A.
- Deborah Kauffman, D.M.A.
- John R. Leonard, M.A.
- Melissa Malde, Ph.D.
- Lesley Manring, M.M.
- Richard G. Mayne, Ph.D.
- John D. McLaird, M.M.
- Thomas P. McNally, M.F.A.
- Charlotte R. Mills, D.A.
- Kathy Bundock Moore, Ph.D.
- Dennis Morimoto, Ed.D.
- Richard S. Munson, Ph.D.
- William A. Pfund, M.M.
- Thomas M. Poole, M.A.E.
- Jack C. Robinson, M.M.
- Mary Schuttler, M.A.
- Kenneth Singleton, D.M.A.
- Howard M. Skinner, D.Mus.
- Thomas Stephens, M.F.A.
- Margaret Sunday, M.F.A.
- Anna Ursyn, Ph.D.
- Juliet T. White-Smith, M.M.
- Nathanial G. Wickham, D.M.A.
- Sharon Wolzien, D.M.A.

## BACHELOR OF MUSIC (B.M.)

### MUSIC, B.M.

#### Instrumental Performance Emphasis

##### Program Requirements

Required Major Credits	66
Elective Major Credits	14
Required Supporting Credits	0
Required Minor Credits	0
Required Specified General Education Credits	6
Required PTEP Credits	0
<b>Total program credits, 86</b>	
Elective General Education Credits	34
University Wide Elective Credits	0
<b>Total credits required for this degree</b>	<b>120</b>

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 Major Credits – 66 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 301 18th Century Counterpoint (2)
- MUS 302 Form and Analysis (2)
- MUS 303 Instrumentation (2)
- MUS 307 History of Instruments and Instrumental Practice (3)
- MUS 319 Instrumental Techniques and Conducting (1)
- MUS 403 Acoustics of Music (2)
- Major Musical Organization (Minimum) (8)
- Individual Performance (Minimum) (28)

##### Elective Major Credits – 14 semester hours

A minimum of two credits must be in the major area.

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.

*Select four credits, in consultation with advisor, from the following courses:*

- 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)

*and select two credits from the following:*

- MUS 426 Orchestral Excerpts: Percussion (1)
- MUS 427 Orchestral Excerpts: Strings (1)
- MUS 428 Orchestral Excerpts: Brass (1)
- MUS 429 Orchestral Excerpts: Woodwind (1)

##### Required Specified General Education Credits – 6 semester hours

*Category 4. Arts and Letters (a. Fine Arts)*

- MUS 243 History of Music I (3)
- MUS 244 History of Music II (3)

##### Elective General Education Credits - 34 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.

## MUSIC, B.M.

### Music Theory and Composition Emphasis

#### Program Requirements

Required Major Credits	62
Elective Major Credits	18-22
Required Supporting Credits	0
Required Minor Credits	0
Required Specified General Education Credits	6
Required PTEP Credits	0
<b>Total program credits, 86-90</b>	
Elective General Education Credits	34
University Wide Elective Credits	0
<b>Total credits required for this degree</b>	<b>120-124</b>

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 Major Credits – 62 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 277 Individual Instruction in Composition (8)
MUS 477 Individual Instruction in Composition (8)
MUS 301 18th Century Counterpoint (2)
MUS 302 Form and Analysis (2)
MUS 303 Instrumentation (2)
MUS 319 Instrumental Techniques and Conducting (1)
MUS 323 Choral Techniques and Conducting (2)
MUS 403 Acoustics of Music (2)
MUS 422 Directed Studies in Music (Form and Analysis) (3)
MUS 422 Directed Studies in Music (3) (Electronic Music)
MUS 422 Directed Studies in Music (3) (Pedagogy of Theory)
Major Musical Organization (8)

#### Elective Major Credits – 18-22 semester hours

Select elective credits (10)

*and select 8-12 credits, in consultation with advisor, from the following courses:*

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)

#### Required Specified General Education Credits – 6 semester hours

*Category 4. Arts and Letters (a. Fine Arts)*

MUS 244 History of Music II (3)
MUS 243 History of Music I (3)

#### Elective General Education Credits - 34 semester hours

**Notes:** Students must take individual instruction in composition each semester after being admitted to the program.

Students must take a major ensemble during each semester in residence.

MUS 100 Recitals, Concerts and Productions must be taken each semester in residence.

Six semesters of piano are required. Levels are to be determined by advisement.

Students seeking admission to this program must have completed MUS 201 and MUS 202 with minimum grades of "B." They must submit copies of their written compositions for evaluation by their theory/composition faculty. This process will normally take place at the end of the sophomore year.

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.

## MUSIC, B.M.

### Piano Emphasis

#### Program Requirements

Required Major Credits	78
Elective Major Credits	3
Required Supporting Credits	0
Required Minor Credits	0
Required Specified General Education Credits	6
Required PTEP Credits	0
<b>Total program credits, 87</b>	
Elective General Education Credits	34
University Wide Elective Credits	0
<b>Total credits required for this degree</b>	<b>121</b>

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 Major 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)
MUS 201 Advanced Sight-Singing and Theory I (3)
MUS 202 Advanced Sight-Singing and Theory II (3)
MUS 301 18th Century Counterpoint (2)
MUS 302 Form and Analysis (2)
MUS 323 Choral Techniques and Conducting (2)
MUS 348 Accompanying and Coaching I (2)
MUS 349 Accompanying and Coaching II (2)
MUS 352 Principles of Piano Teaching I (2)
MUS 353 Principles of Piano Teaching II (2)
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 Organization (8)

#### Elective Major Credits – 3 semester hours

#### Required Specified General Education Credits –6 semester hours

<i>Category 4. Arts and Letters (a. Fine Arts)</i>
MUS 244 History of Music II (3)
MUS 243 History of Music I (3)

#### Elective General Education Credits - 34 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.

## MUSIC, B.M.

### Vocal Performance Emphasis

#### Program Requirements

Required Major Credits	66
Elective Major Credits	8
Required Supporting Credits (Foreign Language)	10
Required Minor Credits	0
Required Specified General Education Credits	6
Required PTEP Credits	0
<b>Total program credits, 90</b>	
Elective General Education Credits	34
University Wide Elective Credits	0
<b>Total credits required for this degree</b>	<b>124</b>

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 Major Credits – 66 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 301 18th Century Counterpoint (2)
MUS 302 Form and Analysis (2)
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)

#### Elective Major Credits - 8 semester hours

*Select four credits, in consultation with advisor, from the following courses:*

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)

*and select four credits, in consultation with advisor, from the following courses:*

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 the above courses is by audition.)

#### Required Supporting Credits (Foreign Language) – 10 semester hours

#### Required Specified General Education Credits – 6 semester hours

<i>Category 4. Arts and Letters (a. Fine Arts)</i>
MUS 244 History of Music II (3)
MUS 243 History of Music I (3)

#### Elective General Education Credits - 34 semester hours

Two foreign language courses may count toward General Education requirements and electives in the content area.

**Notes:** Placement in MUS 285/MUS 485 or MUS 286/MUS 486 is by audition and advisement. Four semesters are 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.

# BACHELOR OF MUSIC EDUCATION (B.M.E.)

## MUSIC EDUCATION, B.M.E.

### Instrumental Music Education Emphasis

#### Program Requirements

Required Major Credits	44
Elective Major Credits	2
Required Supporting Credits	0
Required Minor Credits	0
Required Specified General Education Credits	6
Required PTEP Credits	39
<b>Total program credits, 91</b>	
Elective General Education Credits	34
University Wide Elective Credits	0
<b>Total credits required for this degree</b>	<b>125</b>

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 Major Credits – 44 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 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)
Individual Performance (14)
Major Musical Organization (7)

#### Elective Major Credits - 2 semester hours

Select two credits from the following (Wind and Percussion Majors):

MUS 292 Marching Band (1)
MUS 492 Marching Band (1)

#### Required Specified General Education Credits - 6 semester hours

Category 4. Arts and Letters (a. Fine Arts)

MUS 244 History of Music II (3)
MUS 243 History of Music I (3)

#### Required PTEP Credits - 39 semester hours

Instrumental Emphasis (B.M.E.) Professional Teacher Education Courses – 16 semester hours

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

Professional Teacher Education Core – 23 semester hours

EDFE 270 Field Based Experience (2)
EPSY 346 Learning and Development for Teachers (2)
EDF 366 Conceptions of Schooling: Context and Process (4)
EDSE 433 Exceptional Students in the Regular Classroom (2)
EDRD 425 Reading in the Content Areas (1)
EDFE 444 Supervised Teaching (12)

#### Elective General Education Credits - 34 semester hours

Notes: A teacher candidate must meet an oral English proficiency requirement. Listed below are two options for meeting this requirement:

- *Option I:* Complete a university-level public speaking course taken for credit for a grade of “B” or better. At UNC, this course is SPCO 100 and SPCO 103. If a teacher candidate does not receive a grade of “B” or better, the student must repeat SPCO 100 and SPCO 103 or complete *Option II* before being fully admitted to the Professional Teacher Education Program.
- *Option II:* A teacher candidate may demonstrate oral English proficiency by making an oral presentation before a panel of selected individuals. Information regarding registration dates and evaluation procedures is available from the Career Services Office. The presentation is by appointment only. There is a fee for the oral presentation.

Students must enroll in individual performance, major musical organizations, and MUS 100-Recitals, Concerts and Productions for seven semesters.

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.

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.

A Senior Recital is required. The senior recital must be performed during a semester other than the student teaching semester.

In addition to requirements for admission to the Professional Teacher Education Program as established by the Professional Education Council, music education students must meet the following departmental requirements:

- Demonstrate an acceptable level of performance on the major instrument. Evaluation will be through jury examinations conducted by music faculty and scheduled performances in the weekly recital series.
- Attain a minimum grade of “C” in the following required music theory courses: MUS 101, MUS 102 and MUS 201 and receive a minimum overall cumulative grade point average of 2.50 in these three courses. A student who is not in compliance with the GPA criterion for music theory courses listed above may petition in writing for further consideration through the Music Education and Music Theory Departments. (As per University policy, a student may repeat MUS 101, MUS 102, or MUS 201 as many times as desired, with the understanding that the grade for each course repeated will be calculated by the Registrar as part of the student's GPA; however, the number of credits per course toward graduation will be used only once. For Departmental purposes, the highest grade for each of the music theory courses listed above will be used to calculate the music theory GPA.)
- Demonstrate professional promise as a teacher to the satisfaction of the music education faculty, including an interview with the faculty at the conclusion of MUS 210 Introduction to Music Education.
- Meet all music performance and recital attendance requirements listed in the respective departmental handbooks.
- Continue to show professional growth in becoming a music teacher.
- Failure to meet the criteria listed above will result in either provisional admission or denial of admission to the PTEP Program.



## MUSIC EDUCATION, B.M.E.

### Vocal, Piano and General Music Education Emphasis

#### Program Requirements

Required Major Credits	43
Elective Major Credits	4
Required Supporting Credits	0
Required Minor Credits	0
Required Specified General Education Credits	6
Required PTEP Credits	36
Total program credits, 89	
Elective General Education Credits	34
University Wide Elective Credits	0
Total credits required for this degree	123

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 Major Credits – 43 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 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 (2)
- Individual Performance (14)
- Major Musical Organization (7)

#### Elective Major Credits - 4 semester hours

Select four credits from the following courses:

- MUS 269 Individual Performance in Voice for Those with Non-Voice Emphasis (2-4)
- MUS 469 Individual Performance in Voice for Those with Non-Voice Emphasis (2-4)

#### Required Specified General Education Credits - 6 semester hours

Category 4. Arts and Letters (a. Fine Arts)

- MUS 243 History of Music I (3)
- MUS 244 History of Music II (3)

#### Required PTEP Credits - 36 semester hours

Vocal/Piano/General Music Emphasis – (B.M.E.)

Music K-12 PTEP Credits – 13 semester hours

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

Professional Teacher Education Core – 23 semester hours

- EDFE 270 Field Based Experience (2)
- EPSY 346 Learning and Development for Teachers (2)
- EDF 366 Conceptions of Schooling: Context and Process (4)
- EDSE 433 Exceptional Students in the Regular Classroom (2)
- EDRD 425 Reading in the Content Areas (1)
- EDFE 444 Supervised Teaching (12)

#### Elective General Education Credits - 34 semester hours

Notes: A teacher candidate must meet an oral English proficiency requirement. Listed below are two options for meeting this requirement:

- *Option I:* Complete a university-level public speaking course taken for credit for a grade of “B” or better. At UNC, this course is SPCO 100 and SPCO 103. If a teacher candidate does not receive a grade of “B” or better, the student must repeat SPCO 100 and SPCO 103 or complete *Option II* before being fully admitted to the Professional Teacher Education Program.
- *Option II:* A teacher candidate may demonstrate oral English proficiency by making an oral presentation before a panel of selected individuals. Information regarding registration dates and evaluation procedures is available from the Career Services Office. The presentation is by appointment only. There is a fee for the oral presentation.

Students must enroll in individual performance, major musical organization and MUS 100 Recitals, Concerts and Productions for seven semesters.

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.

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.

A Senior Recital is required. The senior recital must be performed during a semester other than the student teaching semester.

In addition to requirements for admission to the Professional Teacher Education Program as established by the Professional Education Council, music education students must meet the following departmental requirements:

- Demonstrate an acceptable level of performance on the major instrument. Evaluation will be through jury examinations conducted by music faculty and scheduled performances in the weekly recital series.
- Attain a minimum grade of “C” in the following required music theory courses: MUS 101, MUS 102, MUS 201 and receive a minimum overall cumulative grade point average of 2.50 in these three courses. A student who is not in compliance with the GPA criterion for music theory courses listed above may petition in writing for further consideration through the Music Education and Music Theory Departments. (As per University policy, a student may repeat MUS 101, MUS 102 or MUS 201 as many times as desired, with the understanding that the grade for each course repeated will be calculated by the Registrar as part of the student's GPA; however, the number of credits per course toward graduation will be used only once. For departmental purposes, the highest grade for each of the music theory courses listed above will be used to calculate the music theory GPA.)
- Demonstrate professional promise as a teacher to the satisfaction of the music education faculty including an interview with the faculty at the conclusion of MUS 210 Introduction to Music Education.
- Meet all music performance and recital attendance requirements listed in the respective departmental handbooks.
- Continue to show professional growth in becoming a music teacher.
- Failure to meet the criteria listed above will result in either provisional admission or denial of admission to the PTEP program.

## BACHELOR OF ARTS (B.A.)

### MUSIC, B.A.

#### Liberal Arts Emphasis

##### Program Requirements

Required Major Credits	46
Elective Major Credits	6
Required Supporting Credits (Foreign Language)	10
Required Minor Credits (Outside Music)	18
Required Specified General Education Credits	6
Required PTEP Credits	0
<b>Total program credits, 86</b>	
Elective General Education Credits	34
University Wide Elective Credits	0
<b>Total credits required for this degree</b>	<b>120</b>

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 Major Credits – 46 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 301 18th Century Counterpoint (2)  
 MUS 302 Form and Analysis (2)  
 Individual Performance (16)  
 Major Musical Organization (8)

##### Elective Major Credits – 6 semester hours

Required Supporting Credits (Foreign Language) – 10 semester hours

Required Minor Credits (Outside Music) - 18 semester hours

Required Specified General Education Credits - 6 semester hours

Category 4. Arts and Letters (a. Fine Arts)

MUS 243 History of Music I (3)  
 MUS 244 History of Music II (3)

Elective General Education Credits - 34 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; minor courses may fulfill General Education requirements.

Students must take Individual Performance and Major Musical Organizations during each semester in residence.

**MUSICAL THEATRE, B.A.**

## Acting Emphasis

**Program Requirements**

<b>Required Major Credits</b> .....	<b>58</b>
<b>Elective Major Credits</b> .....	<b>8</b>
<b>Required Supporting Credits</b> .....	<b>14</b>
<b>Required Minor Credits</b> .....	<b>0</b>
<b>Required Specified General Education Credits</b> .....	<b>3</b>
<b>Required PTEP Credits</b> .....	<b>0</b>
<b>Total program credits, 83</b>	
<b>Elective General Education Credits</b> .....	<b>37</b>
<b>University Wide Elective Credits</b> .....	<b>0</b>
<b>Total credits required for this degree</b> .....	<b>120</b>

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 Major Credits – 58 semester hours**

DNCE 175 Tap Dance (1)  
 DNCE 183 Intermediate Tap Dance (1)  
 MT 161 Introduction to Musical Theatre Performance (1)  
 MT 260 Acting in Musical Theatre (3)  
 MT 285 Performance in Musical Theatre (2)  
 MT 485 Performance in Musical Theatre (2)  
 MT 342 Workshop in Directing Musical Theatre (3)  
 MT 343 Choreographing the Musical (2)  
 MT 360 Scene Study in Musical Theatre (3)  
 MT 370 Musical Theatre Dance (2)  
 MT 390 Advanced Musical Theatre Scene Study (2)  
 MT 465 Musical Theatre Workshop (3)  
 \*\*MT 470 Senior Project in Musical Theatre (3)  
 THEA 100 Individual Performance in Theatre (4)  
 (One semester must be crew work, one semester must be performance in a non-musical.)  
 THEA 135 Playscript Analysis (3)  
 THEA 149 Orientation to Technology (3)  
 THEA 160 Beginning Acting (3)  
 THEA 190 Stage Speech I (1)  
 THEA 191 Stage Speech II (1)  
 THEA 235 Stage Dialects (1)  
 THEA 240 Beginning Stage Directing (3)  
 THEA 250 Stage Make Up I (1)  
 THEA 260 Scene Study (2)  
 THEA 275 Stage Movement I (1)  
 THEA 276 Stage Movement II (1)  
 THEA 360 Advanced Acting Styles I (2)  
 THEA 361 Advanced Acting Styles II (2)  
 THEA 464 Audition Techniques (2)

**Elective Major Credits - 8 semester hours**

*Select one of the following two courses:*

DNCE 166 Beginning Ballet (2)  
 DNCE 180 Intermediate Ballet (2)

*and select two credits from the following two courses:*

DNCE 170 Jazz Dance (1)  
 DNCE 181 Intermediate Jazz Dance (2)

*and select four credits from the following three courses:*

MT 369 Individual Performance in Musical Theatre Voice (2)  
 MUS 269 Individual Performance in Voice for Those with Non-Voice Emphasis (2)  
 MUS 469 Individual Performance in Voice for Those with Non-Voice Emphasis (2)

**Required Supporting Credits - 14 semester hours**

\*Major Vocal Ensemble (4 semester hours)  
 MUS 101 Sight-Singing and Theory I (4)  
 MUS 159 Class Piano for Non-Music Majors (1)  
 MUS 160 Beginning Class Piano I (1)  
 MUS 250 Voice Class for Musical Theatre I (1)  
 MUS 251 Voice Class for Musical Theatre II (1)

*and complete the following:*

\*\*MUS 407 Individual Coaching in Musical Theatre Repertory (2)

\*\* (MT 470 and MUS 407 must be taken concurrently)

**Required Specified General Education Credits - 3 semester hours**

*Category 4.a. Arts and Letters*

MT 330 History of Musical Theatre (3)

**Elective General Education Credits - 37 semester hours****Notes:**

\* Mixed Concert Choir, Women's Glee Club, Men's Glee Club only.

\* Must attend Voice Department 4:40 pm Recitals as required by the applied voice teacher.

Admission to the Bachelor of Arts with a major in Musical Theatre program is by audition. Students pursuing the degree must complete the required courses as listed above and meet the following requirements:

- Meet all recital and production attendance requirements.
- Meet annual juried audition (assessment) requirements.

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.

**MUSICAL THEATRE, B.A.****Dance Emphasis****Program Requirements**

<b>Required Major Credits</b> .....	<b>61</b>
<b>Elective Major Credits</b> .....	<b>5</b>
<b>Required Supporting Credits</b> .....	<b>14</b>
<b>Required Minor Credits</b> .....	<b>0</b>
<b>Required Specified General Education Credits</b> .....	<b>3</b>
<b>Required PTEP Credits</b> .....	<b>0</b>
<b>Total program credits, 83</b>	
<b>Elective General Education Credits</b> .....	<b>37</b>
<b>University Wide Elective Credits</b> .....	<b>0</b>
<b>Total credits required for this degree</b> .....	<b>120</b>

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 Major Credits – 61 semester hours**

DNCE 171 Modern Dance (1)  
 DNCE 175 Tap Dance (1)  
 DNCE 180 Intermediate Ballet (2)  
 DNCE 181 Intermediate Jazz Dance (2)  
 DNCE 182 Intermediate Modern Dance (2)  
 DNCE 183 Intermediate Tap Dance (1)  
 DNCE 292 Advanced Ballet (3)  
 DNCE 293 Advanced Jazz Dance (4)  
 DNCE 296 Beginning Choreography and Improvisation (2)  
 DNCE 354 Dance Performance I (4)  
 DNCE 454 Dance History and Philosophy (2)  
 MT 161 Introduction to Musical Theatre Performance (1)  
 MT 260 Acting in Musical Theatre (3)  
 MT 285 Performance in Musical Theatre (2)  
 MT 485 Performance in Musical Theatre (2)  
 MT 342 Workshop in Directing Musical Theatre (3)  
 MT 343 Choreographing the Musical (2)  
 MT 360 Scene Study in Musical Theatre (3)  
 MT 370 Musical Theatre Dance (2)  
 MT 390 Advanced Musical Theatre Scene Study (2)  
 MT 465 Musical Theatre Workshop (3)  
 \*\*MT 470 Senior Project in Musical Theatre (3)  
 THEA 100 Individual Performance in Theatre (2)  
 (Must be crew)  
 THEA 160 Beginning Acting (3)  
 THEA 240 Beginning Stage Directing (3)  
 THEA 250 Stage Make Up I (1)  
 THEA 275 Stage Movement I (1)  
 THEA 276 Stage Movement II (1)

**Elective Major Credits - 5 semester hours**

*Select one of the following two courses:*

DNCE 167 Ballroom Dance (1)  
 PE 169 Gymnastics (1)

*and select four credits from the following three courses:*

MT 369 Individual Performance in Musical Theatre Voice (2)  
 MUS 269 Individual Performance in Voice for Those with Non-Voice Emphasis (2)  
 MUS 469 Individual Performance in Voice for Those with Non-Voice Emphasis (2)

**Required Supporting Credits 14 semester hours**

\* Major Vocal Ensemble (4)

MUS 101 Sight-Singing and Theory I (4)  
 MUS 159 Class Piano for Non-Music Majors (1)  
 MUS 160 Beginning Class Piano I (1)  
 MUS 250 Voice Class for Musical Theatre I (1)  
 MUS 251 Voice Class for Musical Theatre II (1)

*and complete the following:*

\*\*MUS 407 Individual Coaching in Musical Theatre Repertory (2)

\*\* (MT 470 and MUS 407 must be taken concurrently)

**Required Specified General Education Credits - 3 semester hours**

*Category 4.a. Arts and Letters*

MT 330 History of Musical Theatre (3)

**Elective General Education Credits - 37 semester hours****Notes:**

\* Mixed Concert Choir, Women's Glee Club, Men's Glee Club only.

\* Must attend Voice Department 4:40 pm Recitals as required by the applied voice teacher.

Admission to the Bachelor of Arts with a major in Musical Theatre program is by audition. Students pursuing the degree must complete the required courses as listed above and meet the following requirements:

- Meet all recital and production attendance requirements.
- Meet annual juried audition (assessment) requirements.

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.

**MUSICAL THEATRE, B.A.**

## Voice Emphasis

**Program Requirements**

<b>Required Major Credits</b> .....	<b>35</b>
<b>Elective Major Credits</b> .....	<b>20</b>
<b>Required Supporting Credits</b> .....	<b>26</b>
<b>Required Minor Credits</b> .....	<b>0</b>
<b>Required Specified General Education Credits</b> .....	<b>6</b>
<b>Required PTEP Credits</b> .....	<b>0</b>
<b>Total program credits, 87</b>	
<b>Elective General Education Credits</b> .....	<b>34</b>
<b>University Wide Elective Credits</b> .....	<b>0</b>
<b>Total credits required for this degree</b> .....	<b>121</b>

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 Major Credits – 35 semester hours**

DNCE 175 Tap Dance (1)  
 DNCE 183 Intermediate Tap Dance (1)  
 MT 161 Introduction to Musical Theatre Performance (1)  
 MT 260 Acting in Musical Theatre (3)  
 MT 285 Performance in Musical Theatre (2)  
 MT 342 Workshop in Directing Musical Theatre (3)  
 MT 343 Choreographing the Musical (2)  
 MT 360 Scene Study in Musical Theatre (3)  
 MT 370 Musical Theatre Dance (2)  
 MT 390 Advanced Musical Theatre Scene Study (2)  
 \*\*MT 470 Senior Project in Musical Theatre (3)  
 MT 465 Musical Theatre Workshop (3)  
 THEA 100 Individual Performance in Theatre (2) (must be crew work)  
 THEA 160 Beginning Acting (3)  
 THEA 250 Stage Make Up I (1)  
 THEA 260 Scene Study (2)  
 THEA 275 Stage Movement I (1)

**Elective Major Credits - 20 semester hours**

*Select one of the following two courses:*

DNCE 166 Beginning Ballet (2)  
 DNCE 180 Intermediate Ballet (2)

*and select two credits from the following two courses:*

DNCE 170 Jazz Dance (1)  
 DNCE 181 Intermediate Jazz Dance (2)

*and select sixteen credits from the following three courses:*

MT 369 Individual Performance in Musical Theatre Voice (2)  
 MUS 269 Individual Performance in Voice for Those with Non-Voice Emphasis (2)  
 MUS 469 Individual Performance in Voice for Those with Non-Voice Emphasis (2)

**Required Supporting Credits - 26 semester hours**

\* Major Vocal Ensemble (8)  
 MUS 101 Sight-Singing and Theory I (4)  
 MUS 102 Sight-Singing and Theory II (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)  
*and complete the following:*  
 \*\*MUS 407 Individual Coaching in Musical Theatre Repertory (2)  
 \*\* (MT 470 and MUS 407 must be taken concurrently)  
*and select four credits from the following courses:*  
 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)

**Required Specified General Education Credits - 6 semester hours**

*Category 4.a. Arts and Letters*

MT 330 History of Musical Theatre (3)

MUS 140 Introduction to Music (3)

**Elective General Education Credits - 34 semester hours**

Notes:

\* Mixed Concert Choir, Women's Glee Club, Men's Glee Club only.

\* Must attend Voice Department 4:40 pm Recitals as required by the applied voice teacher.

Admission to the Bachelor of Arts with a major in Musical Theatre program is by audition. Students pursuing the degree must complete the required courses as listed above and meet the following requirements:

- Meet all recital and production attendance requirements.
- Meet annual juried audition (assessment) requirements.

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.

## THEATRE ARTS, B.A.

### Program Requirements

**Required Major Credits (Concentration Area) . . . . . 49-55**

**1) Acting, 2) Directing, 3) Design Technology, 4) General Theatre**

**Elective Major Credits . . . . . 0**

**Required Supporting Credits . . . . . 0**

**Required Minor Credits . . . . . 0**

**Required Specified General Education Credits . . . . . 6**

**Required PTEP Credits . . . . . 0**

**Total program credits, 55-61**

**Elective General Education Credits . . . . . 34**

**University Wide Elective Credits . . . . . 25-31**

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

A major in Theatre Arts 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.

#### Required Major Credits – 49-55 semester hours

THEA 135 Playscript Analysis (3)  
 THEA 149 Orientation to Technology (3)  
 THEA 160 Beginning Acting (3)  
 THEA 240 Beginning Stage Directing (3)  
 THEA 250 Stage Make Up I (1)  
 THEA 324 Masterpieces in Theatrical Production (2)

##### 1) \*Acting Concentration Area

#### Required Credits – 35 semester hours

THEA 100 Individual Performance in Theatre (14)  
 THEA 150 Actor's Lab (1)  
 THEA 190 Stage Speech I (1)  
 THEA 191 Stage Speech II (1)  
 THEA 235 Stage Dialects (1)  
 THEA 260 Scene Study (2)  
 THEA 275 Stage Movement I (1)  
 THEA 276 Stage Movement II (1)  
 THEA 335 Advanced Voice Production (1)  
 THEA 360 Advanced Acting Styles I (2)  
 THEA 361 Advanced Acting Styles II (2)  
 THEA 464 Audition Techniques (2)  
 MT 261 Singing for Actors (2)  
 Required Theatre Elective Credits (4)

##### 2) Directing Concentration Area

#### Required Credits – 34 semester hours

THEA 100 Individual Performance in Theatre (14)  
 THEA 190 Stage Speech I (1)  
 THEA 191 Stage Speech II (1)  
 THEA 260 Scene Study (2)  
 THEA 275 Stage Movement I (1)  
 THEA 440 Directing the One-Act Play (1)  
*and select two of the following three courses:*  
 THEA 340 Workshop in Directing I (3)  
 THEA 341 Workshop in Directing II (3)  
 MT 342 Workshop in Directing Musical Theatre (3)  
 Required Theatre Elective Credits (8)

##### 3) Design Technology Concentration Area

#### Required Credits – 40 semester hours

THEA 100 Individual Performance in Theatre (8)  
 THEA 210 Drafting and Painting for the Theatre (3)  
 THEA 220 Stage Costume (3)  
 THEA 230 Stage Lighting Design for the Theatre (3)  
 THEA 300 Advanced Individual Performance in Theatre (8)  
 THEA 310 Beginning Scene Design (3)  
 THEA 349 Intermediate Stagecraft (3)  
 THEA 449 Theatre Technical Seminar (3)  
 THEA 450 Design and Technology Practicum (3)  
 ART 183 Art I (3)

##### 3) Design Technology Concentration - Required Elective Credits – 21 semester hours

ART 332 Watermedia Painting (3)  
 PHYS 343 Digital and Analog Electronics (4)  
 PHYS 347 Optics (4)  
 THEA 221 Costume History (3)  
 THEA 222 Costume Technology I (3)  
 THEA 245 Sound Design (3)  
 THEA 311 Scenic Painting for the Theatre (3)

THEA 320 Stage Costume Design (3)  
 THEA 322 Costume Technology II (3)  
 THEA 332 Advanced Lighting Design for the Theatre (3)  
 THEA 375 Stage Management for the Theatre (3)  
 THEA 410 Advanced Design and Technology (3)  
 THEA 420 Advanced Costume Technical Design (3)  
 THEA 430 Lighting Seminar (3)  
 THEA 445 Advanced Sound Design (3)  
 THEA 480 Theatre Technical Director (3)

*\*\*and select one of the following two courses:*

ART 181 History of Art I (4) (GE Cat. 4.a. Fine Arts)  
 ART 182 History of Art II (4) (GE Cat. 4.a. Fine Arts)

#### 4) General Theatre Arts Option Area

#### Required Credits – 34 semester hours

Required Courses – 15 semester hours  
 THEA 100 Individual Performance in Theatre (14)  
 THEA 150 Actor's Lab (1)

#### 4) General Theatre Arts Option Required Elective Credits – 19 semester hours

MT 342 Workshop in Directing Musical Theatre (3)  
 MT 360 Scene Study in Musical Theatre (3)  
 THEA 220 Stage Costume (3)  
 THEA 230 Stage Lighting Design for the Theatre (3)  
 THEA 275 Stage Movement I (1)  
 THEA 276 Stage Movement II (1)  
 THEA 320 Stage Costume Design (3)  
 THEA 340 Workshop in Directing I (3)  
 THEA 341 Workshop in Directing II (3)  
 THEA 401 Practicum in Theatre (1-4)  
 THEA 420 Advanced Costume Technical Design (3)  
 THEA 440 Directing the One-Act Play (1)

#### Required Specified General Education Credits - 6 semester hours

##### Category 4.a. Arts and Letters

THEA 330 History of Theatre I (3)  
 THEA 331 History of Theatre II (3)

#### \*\*Elective General Education Credits - 34 semester hours

#### University Wide Elective Credits - 25-31 semester hours

**Notes:** \*Admission to the Acting Concentration is by audition only.

The Department of Theatre Arts requires student majors to consult with and be advised by a faculty member teaching in the department.

The student must apply and be accepted to one of the concentration areas by the end of the sophomore year. The student must then complete all of the required courses in the concentration area prior to achieving the Bachelor of Arts in Theatre Arts degree. The exception to this rule are students enrolled in the General Theatre Arts Option.

Students must receive an "A" or "B" in THEA 135 and THEA 149 and THEA 240; formally apply, and receive an outstanding evaluation by the directing faculty in the sophomore level directing assessment.

Any student receiving a grade of "D" or lower in a course in the required core or concentration area must retake the course until a grade of "C" or higher is achieved.

First semester (non-Design Technology Concentration Area) freshmen do not take THEA 100 Individual Performance in Theatre, but are required to take THEA 100 all other academic year semesters in residence.

Attendance at or involvement in all productions of the Little Theatre of the Rockies is required during residency.

The Colorado Commission on Higher Education and this Department requires the completion of a yearly assessment process. 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 concentration area.

**THEATRE ARTS, B.A.****Dance Emphasis****Program Requirements**

Required Major Credits .....	42-43
Elective Major Credits .....	35
Required Supporting Credits .....	0
Required Minor Credits .....	0
Required Specified General Education Credits .....	2
Required PTEP Credits .....	0
<b>Total program credits, 82-84</b>	
Elective General Education Credits .....	38
University Wide Elective Credits .....	3
<b>Total credits required for this degree .....</b>	<b>120-121</b>

The emphasis in dance provides students with the opportunity to train for work with a dance company, for teaching in non-public school settings, or for some form of therapeutic or rehabilitative work. Students can also combine a dance emphasis with pursuit of another major, or with course work in other fields. An apprenticeship, practicum or internship is also part of the dance emphasis.

Those individuals who want to teach dance in a public school setting must obtain a teaching major such as physical education or theatre arts education. These students must also complete the Professional Teacher Education Program (PTEP) as outlined in this Catalog.

**Required Major Credits - 42-43 semester hours***Ballet - 5 semester hours*

DNCE 180 Intermediate Ballet (2)

DNCE 292 Advanced Ballet (3)

*Jazz Dance - 4 semester hours*

DNCE 181 Intermediate Jazz Dance (2)

DNCE 293 Advanced Jazz Dance (2)

*Modern Dance - 4 semester hours*

DNCE 182 Intermediate Modern Dance (2)

DNCE 294 Advanced Modern Dance (2)

Additional technique hours in Dance - 2-3 semester hours

*and complete all of the following courses:*

DNCE 295 Beginning Dance Theory (1)

DNCE 296 Beginning Choreography and Improvisation (2)

DNCE 397 Intermediate Technique, Improvisation and Composition (2)

DNCE 440 Labanotation/Movement Analysis (2)

DNCE 453 Teaching Methods, Rhythmic Analysis and Accompaniment (3)

DNCE 455 Dance Philosophy/Trends (2)

DNCE 456 Advanced Technique, Improvisation and Composition (2)

DNCE 459 Dance Production in High School and College (2)

DNCE 460 Dance Kinesiology (3)

DNCE 480 Junior/Senior Seminar (1)

THEA 100 Individual Performance in Theatre (2)

THEA 149 Orientation to Technology (3)

*and select one of the following courses:*

DNCE 354 Dance Performance I (2)

DNCE 355 Dance Performance II (2)

DNCE 356 Dance Performance III (2)

DNCE 357 Dance Performance IV (2)

**Elective Major Credits - 35 semester hours**

The following electives are chosen under advisement:

Technique classes in ballet, up to 12 total hours; modern and jazz up to 8 hours, *as additional elective credits.*

DNCE 167 Ballroom Dance (1)

DNCE 169 Partnering (1)

DNCE 174 Dance Conditioning (1)

DNCE 183 Intermediate Tap Dance (1)

DNCE 290 Ballet Partnering (1)

DNCE 291 Advanced Ballroom Dance (1)

DNCE 490 Dance Apprenticeship (3)

DNCE 492 Internship in Dance Leadership (3)

DNCE 493 Practicum in Dance Teaching (3)

KINE 221 Biomechanics (3)

KINE 322 Exercise Physiology I (3)

KINE 323 Motor Learning and Development (3)

KINE 380 Prevention and Care of Sports Injuries (2)

KINE 404 Exercise Nutrition and Body Composition (3)

MUS 140 Introduction to Music (3)

MT 370 Musical Theatre Dance (2)

THEA 275 Stage Movement I (1)

*or one of the following two courses:*

KINE 220 Anatomical Kinesiology (3)

PE 200 Weight Training and Conditioning (1)

**Required Specified General Education Credits - 2 semester hours***Category 4.a. Arts and Letters*

DNCE 454 Dance History and Philosophy (2)

**Elective General Education Credits - 38 semester hours**

Notes: Admission to this emphasis is by audition and interview. All new students must take a placement technique class as part of their audition. Students choosing this emphasis must have a 2.7 GPA before enrolling in the practicum experience. Any student receiving a grade of "D" or lower in a course in the emphasis must retake the course until a grade of "C" or higher is achieved. This is with exception of technique classes. A grade of "B" or better must be achieved in a technique class in order to progress to the next level.

Students must obtain card to certify completion of CPR training.

All emphasis students must take a written assessment at the end of the fourth year. Assessments in the areas of modern dance, jazz dance, ballet, choreography, performance and teaching will be done as part of coursework throughout the four years.

**THEATRE ARTS, B.A.**

## Teaching Emphasis

**Program Requirements**

<b>Required Major Credits</b> .....	<b>44</b>
<b>Elective Major Credits</b> .....	<b>3</b>
<b>Required Supporting Credits</b> .....	<b>0</b>
<b>Required Minor Credits (highly recommended)</b> .....	<b>0</b>
<b>Required Specified General Education Credits</b> .....	<b>6</b>
<b>Required PTEP Credits</b> .....	<b>35</b>
<b>Total program credits, 88</b>	
<b>Elective General Education Credits</b> .....	<b>34</b>
<b>University Wide Elective Credits</b> .....	<b>0</b>
<b>Total credits required for this degree</b> .....	<b>122</b>

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.

A major in Theatre Arts with an emphasis in Teaching prepares students to teach drama in grades 7-12.

**Required Major Credits – 44 semester hours**

THEA 100 Individual Performance in Theatre (12)  
 MT 342 Workshop in Directing Musical Theatre (3)  
 THEA 135 Playscript Analysis (3)  
 THEA 149 Orientation to Technology (3)  
 THEA 160 Beginning Acting (3)  
 THEA 190 Stage Speech I (1)  
 THEA 191 Stage Speech II (1)  
 THEA 210 Drafting and Painting for the Theatre (3)  
 THEA 240 Beginning Stage Directing (3)  
 THEA 250 Stage Make Up I (1)  
 THEA 260 Scene Study (2)  
 THEA 275 Stage Movement I (1)  
 THEA 276 Stage Movement II (1)  
 THEA 310 Beginning Scene Design (3)  
 \*THEA 385 Methods of Teaching Drama (3)  
 THEA 440 Directing the One-Act Play (1)

**Elective Major Credits - 3 semester hours**

*and select one of the following two courses:*

THEA 340 Workshop in Directing I (3)  
 THEA 341 Workshop in Directing II (3)

**Required Specified General Education Credits - 6 semester hours**

*Category 4.a. Arts and Letters*

THEA 330 History of Theatre I (3)  
 THEA 331 History of Theatre II (3)

**\*Required PTEP Credits - 35 semester hours****Elective General Education Credits - 34 semester hours**

**Notes:** \*THEA 385 is a PTEP requirement taken concurrently with STEP 363. 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.

Students who are in theatre education must apply for admission to the Professional Teacher Education program (PTEP). Students are responsible for familiarizing themselves with the requirements in the PTEP section of the catalog. It is recommended that application for PTEP be made during the sophomore year, or after completing 30 semester hours of University coursework and no later than the first semester of the junior year. Students must complete the College of Education PTEP requirements (see Theatre Education advisor).

In addition to fulfilling program procedures and course requirements, a theatre education emphasis student must have and maintain a minimum grade point average of 3.0 in Theatre Arts and a 2.80 GPA for overall University coursework. Failure to do so will result in the student's discontinuance from the Theatre Arts/Education emphasis.

All Theatre Education emphasis majors must demonstrate professional promise as a teacher to the satisfaction of the Theatre Arts Faculty.

The Department of Theatre Arts requires student majors to consult with and be advised by a faculty member teaching in the department.

A teaching minor is highly recommended. Students must remember that in the public schools of the State of Colorado more than half the teaching load must be done in the area of licensure. A student desiring this licensure should be prepared for many additional requirements in content and in methods and observation in the minor field.

This program meets the current licensure requirements for teaching drama in the secondary schools of Colorado.

This program meets the current minimum requirements of the North Central Association for teachers of drama.

Attendance at or involvement with all productions of the Little Theatre of the Rockies is required during residency.

The Colorado Commission on Higher Education and this Department require the completion of a yearly assessment process in this emphasis area. The assessment, which includes an evaluation of your year's progress as well as a yearly audition or interview, may be the basis of your continuance in this emphasis area.

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.



## INTERDISCIPLINARY STUDIES, B.A.

### Fine Arts Emphasis

#### Program Requirements

Required Major Credits	9
Elective Major Credits	11-13
Required Supporting Credits	0
Required Minor Credits	0
Required Specified General Education Credits	18-27
Required PTEP Credits	0
<b>Total program credits, 38-49</b>	
Elective General Education Credits	13-22
University Wide Elective Credits	49-69
<b>Total credits required for this degree</b>	<b>120</b>

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 a broad liberal arts education with a specialization in the fine arts.

#### Required Major Credits – 9 semester hours

ENG – Select a 300 level course in English or American Literature (3)

Participation in Music ensembles, Theatre or Music Theatre Productions or creative activities in Visual Arts (6)

#### Elective Major Credits - 11-13 semester hours

*Select one of the following two courses:*

MT 330 History of Musical Theatre (3)

MUS 340 Survey of History and Literature of Jazz (3)

*and select two of the following four courses:*

\*MIND 288 (Under Specified General Education 4.a.)

\*MIND 289 (Under Specified General Education 7.c.)

MIND 293 Play as a Route to Insight and Creation (3)

MIND 297 Creativity in the Arts (3)

*and select one of the following four courses:*

\*\*ART 290 (Under Specified General Education 4.a.)

ART 388 19th Century Art (4)

ART 389 Twentieth Century Art (4)

ART 441 Cultural Studies in the K-12 Curriculum (2)

#### Required Specified General Education Credits - 18-27 semester hours

*Category 4.a. Arts and Letters*

ART 190 Art Appreciation (3)

ENG 262 Masterpieces of World Literature (3)

MUS 140 Introduction to Music (3)

MUS 204 Music Fundamentals and Experiences (3)

MUS 241 Perceiving the Arts (3)

THEA 130 Introduction to the Theatre (3)

\*\*ART 290 Visual Thinking and Visual Images (3)

\*MIND 288 Contemporary Arts Connections (3)

*Category 7.c Interdisciplinary, Multicultural and International Studies*

\*MIND 289 Coming of Age in the Twentieth Century (3)

#### Elective General Education Credits - 13-22 semester hours

#### University Wide Elective Credits - 49-69 semester hours

## VISUAL ARTS, B.A.

### Art Emphasis

#### Program Requirements

Required Major Credits .....	6
Elective Major Credits .....	29
Required Concentration Credits .....	9
Required Supporting Credits .....	0
Required Minor Credits .....	0
Required Specified General Education Credits .....	11
Required PTEP Credits .....	0
Total program credits, 55	
Elective General Education Credits .....	29
University Wide Elective Credits .....	36
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 crafts person. It is an ideal preparatory program for students planning to do advanced or graduate study in art and art history.

#### Required Major Credits – 6 semester hours

Complete the following four Freshman Foundation Courses First

\*ART 181 (Under Specified General Education 4.a.)

\*ART 182 (Under Specified General Education 4.a.)

ART 183 Art I (3)

ART 184 Art II (3)

#### Elective Major Credits – 29 semester hours

Select required art elective credits (13)

At least one advanced art history course must be taken (4)

Art Core I

and select two of the following courses:

ART 231 Painting I (3)

ART 234 Drawing I (3)

ART 252 Printmaking I (3)

ART 271 Basic Photography (3)

Art Core II

and select two of the following courses:

ART 211 Ceramic Design (3)

or

ART 212 Wheel Throwing (3)

ART 221 Introduction to Fiber Arts (3)

ART 261 Sculpture I (3)

ART 265 Jewelry (3)

#### Required Concentration Credits – 9 semester hours

(minimum)

A minimum of nine semester hours must be completed in one of the following areas of concentration (300 level or above courses): art history, bookarts, ceramics, computer art graphics, craft design, drawing, painting, photographic imaging, printmaking or sculpture.

Art Major Credits - Specified:

Drawing Area of Concentration

ART 252 Printmaking I (3)

Painting Area of Concentration

ART 356 Monotypes (3)

#### Required Specified General Education Credits - 11 semester hours

Category 4.a. Arts and Letters (Fine Arts)

\*ART 181 History of Art I (4)

\*ART 182 History of Art II (4)

Category 4.a.c.d. Arts and Letters

MIND 181 Great Traditions of Asia: India, China and Japan (3)

#### Elective General Education Credits - 29 semester hours

#### University Wide Elective Credits - 36 semester hours

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.

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.

**VISUAL ARTS, B.A.****Art Education Emphasis****Program Requirements**

<b>Required Major Credits</b> .....	<b>32</b>
<b>Elective Major Credits</b> .....	<b>3</b>
<b>Required Concentration Credits</b> .....	<b>9</b>
<b>Required Supporting Credits</b> .....	<b>3</b>
<b>Required Minor Credits</b> .....	<b>0</b>
<b>Required Specified General Education Credits</b> .....	<b>8</b>
<b>Required PTEP Credits</b> .....	<b>36</b>
<b>Total program credits, 91</b>	
<b>Elective General Education Credits</b> .....	<b>32</b>
<b>University Wide Elective Credits</b> .....	<b>0</b>
<b>Total credits required for this degree</b> .....	<b>123</b>

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 Major Credits – 32 semester hours**

*Complete the following four Freshman Foundation Courses First*

\*ART 181 (Under Specified General Education 4.a.)

\*ART 182 (Under Specified General Education 4.a.)

ART 183 Art I (3)

ART 184 Art II (3)

*and complete the following courses:*

ART 171 Computer Based Technology in Visual Arts (2)

ART 221 Introduction to Fiber Arts (3)

ART 231 Painting I (3)

ART 234 Drawing I (3)

ART 241 Basic Crafts Design (3)

ART 252 Printmaking I (3)

ART 261 Sculpture I (3)

ART 265 Jewelry (3)

ART 271 Basic Photography (3)

**Elective Major Credits - 3 semester hours**

*and select one of the following two courses:*

ART 211 Ceramic Design (3)

ART 212 Wheel Throwing (3)

**Required Concentration Credits – 9 semester hours**

A minimum of nine semester hours must be completed in one of the following areas of concentration (300 level or above credits): art history, bookarts, ceramics, computer art graphics, craft design, drawing, graphic design, painting, photographic imaging, photographic communications, printmaking, or sculpture.

**Required Supporting Credits- 3 semester hours**

\*\*SPCO 100 Basics of Public Speaking (1)

\*\*SPCO 103 Speaking Evaluation (2)

**Required Specified General Education Credits - 8 semester hours**

*Category 4.a. Arts and Letters*

\*ART 181 History of Art I (4)

\*ART 182 History of Art II (4)

**Required PTEP Credits - 36 semester hours**

*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 Based Experience (2)

EPSY 346 Learning and Development for Teachers (2)

EDF 366 Conceptions of Schooling: Context and Process (4)

EDSE 433 Exceptional Students in the Regular Classroom (2)

EDRD 425 Reading in the Content Areas (1)

EDFE 444 Supervised Teaching (12)

**Elective General Education Credits - 32 semester hours**

**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.

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.

\*\*Full admission to the art education PTE program requires satisfactory completion of SPCO 100 and SPCO 103, equivalent courses from another school, or demonstrated competency in oral English by approved proficiency examination.

\*\*\*Application to the Art Education/PTEP 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 PTEP 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 PTEP.

In addition to fulfilling program procedures and course requirements, an art education student must have and maintain a minimum grade point average of 3.0 in Art and a 2.80 GPA for overall University coursework. Failure to do so may result in the recommendation to discontinue the art education emphasis.

Students must complete the College of Education PTEP requirements (see art education advisor).

Before receiving approval to student teach, an art education student must complete the Comprehensive Art Education PTEP Review. The review is scheduled each semester. Students are advised to complete the review at least two semesters before the semester they plan to student teach. In order to take the comprehensive review, students must have completed the prerequisites and be currently enrolled in the art education emphasis.

Students being reviewed make a presentation to the committee in accordance with the requirements specified in the art education guidelines. All students preparing for the review should work closely with their advisor. At the time of the review, the student is evaluated on the basis of the following: oral presentation, visual presentation, use of media and techniques, design qualities, artistic excellence, knowledge of art and art history, ability to talk about art, intentions of his/her art, knowledge of teaching art, attitude and poise and self-confidence.

The committee will determine whether the student: satisfactorily passes the review and is approved to student teach; passes with stated conditions that must be met before gaining approval to student teach; or fails to pass the review. A student who fails the review will not be approved to student teach, but may apply for a second review the following semester. Failure to pass the review a second time will be considered grounds for terminating the student's art teacher licensure program. The decision of the committee on a second review may be appealed.

Eligibility to student teach is based on the satisfactory completion of the Art Education PTEP review, required and elective art courses, required art education courses, PTEP courses, PLACE examinations and exit or competency examinations as they pertain.

Art students who are not in the art education emphasis and are not seeking licensure, may enroll in art education courses to provide background for teaching art in the helping professions and other related areas, such as community art centers. Appropriate advising is recommended to plan a suitable course of study for a non-licensure program.

## VISUAL ARTS, B.A. Graphic Arts Emphasis

### Program Requirements

Required Major Credits	24
Elective Major Credits	4
Required Concentration Area	44
1) <i>Graphic Design</i> or 2) <i>Photographic Imaging</i>	
Required Supporting Credits	0
Required Minor Credits	0
Required Specified General Education Credits	8
Required PTEP Credits	0
Total program credits, 80	
Elective General Education Credits	32
University Wide Elective Credits	8
Total credits required for this degree	120

The graphic arts emphasis prepares students for careers in the commercial fields of art such as computer art graphics, 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 Major Credits – 24 semester hours

Complete the following four Freshman Foundation Courses First

- ART 181 (Under Specified General Education 4.a.)
- ART 182 (Under Specified General Education 4.a.)
- ART 183 Art I (3)
- ART 184 Art II (3)

#### Core Courses

- ART 231 Painting I (3)
- ART 234 Drawing I (3)
- ART 240 Lettering (3)
- ART 261 Sculpture I (3)
- ART 270 Graphic Arts I (3)
- ART 375 Publication Production (3)

### Elective Major Credits - 4 semester hours

One advanced art history course (4)

### Select one Required Concentration Area - 44 semester hours

#### 1) Computer Art Graphics Concentration (31 semester hours)

- ART 171 Computer Based Technology in Visual Arts (2)
- ART 252 Printmaking I (3)
- ART 271 Basic Photography (3)
- ART 333 Life Drawing (3)
- ART 374 Illustration (3)
- ART 376 Typography (3)
- ART 395 Special Topics in Art (4)
- ART 437 Computer Art (3)
- ART 471 Computer Graphics (3)
- ART 473 Advertising Design (3)
- ART 474 Graphic Studio (1-3)

and complete *Computer Art Graphics* Required Elective Credits (13 semester hours)

#### 2) Graphic Design Concentration (24 semester hours)

- ART 271 Basic Photography (3)
- ART 333 Life Drawing (3)
- ART 370 Graphic Arts II (3)
- ART 374 Illustration (3)
- ART 376 Typography (3)
- ART 434 Drawing II (3)
- ART 473 Advertising Design (3)
- ART 474 Graphic Studio (1-3)

and complete *Graphic Design* Required Elective Credits (20 semester hours)

#### 3) Photographic Imaging Concentration (18 semester hours)

- ART 271 Basic Photography (3)
- ART 371 Photographic Design (3)
- ART 434 Drawing II (3)
- ART 475 Color Photography –Transparencies (3)

- ART 476 Advanced Black and White Photography (3)
- ART 477 Photographic Illustration and Lighting Techniques (3)

and select one of the following two courses:

- ART 472 Photography Studio (3)
- ART 479 Color Photography – The Print (3)

and complete *Photographic Imaging* Required Elective Credits (26 semester hours)

### Required Specified General Education Credits - 8 semester hours

Category 4.a. Arts and Letters

- ART 181 History of Art I (4)
- ART 182 History of Art II (4)

### Elective General Education Credits - 32 semester hours

### University Wide Elective Credits - 8 semester hours

Notes: A portfolio review is required of all art majors at the completion of the Freshman year and/or the Art I and Art II courses. This includes Graphic Arts, Art Education and the Art emphases. The Portfolio Review is designed to serve as an assessment and advising tool for the Department. Art I and Art II, or their equivalent, must be completed before enrollment in any upper level course.

Since graphic arts is a professional program, graphics students should consult with their advisor for help in selecting General Education and general elective courses to augment their studies, strengthen conceptual development and address specific areas of need.

An internship of at least 3 semester hours (ART 492) is strongly recommended for graphic arts students. To be eligible to apply for an internship in graphic arts a student must have a minimum grade point average of 3.0 in Art and a 2.8 GPA for overall University coursework.

### Senior Portfolio

- A portfolio review is required of all senior visual arts majors with an emphasis in art and graphic arts before graduation. The review will consist of work completed by the student in his/her area(s) of specialization and is designed to assess the attainment of departmental objectives.
- The portfolio must meet the criteria and guidelines for senior portfolio review as established by each of the areas of specialization in art. Consult with your advisor concerning the portfolio.

## MINORS – PVA

### DANCE MINOR

#### Program Requirements

Total credits required for this minor ..... 23

#### Required Credits – 23 semester hours

DNCE 180 Intermediate Ballet (2)  
 DNCE 181 Intermediate Jazz Dance (2)  
 DNCE 182 Intermediate Modern Dance (2)  
 DNCE 295 Beginning Dance Theory (1)  
 DNCE 296 Beginning Choreography and Improvisation (2)  
 DNCE 397 Intermediate Technique, Improvisation and Composition (2)  
 DNCE 453 Teaching Methods, Rhythmic Analysis and Accompaniment (3)  
 DNCE 454 Dance History and Philosophy (2)  
 DNCE 456 Advanced Technique, Improvisation and Composition (2)  
 DNCE 459 Dance Production in High School and College (2)  
 KINE 220 Anatomical Kinesiology (3)

**Notes:** The dance minor focuses on the development of skills and teaching strategies that will enhance the student's ability to teach or work with dance in a variety of settings. The Dance minor can be selected by students in conjunction with most other majors at the University. Approval by the major department is required for this minor.

If a student wishes to teach in the public schools, licensure must be obtained through the appropriate major. Suggested combinations of programs of study for public school teacher licensure are a Dance Minor with a Theatre Arts Education major or a Dance Minor plus a Physical Education major. At present there is no public school licensure for dance in Colorado's public schools.

A grade of "B" or better must be achieved in a technique class in order to progress to the next level.

### MUSIC/LIBERAL ARTS MINOR

#### Program Requirements

Required credits ..... 12

Required elective credits ..... 9

Total credits required for this minor ..... 21

#### Required Credits – 12 semester hours

MUS 101 Sight-Singing and Theory I (4)  
 MUS 102 Sight-Singing and Theory II (4)  
 MUS 141 Music Literature and Styles I (2)  
 MUS 142 Music Literature and Styles II (2)

#### Required Elective Credits – 9 semester hours

The student may select courses in music history, theory, literature, performance study or ensemble participation to complete the 21 required hours. A maximum of 4 hours of performance and 2 hours of ensemble participation may apply toward meeting the elective requirements.

### THEATRE ARTS MINOR

#### Program Requirements

Required credits ..... 16

Required elective credits in Theatre Arts ..... 8

Total credits required for this minor ..... 24

#### Required Credits – 16 semester hours

THEA 100 Individual Performance in Theatre (4)  
 THEA 135 Playscript Analysis (3)  
 THEA 149 Orientation to Technology (3)  
 THEA 160 Beginning Acting (3)  
 THEA 240 Beginning Stage Directing (3)

#### Required Elective Credits in Theatre Arts – 8 semester hours

### THEATRE ARTS/TEACHING MINOR

#### Program Requirements

Total credits required for this minor ..... 22

#### Required Credits – 22 semester hours

THEA 100 Individual Performance in Theatre (4)  
 THEA 135 Playscript Analysis (3)  
 THEA 149 Orientation to Technology (3)  
 THEA 160 Beginning Acting (3)  
 THEA 190 Stage Speech I (1)  
 THEA 210 Drafting and Painting for the Theatre (3)  
 THEA 240 Beginning Stage Directing (3)  
 THEA 250 Stage Make Up I (1)  
 THEA 275 Stage Movement I (1)

**Notes:** THEA 385 (3 hours credit) and STEP 363 (2 hours credit) taken in Theatre Arts.

This program does not meet the current licensure requirements of the North Central Association for teachers of drama.

### VISUAL ARTS MINOR

#### Program Requirements

Required core credits ..... 6

Required elective credits ..... 7

Elective credits ..... 7

Total credits required for this minor ..... 20

#### Required Core Credits – 6 semester hours

Select two of the following courses:

ART 211 Ceramic Design (3)

or

ART 212 Wheel Throwing (3)

ART 221 Introduction to Fiber Arts (3)

ART 231 Painting I (3)

ART 252 Printmaking I (3)

ART 261 Sculpture I (3)

#### Required Elective Credits – 7 semester hours

Select one of the following courses:

ART 181 History of Art I (4)

ART 182 History of Art II (4)

and select one of the following courses:

ART 183 Art I (3)

ART 184 Art II (3)

#### Elective Credits – 7 semester hours

Take at least 2 courses, selected from the art department areas of concentration: bookarts, ceramics, computer art graphics, craft design, drawing, graphic design, painting, photographic imaging, printmaking or sculpture.

**Note:** An art minor advisor is required.

## MASTER OF MUSIC (M.M.)

### MUSIC M.M.

#### Choral Conducting Emphasis

##### Program Requirements

Complete the required credits specified here . . . . . 32  
 Complete the program electives specified here . . . . . 4

The Master of Music degree program is designed to assist the graduate candidate in developing advanced professional competencies in choral conducting.

The degree program seeks to broaden and deepen scholarly abilities and research and pedagogical techniques for use in the profession or for instruction in higher education.

##### Admission

In addition to meeting the admission requirements of the Graduate School, the candidate must take the Advisory Examinations in Music History and Literature, Music Theory and writing skills. Candidates with deficiencies will meet with their major advisor and other appropriate faculty to determine the best way to address the deficiencies. An entrance audition is required.

##### Required Credits – 32 semester hours

MUS 550 Score Reading and Analysis (1)  
 MUS 600 Introduction to Musical Scholarship (2)  
 MUS 653 Vocal Literature and Styles (3)  
 MUS 685 Performance in Opera Theatre (2)  
 MUS 693 Practicum in Music (4)  
 Individual Performance in Voice (4)  
 Individual Performance in Conducting (2)  
 Major Performing Organization (2)  
*Studies in Music History and Theory*  
 Music History (6)  
 Music Theory (6)

Studies in Music History and Theory will be selected by advisement based upon candidate's needs identified through advisory examination.

##### Recommended Electives – 4 semester hours

MUS 559 Opera and Oratorio Literature (2)  
 MUS 650 Seminar: Choral Music (2)

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 Catalog, 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.

### MUSIC, M.M.

#### Instrumental Performance Emphasis

##### 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 (2) (Recital and Correlative Paper)  
 Individual Performance (8)  
 Major Performing Organization (2)

String performers will participate in a major ensemble each semester in residence.

*Other Studies in Music*  
 Music History, Music Theory (6)  
 Pedagogy (2-3)

*Other Studies in Music* will be selected by advisement based upon candidate's needs identified through advisory examination.

##### Elective Credits – 7-8 semester hours

Electives will be selected by advisement based upon candidate's needs identified through examination.

**Notes:** Master of Music candidates in performance must present a public recital. This recital should be recorded and a printed program and tape recording should be filed with the School of Music Office and the Music Library.

A correlative paper may be required in conjunction with the recital at the discretion of the individual department.

All graduate students enrolling in the School of Music as majors are expected to attend major recitals, concerts, productions and convocations on a regular basis as part of the course program.

"Residency," when stated in the music section of this Catalog, is interpreted to mean 10 credit hours or more per semester.

Performance emphases are available in bassoon, clarinet, flute, harp, horn, oboe, percussion, keyboard, saxophone, string bass, bass trombone, tenor trombone, trumpet, tuba, tenor tuba, viola, violin, violoncello and voice.

Master of Music candidates will take a written comprehensive examination at a time approved by the major advisor.

## MUSIC, M.M.

### Music Education Emphasis

#### Program Requirements

Complete the required core components specified	12
Complete credits in music studies	10
Complete program electives specified here	8

The Master of Music (Music Education Emphasis) degree program is designed to develop and enrich professional understandings, skills, musical and pedagogical competencies in the field of music education.

#### Admission

The incoming student must meet admission requirements of the Graduate School. The candidate must have completed an undergraduate degree in music or music education. Other candidates may be accepted upon petition to the Music Education Department.

#### Core Components – 12 semester hours

*Studies in the Major Area*

- MUS 519 Foundations of Music Education (3)
- MUS 533 Curriculum Trends in Music Education (3)
- MUS 610 Research in Music Education (3)

Studies in Professional Education to be selected from the following content areas such as: Multicultural Education, Educational Psychology, Educational Foundations or Special Education (3)

#### Credits in Music Studies – 10 semester hours

To be selected in consultation with program advisor (10)

#### Elective Credits in Music and other areas – 8 semester hours

Courses should be based upon the candidate's specialized teaching area and professional goals.

**Notes:** Incoming Master of Music (Music Education Emphasis) 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 (Music Education Emphasis) candidates will write a comprehensive examination at a time approved by the major advisor.

## MUSIC, M.M.

### Music History and Literature Emphasis

#### 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 Catalog.

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.

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 Catalog, is interpreted to mean 10 credit hours or more per semester.

**MUSIC, M.M.****Music Theory and Composition Emphasis****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 to address the deficiencies. Theory and Composition candidates must submit examples of works composed, supported if possible by recordings.

**Prerequisites**

Students entering this area of emphasis must have completed a Bachelor of Music, Bachelor of Music Education, or a Bachelor of Arts in Music degree.

**Required Credits – 33 semester hours**

MUS 509 Electronic Music (3)

MUS 600 Introduction to Musical Scholarship (2)

MUS 603 Analytical Studies in Music (3)

MUS 648 Seminar: Music in the Twentieth Century (3)

MUS 677 Individual Instruction in Composition (8)

MUS 699 Thesis (6) (or original composition)

Music Performing Organization and/or Individual Performance (2)

*Studies in Music History*

Music History (6)

Studies in Music History will be selected by advisement based upon candidate's needs identified through advisory examination.

**Notes:** MUS 502 and MUS 503 may be required if advisors indicate that these courses will significantly increase the strength of the Master of Music program in Theory and Composition.

Students who are able to prove their competency in any of the required courses listed above may substitute electives chosen in consultation with the advisor.

"Residency," when stated in the music section of this Catalog, 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.

**MUSIC, M.M.****Vocal Performance Emphasis****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**

MUS 559 Opera and Oratorio Literature (2)

MUS 600 Introduction to Musical Scholarship (2)

MUS 693 Practicum in Music (1-4) (Recital and Correlative Paper)

Individual Performance (8)

Major Performing Organization (2)

*Studies in the Major Area**and select one of the following two courses:*

MUS 510 Vocal Pedagogy (2)

MUS 564 Problems in Teaching Voice (2)

*and select two of the following courses (4-5 semester hours)*

MUS 536 German Art Song (3)

MUS 538 French/Italian Art Song (2)

MUS 539 British/American Art Song (2)

*and select one of the following two courses:*

MUS 685 Performance in Opera Theatre (2)

*and/or*

MUS 686 Scene Studies in Opera (2)

*Other Studies in Music*

Music History or Music Theory (6)

Other Studies in Music will be selected by advisement based upon candidate's needs identified through advisory examination.

**Elective Credits – 3 semester hours**

**Notes:** Master of Music students in voice must have an entrance audition.

Students in the area of Vocal Performance should have skills in translation of vocal literature in one foreign language (French, German, or Italian) as well as diction mastery of all three. A candidate may challenge any portion of the language requirement.

"Residency," when stated in the music section of this Catalog, 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.



## MUSIC. M.M.

### Wind/Orchestra Conducting Emphasis

#### Program Requirements

Complete the required credits specified here . . . . . 30-31

The Master of Music degree program is designed to assist the graduate candidate in developing advanced professional competencies in wind/orchestra conducting.

The degree program will broaden and deepen scholarly abilities and research and pedagogical techniques for use in the profession or for instruction in higher education.

#### Admission

In addition to meeting the admission requirements of the Graduate School, the candidate must take the Advisory Examinations in Music History and Literature, Music Theory and writing skills. Candidates with deficiencies will meet with their major advisor and other appropriate faculty to determine the best way to address the deficiencies. An entrance audition is required.

#### Prerequisites

The prospective instrumental conducting applicant should have had at least two years of experience in high school teaching or equivalent experience before applying. A personal audition is required.

#### Required Credits – 30-31 semester hours

MUS 550 Score Reading and Analysis (1)

MUS 600 Introduction to Musical Scholarship (2)

MUS 693 Practicum in Music (3)

Individual Performance in Conducting (4)

Individual Performance (major instrument) (2)

Major Performing Organization (2)

*and select one of the following two courses:*

MUS 511 History and Literature of the Wind Band (2)  
(winds)

MUS 512 Symphonic Repertoire (2) (orchestral)

*and select one of the following courses:*

MUS 580 String Techniques for the Conductor (2)

MUS 658 Brass Pedagogy (3)

MUS 661 Percussion Pedagogy (2)

MUS 662 Woodwind Pedagogy (2)

Orchestra conductors must take MUS 580/String Techniques for the Conductor (2 hours). MUS 658/Brass Pedagogy, MUS 661/Percussion Pedagogy, MUS 662/Woodwind Pedagogy are taken with advisement.

*Studies in Music History and Theory*

Music History (6)

Music Theory (6)

Studies in Music History and Theory will be selected by advisement based upon candidate's needs identified through advisory examination.

**Notes:** All graduate students enrolling in the School of Music as majors are expected to attend major recitals, concerts, productions and convocations on a regular basis as part of their course program.

A recorded public recital and correlative paper are required. The performance will be conducted by the candidate and evaluated by the major advisor and instrumental faculty. It is the student's responsibility to file a printed program and tape recording of the performance with the School of Music Office and the Music Library.

Conducting applicants should write to the appropriate director for specific information concerning audition and interview procedures.

"Residency," when stated in the music section of this Catalog, 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 ARTS (M.A.)

## VISUAL ARTS, M.A.

### Program Requirements

Complete the required core credits specified here . . . . .	16
Complete an area of concentration . . . . .	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 concentration in art education, art history, book arts, ceramics, computer art graphics, computer imaging, drawing, painting, photographic imaging, printmaking and book arts, sculpture or an approved combination of these concentration areas.

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 concentration or combinations of concentration 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 60 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 (1-6)

Area of Concentration – 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.

The student, with the approval of the academic advisor and committee, will develop a course of study for the degree program. The approved course of study will be submitted to the graduate coordinator. Changes in the course of study must be approved by the student's academic advisor and committee.

Students having less than 12 semester hours of art history in their undergraduate program will include enough hours of art history to make up the deficiency over and above the semester hours required for a master's degree.

Students are required to have a graduate committee review each semester. The student will submit a written report of the graduate review to the academic advisor and the graduate coordinator. The student assumes responsibility for scheduling graduate reviews each semester. Two consecutive semesters of unsuccessful graduate reviews will be considered grounds for termination of the program.

In conjunction with ART 600, the student will prepare and submit a written thesis proposal. The proposal must be approved by all members of the student's graduate committee before beginning the thesis.

A written thesis is required of all Master of Arts degree candidates in the Department of Visual Arts. For those who select a concentration 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 a concentration 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 concentration in accordance with approved departmental standards. The student's committee must approve the candidate for graduation.

## DOCTOR OF ARTS (D.A.)

### MUSIC, D.A.

#### Music Education Emphasis

##### Program Requirements

Complete the required credits specified here ..... 53  
 Complete program electives specified here ..... 13

This 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 emphasis area places primary emphasis on a comprehensive working knowledge of contemporary music education practices in public schools and college music programs and community cultural life.

The Doctor of Arts in Music at UNC is part of the Western Regional Graduate Program (WRGP) established by the Western Interstate Commission for Higher Education (WICHE). In most cases, WRGP students pay tuition at resident student rates; prospective D.A. students may direct inquiries concerning the WRGP to the School of Music.

##### 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 Studies in Music (3)

SRM 602 Statistical Methods I (3)

SRM 603 Statistical Methods II (3)

EDF 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 Arts in Music candidates will take written and oral comprehensive examinations at a time approved by the major advisor.

### MUSIC, D.A. REQUIREMENTS

#### EMPHASIS AREAS:

**Music History and Literature; Music Performance; Music Theory and Composition; Performance and Pedagogy**

**Notes:** 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 – 14 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.A. in Music Education, 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.

## MUSIC, D.A.

### Conducting Emphasis

#### Program Requirements

Complete the required credits specified here ..... 52-56  
 Complete program electives ..... 14

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. The Doctor of Arts in Music at UNC is part of the Western Regional Graduate Program (WRGP) established by the Western Interstate Commission for Higher Education (WICHE). In most cases, WRGP students pay tuition at resident student rates; prospective D.A. students may direct inquiries concerning the WRGP to the School of Music.

#### 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.

See "Music, D.A. Requirements" on page 284.

#### Required Credits – 52-56 semester hours

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)

## MUSIC, D.A.

### Music History and Literature Emphasis

#### Program Requirements

Complete the required credits specified here ..... 52-56  
 Complete program electives ..... 14

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. The Doctor of Arts in Music at UNC is part of the Western Regional Graduate Program (WRGP) established by the Western Interstate Commission for Higher Education (WICHE). In most cases, WRGP students pay tuition at resident student rates; prospective D.A. students may direct inquiries concerning the WRGP to the School of Music.

#### 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.

See "Music, D.A. Requirements" on page 284.

#### Required Credits – 52-56 semester hours

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)

## MUSIC, D.A.

### Music Performance Emphasis

#### Program Requirements

Complete the required credits specified here ..... 52-56  
 Complete program electives ..... 14

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. The Doctor of Arts in Music at UNC is part of the Western Regional Graduate Program (WRGP) established by the Western Interstate Commission for Higher Education (WICHE). In most cases, WRGP students pay tuition at resident student rates; prospective D.A. students may direct inquiries concerning the WRGP to the School of Music.

#### 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.

See "Music, D.A. Requirements" on page 284.

#### Required Credits – 52-56 semester hours

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)

## MUSIC, D.A.

### Music Theory and Composition Emphasis

#### Program Requirements

Complete the required credits specified here ..... 52-56  
 Complete program electives ..... 14

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. The Doctor of Arts in Music at UNC is part of the Western Regional Graduate Program (WRGP) established by the Western Interstate Commission for Higher Education (WICHE). In most cases, WRGP students pay tuition at resident student rates; prospective D.A. students may direct inquiries concerning the WRGP to the School of Music.

#### 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.

See "Music, D.A. Requirements" on page 284.

#### Required Credits – 52-56 semester hours

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)

## MUSIC, D.A.

### Performance and Pedagogy Emphasis

#### Program Requirements

Complete the required credits specified here . . . . . 52-56  
Complete program electives . . . . . 14

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. The Doctor of Arts in Music at UNC is part of the Western Regional Graduate Program (WRGP) established by the Western Interstate Commission for Higher Education (WICHE). In most cases, WRGP students pay tuition at resident student rates; prospective D.A. students may direct inquiries concerning the WRGP to the School of Music.

#### 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.

See "Music, D.A. Requirements" on page 284.

#### Required Credits – 52-56 semester hours

- 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)

# COURSE DESCRIPTIONS

## UNC COURSE PREFIXES, 2001-2002

AFS - Africana Studies (289)  
ANT - Anthropology (289)  
ART - Visual Arts (291)  
AS - Aerospace Studies (295)  
AST - Astronomy (296)  
BA - Business Administration (296)  
BAAC - Accounting (296)  
BACS - Computer Information Systems (297)  
BAFN - Finance (298)  
BAMG - Management (299)  
BAMK - Marketing (300)  
BCHM - Biochemistry (301)  
BIED - Biology Education (301)  
BIO - Biology (301)  
BOT - Botany (302)  
CED - Computer Education (303)  
CG - Computing, General (303)  
CH - Community Health (303)  
CHED - Chemistry Education (305)  
CHEM - Chemistry (305)  
CIE - Center for International Education (307)  
CHIN - Chinese (307)  
CMDS - Communication Disorders (307)  
CS - Computer Science (310)  
DNCE - Dance (310)  
ECON - Economics (312)  
EDEC - Elementary Education: Early Childhood (313)  
EDEL - Elementary Education (315)  
EDF - Foundations of Education (316)  
EDFE - Educational Field Experiences (317)  
EDLD - Education of Linguistically Different (318)  
EDLS - Educational Field Experience: Laboratory School (318)  
EDMG - Elementary Education: Middle Grades (318)

EDMS - Elementary Education: Middle School (319)  
EDRD - Elementary Education: Reading (319)  
EDSE - Special Education (322)  
EED - English Education (327)  
ELPS - Educational Leadership and Policy Studies (327)  
ENG - English (328)  
ENST - Environmental Studies (331)  
EPSY - Educational Psychology (332)  
ESCI - Earth Sciences (333)  
ESL - English as a Second Language (334)  
ET - Educational Technology (334)  
FL - Foreign Languages (335)  
FND - Food, Nutrition and Dietetics (336)  
FR - French (337)  
GEOG - Geography (338)  
GEOL - Geology (340)  
GEP - General Education Pilot (341)  
GER - German (342)  
GERO - Gerontology (343)  
HESA Higher Education and Student Affairs Leadership (344)  
HHS - Health and Human Sciences (345)  
HISP - Hispanic Studies and MAS - Mexican American Studies (346)  
HIST - History (347)  
HON - Honors Program (350)  
HRS - Human Rehabilitative Services (350)  
HUM - Humanities (352)  
ID - Interdisciplinary Studies (352)  
JAPN - Japanese (352)  
JMC - Journalism and Mass Communications (352)  
KINE - Kinesiology (353)  
LIB - University Libraries (355)  
MATH - Mathematics (355)  
MCS - Multicultural Studies (358)

MED - Mathematics Education (358)  
MET - Meteorology (359)  
MIND - Life of the Mind Program (360)  
MS - Military Science (361)  
MT - Musical Theatre (361)  
MTEC - Medical Technology (362)  
MUS - Music (362)  
NURS - Nursing (371)  
OCN - Oceanography (374)  
PE - Physical Education (374)  
PHIL - Philosophy (378)  
PHYS - Physics (379)  
PLP - Presidential Leadership Program (380)  
PPSY - Professional Psychology (380)  
PSCI - Political Science (384)  
PSY - Psychology (385)  
REC - Recreation (387)  
RUS - Russian (387)  
SCED - Science Education (388)  
SCI - Science (388)  
SOC - Sociology (389)  
SOSC - Social Science (391)  
SPAN - Spanish (391)  
SPCO - Speech Communication (394)  
SRM - Statistics and Research Methods (395)  
STAT - Statistics (397)  
STEP - Secondary Teacher Education Program (397)  
TED - Teacher Education (397)  
TESL - Teaching English as a Second Language (398)  
THEA - Theatre Arts (398)  
WS - Women's Studies Program (400)  
ZOO - Zoology (401)



**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 and 700 ranges. Qualified juniors and seniors may be admitted to 500 level 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 Catalog, but will appear in the *Schedule of Classes*. For example, a new course in Geology might be GEOL 398.

The permanent course number will be implemented in the next Catalog.

**Course Prefixes.** In addition to a number that identifies where a course fits within a discipline, each course is assigned a prefix that identifies the appropriate discipline, field or department. For example, the numerical designations for the courses in Communication Disorders are preceded by CMDS; the numerical designations for courses in Mathematics are preceded by MATH; and the numerical designations for courses in Visual Arts are preceded by ART.

**Course Credit.** As indicated elsewhere in this Catalog, 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 Catalog so indicates and only up to the maximum number of credits shown.

Students may register in a course for "no credit," but must pay the appropriate tuition and fees. No audit or visitor cards are issued.



## AFS - AFRICANA STUDIES

### AFS 100 Introduction to Black Studies (3)

Reviews the emergence of Black Studies as an interdisciplinary field and also presents a rudimentary panorama of African American history. Methodological questions and intellectual debates within the field are introduced.

### AFS 101 Crisis of Identity (3)

Addresses social conditions that lead to formation of black identity in America. Of special interest are Negro-to-Black conversion experience, concept of racism, subordination and role of Afro-American culture.

### AFS 102 The Black Woman in America (3)

Review the contributions of African American women historically in this country in the areas of social and political struggle, education, business, science and sports.

### AFS 104 Survey of Africa (3)

Explores the geography, culture, philosophy, history, art, politics, economics, women and literature of Africa.

### AFS 201 African American History I (3)

A survey of the black experience from the African homeland to initial capture, enslavement and emancipation – 1619 - 1865.

### AFS 202 African American History II (3)

Examines the lives of African Americans from emancipation to the present.

### AFS 222 Black Nationalism in America (3)

Black Nationalism as an aspect of African American political and cultural belief receives attention here. Major figures include Richard Allen, David Walker, Henry M. Turner, Marcus Garvey and others.

### AFS 230 Black Women in Literature (3)

A study of black women writers in Africa and the African Diaspora.

### AFS 240 Dynamics of Racism (3)

Racism, its social connection to human physical difference (i.e. race) studied. References made to African/European relations, development of racist thought, major sociological models used in United States, re: race relations.

### AFS 305 Survey of African American Literature (3)

Prerequisite: ENG 122. Literature by people of African descent receives selective attention: representative African, Latin American, Caribbean, African American works are explored. Genres such as political tract, novel, essay, autobiography, folk literature are considered at various historical junctures.

### AFS 332 Pan-Africanism (3)

Traces the development of Pan-Africanism on the African Continent and its effects in African American, Latin American and Caribbean contexts.

### AFS 340 The Black Family (3)

A social system approach to the study of the African American family, dynamics of family relationships and effects of social, political and economic institutions on black family life.

### AFS 360 Music and the Black Experience (3)

The historical, thematic and stylistic development of black music from ancient Africa to the present.

### AFS 386 Modern African World (3)

Comparison of various nationalist movements of the African Continent that led to liberation and independence and emphasis on African experience since the 16th Century.

### AFS 395 Aspects of the African-American Experience (3)

Topics include Afro-American cultures, black psychology and black media. Repeatable, under different subtitles.

### AFS 396 African and African American World Views (3)

African and African American world views. A study of the philosophy of people of African descent from ancient Africa to the New World.

### AFS 399 Community Study Project (1-4)

Do field work in a community-based project in housing, education or social services. Repeatable, maximum of four credits.

### AFS 420 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.

### AFS 422 Directed Studies (1-4)

Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

### AFS 456 Leadership and the Black Church (3)

Investigates the role of the Black Church in the development of the African American family, philosophy and leadership style from slavery to the present.

### AFS 486 Current Issues in Multicultural Education (3)

Explores different pedagogical and methodological strategies for understanding and teaching multicultural and diversity issues in the classroom.

### AFS 490 Seminar in Black Studies (3)

Prerequisites: AFS 100, AFS 104, AFS 201, AFS 202 or consent of instructor. Preparation for advanced reading and research in Black Studies. Topics regularly address theories, research methodology and issues of current interest in Black Studies research. Consultation on research project chosen by student is also required.

### AFS 508 Workshop (1-3)

A variety of workshops on special topics within the discipline. Goals and objectives will emphasize the acquisition of general knowledge and skills in the discipline. Repeatable, under different subtitles.

### AFS 513 Professional Renewal (1-3)

Update skills and knowledge of professionals in the discipline. Goals and objectives will be specifically directed at individual professional enhancement rather than the acquisition of general discipline knowledge or methodologies. S/U or letter graded. Repeatable, under different subtitles.

## ANT - ANTHROPOLOGY

### ANT 100 Introduction to Anthropology (3)

An introduction to archaeology, physical and cultural anthropology and linguistics, emphasizing the comparative approach and an evolutionary perspective.

### ANT 110 Introduction to Cultural Anthropology (3)

A course in the concept of culture, how cultural processes work, variation in cultural practices, the method of cross-cultural comparison and culture change.

### 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)

Prerequisite: ANT 100 or ANT 110 or GEOG 100 or SOC 100 or equivalent. Introduction to fieldwork methods in cultural anthropology. Study ethnographic techniques through first-hand investigation of other cultures.



**ANT 220 Archaeological Research Methods (3)**

Prerequisite: ANT 100 or ANT 120 or equivalent. Review field methods and laboratory techniques utilized in prehistoric archeology. Topics include locational analysis, stratigraphy, typological analysis, dating techniques and research publication.

**ANT 230 Anthropometrics (3)**

Learn skills of measuring and analyzing information on human biological variability. Topics include the analysis of physique, habitual activity analysis, health screening and statistical techniques for describing samples of data.

**ANT 310 World Cultures (3)**

Prerequisite: ANT 100 or ANT 110 or GEOG 100 or SOC 100. In-depth study of selected world cultures representing a variety of subsistence technologies and levels of sociocultural integration.

**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: ANT 100 or ANT 110 or GEOG 100 or SOC 100 or equivalent. Study the processes by which cultures change and modernize, focusing on economic, political, legal and symbolic concerns in developed and developing nations.

**ANT 314 Sex Roles in a Cross-Cultural Perspective (3)**

Study biologically and culturally determined gender role differences by comparing sex-related behavior in a variety of cultures.

**ANT 315 Life History and Culture (3)**

A course in ethnographic writing focusing on methods of life history/life cycle research and analysis. Students will learn cultural interviewing techniques and will complete a written life history.

**ANT 317 Contemporary Native American Issues (3)**

Deals with the cultural, historical, social, political and legal analysis of the status of contemporary American Indians in the United States.

**ANT 318 Native American Women (3)**

Prerequisite: ANT 312. Examine the role and status of Native American women. The traditional roles, the changes that have occurred as a result of contact and the contemporary period are examined.

**ANT 321 Prehistory of the Americas (3)**

Prerequisites: ANT 100 or ANT 120, or equivalent. Study selected prehistoric American Indian cultures with an anthropological focus. This course covers the time from the peopling of the New World to European discovery.

**ANT 323 Ancient Civilizations (3)**

Prerequisite: ANT 100 or ANT 120 or equivalent. A comparative study of the rise of state societies throughout the world with focuses on the Near East, Africa, Asia, South America and Mesoamerica.

**ANT 324 Southwest United States Archaeology (3)**

Prerequisite: ANT 100 or ANT 120 or equivalent. Southwest United States archaeology reviewed from Paleo-Indian to historic times. Emphasis on environment and culture adaptation, particularly of Colorado's ancient Pueblo Anasazi peoples.

**ANT 325 Fieldwork in Archaeology (4)**

Prerequisite: ANT 100 or ANT 120 or equivalent. Required laboratory arranged. Introduction to archaeological field methods through participation in an archaeology field school experience. Students will participate in an on-going archaeological research project for four weeks during the summer. Participation fee.

**ANT 330 Forensic Anthropology (3)**

Prerequisite: ANT 130 or ANT 120 or SOC 141 or equivalent. Required laboratory arranged. A course in human osteology emphasizing skeletal anatomy and the identification of age, sex, stature, pathology and race in skeletal material. Archaeological, paleontological and forensic applications will be presented.

**ANT 408 Workshop in Anthropology (3-12)**

Consent of instructor. Topics in practicing anthropology. Group experiences in working on selected problems in anthropology. Repeatable, under different subtitles.

**ANT 420 Scientific Research in Archaeology (3)**

Required laboratory arranged. An advanced methods and scientific research and writing course dealing with data collection, analysis and interpretive techniques used in archaeology. The course employs an interdisciplinary, field and laboratory-based, hands-on approach.

**ANT 422 Directed Studies (1-4)**

Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

**ANT 430 Human Evolutionary Anatomy (3)**

Prerequisites: ANT 100 or ANT 120 or ANT 130 or consent of instructor. This course is a detailed study of the structure and functions of the human musculoskeletal system in an evolutionary context. Evolutionary changes in the human form and comparative primate anatomy will be emphasized.

**ANT 470 Seminar in Anthropology (3)**

Prerequisite: ANT 100, or ANT 130, or GEOG 100 or SOC 100 or equivalent. A seminar exploring diverse topics surrounding the question of defining human nature. Repeatable, maximum of nine credits under different subtitles.

**ANT 480 Theory and Practice in Anthropology (3)**

Prerequisite: ANT 100 or equivalent. A seminar on the relations between anthropological theories of culture and social process and the practice of anthropological observation and analysis.

**ANT 492 Internship (3-12)**

Prerequisites: 9 hours of ANT courses. Anthropological field experiences in ethnology, museology, education, government or politics. Repeatable, may be taken 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 520 Scientific Research in Archaeology (3)**

Prerequisite: ANT 220. Required laboratory arranged. An advanced methods and scientific writing course dealing with analytical procedures and interpretive techniques used in modern archaeology. The course will stress interpretation utilizing comparative collections, reference resources and scientific instruments.

**ANT 525 Fieldwork in Archaeology (4)**

Prerequisite: ANT 100 or ANT 120 or equivalent. Required laboratory arranged. Introduction to archaeological field methods through participation in an archaeology field school experience. Students will participate in an on-going archaeological research project for four weeks during the summer. Participation fee.

**ANT 570 Seminar in Anthropology (3)**

Prerequisite: ANT 100 or ANT 130 or GEOG 100 or SOC 100 or equivalent. A seminar exploring diverse topics surrounding the question of defining human nature. Repeatable, maximum of nine credits, under different subtitles.

**ANT 580 Theory and Practice in Anthropology (3)**

Prerequisite: ANT 100 or equivalent. A seminar on the relations between anthropological theories of culture and social process and the practice of anthropological observation and analysis.

**ANT 622 Directed Studies (1-4)**

Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

**ART - VISUAL ARTS****ART 171 Computer Based Technology in Visual Arts (2)**

Principles and practices in applying computer graphics in the visual arts. General computer orientation: hardware/software configuration. Peripherals. Students will create electronically generated art graphics using newest electronic technologies. No experience in computer science is required.

**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.

**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.

**ART 190 Art Appreciation (3)**

Non-majors only. Required for Elementary Education certification. Introduction to further enhance an understanding and appreciation of the functional and expressive nature of architecture, painting, sculpture and the applied arts.

**ART 210 Ceramics for Non-Art Majors (3)**

Explore the historical development of pottery and the contemporary craft person's attitude toward clay, in addition to receiving instruction in basic design, hand building of ceramic forms and methods of firing.

**ART 211 Ceramic Design (3)**

Prerequisite: ART 183 and ART 184 or instructor consent. 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.

**ART 212 Wheel Throwing (3)**

Prerequisite: ART 183 and ART 184 or instructor consent. Begin throwing on the potter's wheel. Learn techniques of centering, opening and raising clay into basic pottery forms.

**ART 221 Introduction to Fiber Arts (3)**

Prerequisite: ART 183 and ART 184 or instructor consent. A studio course involving several fiber construction processes and fabric surface treatments in two or three dimensions.

**ART 223 Weaving (3)**

Prerequisite: ART 183 and ART 184 or instructor consent. Introduction to the fundamentals of loom weaving as an art form, emphasizing applied design problems.

**ART 230 Drawing for Non-Art Majors (3)**

Study of the history of the development of drawing and its importance as an expressive medium in the evolution of mankind. Studio experience in drawing fundamentals.

**ART 231 Painting I (3)**

Prerequisites: ART 183, ART 184. Fundamentals of painting. Materials and techniques in basic procedures of studio painting using acrylic paint.

**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.

**ART 240 Lettering (3)**

Prerequisite: ART 183 and ART 184 or instructor consent. Receive studio practice and study the history of lettering and manuscripts. For the student with little or no experience in art.

**ART 241 Basic Crafts Design (3)**

Prerequisite: ART 183 and ART 184 or instructor consent. 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.

**ART 248 Art for the Exceptional Child (2)**

Overview characteristics, needs and instruction adaptations suitable for teaching Visual Arts to the exceptional learner.

**ART 252 Printmaking I (3)**

Prerequisites: ART 183 and ART 184 or equivalent. Introduction to intaglio printmaking techniques, including drypoint, engraving and etching in black and white. Traditional and experimental approaches are explored.

**ART 261 Sculpture I (3)**

Prerequisite: ART 183 and ART 184 or instructor consent. Introduction to materials, processes and concepts fundamental to making sculpture.

**ART 265 Jewelry (3)**

Prerequisite: ART 183 and ART 184 or instructor consent. Introduction to materials, processes and concepts basic to making jewelry.

**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.

**ART 271 Basic Photography (3)**

Consent of Instructor. Learn fundamentals of photography. Study principles of black and white photography, including exposing, processing, printing and finishing techniques.

**ART 290 Visual Thinking and Visual Images (3)**

Explore concepts of visual thinking, communication and the meaning of visual images as icons, signs and symbols. Analyze visual images and art objects for consideration of theme, subject matter, purpose and context. Learn and apply strategies for visual problem solving.

**ART 308 Workshop in Art (1-4)**

Arts workshops are for the study of specialized areas in art, art education, art history, graphic arts and related fields. Specific workshop content is determined by subtitle. Repeatable, no limitation.

**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. Repeatable, may 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.

**ART 321 Fiber Design (3)**

Prerequisite: ART 221. Continue the study and exploration of fiber construction and fabric surface treatments with emphasis on their design applications.

**ART 331 Painting II (3)**

Prerequisite: ART 231 and either ART 234 or ART 333. Development of individual expression in studio painting and development of mastery of the medium in either acrylic or oil paints.

**ART 332 Watermedia Painting (3)**

Prerequisite: ART 231. Exploration of and rendering skills in watercolor and/or acrylic, gouache. Repeatable, may be taken two times.

**ART 333 Life Drawing (3)**

Prerequisite: ART 234. Fundamentals of life drawing emphasizing proportions, anatomy and aesthetic relationships. Repeatable, may be taken one time.

**ART 340 Clinical Experience: K-12 Art (2)**

For Art Education majors. Full admittance 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 admittance 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.

**ART 353 Intaglio Printmaking (3)**

Prerequisite: ART 183 and ART 184 or instructor consent; and 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.

**ART 354 Relief Printmaking (3)**

Prerequisite: ART 183 and ART 184 or instructor consent. Investigations in relief printmaking media including linoleum cuts, wood cuts, wood engravings and collographs printed in black and white and in color. Repeatable, may be taken two times.

**ART 355 Silkscreen Printmaking (3)**

Prerequisite: ART 252 or equivalent. Study the silkscreen stencil process of printmaking, including the use of photosensitized screens and color on all levels. Repeatable, may be taken three times.

**ART 356 Monotypes (3)**

Prerequisite: ART 183 and ART 184 or instructor consent. 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.

**ART 357 Artist's Books: Structures and Concepts (3)**

Prerequisite: ART 183 and ART 184 or instructor consent. Investigations in traditional and experimental approaches to creating handmade books. Original solutions and craft are emphasized. Repeatable, may be taken two times.

**ART 361 Sculpture II (3)**

Prerequisite: ART 261. Basic instruction in specific sculptural processes including modeling, casting, welding, fabrication, carving, etc. Repeatable, may be taken two times.

**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.

**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.

**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.

**ART 375 Publication Production (3)**

Prerequisite: ART 271. 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.

**ART 376 Typography (3)**

Prerequisite: ART 370. Survey and exploration of type and letter-forms. Origins and applications of type and the aesthetics of type. For the intermediate student.

**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 hand built ceramic forms. An exploration of stoneware, raku and sodium vapor firing processes. Repeatable, may be taken two times.

**ART 415 Ceramic Studio (1-3)**

Consent of instructor. Individualized or specialized study on specific topics in ceramics. Repeatable, may be taken two times.

**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, may be taken two times.

**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, may be taken two times.

**ART 425 Fibers Studio (1-3)**

Consent of instructor. Individualized or specialized study on specific topics in fibers. Repeatable, may be taken two times.

**ART 431 Painting III (3)**

Prerequisite: ART 331. Continued development of individual expression and mastery of the medium in either acrylic or oil paints. Emphasis on appropriate use of medium toward creative ends. Repeatable, may be taken two times.

**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, may be taken two times.

**ART 435 Drawing Studio (1-3)**

Consent of instructor required. Individualized or specialized study on specific topics in drawing. Repeatable, may be taken two times.

**ART 436 Painting Studio (1-3)**

Consent of instructor required. Individualized or specialized study on specific topics in painting. Repeatable, may be taken two times.

**ART 437 Computer Art (3)**

Principles and practices for applying computer graphics to the visual arts. In this class the participants will create art projects with the use of the computer. They will gain some knowledge about hardware and software configurations, and trends in computer art and technology.

**ART 440 Foundations of Art Education (2)**

Prerequisite: Full admittance 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 admittance 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 admittance to PTEP or certification at the undergraduate level. Study curriculum development and art learning activities appropriate for instruction in elementary and secondary art education.

**ART 443 Computer Technology in Art Education (2)**

Consent of instructor. Full admittance 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.

**ART 455 Printmaking Studio (1-3)**

Consent of instructor required. Individualized or specialized study on specific topic in printmaking. Repeatable, may be taken two times.

**ART 460 Sculpture Studio (1-3)**

Prerequisites: ART 261, ART 361. Self-directed studies in selected sculptural modes or processes. Repeatable, may be taken two times.

**ART 461 Sculpture III (3)**

Use of increasingly skilled or sophisticated techniques/processes with greater emphasis on idea, form and content. Repeatable, may be taken three times.

**ART 464 Jewelry Studio (1-3)**

Prerequisite: ART 265. Consent of instructor required. Individualized or specialized study on specific topic in jewelry. Repeatable, may be taken three times.

**ART 465 Advanced Jewelry (3)**

Prerequisite: ART 265. Extension of increasingly skilled and sophisticated techniques/processes in jewelry and metalwork. Repeatable, may be taken two times.

**ART 466 Visual Arts Student Teaching Seminar (1)**

Corequisite: EDFE 444. Full admittance to PTEP or certification at the undergraduate level. This seminar is designed to provide persons actively involved in the student teaching program in Visual Arts with a support system and pertinent information to assist them during their field experience.

**ART 471 Computer Graphics (3)**

The course is designed to introduce principles and practices in computer graphics and to develop knowledge related to design and page layout.

**ART 472 Photography Studio (1-3)**

Instructor consent. Individualized or specialized study in photography. Repeatable, may be taken two times.

**ART 473 Advertising Design (3)**

Prerequisite: ART 376. A studio and workshop approach to concept, layout and finished art/design for applied graphics in the advertising profession. Repeatable, may be taken three times.

**ART 474 Graphic Studio (1-3)**

Consent of instructor. Individualized or specialized study on specific topics in graphics. Repeatable, may be taken two times.

**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.

**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.

**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.

**ART 479 Color Photography – The Print (3)**

Prerequisites: ART 271, ART 475. Discover and apply current methods and techniques of color printing from negatives and transparencies.

**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. Repeatable, no limitations.

**ART 508 Workshop (1-4)**

A variety of workshops on special topics within the discipline. Goals and objectives will emphasize the acquisition of general knowledge and skills in the discipline. Repeatable, no limitation.

**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, may be taken two times.

**ART 513 Professional Renewal (1-3)**

Update skills and knowledge of professionals in the discipline. Goals and objectives will be specifically directed at individual professional enhancement rather than the acquisition of general discipline knowledge or methodologies. S/U or letter graded. Repeatable, under different subtitles.

**ART 514 Ceramic Equipment and Materials (3)**

Prerequisite: ART 512 or equivalent. An investigation of ceramic materials, kilns and studio equipment that will provide the prospective potter or teacher with essential advanced level technical and practical knowledge.

**ART 521 Fiber Design (3)**

Advanced design techniques in fibers. Repeatable, may be taken two times.

**ART 523 Weaving (3)**

Concentrate in a selected area of weaving on an advanced design concept. Repeatable, may be taken two times.

**ART 532 Watermedia Painting (3)**

Advanced work in specific watermedia. Development of thematic imagery and personal technical skills. Repeatable, may be taken two times.

**ART 533 Life Drawing (3)**

Prerequisite: ART 333 or equivalent. Advanced life drawing emphasizing development of personal interpretations of the human form. Repeatable, may be taken two times.

**ART 537 Computer Art (3)**

Principles and practices for applying computer graphics to the visual arts. In this class the participants will create art projects with the use of the computer. They will gain some knowledge about hardware and software configurations, and trends in computer art and technology.

**ART 538 History of Computer Art Graphics (4)**

Prerequisite: Select one of the following courses: ART 171, ART 437, ART 537, ART 443, ART 471, ART 571. Explore history; learn various facts and aspects related to computer graphics, computer art, animation, interactive art, www, and other forms of using computer for artistic creation. Describe, analyze interpret, judge and contrast visual images and art concepts. How to critique and contrast various approaches to artistic creation using computer based technologies, considering artistic quality and technological solutions.

**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, may be taken two times.

**ART 553 Advanced Intaglio Printmaking (3)**

Prerequisite: ART 353 or consent of instructor. Advanced investigations in intaglio printmaking techniques, including color printing. Individual imagery and technical mastery will be emphasized. Repeatable, may be taken three times.

**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 three times.

**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, may be taken two times.

**ART 556 Advanced Monotypes (3)**

Prerequisite: ART 356 or consent of instructor. Advanced investigations in monotype and monoprint techniques. Individual imagery and technical mastery are emphasized. Repeatable, may be taken three times.

**ART 557 Advanced Artist's Books: Structures and Concepts (3)**

Prerequisite: ART 357 or consent of instructor. Advanced investigations in traditional and experimental approaches to creating artist's books. Emphasis is on development of original solutions and mastery of traditional and innovative techniques. Repeatable, may be taken three times.

**ART 561 Graduate Sculpture (3)**

Self directed or assigned work in specific areas of sculpture. Advanced technical skills emphasized. Repeatable, may be taken two times.

**ART 571 Computer Graphics (3)**

Designed to introduce principles and practices in computer graphics and to develop knowledge related to design and page layout.

**ART 575 Color Photography – Transparencies (3)**

Prerequisite: ART 271 or equivalent. Improve and develop individual creative skills in color photography using transparency materials. Learn to plan and produce multi-projector presentations using current materials, tools and processes.

**ART 576 Advanced Black and White Photography (3)**

Prerequisite: ART 271 or equivalent. Refine and improve individual skills in black and white photography. Study film and print manipulation with silver and non-silver materials.

**ART 577 Photographic Illustration and Lighting Techniques (3)**

Prerequisite: ART 271 or equivalent. Learn creative lighting techniques for illustration and portraiture. Study available light and studio lighting for black and white and color photography.

**ART 595 Special Topics in Art (1-4)**

Study special topics in the Visual Arts. Specific course content is determined by subtitle. Repeatable, under different subtitles.

**ART 600 Graduate Research in Art (3)**

Prerequisite: ART 500. Learn appropriate art, art historical and art education research methodology and procedures for inquiry. Present research according to approved style guidelines. Review Art program and Graduate School requirements.

**ART 611 Ceramic Design (3)**

Design and assembly of hand built ceramic forms at an advanced level. An exploration of stoneware, raku and sodium vapor firing processes. Repeatable, may be taken two times.

**ART 615 Ceramic Studio (1-3)**

Consent of instructor required. Individualized or specialized study on specific topics in ceramics. Repeatable, may be taken two times.

**ART 621 Fiber Design (3)**

Prerequisite: ART 521. Continue advanced study of techniques and design concepts in fibers. Repeatable, may be taken two times.

**ART 622 Directed Studies in Art (1-4)**

Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

**ART 623 Weaving (3)**

Prerequisite: ART 523. Continue advanced study of techniques and design concept in a concentrated area of weaving. Repeatable, may be taken two times.

**ART 625 Fibers Studio (1-3)**

Consent of instructor. Individualized or specialized study on specific topic in fibers. Repeatable, may be taken two times.

**ART 631 Painting (3)**

Prerequisite: ART 431 or equivalent. Advanced problems in painting in either acrylic, oils or watercolor. Emphasis is on development of personal imagery and working in a series, thematic development. Repeatable, may be taken two times.

**ART 634 Drawing (3)**

Advanced work in development on thematic imagery, inventive media, unique and personal solutions to visual problems. Repeatable, may be taken two times.

**ART 635 Drawing Studio (1-3)**

Consent of instructor required. Individualized or specialized study on specific topics in drawing. Repeatable, may be taken two times.

**ART 636 Painting Studio (1-3)**

Consent of instructor required. Individualized or specialized study on specific topic in painting. Repeatable, may be taken two times.

**ART 640 Literature of Art Education (3)**

Survey historical and contemporary literature on theory, research and practice in art education and related areas.

**ART 641 Art Curriculum and Instruction: Cultural Studies (3)**

Study methods for teaching art history. Research art analysis, art criticism and art theory for developing procedures for instruction.

**ART 642 Art Curriculum and Instruction: Studio Methods (3)**

Research and develop studio art content, processes and sequencing appropriate for the elementary and secondary art curriculum.

**ART 644 Learning Experiences in Elementary Art Education (3)**

Research selected readings in art education, instructional methods, child development in art, curriculum and evaluation and get practical experience with media suitable for use in the elementary school.

**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.

**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, may be taken two times.

**ART 660 Graduate Sculpture Studio (1-3)**

Self-directed studies in selected sculptural modes or processes. Repeatable, may be taken two times.

**ART 661 Advanced Graduate Sculpture (3)**

Select problems in the creation of sculpture with emphasis on critical and technical competencies. Repeatable, may be taken two times.

**ART 669 Web Style Design (3)**

Prerequisite: ART 171, ART 443, ART 437, ART 537, ART 471, ART 571. Provide working knowledge about principles and practices in Web Site Design in terms of the visual arts applications. Design knowledge related aesthetically to content for Web Page layout. Securing web space, publishing and updating web pages. Internet concepts: HTTP, web server configuration, computer networks. Exploring search engines, file compression, net etiquette and internet protocols.

**ART 672 Photography Studio (1-3)**

Instructor consent required. Advanced individualized or specialized study in photography for graduate students. Repeatable, may be taken two times.

**ART 680 Seminar in Art History (1-4)**

Discuss advanced and specialized art historical topics. Take concurrently with 300 level art history course. Subject area determined by subtitle. Repeatable, under different subtitles.

**ART 690 Art Theory, Analysis and Criticism (3)**

Research into the theoretical and critical study of art. Analyze the interrelationships of theme, content, context, intentionality, the formal elements and processes for interpretation and critical judgment.

**ART 692 Internship in Art (1-5)**

Graduate art majors only. Supervised professional activity in major fields or related career areas. Spend a minimum of 30 clock hours per credit hour on the internship. Two copies of a written evaluation and a written report are required (to be filed with the instructor of record and the graduate coordinator). A maximum of five credits of internship can be taken in any semester. Repeatable, under different subtitles.

**ART 699 Thesis (1-6)**

Prerequisite: ART 600. A written thesis is required of all master's degree candidates in visual arts. The final report must be approved by the supervising committee and submitted in appropriate style and format to the Graduate School. S/U graded. Repeatable, no limitations.

## AS - AEROSPACE STUDIES

**AS 101 The Foundations of the United States Air Force I (1)**

This course is designed to introduce students to the United States Air Force and Air Force Reserve Officer Training Corps. Featured topics include: mission and organization of the Air Force, officership and professionalism, military customs and courtesies, Air Force officer opportunities and an introduction to communication skills.

**AS 102 The Foundations of the United States Air Force II (1)**

This course is a continuation of AS 101. See AS 101 for the course description.

**AS 103 General Military Course Leadership Laboratory I (1)**

This is a mandatory laboratory designed to compliment AS 101 by providing cadets with leadership, management and followership experiences. Special students (those not pursuing a commission as an Air Force Officer) are not required to attend. S/U graded.

**AS 104 General Military Course Leadership Laboratory II (1)**

This is a mandatory laboratory designed to compliment AS 102 by providing cadets with leadership, management and followership experiences. Special students (those not pursuing a commission as an Air Force Officer) are not required to attend. S/U graded.

**AS 201 The Evolution of USAF Air and Space Power I (1)**

This course examines air and space power through a historical perspective, covering a time period from the first balloons and dirigibles to space-age global positioning systems used in the Persian Gulf conflict. Historical examples are provided to extrapolate the development of Air Force capabilities and missions to demonstrate the evolution of today's USAF air and space power.

**AS 202 The Evolution of USAF Air and Space Power II (1)**

This course is a continuation of AS 201. See AS 201 for the course description.

**AS 203 General Military Course Leadership Laboratory III (1)**

This is a mandatory laboratory designed to compliment AS 201 by providing cadets with leadership, management and followership experiences. Special students (those not pursuing a commission as an Air Force Officer) are not required to attend. S/U graded.

**AS 204 General Military Course Leadership Laboratory IV (1)**

This is a mandatory laboratory designed to compliment AS 202 by providing cadets with leadership, management and followership experiences. Special students (those not pursuing a commission as an Air Force Officer) are not required to attend. S/U graded.

**AS 301 Air Force Leadership Studies I (3)**

Laboratory required. This course is a study of leadership, management fundamentals, professional knowledge, Air Force personnel and evaluation systems, leadership ethics and communication skills required of an Air Force junior officer. Case studies are used to examine Air Force leadership and management situations as a means of demonstrating and exercising practical application of the concepts being studied.

**AS 302 Air Force Leadership Studies II (3)**

This course is a continuation of AS 301. See AS 301 for the course description.

**AS 401 National Security Affairs/Preparation for Active Duty I (3)**

Laboratory required. This course examines the national security process, regional studies, advanced leadership ethics and Air Force doctrine. Special topics of interest focus on the military as a profession, officership, military justice, civilian control of the military, preparation for active duty, and current issues affecting military professionalism. Within this structure, continued emphasis is given to refining communication skills.

**AS 402 National Security Affairs/Preparation for Active Duty II (3)**

This course is a continuation of AS 401. See AS 401 for the course description.

**AST - ASTRONOMY****AST 100 General Astronomy (4)**

(3 lecture, 2 laboratory) The universe and our place in it. No mathematics background required.

**AST 301 Classical Astronomy (3)**

(2 lecture, 2 laboratory) Our picture of the universe based on optical observations from prehistory to 1950.

**AST 302 Modern Astronomy (3)**

(2 lecture, 2 laboratory) The complex and violent universe revealed by radio astronomy, planetary exploration and satellite observatories.

**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.

**AST 595 Special Topics in Astronomy (1-4)**

An opportunity to explore areas of astronomy beyond the scope of existing department offerings. Repeatable, under different subtitles.

**AST 622 Directed Studies (1-4)**

Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

**BA - BUSINESS ADMINISTRATION****BA 100 American Business System (3)**

For non-business majors. Understand how the American business system works and compare it with business systems in other nations. Discuss how business functions and the impact of current events. (F,S)

**BA 101 Business Computing (3)**

(Laboratory arranged) An activity course to develop students' knowledge and skills in computer literacy. Focus is on developing competencies in spreadsheets, graphics, word processing and operating systems. S/U graded. (F,S)

**BA 205 Business Communications (3)**

(Laboratory arranged) Prerequisite: ENG 122. An activity course with a problem-solving approach to composition emphasizing planning, organizing, and presenting written business communications for decision making. Use of computer software programs integrated in the writing of business correspondence and reports. (F,S)

**BA 251 International Business (3)**

A survey course in international business and doing business in the global economy. Non-technical introduction to global business operations and planning, including investment issues, comparative management, technology impact, competition, cultural diversity and legal issues. (F,S)

**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 492 Internship in General Business (1-3)**

Consent of faculty coordinator. Majors and minors only. Seniors only. Obtain practical experience and opportunities to utilize theory of business core courses. Internship proposal, progress report, and final report required. S/U graded. Repeatable, maximum of three credits.

**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.

**BAAC - ACCOUNTING****BAAC 220 Principles of Accounting I (3)**

Prerequisite: Successful completion of the computer proficiency exam or BA 101; or concurrent enrollment in BA 101. An introduction to basic principles of accounting. The accounting cycle is examined and basic accounting principles are applied to recording, classifying, reporting and interpreting financial information for service and merchandising types of businesses. Manual and computer based systems are investigated. (F,S)

**BAAC 221 Principles of Accounting II (3)**

Prerequisites: Successful completion of the computer proficiency exam or BA 101; BAAC 220. A continuation of BAAC 220 to study basic accounting principles as they apply to the preparation and interpretation of accounting information for business organizations and managerial use of information. (F,S)

**BAAC 320 Intermediate Accounting I (3)**

Prerequisite: BAAC 221 with a minimum grade of "C." Business majors only. 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." Business majors only. Juniors or above. An activity course with emphasis on intangible assets, current and long-term liabilities, investment, stockholders' equity, pensions, leases and income taxes. (F,S)

**BAAC 323 Cost and Managerial Accounting I (3)**

Prerequisite: BAAC 221 with a minimum grade of "C." Business majors only. 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." Business majors only. Juniors or above. Continuation of BAAC 323 - an activity course; includes capital budgeting decision models; planning and control systems; and advanced topics in cost behavior, cost allocation and product costing.

**BAAC 326 Governmental and Institutional Accounting (3)**

Prerequisite: BAAC 221 with a minimum grade of "C." Business majors only. 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. Business majors only. For non-accounting emphasis students only. This course is open to general business emphasis students only. Juniors or above. No graduation credit for accounting majors. This course is open to general business emphasis students only. This is a theory course studying the use of information derived from an accounting system for effective management decision making, cost analysis and budgeting management control and evaluation. (F,S)

**BAAC 328 Accounting Systems (3)**

Prerequisites: BACS 300 and BAAC 321 or take concurrently. Business majors only. 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 420 Advanced Accounting I (3)**

Prerequisite: BAAC 321 with a minimum grade of "C." Business majors only. Juniors or above. Emphasis is on special topics including income recognition changes and correction cash flows, earnings per share, discontinued operations, partnerships, interim reporting, estates, trusts, insolvency and other selected topics. (F,S)

**BAAC 421 Advanced Accounting II (3)**

Prerequisite: BAAC 321 with a minimum grade of "C." Business majors only. This course is open to accounting emphasis students only. Juniors or above. An activity course covering business combinations, consolidated financial statements, branch operations, segmental reporting and foreign operations. (F,S)

**BAAC 422 Accounting Directed Studies (1-3)**

Business majors only. 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." Business majors only. Juniors or above. This is an activity course covering an overview of procedures and techniques of auditing including auditor's report, internal control, evidence gathering, legal liability, statistical sampling and EDP. (F,S)

**BAAC 426 Auditing II (3)**

Prerequisite: BAAC 425 with a minimum grade of "C." Business majors only. 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." Business majors only. 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." Business majors only. 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)**

Faculty coordinator's consent. Business majors only. Juniors or above. Practical work experience allowing the intern the opportunity to utilize the theory of academic accounting courses. Credit for the internship is determined by the coordinator based on the type of work experience and time involved. S/U graded. Repeatable, maximum of nine credits.

**BAAC 495 Special Topics in Accounting (1-3)**

Consent of instructor. Business majors only. Juniors or above. This seminar course explores advanced topics in accounting. Special topics will be specified by the instructor. S/U or letter graded. Repeatable, under different subtitles.

## BACS - COMPUTER INFORMATION SYSTEMS

**BACS 285 Application Programming Languages (3)**

Prerequisite: Successful completion of the computer proficiency exam or BA 101. Required laboratory arranged. Business majors only. An activity course exploring business programming applications using modern computer languages. Topics include inputting, outputting, processing logic, character processing, file processing and subroutines.

**BACS 286 Structured Programming and Applications for Business (3)**

Prerequisite: Successful completion of the computer proficiency exam or BA 101. Required laboratory arranged. Majors/minors only. 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: Successful completion of the computer proficiency exam or BA 101. Required laboratory arranged. Majors and minors only. This course studies modern programming languages that are geared primarily toward graphical user interfaces and interactive processing. An activity course that introduces students to the concepts of end-user computing, human factors in interface design, graphical programming environments and event-driven programming.

**BACS 291 Business Statistics I (3)**

Prerequisites: Successful completion of the computer proficiency exam or BA 101; or concurrent enrollment in BA 101 and MATH 124. Learn the use of statistics in business activities through techniques of descriptive statistics, sampling distributions, statistical estimation, tests of hypotheses and introduction to bi-variate linear regression. (F,S)

**BACS 300 Information Systems (3)**

Prerequisite: Successful completion of the computer proficiency exam or BA 101. Majors and 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 305 Intermediate Business Statistics (3)**

Prerequisite: Successful completion of the computer proficiency exam or BA 101. BACS 291 or STAT 251 and MATH 131 or MATH 176. Majors and minors only. Juniors and above. This course may be taken after completion of all prerequisites and 45 hours of University coursework. The course is designed to build on the foundation of a basic statistics course. Topics include a review of estimation and hypothesis testing, ANOVA, simple and multiple regression, non parametric methods, Decision Theory, quality control, index members, time series and forecasting. Computer-based and web-based statistical products and web-based economic and business databases are used extensively.

**BACS 380 Networking and Data Communications Systems (3)**

Prerequisite: BACS 286 with a minimum grade of "C." Required laboratory arranged. Majors and minors only. 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. Majors and minors only. Juniors or above. An activity course addressing object-oriented design and programming, systems development environments, emerging technologies and resulting business applications.



**BACS 392 Systems Platforms and Network Development (3)**

Prerequisite: BACS 380 with a minimum grade of "C" or consent of instructor. Juniors or above. An activity course that provides students with the opportunity to work with and manage a computer server. The course develops skills and knowledge of computer hardware including components of computer systems and a variety of hardware used to build networks. The course also develops the study of one or more network platforms, networking security, administration of users, management of network resources, routing, firewalls, scripting and other automation tools and workstation management. May not be taken with BACS 380.

**BACS 422 Directed Studies (1-3)**

Consent of instructor required. Business majors only. 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 and BACS 300 with a minimum grade of "C." Required laboratory arranged. Majors and minors only. 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 484 Distributed Enterprise Systems (3)**

Prerequisites: BACS 381. Majors and minors only. Juniors or above. This course focuses on computer-based techniques that enable businesses to manage across their value chain and support business-to-consumer and business-to-business process and data integration. Students will be provided a foundation of technical, design and enterprise tools for developing distributed business systems.

**BACS 485 Database Management Systems (3)**

Prerequisite: BACS 286 or BACS 287 with a minimum grade of "C." Required laboratory arranged. Majors and minors only. 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. Business majors only. Seniors or above. An activity course covering database systems/applications. Topics include advanced relational and network database processing, data dictionaries, database integrity issues, distributed databases, emerging technologies and database administration.

**BACS 487 Systems Analysis and Design (3)**

Prerequisite: BACS 286 or BACS 287 and BACS 300 with a minimum grade of "C." Majors and minors only. Required laboratory arranged. This course is open to computer information systems emphasis students only. 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." Required laboratory arranged. Majors and minors only. Seniors or above. This is an activity course in which students perform an actual systems analysis and design. An information system will be developed by the student and time permitting, will be implemented. (S)

**BACS 490 Advanced E-Business Technology (3)**

Prerequisites: BACS 300 and BACS 286 or BACS 287 or BACS 381. Business majors or minors only. Juniors or above. BACS 485 may be taken concurrently. An activity-based course in which the student will develop e-business sites utilizing techniques, tools and technology.

**BACS 492 Internship in Computer Information Systems (1-3)**

Consent of faculty coordinator. Majors and minors only. Juniors or above. Obtain practical experience in one or more of the following CIS areas: programming, systems design, DBMS, quantitative research, data communications, DSS. S/U graded. Repeatable, maximum of three credits.

**BACS 495 Special Topics in CIS (1-3)**

Prerequisite: BACS 286 or BACS 287 with a minimum grade of "C." Majors and minors only. Juniors or above. This seminar course explores advanced topics in computer information systems and/or quantitative methods. S/U or letter graded. Repeatable, under different subtitles.

**BAFN - FINANCE****BAFN 231 Legal Environment of Business (3)**

Emphasizes public law, regulation of business and various relationships that exist within society, government and business such as: economic regulation, social regulation, laws impacting labor-management issues and environmental concern. (F,S)

**BAFN 240 Introduction to Personal Financial Planning (3)**

Finance majors will not receive credit towards their major. Discuss concepts and principles of personal financial planning including personal financial assessment, goal setting, planning and management of personal assets, credit, insurance, investments, estates and taxes.

**BAFN 332 Business Administration and the Law (3)**

Prerequisite: BAFN 231. Business majors only. Juniors or above. Provides an understanding of the law of business transactions as part of the decision-making process. Topics will include the law of contracts, sales, bailments and negotiable instruments. (F,S)

**BAFN 340 Principles of Risk and Insurance (3)**

Business majors only. Juniors or above. Theory of risk and risk bearing; arrangements for dealing with risks; insurance industry, types of insurers, functions of insurers and government regulation of insurance; social insurance; and basic features of selected insurance contracts. (F,S)

**BAFN 370 Business Finance (3)**

Prerequisites: BAAC 221, STAT 251 or BACS 291; ECON 103 and ECON 105. Juniors or above. Examines the basic principles and concepts of financial management. Topics include valuation, risk, financial analysis and planning, working capital management, cost of capital, capital structure and capital budgeting. (F,S)

**BAFN 371 Financial Markets and Institutions (3)**

Prerequisite: ECON 103. Business majors only. Juniors or above. Analyze characteristics and interrelations between money and capital markets, flow of funds and factors determining both supply and demand of funds. Stress financial institutions' role as intermediaries and effect on economic activity. (F,S)

**BAFN 372 Introduction to Real Estate (3)**

Juniors or above. Business majors only. Discover important concepts and principles of real estate, especially procedures for evaluating and appraising real estate investments, legal marketing and financing aspects of real estate. (F,S)

**BAFN 379 Investments (3)**

Prerequisite: BAFN 370. Business majors only. Juniors or above. The study of financial assets, their valuation and reporting through a thorough understanding of financial publications which will enable the student to construct a portfolio of different investments with the knowledge of economic factors affecting risk, returns, and timing of investment decisions.

**BAFN 422 Directed Studies (1-3)**

Juniors or above. Business 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.

**BAFN 441 Estate Planning and Life Insurance (3)**

Prerequisite: BAFN 340, BAAC 428. Business majors only. Juniors or above. Discuss property disposition and estates and trusts, administration of estates, federal estate unified tax, planning through trusts and wills, life insurance and estate planning.

**BAFN 442 Topics in Financial Planning (3)**

Prerequisites: BAFN 340, BAFN 379. Business majors only. Juniors or above. Provide a comprehensive examination of financial planning concepts and techniques through both class discussion and case analysis.

**BAFN 470 Financial Management (3)**

Prerequisite: BAFN 370. Business majors only. Juniors or above. Covers advanced concepts and techniques of financial management, especially emphasizing the overall environment and decision making by financial managers. Topics include modern portfolio theory and capital structure theory.

**BAFN 473 Commercial Bank Management (3)**

Prerequisite: BAFN 370, BAFN 371. Business majors only. Juniors or above. Investigate the management of commercial banks and other financial institutions. Evaluate decision strategies that may be used to enhance performance in a changing economic and regulatory environment. Review banking principles, current practices and problems. (S)

**BAFN 474 Case Problems in Financial Management (3)**

Prerequisite: BAFN 470. Business majors only. This course is open to finance emphasis students only. Juniors or above. This seminar class involves the comprehensive study of applied financial management, finance, other business skills and financial decision making processes for the firm. Use case study problem solving method. (F,S)

**BAFN 475 Multinational Financial Management (3)**

Prerequisite: BAFN 370. Business majors only. Juniors or above. Addresses the financial characteristics and environment of the multinational corporation. Special attention is focused on how international risk factors and foreign securities markets affect financial decisions. (F)

**BAFN 478 Student-Alumni Foundation Fund (3)**

Consent of instructor. Business majors only. Juniors or above. Involves students managing a portfolio of funds provided by the UNC Foundation while studying and applying the principles of security analysis and portfolio management. S/U graded. Repeatable, maximum of six credits.

**BAFN 479 Security Analysis (3)**

Prerequisite: BAFN 379. Business majors only. Juniors or above. Complete an in-depth research project of an industry and selected firms within the industry, considering near term expected economic climate. Emphasize portfolio theory and recent changes in financial statement presentation. (S)

**BAFN 492 Internship in Finance (1-3)**

Consent of faculty coordinator. Business majors only. Juniors or above. Get practical experience and opportunities to utilize theory of academic finance courses. S/U graded. Repeatable, maximum of three credits.

**BAFN 495 Special Topics in Finance (1-3)**

Consent of instructor. Business majors only. Juniors or above. This seminar course explores advanced topics in finance. S/U or letter graded. Repeatable, maximum of six credits.

**BAMG - MANAGEMENT****BAMG 350 Management of Organizations (3)**

Juniors or above. An introduction to management of organizations covering organizational behavior, individual behavior and management topics such as motivation, leadership, organization design, organizational theory, diversity, international management and ethics. (F,S)

**BAMG 353 Human Resources Management (3)**

Prerequisite: BAMG 350. Business majors only. Junior or above. A survey of human resource management topics such as recruitment, selection, training, development, performance appraisal, compensation, career development.

**BAMG 354 Organizational Behavior (3)**

Prerequisite: BAMG 350. Presidential Leadership Program (PLP) students may satisfy the prerequisite by taking PLP 100, PLP 200 and PSY 265. Business majors and PLP students only. Juniors or above. A study of behavioral science theories and concepts applicable to individuals, teams, and organizations. Topics include motivation, leadership, group dynamics, perception, decision-making, power, culture, change and communication.

**BAMG 357 Managing New Business Ventures (3)**

Prerequisites: BAAC 220, BAAC 221, BAMG 350, BAMK 360, BAFN 370 or take concurrently. Business majors only. Juniors or above. An activity course emphasizing the problems and opportunities of starting new businesses including new enterprise creation, planning, management, control and growth.

**BAMG 407 Small Business Counseling (3)**

Consent of instructor. Business majors only. Juniors or above. A seminar course which applies theories learned in all business majors to actual small businesses.

**BAMG 422 Directed Studies (1-3)**

Prerequisite: BAMG 350 and consent of instructor. Business majors only. Juniors or above. Individualized research under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable. Maximum concurrent enrollment is two times.

**BAMG 452 Business, Government and Society (3)**

Prerequisite: BAMG 350. Business majors only. Juniors or above. A study of the role of business organizations in society and the relationships between business and economic policy, social responsibility and political influence in multiple environments.

**BAMG 453 Advanced Topics in Human Resources Management (3)**

Prerequisites: BAMG 350, BAMG 353 and senior standing. Business majors only. Provides an expanded examination of human resources management topics such as performance appraisal, training, compensation and labor relations. Current topics are emphasized.

**BAMG 455 Labor Relations (3)**

Prerequisite: BAMG 350. Business majors only. Juniors or above. Traces the labor movement, basic philosophies of labor unions, legislation, and decisions of courts and labor boards affecting management-employee relations. Covers current labor topics, contract negotiations and administration, grievances and disputes.

**BAMG 456 Strategic Management and Business Policy (3)**

Prerequisites: BACS 305, BAFN 370, BAMG 350, BAMK 360 and senior standing. Business majors only. Examines organizational strategic issues and problems related to internal and external environments. Case analysis framework and strategic management concepts emphasized. (F,S)

**BAMG 457 Managing Complex Organizations (3)**

Prerequisite: BAMG 350. Business majors only. This course is open to management emphasis student only. Juniors or above. A seminar course which concentrates on the analysis and understanding of effective organizations through the study of organizational theory.

**BAMG 458 Managing in a Global Environment (3)**

Business majors only. Juniors or above. A seminar that examines the field of international management. Examines the implications of managing organizations involved in global operations.

**BAMG 492 Internship in Management (1-3)**

Faculty coordinator's consent. Business majors only. Juniors or above. An internship working in a middle management position to obtain practical organizational experience. Internship proposal, progress report and final report required. S/U graded. Repeatable, maximum of three credits.

**BAMG 494 Not-For-Profit Management (3)**

Prerequisites: BAMG 350, BAMK 360, BAFN 370, BACS 300 and BAFN 231. Juniors and above. This course provides integration of management, marketing, finance and accounting principles for the management of not-for-profit organizations. Topics include board and committee development, risk management and ethical issues in not-for-profit organizations.

**BAMG 495 Special Topics in Management (3)**

Prerequisite: BAMG 350 or consent of instructor. Business majors only. Juniors or above. A seminar in various management content areas as need and opportunity arise. Primarily for management majors, this course attempts to integrate management concepts within applied settings. S/U or letter graded. Repeatable, under different subtitles.

**BAMK - MARKETING****BAMK 260 Introduction to Marketing (3)**

This course provides an introduction to basic concepts of marketing and an introduction as to how these marketing concepts are applied by both business and non-business organizations. Non-business majors only.

**BAMK 360 Marketing (3)**

Prerequisite: ECON 105. Juniors or above. This theory course provides an understanding of the basic concepts and terminologies in marketing, as well as an understanding of how these concepts are applied in both international and domestic business settings and their environments. (F,S)

**BAMK 361 Consumer Behavior (3)**

Prerequisite: BAMK 360. Business majors only. Juniors or above. This theory course examines the various theories of consumer behavior and the decision making process from a global perspective. The implications of cultural, ethical and legal variables will also be discussed. (F,S)

**BAMK 363 Promotional Strategy (3)**

Prerequisite: BAMK 360. Business majors only. 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. Business majors only. 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. Business majors only. Juniors or above. This is an activity course of advertising principles including advertising terminology, communication process, advertising agencies, media, copy and layout elements.

**BAMK 366 Retailing (3)**

Prerequisite: BAMK 360. Business majors only. Juniors or above. An introductory survey course of retail institutions; how they operate and their impact on the marketplace. This course covers both theory and practice.

**BAMK 368 Marketing Analysis and Research (3)**

Corequisites: BACS 305, BAMK 360. Business majors 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. (F,S)

**BAMK 407 Small Business Counseling (3)**

Consent of instructor. Business majors only. Juniors or above. A seminar course which applies theories learned in all business majors to actual small businesses.

**BAMK 422 Directed Studies (1-3)**

Prerequisites: BAMK 360. Consent of instructor. Business majors only. Seniors 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. Business majors only. Juniors or above. An activity course where students receive realistic experience in campaign planning. Assume the identity of an advertising agency responsible for the preparation of a complete marketing communications program.

**BAMK 462 Marketing Problems (3)**

Prerequisites: BAFN 370, BAMK 361 and BAMK 368. Business majors only. This course is open to marketing emphasis students only. Seniors or above. This capstone marketing seminar course emphasizes application, analysis, planning and control of the various marketing mix variables, the target market, and the marketing environment. (F,S)

**BAMK 464 Global Marketing Strategies (3)**

Prerequisite: BAMK 360. Business majors only. Juniors or above. A seminar of institutions, functions, policies and practices in international markets. Global multinational aspects of business enterprises and their effects on marketing problems and management are analyzed. (F,S)

**BAMK 468 Business-to-Business Marketing (3)**

Prerequisite: BAMK 360. Business majors only. Juniors or above. 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 Supply Chain Management (3)**

Prerequisite: BAMK 360. Business majors only. Juniors or above. An activity seminar course designed to explore the techniques utilized by marketing-oriented distribution managers within the worldwide logistics process. Computer simulation and/or case analysis may be used.

**BAMK 470 Direct Marketing (3)**

Prerequisite: BAMK 360. Business majors only. Juniors or above. 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. Business majors only. Juniors or above. This course gives the student practical experience and opportunities to apply theory from academic marketing courses. S/U graded. Repeatable, maximum of three credits.

**BAMK 495 Special Topics in Marketing (3)**

Business majors only. 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.

**BCHM - BIOCHEMISTRY**

**BCHM 381 Immunology (2)**

Prerequisites: BIO 110, CHEM 332 or CHEM 131. An introduction to the components and basic mechanisms of the immune system.

**BIED - BIOLOGY EDUCATION**

**BIED 682 Problems in Teaching College Biology (3)**

Acquaints students with problems encountered in teaching biology and strategies for increasing teaching effectiveness. Topics covered include learning theory and application, ways to present difficult material, curriculum development, research and the laboratory as teaching tools, management and maintenance of biological materials.

**BIO - BIOLOGY**

**BIO 100 Exploring Biology (3)**

No credit for biological science majors and minors. An exploration of biological principles of concern to the educated layperson. Topics include ecology, evolution, the cell, organs and systems, inheritance and disease.

**BIO 110 Principles of Biology (4)**

(3 lecture, 3 laboratory) Investigate principles that drive biological actions within the biosphere and within cells; especially structural and functional bases of life in genetics, evolution and ecology.

**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.

**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 (4)**

(3 lecture, 3 laboratory) Study fundamental laws of heredity, the molecular structure and function of genes, and emerging genetic technologies.

**BIO 265 Life Science Concepts (3)**

(2 lecture, 2 laboratory) An investigation of basic biological concepts in biological science through lecture, discussion and laboratory investigation. Ideal for students seeking elementary certification.

**BIO 351 Microbiology (4)**

(3 lecture, 3 laboratory) Prerequisites: BIO 110 or BIO 111 or ZOO 115; CHEM 131 or CHEM 331. Examine microorganisms and their activities in the biological world. Study structures and functions of bacteria. Also some discussion of fungi and viruses.

**BIO 371 Teaching Strategies for Biology Teachers (1)**

(2 laboratory) Full admittance 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.

**BIO 380 Aquatic Biology (4)**

(3 lecture, 3 laboratory) Prerequisites: BIO 110, BIO 111. This course examines aquatic communities, determines species present, nature of the physical and chemical aquatic environment, species and population distribution, productivity and eutrophication.

**BIO 408 Workshop (1-3)**

A variety of workshops on special topics within the discipline. Goals and objectives will emphasize the acquisition of general knowledge and skills in the discipline. Repeatable, under different subtitles. S/U graded.

**BIO 422 Directed Studies (1-3)**

Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

**BIO 424 Behavioral Genetics (2)**

Prerequisites: BIO 220, PSY 120. Explore the genetic/environmental basis of normal and pathological behavior in animals and humans and study such contemporary issues as evolution, intelligence and genetic counseling.

**BIO 425 Molecular Genetics (3)**

(2 lecture, 3 laboratory) Prerequisites: BIO 220, CHEM 481. Examination of macromolecules (DNA, RNA and proteins) and of biological organisms with particular emphasis on recombinant DNA techniques and aberrant biochemical pathways.

**BIO 450 Cell Physiology (4)**

(3 lecture, 3 laboratory) Prerequisites: BIO 110, BIO 111, CHEM 131 or CHEM 331, recommend CHEM 481. The study of vital life processes common to all cells, relating cell structure to function, basic cell chemistry, energy transformations within the cell and homeostatic regulations of the environment.

**BIO 458 Diagnostic Microbiology (4)**

(2 lecture, 4 laboratory) Prerequisite: BIO 351. Learn about microorganisms of medical significance: isolation, identification, immunology and disease etiology.

**BIO 460 Ecology (4)**

(3 lecture, 3 laboratory) Prerequisite: BIO 111. Plant and animal communities will be identified and measured. Ecosystem structure and energy flow will be determined. Topics including biochemical cycles, soils, population structure/distribution and succession will be examined. Field trip may be required.

**BIO 465 Evolution (3)**

Prerequisite: BIO 220. Study of the processes of evolution including the history of evolutionary thought, nature and sources of biological variation, population genetics, natural selection and a survey of the evolutionary history of life.

**BIO 485 Topics in Field Biology (1-10)**

After preparatory work, study biology in the field on a state, national or international basis.

**BIO 491 Senior Seminar (1)**

Majors only. Juniors or above. Survey research, literature and career opportunities in selected biological areas. Complete professional development activities, such as writing a resume and preparing a research poster or presentation. S/U graded.

**BIO 492 Internship in Biological Sciences (1-3)**

Consent of instructor required. On-the-job experience in professional areas under the supervision of an area specialist. S/U graded.

**BIO 494 Practicum in College Biological Science Instruction (1-2)**

Prerequisites: BIO 110, BIO 111. Consent of instructor and departmental PTEP committee required. Gain experience teaching an introductory biological science laboratory.

**BIO 495 Special Topics in Biology (2)**

Prerequisites: BIO 110, BIO 111. Advanced study for qualified undergraduates in an area of the biological sciences.

**BIO 497 Special Laboratory Topics in Biology (1)**

(3 laboratory) Prerequisites: BIO 110, BIO 111. Advanced study in the laboratory for qualified undergraduates in an area of the biological sciences.

**BIO 499 Undergraduate Research (1-6)**

Consent of instructor. Conduct original research in the biological sciences. Submit two copies of a final report. S/U graded.

**BIO 501 Current Issues in Biology (1)**

Course varies in content, reviewing current issues of biology, botany or zoology. S/U graded.

**BIO 508 Workshop (1-3)**

A variety of workshops on special topics within the discipline. Goals and objectives will emphasize the acquisition of general knowledge and skills in the discipline. Repeatable, under different subtitles. S/U or letter graded.

**BIO 509 Advanced Placement Biology (1-3)**

Consent of instructor. Topics in biological sciences and pedagogy related to establishment and maintenance of a biology advanced placement program. S/U graded.

**BIO 513 Professional Renewal (1-3)**

Update skills and knowledge of professionals in the discipline. Goals and objectives will be specifically directed at individual professional enhancement rather than the acquisition of general discipline knowledge or methodologies. S/U or letter graded. Repeatable, under different subtitles.

**BIO 515 Biology of Aging (2)**

Prerequisites: ZOO 115 or ZOO 245. Study biological changes that take place during the normal aging process, including several major organ systems.

**BIO 524 Behavioral Genetics (2)**

Prerequisites: BIO 220, PSY 120. Explore the genetic/environmental basis of normal and pathological behavior in animals and humans and study such contemporary issues as evolution, intelligence and genetic counseling.

**BIO 525 Molecular Genetics (3)**

(2 lecture, 3 laboratory) Prerequisites: BIO 220 and CHEM 481. Examination of macromolecules (DNA, RNA and proteins) and of biological organisms with particular emphasis on recombinant DNA techniques and aberrant biochemical pathways.

**BIO 545 Cytology (3)**

Study the structure and function of the various components and organelles of both prokaryotic and eukaryotic cells.

**BIO 550 Cell Physiology (4)**

(3 lecture, 3 laboratory) Prerequisites: BIO 110, BIO 111, CHEM 131 or CHEM 331, recommend CHEM 481. The study of vital life processes common to all cells, relating cell structure to function, basic cell chemistry, energy transformations within the cell and homeostatic regulations of the cell environment.

**BIO 551 Neuropharmacology (3)**

Prerequisites: ZOO 350, ZOO 355, CHEM 131 or CHEM 331 or consent of instructor. Seniors or above. Examine the biochemical interactions that give rise to complex human behaviors. Topics will include the major neurotransmitter systems of the brain, exogenous drug effects and pathologies of the nervous system. S/U or letter graded.

**BIO 556 Current Topics in Biomedical Research (2)**

Prerequisites: BIO 110, CHEM 131 or CHEM 331; recommend BIO 450. Examine topics in current biomedical research. Focus on molecular, cellular, and physiological studies of the human and model systems. Topics will include mechanisms regulating normal function, the effects of toxicants and drugs, and the role of genetic mutations.

**BIO 555 Reproductive and Developmental Biology (3)**

Prerequisites: BIO 110, CHEM 131 or CHEM 331, recommend CHEM 481. Examination of the anatomy, physiology and mechanisms of reproduction and development with an emphasis on mammals.

**BIO 569 Conceptual Issues in Evolution (2)**

Prerequisite: BIO 465 or consent of instructor. Study of the guiding principles in modern evolutionary biology. Focus on concepts of fitness, selection, adaptation, form and function, concerted evolution and the nature of biological variation.

**BIO 571 Teaching Strategies for Biology Teachers (1)**

(2 laboratory) Full admittance 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.

**BIO 585 Topics in Field Biology (1-10)**

After preparatory work, study biology in the field on a state, national or international basis.

**BIO 592 Internship in Biological Sciences (1-3)**

Consent of instructor required. On-the-job experience in professional areas under the supervision of an area specialist. S/U graded.

**BIO 595 Special Topics in Biology (3-6)**

Study of any biological topic at an advanced level. Repeatable, maximum of six credits.

**BIO 621 Advanced Genetics (3)**

Prerequisites: BIO 220 or equivalent and CHEM 131; recommend CHEM 481. Survey experimental advances in gene regulation of growth, maintenance and protection of all organisms including the human species with special emphasis on recent developments in the field.

**BIO 622 Directed Studies (1-3)**

Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

**BIO 655 Advanced Microbiology (4)**

(2 lecture, 6 laboratory) Prerequisites: BIO 351, CHEM 481. Examine prokaryotic anatomy, physiology, genetics and taxonomy with laboratory studies of bacterial groups and use of advanced microbiological techniques.

**BIO 662 Human Ecology (3)**

Study of human population growth and cultural and societal impacts on ecological systems. Global and large regional areas will be the center of focus.

**BIO 690 Invited Topics in Biological Sciences (0.5)**

Invited speakers present topics of interest pertinent to biology. S/U graded.

**BIO 691 Seminar in Biological Sciences (0.5)**

Students will research and present seminars on selected topics of current biological interest.

**BIO 694 Foundations of Biological Research (2)**

Required of all first year graduate students in biological sciences. Delineate philosophy, methods of research and oral and written presentations of scientific findings.

**BIO 697 Graduate Research (1-6)**

Prerequisite: BIO 694. Consent of instructor. Qualified graduate students spend a minimum of 38 clock hours per semester hour credit on a research problem. Before credit is given, a well-written report must be submitted to the instructor.

**BIO 699 Thesis (1-6)**

Prerequisite: BIO 694. S/U graded.

**BIO 792 Doctoral Supervised Teaching (1-6)**

Experience supervised college level biological sciences teaching. Develop course outlines and effective teaching techniques.

**BIO 797 Doctoral Proposal Research (1-4)**

Four hours required of all doctoral students before admission to candidacy. S/U graded.

**BIO 799 Doctoral Dissertation (1-12)**

Required of all doctoral candidates. S/U graded.

**BOT - BOTANY****BOT 270 Economic Botany (3)**

(2 lecture, 3 laboratory) Consider plants that directly affect human welfare: foods, drugs, fibers, naval stores, wood, dyes, insecticides and others according to their taxonomy, structure and ecological requirements.

**BOT 330 Plant Taxonomy (4)**

(2 lecture, 6 laboratory) Prerequisite: BIO 111. Recognize and identify plants at species and family levels, using the keys and manuals. Native plant collection required.

**BOT 333 Morphogenesis of Algae and Fungi (4)**

(3 lecture, 3 laboratory) Prerequisite: BIO 111. Study structure, morphogenesis and phylogenetic relationships of algae, fungi.

**BOT 350 General Plant Physiology (4)**  
(3 lecture, 3 laboratory) Prerequisites: BIO 111, CHEM 131. Study physiological factors influencing the chemical and structural composition of plant absorption and utilization of water and minerals; photosynthesis, translocation, respiration, nitrogen metabolism; and growth and development.

**BOT 440 Anatomy and Morphogenesis of Plants (4)**  
(3 lecture, 3 laboratory) Prerequisite: BIO 111. A study of the evolution of the plant kingdom as revealed by the anatomy and morphogenesis of both non-vascular and vascular plant divisions.

**BOT 530 Plant Taxonomy (4)**  
(2 lecture, 6 laboratory) Prerequisite: BIO 111. Recognize and identify plants at species and family levels, using the keys and manuals. Native plant collection required.

**BOT 533 Morphogenesis of Algae and Fungi (4)**  
(3 lecture, 3 laboratory) Prerequisite: BIO 111. Study structure, morphogenesis and phylogenetic relationships of algae, fungi.

**BOT 540 Anatomy and Morphogenesis of Plants (4)**  
(3 lecture 3 laboratory) Prerequisite: BIO 111. A study of the evolution of the plant kingdom as revealed by the anatomy and morphogenesis of both non-vascular and vascular plant divisions.

**BOT 550 General Plant Physiology (4)**  
(3 lecture, 3 laboratory) Prerequisites: BIO 111, CHEM 131. Study physiological factors influencing the chemical and structural composition of plant absorption and utilization of water and minerals; photosynthesis, translocation, respiration, nitrogen metabolism and growth and development.

**BOT 560 Plant Ecology (4)**  
(3 lecture, 3 laboratory) Prerequisite: BIO 460. Study plant communities by examining the effects of environmental factors on plants, as well as community measurement and evaluation, modeling techniques, energy flow through ecosystems and community dynamics.

**BOT 575 Fungal Diseases of Plants (4)**  
(3 lecture, 3 laboratory) Prerequisite: BOT 333. Recognize plant diseases, the physical and biochemical processes involved in the establishment of diseases and their prevention and control.

**BOT 595 Special Topics in Botany (2)**  
Study of any botanical topic at an advanced level. Repeatable, maximum of three credits under different subtitles.

**BOT 622 Directed Studies (1-3)**  
Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

**BOT 655 Advanced Plant Physiology (3)**  
Prerequisite: BOT 350. Advanced study of the important physical and chemical principles controlling the supply, uptake, movement, loss and assimilation of inorganic substances by plants during growth and development.

**BOT 699 Thesis (1-6)**  
S/U graded. Repeatable, no limitations.

## CED - COMPUTER EDUCATION

**CED 422 Directed Studies (1-4)**  
Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

**CED 508 Workshop (1-3)**  
A variety of workshops on special topics within the discipline. Goals and objectives will emphasize the acquisition of general knowledge and skills in the discipline. Repeatable, under different subtitles.

**CED 509 Advanced Placement Programs in Computer Science (1-3)**  
Consent of instructor. Graduate students only. Topics in computer science and pedagogical information related to establishing and maintaining a computer science advanced placement program. S/U graded. Repeatable, no limitations.

**CED 513 Professional Renewal (1-3)**  
Update skills and knowledge of professionals in the discipline. Goals and objectives will be specifically directed at individual professional enhancement rather than the acquisition of general discipline knowledge or methodologies. S/U or letter graded. Repeatable, under different subtitles.

## CG - COMPUTING, GENERAL

**CG 105 Personal Computer Applications (3)**  
No college credit will be given for this course if BA 101 is taken concurrently or has been taken previously. 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.

**CG 110 BASIC Programming (3)**  
Become familiar with fundamentals of designing and writing structured programs in BASIC language. Programs will involve nontechnical applications and are general enough to familiarize non-math majors with fundamentals.

**CG 115 FORTRAN 77 Programming (3)**  
Prerequisite: MATH 124 with grade of "C" or better. Become familiar with designing and writing structured programs in the FORTRAN 77 language. Program will involve some technical applications in science and mathematics.

**CG 120 Pascal Programming (3)**  
Prerequisite: MATH 124 with grade of "C" or better. Become familiar with designing and writing structured programs in the Pascal language. Programs will involve some technical applications in science and mathematics.

**CG 125 LOGO Programming (3)**  
Study of the LOGO programming language. Topics include graphics, recursions and list processing.

**CG 130 C++ Programming (3)**  
Prerequisite: MATH 124 with grade of "C" or better. This course provides opportunities to understand the activity of programming and to learn many features of the modern high level C++ programming language. The program will involve some technical applications in science and mathematics.

**CG 195 Special Topics in General Computing (1-3)**  
Consent of instructor. Topics that reflect the specific interests of available professors and the specific needs of interested undergraduates. Repeatable, under different subtitles.

## CH - COMMUNITY HEALTH

**CH 205 Issues in Health (3)**  
Analyze the variety of forces that currently affect the well-being of human population groups on a national level.

**CH 209 Foundations of Health Promotion/Health Education (3)**  
Overview of the field of health promotion/education including: evolution of the profession, health theories and models, functions/skills of health educators, current programs and settings for practice.

**CH 236 Health and Life-styles Among the Elderly (3)**  
A survey of the psychosocial and biomedical dimensions that affect the health of the elderly. Current theories and scientific research on the aging process will also be discussed.

**CH 238 Contemporary Issues in Drug Abuse (3)**  
Examines current drug abuse problems and issues confronting modern society, including sociological and psychological factors influencing drug-taking behavior and social and health consequences that accompany drug abuse.

**CH 293 Sophomore Practicum in Community Health (1-3)**

Consent of instructor. Assignment to a community health agency. Assisting professional staff, the student will be given the opportunity to apply basic skills and observe the health education program of the facility. Repeatable, maximum of three credits.

**CH 299 Community Health Systems (3)**

Investigation and discussion of community organization, major community health problems and the role and function of various community agencies, programs and services related to problem resolution.

**CH 303 Health Education in the Elementary School (1)**

Admission to PTEP or licensure at the undergraduate level is required. 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. Field experiences with a cohort group occurs in a Partner School.

**CH 320 Introductory Epidemiology and Biostatistics (3)**

Introductory course in epidemiology and biostatistics. Focuses on practical applications of epidemiological and biostatistical principles to diseases and health conditions in the community.

**CH 330 Health Promotion/Health Education Strategies (3)**

Prerequisites: CH 209, CH 293. Course provides opportunity to learn and apply specific health promotion/education techniques such as risk assessment, individual educational plans, small group techniques, mass media, lectures and community organization campaigns.

**CH 336 Human Sexuality (3)**

The general purpose of this course is to survey the psychosocial and biophysical dimensions of human sexuality.

**CH 342 Modern Concepts of Health and Disease (3)**

This course is designed to discuss the etiology, treatment and control of the most significant diseases that affect the population of the United States today.

**CH 350 Introduction to Environmental Health (3)**

Discussion of the relationships of environmental pollution to the ecosystem and health of humans. Analyze major areas of environmental pollution: water, air, solid wastes, pesticides, radioactive wastes and population.

**CH 405 Health Communications and the Media (3)**

Focuses on the design, production, evaluation and acquisition of appropriate media and materials for health education/promotion programs.

**CH 408 Workshop in Health Education (1-3)**

Investigate individual's problem areas, varying according to experts conducting workshops. Repeatable, under different subtitles.

**CH 410 Introduction to Program Planning and Evaluation (3)**

Prerequisite: CH 330. Focuses on major components of health education/health service planning and evaluation, including: needs assessment, goals and objectives, selection of strategies, evaluation design and implementation.

**CH 422 Directed Studies (1-4)**

Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

**CH 440 Foundations of Health Program Management (3)**

Provides students with skills in major areas of health program management including: program planning, decision making, budgeting, marketing, staff selection/motivation, evaluation.

**CH 492 Internship in Health (6-12)**

Prerequisite: CH 410. Work with official or voluntary health agencies. Specific assignments and responsibilities required under guidance and supervision of Department of Community Health faculty. Submit written evaluation at conclusion of internship for purposes of evaluation and recording. Repeatable, maximum of 12 credits.

**CH 500 Stress Management (2)**

An extensive comprehensive workshop designed to expose graduate students to a holistic approach to stress management, with regards to both cognitive (coping) skills, and a host of relaxation techniques with the intention to prevent and/or alleviate the physical symptoms of stress. This workshop course is composed of both theoretical and experiential learning through a series of class exercise techniques.

**CH 503 Seminar: Substance Abuse (3)**

Analyze pharmacological, psychological, sociological and legal implications of drug and alcohol use, misuse and abuse, emphasizing current research and prevention/control measures.

**CH 504 Issues in Elementary School Health Education (3)**

Focuses on contemporary health issues affecting grade school children. Identifies available resources and effective strategies for parents, schools, media and agencies to address issues and promote health enhancing behaviors.

**CH 505 Health Communications and the Media (3)**

Focuses on the design, production, evaluation and acquisition of appropriate media and materials for health education/promotion programs.

**CH 506 Contemporary Issues in Human Sexuality (3)**

Students will pursue in-depth study of current issues in human sexuality. Attention will be given to reviewing the psychological and social forces that shape people's sexual behaviors.

**CH 508 Workshop (1-3)**

A variety of workshops on special topics within the discipline. Goals and objectives will emphasize the acquisition of general knowledge and skills in the discipline. Repeatable, under different subtitles.

**CH 509 Seminar in Health Behavior (3)**

Review theories of behavior and behavior change as they relate to current health issues. Health behavior change models will be examined and applied.

**CH 510 International Health: Cross Cultural Comparisons (3)**

This class explores the multi-cultural aspects of health and international comparisons of various health indicators. Students in this course will examine specific health problems, nature of health care service delivery, provision of service delivery in socio-cultural and political settings for developing and industrially developed nations.

**CH 513 Professional Renewal (1-3)**

Update skills and knowledge of professionals in the discipline. Goals and objectives will be specifically directed at individual professional enhancement rather than the acquisition of general discipline knowledge or methodologies. S/U or letter graded. Repeatable, under different subtitles.

**CH 530 Seminar in Health Promotion Strategies (3)**

Prerequisites: CH 509, CH 560 or consent of instructor. Examines the effectiveness of a wide range of strategies used in health promotion/disease prevention programs. Current literature/programs are presented and reviewed.

**CH 540 Principles of Health Program Management (3)**

Prepares students to assume a supervisory role in the management of health and human services programs. Course covers planning, decision-making, organization, budgeting, marketing, human resource management, leadership.

**CH 550 Environmental Health (3)**

Investigate and discuss the relationships of environmental health problems to human health and welfare. Include sources of these problems, their recognition and control and current research studies.

**CH 560 Scientific Foundations of Health Promotion/Disease Prevention (3)**

Examine epidemiological, physiological and intervention studies from the USA and other countries to develop a scientific basis for health promotion and disease prevention.

**CH 610 Program Planning and Evaluation (3)**

Prerequisite: CH 530 or consent of instructor. Theories and practices of program planning and evaluation including needs assessment, planning approaches, selection of strategies, data collection and analysis, evaluation design, program implementation and utilization of evaluation data.

**CH 620 Epidemiology (3)**

Prerequisite: SRM 617. Epidemiological principles analyzed with an emphasis on selected topical issues, infectious and chronic/degenerative diseases, research design and analysis. Practical applications of statistical and epidemiological methods.

**CH 622 Directed Studies (1-4)**

Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

**CH 625 Public Health Administration and Policy (3)**

Analyze the organization and administration of public health agencies at national, state and local levels. Major public health problems, including administrative and policy decisions regarding their resolution, will be included.

**CH 692 Graduate Internship (6)**

Prerequisites: CH 610 and consent of instructor. Put into practice knowledge and skills learned in the classroom. Assume responsibilities in administration, supervision and evaluation and conduct various activities. One full semester of full-time placement is required in a health care setting.

**CH 699 Thesis (1-6)**

Optional for Master of Public Health candidates in Health Education. Repeatable, no limitations.

**CHED - CHEMISTRY EDUCATION****CHED 495 Seminar in Teaching Chemistry (2)**

Full admittance to PTEP required, certification at the undergraduate level or consent of instructor. Students are prepared to set up, organize and run a chemistry laboratory and classroom. S/U graded.

**CHED 508 Workshop (1-3)**

A variety of workshops on special topics within the discipline. Goals and objectives will emphasize the acquisition of general knowledge and skills in the discipline. Repeatable, under different subtitles.

**CHED 509 Advanced Placement Institute in Chemistry (2)**

Consent of instructor. Topics in chemistry content and pedagogy appropriate to the establishment, development and maintenance of an advanced placement program in chemistry. S/U graded.

**CHED 513 Professional Renewal (1-3)**

Update skills and knowledge of professionals in the discipline. Goals and objectives will be specifically directed at individual professional enhancement rather than the acquisition of general discipline knowledge or methodologies. S/U or letter graded. Repeatable, under different subtitles.

**CHED 682 Problems in Teaching Chemistry (3)**

Problems encountered in teaching chemistry and approaches to their resolutions will be considered. The formal nature of concepts, management of laboratories, safety, demonstrations are illustrative of areas of discussion.

**CHED 693 Chemical Education Research (1-10)**

Develop, complete, and defend master's level research project in chemical education. S/U graded. Repeatable, maximum of ten credits.

**CHED 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.

**CHED 793 Doctoral Research Practicum-Chemical Education (1-4)**

Consent of advisor. Provides experience in the development and implementation of research techniques, the development of experimental design and the analysis of research data. S/U graded. Repeatable, maximum of 16 credits.

**CHED 797 Doctoral Research Proposal-Chemical Education (1-4)**

Required of all doctoral students. Students may register for this course (1-4 hours) in any semester, but must earn 4 hours of credit in partial fulfillment of requirements before admission to candidacy. S/U graded. Repeatable, maximum of four credits.

**CHED 799 Doctoral Dissertation-Chemical Education (1-12)**

Required of all doctoral candidates. See Ph.D. in Chemical Education--Minimum requirements for the major in the Graduate School section of this Catalog. S/U graded. Repeatable, maximum of 12 credits.

**CHEM - CHEMISTRY****CHEM 101 Chemistry for Citizens (3)**

No previous chemistry required. Physical and chemical principles, illustrated by demonstrations and contemporary readings, understand current topics in chemistry; such as, polymers, farm chemistry, food additives, chemotherapy and drugs.

**CHEM 102 Chemistry for Citizens Laboratory (1)**

(2 laboratory) Prerequisite: CHEM 101 or take concurrently. Investigation of the chemical world through hands-on activities in the laboratory. For non-science majors. Credit given only upon successful completion of CHEM 101.

**CHEM 103 Introductory Chemistry (3)**

No credit for chemistry major or minor. Basic chemistry concepts to prepare those with no chemistry background for CHEM 108 or CHEM 111.

**CHEM 108 Fundamentals of Chemistry I (5)**

(4 lecture, 3 laboratory) High school chemistry is strongly recommended. Fundamentals of general chemistry and an introduction to organic chemistry; including, aliphatic and aromatic hydrocarbons with emphasis to the allied health professions (nursing, food and nutrition, health, kinesiology, etc.).

**CHEM 109 Fundamentals of Chemistry II (5)**

(4 lecture, 3 laboratory) Prerequisite: CHEM 108. Chemistry of biologically important organic compounds (alcohols, ethers, aldehydes, ketones, acids and their derivatives and amines) and biochemistry of the human organism, including the chemistry of cellular and body constituents and processes, foods and nutrition and metabolic diseases.

**CHEM 111 Principles of Chemistry I (5)**

(4 lecture, 3 laboratory) Atomic theory, mole concept, stoichiometry, states of matter, formulas, nomenclature, periodicity, bonding and solutions.

**CHEM 112 Principles of Chemistry II (5)**

(4 lecture, 3 laboratory) Prerequisite: CHEM 111 or CHEM 114. A continuation of CHEM 111. Thermochemistry, chemical kinetics, equilibrium, qualitative analysis, electrochemistry and descriptive inorganic chemistry.

**CHEM 114 General Chemistry I (4)**

(3 lecture, 3 laboratory) One year of high school chemistry and two years of high school algebra or equivalent required. Enrichment course for the well-prepared student. Atomic theory, stoichiometry, bonding, states of matter and solutions.



**CHEM 115 General Chemistry II (4)**  
(3 lecture, 3 laboratory) Prerequisite: CHEM 111 or CHEM 114. Continuation of CHEM 114. Enrichment course for the well-prepared student. Topics include electrochemistry, acid-base chemistry, descriptive inorganic chemistry.

**CHEM 131 Introductory Organic Chemistry (4)**  
(3 lecture, 3 laboratory) Prerequisite: CHEM 111. Will not substitute for CHEM 331. A brief introduction to modern organic chemistry. Structure, nomenclature, reactions and uses of organic compounds.

**CHEM 320 Theory and Use of Analytical Instruments (1)**  
(3 laboratory) Prerequisite: CHEM 131 or CHEM 331. Techniques of sample preparation and data collection for IR, NMR, UV-visible and AA spectrophotometers and gas chromatograph.

**CHEM 321 Chemical Analysis (4)**  
(2.5 lecture, 4.5 laboratory) Prerequisite: CHEM 112 or CHEM 115. Chemical methods of analysis including gravimetry, acid-base, redox methods, statistics in analytical chemistry and an introduction to instrument operations.

**CHEM 331 Organic Chemistry I (5)**  
(4 lecture, 3 laboratory) Prerequisite: CHEM 112 or CHEM 115. Credit not allowed for both CHEM 131 and CHEM 331. Nomenclature, reactions and synthesis of organic compounds.

**CHEM 332 Organic Chemistry II (5)**  
(4 lecture, 3 laboratory) Prerequisite: CHEM 331. Continuation of CHEM 331. Advanced concepts in synthesis, theories of reactions, biological molecules and spectroscopy.

**CHEM 360 Environmental Chemistry (2)**  
(1.5 lecture, .5 laboratory) Prerequisite: CHEM 131 or CHEM 331. The effect of chemicals in the environment.

**CHEM 421 Instrumental Analysis (4)**  
(3 lecture, 3 laboratory) Prerequisites: CHEM 321 and CHEM 450 or CHEM 451. Theory, practice and application of modern analytical instrumentation.

**CHEM 422 Directed Studies (1-3)**  
Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

**CHEM 441 Inorganic Chemistry I (2)**  
Prerequisite: CHEM 321 or CHEM 331. First of two courses exploring modern inorganic chemistry. Each utilizes the journal literature and integrates applications of appropriate physical methods with theory and practice. This course emphasizes structure and bonding in inorganic substances.

**CHEM 442 Inorganic Chemistry II (2)**  
Prerequisite: CHEM 441. A continuation of CHEM 441. Topics include descriptive main-group, coordination and organometallic chemistry with emphasis on industrial applications and interrelationships among reactions, energetics and dynamics.

**CHEM 443 Inorganic Chemistry Laboratory (1)**  
(3 laboratory) Prerequisite: CHEM 441 or take concurrently. Experimentation including structures, bonding, syntheses and properties of inorganic substances.

**CHEM 450 Survey of Physical Chemistry (4)**  
(3 lecture, 3 laboratory) Prerequisites: CHEM 332, MATH 131, PHYS 221. Corequisite: CHEM 321. One semester survey of physical chemistry (thermodynamics, chemical kinetics and quantum mechanics). Not applicable to the "professional" and "biochemistry" emphasis areas in chemistry.

**CHEM 451 Physical Chemistry I (4)**  
Prerequisites: CHEM 332, MATH 233, PHYS 241 or consent of instructor. Corequisites: CHEM 321 and CHEM 453. The properties of matter, thermodynamics, thermochemistry and kinetic molecular theory.

**CHEM 452 Physical Chemistry II (4)**  
Prerequisite: CHEM 451. Corequisite: CHEM 454. Chemical kinetics, quantum theory of atoms and molecules and statistical thermodynamics.

**CHEM 453 Physical Chemistry I Laboratory (1)**  
(3 laboratory) Corequisite: CHEM 451. Hands-on collection and treatment of experimental data by manual and computer methods.

**CHEM 454 Physical Chemistry II Laboratory (1)**  
(3 laboratory) Prerequisite: CHEM 453. Corequisite: CHEM 452. Continuation of CHEM 453.

**CHEM 481 General Biochemistry I (3)**  
Prerequisite: CHEM 331. Chemistry of biologically important compounds (proteins, nucleic acids, carbohydrates and lipids), emphasizing structure and function, methods of isolation, identification and characterization, kinetics and mechanisms of enzyme catalysis.

**CHEM 482 General Biochemistry II (3)**  
Prerequisites: CHEM 332 and CHEM 481 or equivalent. A continuation of CHEM 481. Bioenergetics, electron transport systems, metabolism of carbohydrates, lipids, nucleotides and amino acids.

**CHEM 483 Experimental Biochemistry I (1)**  
(3 laboratory) Prerequisites: CHEM 331, CHEM 481 or take concurrently, CHEM 321 or take concurrently. Techniques involved in the isolation and characterization of amino acids, peptides and proteins. Isolation and kinetics of enzymes.

**CHEM 484 Experimental Biochemistry II (1)**  
(3 laboratory) Prerequisite: CHEM 482 or take concurrently, CHEM 483. Continuation of CHEM 483. Techniques involved in the isolation and characterization of lipids and metabolism.

**CHEM 491 Glass Blowing (1)**  
(3 laboratory) Demonstration and practice in techniques of glass blowing and repair of laboratory glass equipment.

**CHEM 493 Special Topics in Chemistry (2)**  
Advanced presentation of a topic in chemistry not covered in other courses. Topic determined when offered; e.g. geochemistry, chemical evolution, industrial chemistry. Repeatable, maximum of four credits, under different subtitles.

**CHEM 499 Seminar and Research in Chemistry (1-3)**  
Introduction to chemical research and current chemical literature; initiate and pursue investigation of a specific topic in chemistry or chemical education. At least 38 clock hours per credit hour will be spent on investigation. Oral and written reports are required. Repeatable, no limitations.

**CHEM 520 Theory and Use of Analytical Instruments (1)**  
(3 laboratory) Prerequisite: CHEM 131 or CHEM 331. Techniques of sample preparation and data collection for IR, NMR, UV-visible and AA spectrophotometers and gas chromatograph.

**CHEM 522 Advanced Analytical Chemistry (3)**  
(2 lecture, 3 laboratory) Prerequisite: CHEM 321. Advanced topics in analytical chemistry, including sampling, statistics, multiple equilibria and current literature.

**CHEM 523 Chemical Spectroscopy (3)**  
Prerequisites: CHEM 321 and CHEM 331. Theory and application of IR, NMR, UV-visible and mass spectroscopy.

**CHEM 533 Organic Synthesis and Stereochemistry (3)**  
Prerequisite: CHEM 332. An advanced treatment of synthesis and stereochemistry in organic chemistry.

**CHEM 534 Theory and Mechanisms of Organic Reactions (3)**  
Prerequisites: CHEM 332, CHEM 451. An advanced treatment of organic reaction mechanisms and molecular orbital chemistry.

**CHEM 543 Organometallic Chemistry (3)**  
Prerequisite: CHEM 441. An introduction to organometallic systems will be presented. Included will be a comprehensive study of the preparation, properties and practical utility of both main-group and transition metal organometallic compounds.

**CHEM 551 Physical Chemistry I (4)**

Prerequisites: CHEM 332, MATH 233, PHYS 241. Corequisites, CHEM 321. The properties of matter, thermodynamics, thermochemistry and kinetic molecular theory.

**CHEM 552 Physical Chemistry II (4)**

Prerequisite: CHEM 551. Chemical kinetics, quantum theory of atoms and molecules and statistical thermodynamics.

**CHEM 556 Physical Chemistry of Atomic and Microscopic Systems (3)**

Prerequisites: CHEM 451 and CHEM 452 or equivalent. This course will examine the details of atomic and molecular structure, energetics, and dynamics.

**CHEM 557 Physical Chemistry of Macroscopic Systems (3)**

Prerequisites: CHEM 451 and CHEM 452 or the equivalent. An examination of the thermodynamics and kinetics of bulk systems, including the energetics, equilibrium, and kinetics of such systems.

**CHEM 560 Environmental Chemistry (2)**

(1.5 lecture, .5 laboratory) Prerequisite: CHEM 131 or CHEM 331. The effect of chemicals on the environment.

**CHEM 581 General Biochemistry I (4)**

Prerequisite: CHEM 331 or equivalent. Chemistry of biologically important compounds (proteins, nucleic acids, carbohydrates and lipids), emphasizing structure and function, methods of isolation, identification and characterization, kinetics and mechanisms of enzyme catalysis.

**CHEM 582 General Biochemistry II (4)**

Prerequisites: CHEM 332, CHEM 581 or equivalent. A continuation of CHEM 581. Bioenergetics, electron transport systems, metabolism of carbohydrates, lipids, nucleotides and amino acids.

**CHEM 586 Biochemical Techniques (3)**

(1 lecture, 6 laboratory) Prerequisites: CHEM 321, CHEM 481. Theory and application of techniques for the purification and characterization of biological molecules. Various techniques utilizing centrifugation, spectroscopy, chromatography, electrophoresis and radioisotopes are examined.

**CHEM 587 Toxicology (3)**

Prerequisites: CHEM 481 or equivalent 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 of 12 credits, under different subtitles.

**CHEM 600 Seminar in Chemistry (1)**

Oral report and discussion on some topic of interest from current literature. Repeatable, may be taken three times.

**CHEM 622 Directed Studies (1-3)**

Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum of nine credits.

**CHEM 693 Chemical Research (1-10)**

Develop, complete, and defend master's level research project in chemistry. S/U graded. Repeatable, maximum of ten credits.

**CHEM 695 Thesis Proposal (1)**

The student will develop a research proposal based on current literature.

**CHEM 699 Thesis (1-10)**

Required of Master of Arts candidates in the Arts and Sciences chemistry program. Repeatable, no limitations.

**CHEM 793 Doctoral Research Practicum-Chemistry (1-4)**

Consent of advisor. Provides experience in the development and implementation of research techniques, the development of experimental design and the analysis of research data. S/U graded. Repeatable, maximum of 16 credits.

**CHEM 797 Doctoral Research Proposal-Chemistry (1-4)**

Required of all doctoral students. Students may register for this course (1-4 hours) in any semester, but must earn 4 hours of credit in partial fulfillment of requirements before admission to candidacy. S/U graded. Repeatable, maximum of four credits.

**CHEM 799 Doctoral Dissertation-Chemistry (1-12)**

Required of all doctoral candidates. See Ph.D. in Chemical Education--Minimum requirements for the major in the Graduate School section of this Catalog. Repeatable, maximum of 12 credits.

## CIE - CENTER FOR INTERNATIONAL EDUCATION

**CIE 051 Writing for Foreign Students I (6)**

Assist foreign students with college writing tasks: essays, term papers and theses. For students whose English language skills are at advanced level. A basic skills course offered through Continuing Education; does not count in term, cumulative or total credits and will not be calculated in the GPA. Repeatable, no limitations.

**CIE 052 Writing for Foreign Students II (3-6)**

Assist foreign students with college writing tasks: essays, term papers and theses. For students whose English language skills are at advanced level. A basic skills course offered through Continuing Education; does not count in term, cumulative or total credits and will not be calculated in the GPA. Repeatable, no limitations.

## CHIN - CHINESE

Note: All Chinese courses are not offered on a regular basis. Consult the Department of Foreign Languages for current offerings.

**CHIN 101 Beginning Chinese (5)**

For students with no previous Chinese. Conversational Chinese using oral techniques with reading and writing skills. Stresses comprehension, structure, pronunciation, fluency and cultural awareness.

**CHIN 102 Elementary Chinese II (5)**

Continuation of CHIN 101. Conversational Chinese using oral techniques with reading and writing skills. Stresses comprehension, structure, pronunciation, fluency and cultural awareness.

**CHIN 105 Conversational Chinese I (3)**

For students with no previous Chinese. Develop a basic conversational ability. Emphasis on language use in business or tourism. Discussion of important aspects of Chinese culture and thought.

**CHIN 106 Conversational Chinese II (3)**

Prerequisite: CHIN 105. Continuation of CHIN 105. Basic conversational Chinese with emphasis on language use in business or tourism. Discussion of important aspects of Chinese culture and thought.

**CHIN 201 Intermediate Chinese I (3)**

Prerequisite: CHIN 102 or equivalent. Review language structures and develop reading and writing skills. Gain vocabulary through conversational practice on topics of cultural interest. Conducted in Chinese.

**CHIN 202 Intermediate Chinese II (3)**

Prerequisite: CHIN 201 or equivalent. Review language structures and develop reading and writing skills. Gain vocabulary through conversational practice on topics of cultural and literary interest. Conducted in Chinese.

## CMDS-COMMUNICATION DISORDERS

**CMDS 160 Introduction to Human Communication and Its Disorders (3)**

Survey identifying characteristics, causes, diagnosis and treatment of speech, language, and hearing disorders. Includes disorders in hearing, stuttering, voice, articulation, child language, adult aphasia, head injury and dementia.

**CMDS 260 Introduction to Phonetics (2)**

Characteristics of American English speech sounds and the International Phonetic Alphabet symbols used to represent them. Normal phonological development.

**CMDS 265 Fundamentals of Physiological and Biological Acoustics (2)**

The physics of sound as it relates to speech and hearing. Should be taken after general education mathematics requirement is completed.

**CMDS 266 Normal Speech and Language Development (3)**

Normal speech and language development and their relationship to other aspects of child development. Should be taken after general education English composition requirement is completed.

**CMDS 267 Anatomy and Physiology of the Speech and Hearing Mechanism (3)**

Prerequisite: ZOO 115. Sophomores or above. Structure and function of the speech and auditory/vestibular mechanisms.

**CMDS 301 Computers for Health and Human Services (2)**

Introduction to the workings of the computer; managerial, diagnostic and clinical applications of computers in health-related and human services professions.

**CMDS 360 Articulation and Voice Disorders (3)**

Prerequisite: CMDS 267. Current information regarding identification, causation, diagnosis and treatment of disorders of articulation and voice disorders.

**CMDS 365 Language Disorders in Children (3)**

Prerequisite: CMDS 266. Analysis of aspects of language as they relate to treatment of language disorders in children.

**CMDS 366 Language Sampling Processes (1)**

Prerequisite: CMDS 266. Consent of instructor. Methods of eliciting language samples from children and manual and computerized language sampling analyses.

**CMDS 370 Basic Audiology (3)**

Clinical observation required. Prerequisites: CMDS 265, CMDS 267 or take concurrently. Pure-tone testing, methods of speech audiometry, interpretation of audiometric data in terms of physical, social and educational effects. An introduction to principles of aural rehabilitation.

**CMDS 386 Basic Clinical Strategies in Speech-Language Pathology/Audiology (2)**

Prerequisite: CMDS 360 or CMDS 365. Clinical observation required. Treatment models for communicatively-disordered clients; development and implementation of individual treatment programs; report writing; the client-clinician relationship; assessment of treatment outcomes.

**CMDS 390 Observation in Communication Disorders (1-2)**

This course will provide supervised observations of diagnostic and therapeutic activities in speech-language pathology, aural rehabilitation and/or audiology practice. Repeatable, maximum of 2 credits.

**CMDS 422 Directed Studies (1-4)**

Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

**CMDS 431 Organically-Based Communication Disorders (3)**

Prerequisites: CMDS 160 and CMDS 267. Seniors or above. Current information regarding identification, causation, diagnosis and treatment of organically-based communication disorders, including cleft palate, cerebral palsy and aphasia.

**CMDS 465 Psychometrics (1)**

Psychometrics involves the study of how we measure psychological and behavioral traits. It includes issues related to design/construction of assessment tools and evaluation of the adequacy of these tools for various purposes and populations.

**CMDS 466 Language Sampling Procedures for School-Age Children (1)**

Introduction to language sampling procedures that can be used in analyzing the conversational abilities of school-aged children and adolescents.

**CMDS 467 Diagnostic Methods and Observation (3)**

Clinical observation required. Prerequisites: CMDS 360, CMDS 365. Philosophy and implementation of diagnosis and appraisal of communication disorders. Emphasis upon the administration, scoring and interpretation of data obtained from observation and from tests/inventories.

**CMDS 470 Communication Disorders of the Aging (2)**

Disorders of communication among older people: recognition of disorders, assessment and treatment, psychosocial and communicative impact. Procedures for dealing with these persons in health care facilities and the community.

**CMDS 474 Clinical Practicum in Audiology (1)**

Prerequisite: CMDS 370 and 3.0 GPA in major courses or consent of clinical coordinator. Perform basic audiometric testing: audiometric screening, routine hearing evaluation and impedance audiometry. S/U graded.

**CMDS 478 Aural Rehabilitation and Amplification (3)**

Prerequisite: CMDS 370. A study of basic principles of aural rehabilitation and the use of amplification systems for hearing impaired individuals including personal hearing aids and other specialized assistive listening/alerting devices.

**CMDS 483 Entry/Primary Speech-Language Pathology Practicum (2)**

Prerequisites: CMDS 360, CMDS 365, CMDS 386 and 3.0 GPA in major courses or consent of clinical coordinator. Learn general principles of the clinical process. Provide supervised individual therapy to clients with communication disorders. S/U graded.

**CMDS 487 Advanced Audiology (3)**

Prerequisite: CMDS 370. Theory and practice of advanced techniques of audiometric assessment.

**CMDS 508 Workshop (1-3)**

A variety of workshops on special topics within the discipline. Goals and objectives will emphasize the acquisition of general knowledge and skills in the discipline. Repeatable, under different subtitles.

**CMDS 513 Professional Renewal (1-3)**

Update skills and knowledge of professionals in the discipline. Goals and objectives will be specifically directed at individual professional enhancement rather than the acquisition of general discipline knowledge or methodologies. S/U or letter graded. Repeatable, under different subtitles.

**CMDS 515 Referenced and Research Writing (1)**

Content includes library data bases, development of problems and research topics and use of APA style.

**CMDS 555 Neuroanatomy and Neurophysiology of Communication (3)**

Neuroanatomy-physiology related to speech, language and hearing; neuropathologies of the central nervous system and results of neurological insult.

**CMDS 561 Voice Disorders and Cleft Palate (3)**

Advanced study in diagnosis and treatment of voice disorders, including those associated with cleft lip/palate.

**CMDS 565 Neurogenic Communication Disorders (4)**

Prerequisite: CMDS 555. Causation, diagnosis and treatment of speech and language disorders resulting from neurological dysfunction.

**CMDS 567 Diagnostic Methods and Observation (3)**

Clinical observation required. Prerequisites: CMDS 360, CMDS 365. Philosophy and implementation of diagnosis and appraisal of communication disorders. Emphasis upon the administration, scoring and interpretation of data obtained from observation and from tests/inventories.

**CMDS 569 Advanced Diagnostic Procedures (1-2)**

Must be taken for a minimum of four credits. Corequisite: CMDS 583 or CMDS 585. Perform speech-language screenings and diagnostic evaluations. Repeatable, maximum of six credits.

**CMDS 570 Rehabilitative Audiology (3)**

Prerequisite: CMDS 370. Theory and procedures for 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.

**CMD5 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.

**CMD5 573 Auditory Physiology and Pathology (3)**

Undergraduate anatomy and physiology required. Advanced physiology of the human auditory system, emphasizing electrical potentials; processes of pathophysiology.

**CMD5 574 Clinical Practicum in Audiology (1)**

Prerequisites: CMD5 370, 3.0 GPA in major courses or consent of clinical coordinator. Perform basic audiometric testing: audiometric screening, routine hearing evaluation and impedance audiometry. S/U graded.

**CMD5 580 Practicum in Rehabilitative Audiology (1-2)**

Prerequisite: CMD5 483. Habilitation/rehabilitation of acoustically-handicapped persons. Repeatable, maximum of six credits.

**CMD5 582 Pediatric/Educational Audiology (3)**

Prerequisite: CMD5 370. Philosophy and implementation of diagnosis of hearing loss in children. Diagnostic, therapeutic and educational implications of auditory processing disorders. Services for hearing-impaired children in the schools.

**CMD5 583 Entry/Primary Speech-Language Pathology Practicum (1-2)**

Prerequisites: CMD5 360, CMD5 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. Repeatable, maximum of two credits.

**CMD5 584 Screening Procedures in Speech-Language Pathology (1)**

Presents theory and procedures related to screening speech and language abilities in children and adults. Provides practice in implementing procedures in a variety of settings. S/U graded.

**CMD5 585 Advanced Graduate Practicum in Speech-Language Pathology (1-2)**

Prerequisite: CMD5 483/CMD5 583. Supervised individual and group therapy experiences with communicatively-disordered clients. Repeatable, maximum of eight credits.

**CMD5 587 Advanced Audiology (3)**

Prerequisite: CMD5 370. Theory and practice of advanced techniques of audiometric assessment.

**CMD5 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.

**CMD5 594 Practicum and Advanced Topics in Audiology (4)**

Prerequisite: CMD5 474 or CMD5 574. Perform the full range of clinical audiological services, including special testing, hearing aid evaluations and dispensing of hearing aids. Repeatable, maximum of six credits.

**CMD5 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.

**CMD5 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.

**CMD5 660 Clinical Phonology (3)**

Advanced study of articulation disorders in children and adults.

**CMD5 662 Stuttering (3)**

Current theories, therapies and research on stuttering and related disorders of fluency.

**CMD5 663 Language Disorders in Children II (3)**

Advanced study of causation, diagnosis and therapy for children with language disorders. Pragmatic aspects of language; implications for remediation of language disorders.

**CMD5 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. Repeatable, no limitations.

**CMD5 669 Language-Learning and Cognition (3)**

Basic neurophysiology related to language-learning and cognition.

**CMD5 671 Psychoacoustics (2)**

Prerequisite: CMD5 573. Concepts of loudness, adaptation, auditory fatigue, masking and the critical band, pitch perception, localization, temporal order and perceptual organization.

**CMD5 673 Practicum in School Audiology (1-6)**

Prerequisite: CMD5 582. Perform audiological services in schools (grades K-12) under supervision of a certified Audiologist. S/U graded. Repeatable, maximum of six credits.

**CMD5 675 Differential Diagnosis of Auditory Problems (3)**

Prerequisite: CMD5 573. Theory and process of differential diagnosis of hearing and auditory processing disorders. Focus on behavioral testing, advanced immittance concepts and assessment. Some exposure to other objective measures.

**CMD5 677 Medical Aspects of Audiology (3)**

Corequisite: CMD5 573. Study of the medical correlates of hearing impairment including pathogenesis of auditory pathologies, medical/surgical intervention, pharmacology and ototoxicity, radiology and imaging techniques and effects of sedation on electrophysiologic tests.

**CMD5 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.

**CMD5 681 Advanced Speech Physiology (3)**

Undergraduate anatomy and physiology required. Advanced physiology of the speech production system, emphasizing normal aspects and select pathophysiological conditions.

**CMD5 683 Advanced Topics in Language Disorders (3)**

Prerequisite: CMD5 365. Advanced topics and trends related to diagnosis and treatment in child language disorders.

**CMD5 685 Advanced Differential Diagnosis of Auditory Problems (4)**

Intensive and advanced study of recent developments in auditory/vestibular physiology and their application to identification of pathology. Advanced concepts in measurement, interpretation, and clinical utility of objective tests of the auditory/vestibular system such as otoacoustic emissions, multi-frequency tympanometry, auditory evoked potentials and electronystagmography.

**CMD5 688 Hearing Aids II (3)**

Prerequisite: CMD5 678. A continuation of the advanced study of the theory, instrumentation, and use of hearing aids and assistive listening devices with emphasis on applied theory and clinical use.

**CMD5 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.

**CMD5 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.

**CMD5 692 Internship in Medical Settings (2-16)**

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 16 credits.

**CMD5 699 Thesis: Communication Disorders (1-6)**

Individual original research under the direction of faculty, aimed at acquisition of research skills, appreciation of the scientific inquiry process, knowledge of scientific writing style and dissemination. S/U graded. Repeatable, no limitations.

**CS - COMPUTER SCIENCE****CS 101 Introduction to Computer Science (3)**

A beginning-level course which provides a broad introduction to the fundamental concepts and techniques of computer science. Topics covered will include computer architecture, structured programming, data base and information retrieval, and applications of computers in a variety of areas.

**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 different subtitles.

**CS 200 Object-Oriented Analysis, Design, and Programming (3)**

Prerequisite: CS 102. Study the software development life cycle; elements of the object model; object-oriented data types and functions; object-oriented enhancements to structured programming; and additional data structures and algorithms.

**CS 222 Computer Architecture/Organization (3)**

Prerequisite: CS 101. A study of the organization and structure of the major hardware components of computers and the basics of assembly language programming.

**CS 301 Algorithms and Data Structures (3)**

Prerequisite: CS 200. Internal representation of lists, trees, graphs, internal/external sorting and searching, hashing. Concepts related to the interaction among algorithm, data structures, and storage structures for the generating, developing, and processing of data.

**CS 302 Programming Languages (3)**

Prerequisite: CS 301. Basic components of programming languages. Specification of syntax and semantics. Description of programming languages features. Examine a wide variety of languages with an emphasis on their structure, design, and use.

**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). A directed studies description should be submitted to the student's directed studies teacher. The project must be signed off by all Computer Science faculty. Repeatable, may be taken two times.

**CS 440 Operating Systems (3)**

Prerequisites: CS 222 and CS 301. Study operating systems history, concepts/structure and design; process, processor, memory, file system and input/output management; and representative operating systems.

**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)**

Prerequisite: CS 301. Study knowledge representation, automated reasoning, natural language processing, vision processing, expert systems and machine learning; and AI programming.

**CS 480 Graphics (3)**

Prerequisite: CS 301. Study graphics theory and applications including the description and transformation of world, viewpoint, eye and screen coordinates, two and three dimensional graphics and hidden line algorithms.

**CS 490 Seminar (1)**

Junior or above in Computer Science. Each student will research a current topic of interest and present it as a seminar. A term paper on the topic will also be required. Repeatable, maximum of two credits.

**CS 492 Internship (1-8)**

Senior or consent of instructor. Obtain practical experience and have opportunities to utilize computer science theory. A job description should be submitted to the student's internship advisor. The project must be signed off by all Computer Science faculty. S/U graded. Repeatable, maximum of eight credits.

**CS 497 Senior Project (1-8)**

Senior or above. A significant application in computer science will be researched, developed and implemented under the guidance of a computer science professor. A software specification should be submitted to the student's project advisor. The project must be signed off by all Computer Science faculty. Repeatable, maximum of eight credits.x

**DNCE - DANCE****DNCE 166 Beginning Ballet (2)**

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 169 Partnering (1)**

Prerequisites: DNCE 166, DNCE 167. Learning techniques of dancing with another for purposes of dance stage performance. Repeatable, maximum of three credits.

**DNCE 170 Jazz Dance (1)**

Gain knowledge and skill in the activity of jazz dance. Repeatable, maximum of five credits.

**DNCE 171 Modern Dance (1)**

Gain knowledge and skill in the activity of modern dance. Repeatable, maximum of five credits.

**DNCE 173 Self-Awareness with Movement (1)**

Gain knowledge and skill in the activity of self-awareness with movement. Repeatable, maximum of three credits.

**DNCE 174 Dance Conditioning (1)**

Gain knowledge and skill in body, strength, stability, flexibility, endurance, coordination, and awareness specific to dance movement. Repeatable, may be taken three times.

**DNCE 175 Tap Dance (1)**

Gain knowledge and skill in the activity of tap dance. Repeatable, maximum of five credits.

**DNCE 180 Intermediate Ballet (2)**

Prerequisite: DNCE 166 or equivalent. Gain intermediate knowledge and skill in the activity of ballet. Repeatable, may be taken five times.

**DNCE 181 Intermediate Jazz Dance (2)**

Prerequisite: DNCE 170 or equivalent. Gain intermediate knowledge and skill in the activity of jazz dance. Repeatable, may be taken five times.

**DNCE 182 Intermediate Modern Dance (2)**

Prerequisite: DNCE 171 or equivalent. Gain intermediate knowledge and skill in the activity of modern dance. Repeatable, may be taken five times.

**DNCE 183 Intermediate Tap Dance (1)**

Prerequisite: DNCE 175 or equivalent. Gain intermediate knowledge and skill in the activity of tap dance. Repeatable, may be taken five times.

**DNCE 290 Ballet Partnering (1)**

Prerequisite: Advanced Ballet for women, Intermediate Ballet for men or consent of instructor. Must have at least two years experience on pointe (women). Must be registered for ballet while taking this class. This partnering class is for advanced ballet students with a minimum of two years experience on pointe. A series of partnering turns, lifts, and promenades will be taught culminating in a classical pas de deux. Repeatable, may be taken three times.

**DNCE 291 Advanced Ballroom Dance (1)**

Prerequisite: DNCE 167 or equivalent. Gain knowledge and skill in the art of advanced ballroom dance.

**DNCE 292 Advanced Ballet (3)**

Prerequisite: DNCE 180 or consent of instructor. Gain knowledge and skill at advanced level in activity of ballet. Repeatable, no limitations.

**DNCE 293 Advanced Jazz Dance (2)**

Prerequisite: DNCE 181. Gain knowledge and skill at advanced level in the activity of jazz dance. Repeatable, no limitations.

**DNCE 294 Advanced Modern Dance (2)**

Prerequisite: DNCE 182. Gain knowledge and skill at advanced level in the activity of modern dance. Repeatable, no limitations.

**DNCE 295 Beginning Dance Theory (1)**

Discussion and study of the body's structure and movement potential. Analysis of movement principles and elements as related to dance technique.

**DNCE 296 Beginning Choreography and Improvisation (2)**

Prerequisite: DNCE 295 or consent of instructor. Investigate and explore principles of modern dance composition such as movement manipulation, phrasing, spatial design and choreographic form. Experiences in spontaneous movement exploration.

**DNCE 308 Workshop in Dance (1-2)**

Study in the problem areas of participants. Problems will vary with experts conducting workshops. S/U graded.

**DNCE 354 Dance Performance I (2)**

Study and practice basic theories of performing and/or choreography. Repeatable, no limitations.

**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. Repeatable, no limitations.

**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. Repeatable, no limitations.

**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. Repeatable, no limitations.

**DNCE 397 Intermediate Technique, Improvisation and Composition (2)**

Prerequisites: DNCE 295, DNCE 296. Learn intermediate level dance technique; movement analysis and composition as an intermediate dance student.

**DNCE 440 Labanotation/Movement Analysis (2)**

Prerequisites: DNCE 180, DNCE 181, DNCE 182 and DNCE 295. Consent of instructor. Study of analyzing and notating dance movement.

**DNCE 453 Teaching Methods, Rhythmic Analysis and Accompaniment (3)**

Prerequisites: DNCE 295, DNCE 296, DNCE 170, DNCE 171 or consent of instructor. Practice and study of rhythm, dance accompaniment and teaching methods used in dance classrooms.

**DNCE 454 Dance History and Philosophy (2)**

Consider the history and development of dance as it is culturally determined and the philosophy influencing dance.

**DNCE 455 Dance Philosophy/Trends (2)**

Prerequisites: DNCE 166, DNCE 170, DNCE 171, DNCE 296. Consider trends in dance/art form. Familiarity with dance criticism.

**DNCE 456 Advanced Technique, Improvisation and Composition (2)**

Prerequisites: DNCE 295, DNCE 296, DNCE 397 or consent of instructor. Investigate advanced dance technique, theory, composition and problems connected with staging a dance performance.

**DNCE 459 Dance Production in High School and College (2)**

Prerequisites: DNCE 295, DNCE 296, DNCE 456 or consent of instructor. Make practical application of principles that serve the presentation of dance. Deal with the choreographic problems, its direction and production involving theatre application of set, costume and light design.

**DNCE 460 Dance Kinesiology (3)**

Prerequisite: KINE 220 or PE 211. Study of body's potential for movement. Knowledge about stretching, strengthening, injuries, correctives, good nutrition, weight control and biomechanical applications in dance.

**DNCE 480 Junior/Senior Seminar (1)**

Prerequisites: DNCE 292, DNCE 293, DNCE 295 and DNCE 296. Juniors or above. Learning about job opportunities and job preparation procedures. A chance to dialogue and ask questions about dance fields.

**DNCE 490 Dance Apprenticeship (3)**

Completion of Dance Emphasis required. On-site experience with professional dance company either as performer or in another approved capacity.

**DNCE 492 Internship in Dance Leadership (3)**

Completion of Dance Emphasis required or consent of instructor. Practice in leading dance classes. Experience chosen according to student's interest area. S/U graded.

**DNCE 493 Practicum in Dance Teaching (3)**

Completion of Dance Emphasis. On-site experience in teaching dance in an approved agency.

**DNCE 508 Workshop (1-3)**

A variety of workshops on special topics within the discipline. Goals and objectives will emphasize the acquisition of general knowledge and skills in the discipline. Repeatable, under different subtitles.

**DNCE 513 Professional Renewal (1-3)**

Update skills and knowledge of professionals in the discipline. Goals and objectives will be specifically directed at individual professional enhancement rather than the acquisition of general discipline knowledge or methodologies. S/U or letter graded. Repeatable, under different subtitles.

**DNCE 553 Teaching Methods, Rhythmic Analysis and Accompaniment (3)**

Prerequisites: DNCE 295, DNCE 296, DNCE 170, DNCE 171 or consent of instructor. Practice and study of rhythm, dance accompaniment and teaching methods used in dance classrooms.

**DNCE 554 Dance History and Philosophy (2)**

Consider the history and development of dance as it is culturally determined and the philosophy influencing dance.

**DNCE 555 Dance Philosophy/Trends (2)**

Prerequisites: DNCE 166, DNCE 170, DNCE 171, DNCE 296. Consider trends in dance/art form. Familiarity with dance criticism.

**DNCE 556 Advanced Technique, Improvisation and Composition (2)**

Prerequisites: DNCE 295, DNCE 296, DNCE 397 or consent of instructor. Investigate advanced dance technique, theory, composition and problems connected with staging a dance performance.

**DNCE 559 Dance Production in High School and College (2)**

Prerequisites: DNCE 295, DNCE 296, DNCE 456 or consent of instructor. Make practical application of principles that serve the presentation of dance. Deal with the choreographic problems, its direction and production involving theatre application of set, costume and light design.

**ECON - ECONOMICS****ECON 101 Understanding the Contemporary Economy (3)**

Non-majors only. A variety of learning experiences will be utilized to provide the knowledge and skills necessary to understand individual economic roles in society as well as to analyze current economic issues.

**ECON 103 Introduction to Economics: Macroeconomics (3)**

Discuss and study macroeconomic issues and models of aggregate economic analysis with emphasis on income, expenditures, fiscal and monetary policy, employment, inflation and growth.

**ECON 105 Introduction to Economics: Microeconomics (3)**

Supply and demand, consumer utility, production and costs, perfect competition, pure monopoly, resource allocation, public goods, income distribution and economic regulation.

**ECON 245 Urban Planning Economics (3)**

Prerequisites: ECON 103 and ECON 105. Students will study economic problems relevant to urban areas including land use, congestion, housing and poverty. The role of the private and public sector in resolving these problems will be analyzed.

**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 301 Money and Banking (3)**

Prerequisites: ECON 103 and ECON 105. The study of monetary theory, monetary policy, money, banking and the Federal Reserve System.

**ECON 303 Intermediate Macroeconomics (3)**

Prerequisites: ECON 103 and ECON 105. Study the determinants of aggregate demand, aggregate supply, employment, macroeconomic objectives and policies.

**ECON 304 Women and the Economy (3)**

Prerequisite: ECON 105. Explore the economic status of women, the institutions that have affected their economic decisions and impact on the performance of the economy.

**ECON 305 Intermediate Microeconomics (3)**

Prerequisites: ECON 103, ECON 105, MATH 124 or MATH 175. The theory of consumer choice, of the business firm and resource allocation.

**ECON 310 Economics of Entrepreneurship (3)**

Prerequisites: ECON 103 and ECON 105. This course will give an in-depth understanding of how to apply economics to decisions faced by today's growing number of business enterprises. Focus is on Colorado's new enterprises.

**ECON 315 Labor/Management Economics (3)**

Prerequisites: ECON 103 and ECON 105. Examine American labor movement, development of labor laws and policy, economics of labor markets, employment, collective bargaining practice and union impact on contemporary industrial organization.

**ECON 320 Comparative Economic Systems (3)**

Prerequisites: ECON 103 and ECON 105. Analysis of capitalism, socialism and communism as types of economic systems; origins, historical development, major characteristics, successes and failures and future development of prominent world economies.

**ECON 341 Public Finance (3)**

Prerequisites: ECON 103 and ECON 105. Government financing at federal, state and local levels as reflected in expenditures, revenues and debt.

**ECON 344 International Economics (3)**

Prerequisites: ECON 103, ECON 105. Examine theories of international trade and the impact of trade policies on income and employment. Explores the international financial system, including exchange rates and capital flows.

**ECON 350 Application of Mathematics to Economics (3)**

Prerequisite: ECON 103, ECON 105, ECON 303, ECON 305 and MATH 175. Introduces students to the application of mathematics to the analysis of economic problems. Numerous examples, exercises and computer applications are used to integrate mathematically formulated models with economic analysis.

**ECON 356 Water Resource Economics (3)**

Prerequisite: ECON 105, at least one upper division ECON course. Examination of economic principles governing water planning, development and law. Discussion of supply and demand, quality and political issues. Relationship to Colorado and local situation.

**ECON 360 Economics of Growth and Development (3)**

Prerequisites: ECON 103 and ECON 105. Analyze the theory, processes and history of economic growth and development, emphasizing resource use and productivity in less developed areas.

**ECON 362 Economic History of the United States (3)**

Prerequisites: ECON 103 and 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 400 Managerial Economics (3)**

Prerequisites: ECON 105, ECON 305, 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.

**ECON 402 Contemporary Economic Problems (3)**

Prerequisites: ECON 103, ECON 105, ECON 303, ECON 305. Majors only. Senior status required. 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 Quantitative Economics (3)**

Prerequisites: ECON 303, ECON 305, MATH 131 or MATH 176. Study of the principal mathematical techniques used in economic analysis; fundamental concepts underlying marginal analysis, linear programming, decision and game theory. Microcomputers will be used.

**ECON 452 Econometrics (3)**

Prerequisites: ECON 303, ECON 305 and ECON 350. Estimating statistical regression models of economic relationships; treatment of special problems that may arise in analysis of economic data. Microcomputers will be used.

**ECON 453 Business and Economic Forecasting (3)**

Prerequisites: STAT 311, ECON 303, ECON 305, MATH 131 or MATH 176. Analysis of fluctuations in economic activity, study of responsible factors, forecasting techniques and models. Time series model building and forecasting. Emphasizes applied computer assignments.

**ECON 455 Regional Theory and Methods (3)**

Prerequisites: ECON 303, ECON 305, 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.

**ECON 470 History of Economic Thought (3)**

Prerequisites: ECON 103 and ECON 105. Trace the evolution of economic thinking from 17th century to modern day. See roles played by certain "schools" of economic thinkers, the genesis of their ideas and their contributions.

**ECON 480 Research in Economics (2-5)**

Prerequisites: ECON 303 and ECON 305 or consent of instructor. Learn the basic skills involved in economic research including principles of the scientific method and model application. Prepare a research proposal and final report on a timely economic problem. Repeatable, maximum of eight credits.

**ECON 492 Internship in Economics (2-5)**

Prerequisites: ECON 303 and ECON 305 or consent of instructor. Internships in the public and private sectors to allow the students to have practical experience in the market place. Repeatable, maximum of eight credits.

**ECON 502 Advanced Contemporary Economic Problems (3)**

Prerequisites: ECON 103, ECON 105, ECON 303 and ECON 305. Learn the contribution of economic models and techniques in understanding current issues facing society. Analyze the efficiency and equity impact of alternative solutions. Graduates only.

**ECON 503 Intermediate Macroeconomics (3)**

Prerequisites: ECON 103 and ECON 105. Study the determinants of aggregate demand, aggregate supply, employment, macroeconomic objectives and policies.

**ECON 508 Workshop (1-3)**

A variety of workshops on special topics within the discipline. Goals and objectives will emphasize the acquisition of general knowledge and skills in the discipline. Repeatable, under different subtitles.

**ECON 509 Advanced Placement Program in Economics (1-3)**

Prerequisites: ECON 103 or ECON 105 or equivalent. Explore methods and materials for teaching Advanced Placement economics at the secondary level. Review basic economic concepts of both macro or micro through a variety of classroom learning experiences. Repeatable, no limitations.

**ECON 513 Professional Renewal (1-3)**

Update skills and knowledge of professionals in the discipline. Goals and objectives will be specifically directed at individual professional enhancement rather than the acquisition of general discipline knowledge or methodologies. S/U or letter graded. Repeatable, under different subtitles.

**ECON 551 Quantitative Economics (3)**

Prerequisites: ECON 303, ECON 305, 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.

**ECON 552 Econometrics (3)**

Prerequisites: ECON 303, ECON 305, and ECON 350 or equivalent. Estimating statistical regression models of economic relationships; treatment of special problems that may arise in analysis of economic data. Microcomputers will be used.

**ECON 555 Regional Theory and Methods (3)**

Prerequisites: ECON 303, ECON 305, 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.

**ECON 570 History of Economic Thought (3)**

Prerequisites: ECON 103 and ECON 105. Trace the evolution of economic thinking from the 17th century to modern day. See roles played by certain "schools" of economic thinkers, the genesis of their ideas and their contributions.

**ECON 580 Research in Economics (2-5)**

Prerequisites: ECON 303 and ECON 305 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. Repeatable, maximum of eight credits.

**EDEC - ELEMENTARY EDUCATION: EARLY CHILDHOOD****EDEC 210 Introduction to Early Childhood (2)**

Prerequisite: Open to students who are applying to the Early Childhood PTEP. Examines early childhood education in historical, political, sociological, legal and philosophical contexts. Issues surrounding safety, wellness and professionalism are discussed.

**EDEC 231 Development of Infants and Toddlers (3)**

Required laboratory arranged. Investigate growth patterns from conception through infancy and the third year. Include influences on early development, guidance, care provision and adults' responsibilities for providing favorable environment. Observe infants and toddlers.

**EDEC 308 Early Childhood Workshop (1-10)**

Study problems in early childhood education. Area covered in any one workshop determined by subtitle. S/U graded. Repeatable, under different subtitles.

**EDEC 333 Development and Guidance of Young Children (3)**

(2 lecture, 2 laboratory) Required laboratory arranged. Approach the physical, intellectual, social and emotional growth of young children from developmental point of view. Discuss theory, observation and appropriate guidance as approaches to primary child study. Observe children.

**EDEC 334 Preschool/Kindergarten Curriculum and Methods (3)**

Prerequisites: EDEC 333, provisional or Full admittance to PTEP. Juniors/ seniors only. Study curriculum development, including selecting art, literature, music and science for preschool and kindergarten children. Plan lessons and study specific methods and techniques of teaching.

**EDEC 336 Child Within the Family (3)**

Cover topics concerning individuals within the family as it develops role behavior, personality, self-identity and stability. Discover how interaction focuses one's defenses against change in family crises.

**EDEC 422 Directed Studies (1-3)**

Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

**EDEC 437 Administration of Programs for Young Children (3)**

Juniors/seniors only. Learn the organization and management of various types of child care centers, emphasizing program planning, selecting and organizing equipment and learning administrative procedures.



**EDEC 439 Parent/Child/Teacher Relationships (3)**

Deal with relationships between parents, children and teachers, particularly stressing resources for meeting problems through cooperative interaction.

**EDEC 450 Family Diversity and Involvement Early Childhood Education (2)**

Provides theoretical foundation and practical application of family diversity and parent involvement in early childhood programs. Advocacy, rights and responsibilities of parents and professionals will be addressed.

**EDEC 460 Early Childhood Curriculum (3)**

Developmentally appropriate programming for children ages 3-8 in the curriculum areas of literacy and the social world. Appropriate assessment for programming will be included.

**EDEC 470 Early Childhood Student Teaching I (6)**

Prerequisite: Full acceptance into Early Childhood Education PTEP and completion of Block II. Provides focused, intensive teaching experience in educational settings for children, birth through age four, in preschool and/or childcare setting.

**EDEC 480 Early Childhood Curriculum (3)**

Curriculum content and experiences in math and science; effective strategies for teaching and assessment; developing and implementing integrated lessons/units for primary aged children are addressed.

**EDEC 490 Early Childhood Student Teaching II (6)**

Prerequisite: Full admission into the Early Childhood Education PTEP and completion of Block III. Provides focused, intensive teaching experience in educational settings for children ages 5-8 in a kindergarten and primary school setting.

**EDEC 462 Classroom Management in Early Childhood (3)**

Juniors or above. Examine those components of effective classroom management procedures with children in groups. Topics include theoretical perspectives, rules and organization, pro-social behavior and effective pedagogical decisions.

**EDEC 463 Diagnostic Teaching in Early Childhood (3)**

Full admittance to PTEP required. Junior/seniors only. Discover various diagnostic tools and techniques appropriate for measuring a young child's progress in learning and use results to individualize instruction.

**EDEC 508 Workshop (1-3)**

A variety of workshops on special topics within the discipline. Goals and objectives will emphasize the acquisition of general knowledge and skills in the discipline. Repeatable, under different subtitles.

**EDEC 513 Professional Renewal (1-3)**

Update skills and knowledge of professionals in the discipline. Goals and objectives will be specifically directed at individual professional enhancement rather than the acquisition of general discipline knowledge or methodologies. S/U or letter graded. Repeatable, under different subtitles.

**EDEC 539 Parent Education and Involvement in Early Childhood/Primary (3)**

Deal with relationships between parents, children and teachers stressing parent involvement in education and resources for promoting children's success in school.

**EDEC 562 Classroom Management in Early Childhood (3)**

Juniors or above. Examine those components of effective classroom management procedures with children in groups. Topics include theoretical perspectives, rules and organization, pro-social behavior and effective pedagogical decisions.

**EDEC 601 Practicum (1-3)**

Open by invitation to resident graduate students. Supervised professional activity in early childhood education, approximately 2 hours per day. A well-written paper must be filed with instructor before credit is given. Repeatable, maximum of six credits.

**EDEC 620 Educational Applications of Child Development in Early Childhood Classrooms (3)**

Study of applications of child development theories and research in early childhood education (0-age8). Analysis of classroom practices in relation to child development theories and research. Acquisition of knowledge and skills needed to apply child development theories and research in early childhood education.

**EDEC 622 Directed Studies (1-3)**

Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

**EDEC 648 Psycholinguistics in Early Childhood (3)**

Designed to acquaint the student with the language development of the young child. Attention given to the nature of English, language acquisition, instructional implications and applications.

**EDEC 660 Critical Issues in Early Childhood (3)**

Investigating trends and issues concerning the young child, stressing curriculum, sound education policies, especially the need for cultural diversity, as well as issues of compelling contemporary significance.

**EDEC 662 Research in Early Childhood and Primary Education (3)**

Receive background in research concerning factors affecting the development and learning of young children and their families, engage in single-subject behavior management research.

**EDEC 663 Educational Assessment, Evaluation and Prescription for the Young Child (3)**

Focus on assessment tools and techniques for teacher evaluation of educational progress in young children. Plan educational programs with appropriate curricular content for individual children.

**EDEC 664 Seminar in Early Childhood and Primary Education (3)**

Explore topics in early childhood education in planned sequence that includes research, field settings, discussions and contemporary issues, especially the need for cultural diversity.

**EDEC 670 Curriculum and Instruction in Early Childhood and Primary Education (3)**

Examine components of effective instruction in early childhood and primary levels, including theoretical bases, environment, organization and management, teacher's role, curriculum content and evaluation. Relevant research is investigated.

**EDEC 675 Play and Psychosocial Development in Early Childhood (3)**

Focus on theories of play in socio-drama, therapy and cognition. Motor, emotional and psychosocial development explored. Play of successive development phases and individual meaning for each child emphasized.

**EDEC 677 Problem Solving Strategies in Early Childhood and Elementary Mathematics (2)**

Prerequisite: EDEL 420 or EDEL 520 or equivalent. Exploration of problem solving as a focus in elementary math. Emphasis on activities and strategies in problem solving in math and other subjects in elementary schools.

**EDEC 680 Play and Development of High Risk Children (2)**

Prerequisite: EDEC 675 or equivalent. Examination of psychosocial development of young children and the role of play, particularly with high risk children. Stages, values and assessment of play discussed.

**EDEC 701 Advanced Practicum in Early Childhood Education (1-4)**

Open only by invitation to resident doctoral students. Supervised professional activity in Early Childhood Education. A well-written paper must be filed with the supervising instructor before credit is given. S/U graded. Repeatable, maximum of six credits.

**EDEC 750 The Professional Early Childhood Teacher Educator (3)**

Designed for the Early Childhood professional completing doctorate. Examines and encourages participation in scholarly activity, professional service and organizational activity in Early Childhood.

**EDEC 790 Supervised Practicum in College Teaching (3)**

Receive experiences in observation and supervised practice in college teaching to be used as basis for analysis of learning experiences. S/U graded. Repeatable, maximum of six credits.

**EDEC 797 Doctoral Proposal Research (1-4)**

Required of all doctoral students. Students must earn 4 hours of credit for doctoral dissertation research proposal in partial fulfillment of requirements for doctoral degree before admission to candidacy. S/U graded. Repeatable, maximum of four credits.

**EDEC 799 Doctoral Dissertation (1-12)**

Required of all doctoral candidates, who must earn 12 hours of credit for the dissertation in partial fulfillment of requirements for the doctoral degree. S/U graded. Repeatable, no limitations.

**EDEL - ELEMENTARY EDUCATION****EDEL 200 Orientation to Education (1)**

Visit and participate in classroom activities (preschool through high school) to determine probable level of degree program emphasis. Engage in diagnostic writing and speaking activities for personalized evaluation.

**EDEL 308 Elementary Education Workshop (1-10)**

Study problems in elementary education. S/U graded. Repeatable, may be taken four times to a maximum of ten credits, under different subtitles.

**EDEL 405 Cadet Teaching (1-6)**

Cadet teaching is the field component based in the school setting taken concurrent with "blocked" classes; i.e. EDRD 410/EDEL 420 and EDEL 440/EDEL 450; emphasis of theory into practice. S/U graded. Repeatable, maximum of eight credits.

**EDEL 420 Effective Instruction in Elementary School Mathematics (3)**

Full admittance to PTEP or certification at undergraduate level required. A comprehensive examination of issues, trends and practices in elementary school mathematics programs, including instructional strategies, planning, development, materials and evaluation. Emphasis on promoting problem solving in school mathematics curriculum.

**EDEL 422 Directed Studies (1-3)**

Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

**EDEL 430 Learning About Teaching and Learning (6)**

Prerequisites: EPSY 346, EDSE 430. Corequisite: ET 347. Full admittance to PTEP required. Students immersed in learning about teaching, reflecting on learning and learners. One week prior to University classes in partnership schools. Seminars, educational technological applications and classroom interactions located in schools.

**EDEL 440 Effective Instruction in Elementary School English/Language Arts (3)**

Full admittance 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 admittance to PTEP or certification at undergraduate level required. An in-depth consideration of issues, problems and practices in the elementary social studies classroom, including instructional strategies, planning, materials and evaluation. Emphasis on thinking in a pluralistic democratic society.

**EDEL 460 Integrated Methods I: Reading, Language Arts, Science and Health (9)**

Prerequisites: ET 347, EDEL 430. Must take EDEL 460 or EDEL 470 the semester prior to Student Teaching (EDEL 490), but one must be taken concurrently with EDEL 490. Full admittance to PTEP required. Juniors or above. Course integrates methods of reading/reading diagnosis, language arts, social studies and art. Students learn discipline specific instructional techniques, activities and content knowledge in school setting.

**EDEL 470 Integrated Methods II: Math, Social Studies, Art, Music and Physical Education (9)**

Prerequisites: EDEL 430, ET 347. Must 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. 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 480 Student Teaching Block I and Seminars (6)**

Full admittance to Elementary PTEP is required. EDEL 460 is taken concurrently with EDEL 480. A field experience that includes ten weeks of continuous field experiences with supervision by university and school faculty and integrated seminars. S/U graded.

**EDEL 490 Student Teaching Block II and Seminars (6)**

Full admittance to Elementary PTEP is required. EDEL 470 is taken concurrently with EDEL 490. A field experience that includes eleven weeks of continuous field experiences with supervision by university and school faculty and integrated seminars. S/U graded.

**EDEL 505 Cadet Teaching (1-6)**

Cadet teaching is the field component based in the school setting taken concurrent with "blocked" classes; i.e., EDRD 410/EDEL 420 and EDEL 440/EDEL 450; emphasis of theory into practice. S/U graded. Repeatable, maximum of eight credits.

**EDEL 508 Workshop (1-3)**

A variety of workshops on special topics within the discipline. Goals and objectives will emphasize the acquisition of general knowledge and skills in the discipline. Repeatable, under different subtitles.

**EDEL 513 Professional Renewal (1-3)**

Update skills and knowledge of professionals in the discipline. Goals and objectives will be specifically directed at individual professional enhancement rather than the acquisition of general discipline knowledge or methodologies. S/U or letter graded. Repeatable, under different subtitles.

**EDEL 520 Effective Instruction in Elementary School Mathematics (3)**

Prerequisite: EDRD 510 or take concurrently. Full admittance 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 525 Integrated Methods: Visual Arts, Music and Physical Education (1-3)**

Prerequisites: Full admittance to PTEP. This course integrates the subject areas of visual art, music and physical education for the post-baccalaureate teacher candidate. Teacher candidates learn discipline specific instructional techniques, strategies, activities and content knowledge to effectively integrate these areas across the curriculum to help children better understand their world.

**EDEL 540 Effective Instruction in Elementary School English/Language Arts (3)**

Full admittance 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 544 Elementary Student Teaching and Capstone Seminar (1-12)**

Prerequisites: Full admittance to PTEP required. Student teaching provides a program of experiential learning activities in the elementary classroom under the supervision and coordination of University faculty and experienced school personnel. The capstone seminar allows teacher candidates to synthesize knowledge, skills and dispositions in relationship to the Post Baccalaureate Professional Licensure Standards and an individual's educational philosophy. S/U graded. Repeatable, maximum of 12 credits.

**EDEL 550 Effective Instruction in Elementary School Social Studies (3)**

Corequisites: EDEL 540, EDFE 370. Full admittance to PTEP or certification at undergraduate level required. In-depth consideration of issues, problems and practices in the elementary social studies classroom, including instructional strategies planning, materials and evaluation. Emphasis on thinking in a pluralistic democratic society.

**EDEL 601 Practicum (1-3)**

Open only by invitation to resident graduate students. Supervised professional activity in elementary education, approximately two hours per day. Repeatable, maximum of six credits. A well-written paper must be filed with instructor before credit is given.

**EDEL 602 Elementary School Practicum (1-3)**

Prerequisites: Full admittance to PTEP required. This practicum is designed to immerse post baccalaureate elementary school teacher candidates in elementary school classrooms. Opportunities are provided to inquire, analyze, and reflect on classroom routines, on teachers' decision making and teaching strategies, and on learners and their learning processes. Teacher candidates actively participate in the classroom and other school activities and meet with the course instructor for seminars.

**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 admittance to PTEP or certification at undergraduate level required. Assists student in recognizing need for creating processes that enable children, educators and others to support and design a culturally and socially diverse curriculum.

**EDEL 620 Researched Applications for Instruction in Mathematics, K-9 (3)**

Prerequisite: EDEL 420 or EDEL 520 or experience as elementary/middle school teacher. Consider in detail the problems concerned with selection of what to teach, grade placement of content, methods and materials for teaching and means of evaluating achievement in mathematics.

**EDEL 622 Directed Studies (1-3)**

Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

**EDEL 640 Researched Applications for Instruction in the English Language Arts, K-9 (3)**

Prerequisite: EDEL 440 or EDEL 540 or experience as elementary/middle school teacher. Consider problems, trends and issues in the teaching of English, handwriting and spelling. Special focus on research. Content varies to reflect interests and concerns of students.

**EDEL 650 Researched Application for Instruction in Social Studies, K-9 (3)**

Prerequisite: EDEL 450 or EDEL 550 or experience as elementary/middle school teacher. Designed for experienced teachers, this course focuses on strategies for improving social studies curriculum and instructions. Major trends, issues and research affecting educating children for citizenship in a pluralistic, democratic society.

**EDEL 679 Researched Applications in Appraisal, Evaluation and Clinical Supervision of Teaching in the Elementary and Middle School (3)**

Emphasis is placed on the development of knowledge, skills and sufficient comprehension to direct the development of instructional appraisal and evaluation behaviors, with special emphasis on self-improvement modalities.

**EDEL 699 Thesis (1-6)**

Optional for Master of Arts programs on recommendation of major advisor. Successful completion of a formal thesis paper and oral defense required. S/U graded. Repeatable, no limitations.

**EDEL 701 Advanced Practicum in Elementary Education (1-4)**

Open only by invitation to resident doctoral students. Supervised professional activity in elementary level education. A well-written paper must be filed with the supervising instructor before credit is given. Repeatable, maximum of six credits.

**EDEL 725 Seminar in Elementary School Mathematics (2)**

Prerequisite: EDEL 520 or EDEL 620. Cover important problems in the teaching and supervision of mathematics in the elementary school. Content may vary from year to year according to needs of participants. S/U graded.

**EDEL 745 Seminar in Elementary School English (2)**

Prerequisite: EDEL 540. Advanced study and original research in teaching English/language arts in the elementary and middle school. S/U graded.

**EDEL 755 Seminar in Elementary Education Social Studies (2)**

Prerequisite: EDEL 550 or EDEL 650. A consideration of the research applicable to crucial issues in elementary social studies including the child's development of key concepts, values, morals and skills; curriculum development and evaluation. S/U graded.

**EDEL 790 Supervised Practicum in College Teaching (3)**

Experience in observation and supervised practice of college teaching for doctoral candidates planning to teach at college and university levels. Observations and experiences used as basis for analysis of learning experiences. S/U graded. Repeatable, maximum of six credits.

**EDEL 797 Doctoral Proposal Research (1-4)**

Required of all doctoral students. Students must earn 4 hours of credit for doctoral dissertation research proposal in partial fulfillment of requirements for doctoral degree before admission to candidacy. S/U graded. Repeatable, maximum of four credits.

**EDEL 799 Doctoral Dissertation (1-12)**

Required of all doctoral candidates. Students must earn 12 hours of credit for the dissertation in partial fulfillment of requirements for the doctoral degree. S/U graded. Repeatable, no limitations.

**EDF - FOUNDATIONS OF EDUCATION****EDF 201 Introduction to Multiculturalism (3)**

Acquaints students with concepts, content, strategies and resources needed in a multicultural pluralistic environment. Enables student to integrate content on pluralism into community settings. Attitudes and insights emphasized.

**EDF 208 Workshop (1-3)**

A variety of workshops on special topics within the discipline. Goals and objectives will emphasize the acquisition of general knowledge and skills in the discipline. Repeatable, under different subtitles.

**EDF 366 Conceptions of Schooling: Context and Process (4)**

Corequisites: ET 247 for Elementary PTEP; EPSY 348 and EDMG 310 for Middle Grades PTEP; STEP 262 for Secondary PTEP. Provisional or full admittance to PTEP required. Social, historical and philosophical perspectives of schooling including legal, ethical and multicultural foundations for the professional educator in a democratic society and their implications for classroom communication, organization and management.

**EDF 385 Law and the Classroom Teacher (2)**

Focus on legal rights, roles and responsibilities of educators, emphasizing obligations to students, administrators, school boards and public. Examine current issues in school management, organization, finance, child abuse and neglect.

**EDF 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.

**EDF 422 Directed Studies (1-3)**

Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

**EDF 500 Conceptions of Schooling (3)**

Investigation of social contributions of schools. Determination of what the public expects from local schools, assessing how accurately present systems meet public's expectations and individual implications for teaching.

**EDF 508 Workshop (1-3)**

A variety of workshops on special topics within the discipline. Goals and objectives will emphasize the acquisition of general knowledge and skills in the discipline. Repeatable, under different subtitles.

**EDF 513 Professional Renewal (1-3)**

Update skills and knowledge of professionals in the discipline. Goals and objectives will be specifically directed at individual professional enhancement rather than the acquisition of general discipline knowledge or methodologies. S/U or letter graded. Repeatable, under different subtitles.

**EDF 622 Directed Studies (1-3)**

Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

**EDF 640 Psychological Foundations of Education (3)**

Exploration and analysis of possible range of assumptions about nature of human activity (thinking, behaving, feeling) and implications of those assumptions relative to educational enterprise.

**EDF 662 Foundations of Curriculum Development and Instructional Practice (4)**

Designed to focus on nature and scope of curriculum planning and development and the instructional approaches, traditional and contemporary, for putting curriculum into affect.

**EDF 665 Sociological Foundations of Education (3)**

Analyze role of educational institution from sociological perspectives. Focus upon socialization process, issues arising from social and cultural differences in school populations and examine sociology oriented strategies for educational change.

**EDF 685 Philosophical Foundations of Education (3)**

Examine leading contemporary and classical philosophical systems and how they culminate in practical educational goals, systems of justification and practices. Includes the study of educational aims and values.

## EDFE - EDUCATIONAL FIELD EXPERIENCES

**EDFE 170 Introduction to Field Based Experience (1-3)**

Instructor consent. Practical experience for those wishing to explore a career in teaching. Placement in most public or private schools, agencies, preschool through high school. Experience is to coordinate practice with theory. S/U graded. Repeatable, no limitations.

**EDFE 270 Field Based Experience (2)**

Consent of instructor and first semester at UNC or UNC GPA of 2.50. Provisional or full admittance to PTEP required. Entry into the teaching profession. Attend orientation presentation and apply for admission to PTEP. Aide assignment in school or agency at preschool-12 level. Required portfolio and seminars. S/U graded.

**EDFE 271 Field Experience Seminar (1)**

Consent of instructor and first semester at UNC or UNC GPA of 2.50, waiver of EDFE 270 field component. Provisional or full admittance to PTEP required. 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 admittance to PTEP or certification at the undergraduate level required, instructor consent. Practical experience in teacher preparation programs. Assignments to assist personal or professional development in public or private school. Preschool-12 level. Portfolio and seminars required. S/U graded. Repeatable, no limitations.

**EDFE 401 Practicum (1-3)**

Full admittance to PTEP or certification at the undergraduate level required. Open only by invitation to resident undergraduate students. Supervised professional activity in the major field. Two copies of a well-written paper must be filed before credit is given; one with instructor and one with program facilitator. Portfolio required. S/U graded. Repeatable, maximum of three credits.

**EDFE 422 Directed Studies (1-3)**

Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

**EDFE 444 Supervised Teaching (1-18)**

Full admittance 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 admittance to PTEP or certification at the undergraduate level required, EDFE 444. Available to students who have completed minimal supervised teaching requirement for certification but who wish to improve teaching techniques with additional field experience. May be repeated only with permission of instructor. Portfolio required. S/U graded. Repeatable, maximum of 18 credits.

**EDFE 501 Practicum (1-4)**

Full admittance to PTEP or certification at undergraduate level required. Arrange with instructor. Undertake educational field studies in school settings, either individual or team oriented and focus on practical and relevant assessment of needs in teacher education. Two copies of a well-written paper must be filed before credit is given; one with instructor and one with program facilitator. S/U graded. Repeatable, no limitations.

**EDFE 502 Teacher Leadership (3)**

Develop essential skills, knowledge and competencies that enable educators to assume a broad range of teacher leadership roles including consultation, mentorship, shared decision making approaches and instructional leadership.

**EDFE 503 Alternate Teaching Strategies (3)**

Expands teacher's repertoires in the classroom by developing facility with alternate instructional strategies. Strategies studied and practiced facilitate critical/creative/inductive thinking and social participation and inquiry skills.

**EDFE 601 Practicum (1-3)**

Full admittance to PTEP or certification at undergraduate level required. Open only by invitation to resident graduate students. Supervised professional activity in student's major field. Two copies of a well-written paper must be filed before credit is given; one with instructor and one with program facilitator. S/U graded. Repeatable, maximum of three credits.

**EDFE 610 Field Experience (1-18)**

Full admittance to PTEP or licensure, at graduate level required or previous licensure, EDFE 444, or equivalent. Individually arranged field experiences under supervision of university and school or community staff. A variety of sites are available year round. S/U graded. Repeatable, no limitations.

**EDFE 622 Directed Studies (1-3)**

Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

**EDFE 640 Supervision of Educational Field Experience (2)**

Required laboratory arranged. Previous teacher certification required and consent of instructor. Professional development of certified educators in the supervision of teacher aides, clinical experience students, student teachers and interns. Designed to correlate theory and practical supervision techniques in a school setting. S/U graded.

**EDLD - EDUCATION OF LINGUISTICALLY DIFFERENT****EDLD 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.

**EDLD 513 Professional Renewal (1-3)**

Update skills 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.

**EDLD 592 Second Language Acquisition Theory (3)**

Designed for educators who are preparing to teach or who are already teaching English Language Learners, especially second language learners of English and students in bilingual programs and settings. Introduce students to the existing body of theory related to second language acquisition.

**EDLD 593 Language, School and Society (3)**

Designed for graduate students working as educators with non-native speakers of English and those who speak variations of English other than "standard English." Primary focus is to enhance students' knowledge of the interactions between society, language, institutions of schooling, classroom practices and individual learners, as these arise in bilingual and second language settings.

**EDLD 600 Literacy and Content Instruction in Spanish Bilingual Classrooms (3)**

Prerequisite: Fluency in Spanish as indicated by the Oral Proficiency Exam. This course is designed for educators who are preparing to teach students who are learning content area information in Spanish. The primary focus of this course is to enhance teachers' knowledge of literacy strategies and content area knowledge to be used in the bilingual classroom.

**EDLD 602 Teaching Linguistically Diverse Learners (3)**

This course will introduce future teachers to the theoretical, practical, and legal aspects of the education of students who speak English as a second language.

**EDLD 603 Methods and Assessment for ESL and Bilingual Education (3)**

Prerequisite: EDLD 602. This course will introduce students to the use of assessments and procedures and to teaching methods appropriate when working with linguistically diverse students.

**EDLD 604 Field Experience in TESOL and Bilingual Education (3)**

Prerequisites: EDEL 619, EDLD 602 and EDLD 603. This course will provide pre-service and in-service teachers with the opportunity to observe instructional strategies for students who speak English as a second language, and participate in conducting the strategies observed. S/U graded.

**EDLD 605 Advanced Seminar in Bilingual Education and TESOL (3)**

Prerequisites: SRM 600 or equivalent and at least six completed graduate credits in Bilingual/ESL. Study contemporary issues in the field of bilingual education and English as a second language. Discuss relevant issues related to research and practice in bilingualism, second language acquisition, and teaching methodology, and assessment issues related to students in bilingual and English as a second language programs

**EDLD 606 Linguistically Diverse Students and the U.S. Educational System (3)**

Introduction to the history of linguistically diverse groups attending school in the United States, study of educational practices that affect the success of these students, and exploration of influences of language and culture on schooling.

**EDLD 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.

**EDLS - EDUCATIONAL FIELD EXPERIENCE: LABORATORY SCHOOL****EDLS 360 Clinical Experience: Primary (1-3)**

Full admittance to PTEP or certification at the undergraduate level required. Consent of instructor. For Early Childhood/Elementary Education majors. Minimum of 25 contact hours with level K-3 children for each hour of credit. Weekly seminar.

**EDLS 362 Clinical Experience: Middle School (1-3)**

Full admittance 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 admittance to PTEP or certification at the undergraduate level required. Consent of instructor. Professional development for secondary majors. Minimum of 25 contact hours with level 7-12 children in a specific area for each hour of credit. Weekly seminar.

**EDMG - ELEMENTARY EDUCATION: MIDDLE GRADES****EDMG 200 Exploring Teaching: Emphasis in the Middle Grades (2)**

Corequisite: ET 248. Required laboratory arranged. An investigation of the teaching profession K-12, with an emphasis in the middle grades through personal reflection, observation, writing and discussion activities.

**EDMG 308 Middle Grades Workshop (1-3)**

Study of Middle Grades Education issues and problems for parents, teachers and community members. Each workshop has a subtitle, and no subtitle may be repeated for credit. S/U graded. Repeatable, under different subtitles, for a maximum of ten credits.

**EDMG 310 Working with Middle Grades Students in the Classroom (1)**

Prerequisites: EDMG 200 or equivalent, ET 248. Corequisites: EDF 366, EPSY 348. Juniors or above. Required laboratory arranged. Provisional or full admittance to PTEP required. Teacher candidates work alongside teachers and students in the classroom to connect theory and practice of middle grades teaching and learning and then process those experiences in seminars.

**EDMG 320 Introduction to Middle School Grades Education (2)**

Prerequisites: EDMG 200, ET 248, EDMG 310, EPSY 348, EDF 366. Corequisites: EDMG 321, EDSE 311. Juniors or above. Provisional or full admittance to PTEP required. Investigate the history, philosophy, and organization of middle level education. Emphasis placed on the nature of the young adolescent learner, school organization, curriculum and environment. Field Experience: 32 hours.

**EDMG 321 Middle Grades Teaching and Learning (3)**

Prerequisite: EDMG 200 or equivalent and ET 248. Corequisites: EDMG 320 and EDSE 311. Required laboratory arranged. Juniors or above. Provisional or 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 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.

**EDMG 440 Middle Grades Integrated Curriculum and Instruction (5)**

Prerequisite: EDMG 321. Corequisites: EDSE 411 and ET 348. 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 (1-12)**

Prerequisite: EDMG 440. Corequisite: EDMG 491. 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. Offered under different subtitles.

**EDMG 491 Middle Grades Student Teaching Seminar (1)**

Prerequisite: EDMG 440. Corequisite: EDMG 491. Seniors or above. Consent of advisor. Full admittance to PTEP required. This is a capstone seminar which facilitates the knowledge, skills, and dispositions needed to successfully complete the middle grades student teaching experience. S/U graded.

**EDMS - ELEMENTARY EDUCATION: MIDDLE SCHOOL****EDMS 508 Workshop (1-3)**

A variety of workshops on special topics within the discipline. Goals and objectives will emphasize the acquisition of general knowledge and skills in the discipline. Repeatable, under different subtitles.

**EDMS 513 Professional Renewal (1-3)**

Update skills and knowledge of professionals in the discipline. Goals and objectives will be specifically directed at individual professional enhancement rather than the acquisition of general discipline knowledge or methodologies. S/U or letter graded. Repeatable, under different subtitles.

**EDMS 601 Practicum (1-3)**

The practicum is a project designed by the student with consent of advisor. It is intended to provide a practical application of the concepts presented within the graduate program. The project is reported in a written form. Repeatable, may be taken two times.

**EDMS 622 Directed Studies (1-3)**

Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

**EDMS 665 Middle School Theory, Philosophy and Curriculum (3)**

A study of the theory, philosophy, curriculum and instructional practices appropriate for a middle school learning environment.

**EDMS 667 Assessment, Design and Evaluation of Middle School Curriculum (3)**

Identification of content accreditation criteria, curriculum modeling, needs assessments, objectives, curriculum mapping, priority setting and action planning for elementary and middle schools.

**EDMS 669 Integrated Curriculum for Middle Grades (3)**

Investigations of how the content fields of language arts, mathematics, science, social science, reading and related arts connect in the middle school curriculum. Specific attention will be given to identifying common themes, concepts and skills among the various components of the curriculum.

**EDMS 670 Instructional Practices in Middle Grades Education (3)**

This course is designed for graduate students interested in investigating the theories and current trends/issues involved with instructional strategies, methods and management techniques that are developmentally appropriate for young adolescents at the middle school level.

**EDMS 790 Supervised Practicum in College Teaching (3)**

Experiences in observation and supervised practice of college teaching for doctoral candidates planning to teach at college or university levels. Observations and experiences used as a basis for analysis of learning experiences. S/U graded. Repeatable, maximum of six credits.

**EDRD - ELEMENTARY EDUCATION: READING****EDRD 003 Introduction to College Reading (3)**

Consent of instructor. This course emphasizes reading comprehension, vocabulary and rate and seeks to help students develop good study skills. This is a Basic Skills course offered through Continuing Education and does not count in term, cumulative or total credits and will not be calculated in the GPA.

**EDRD 130 Improving Reading and Study Skills (3)**

Instruction and outside assignments designed to develop proficiency in the reading and study skills needed for success at the college level.

**EDRD 205 Critical Thinking, Inferential Reading and Evaluative Writing (3)**

Students will improve critical thinking by studying the organization of thought and by applying critical reading to nonfiction and fiction and evaluative writing to journals, summary-reactions and an analytic paper.

**EDRD 308 Reading Literacy 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 248, EDF 366. Corequisites: ET 348, EDSE 360, STEP 363, your academic major methods classes. 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 in the Content Areas (3)**

Full admittance to PTEP required. Investigate the content and processes of the reading and writing development of middle level and secondary students. Develop sensitivity to individual differences in the literacy development of students, including those with limited English proficiency. Investigate instructional strategies to effectively integrate reading and writing across the middle and secondary curriculum.

**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 402 America Reads: Content and Processes of Literacy Tutorial Sessions (1)**

Prerequisite: Choose 1 or 2: (1) Admission to a PTEP and eligibility for workstudy; or (2) permission of the instructor. Develop an understanding of the content and processes of a literacy tutoring session and the ability to adjust instructional interactions according to the observed behaviors of the assigned tutees. Develop an understanding of the literacy development of assigned tutee and the ability to effectively support their literacy development. S/U graded. Repeatable, maximum of two credits.

**EDRD 403 America Reads: Individual Literacy Instruction (1)**

Prerequisite: Admission to a PTEP, eligibility for work study, successful completion of two semesters as an America Reads tutor and successful completion of two semesters of EDRD 402 or permission of the instructor. Refine and extend understandings of the literacy development of elementary students and the ability to adjust instructional interactions according to the observed behaviors of assigned tutees. S/U graded. Repeatable, maximum of four credits.

**EDRD 408 Reading/Literacy Workshop (1-10)**

Subtitle indicates appropriate participants. Topics related to reading/literacy: 1) developmental, intervention, and remedial programs and instructional strategies; 2) standards; assessment; 3) school wide efforts; 4) research; and 5) trends and issues will be included. Repeatable, under different subtitles. S/U graded.

**EDRD 410 Achieving Effective Instruction in Developmental Reading (3)**

Full admittance 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 admittance to PTEP or certification at undergraduate level. Emphasizes reading diagnosis with elementary students leading to instruction through a variety of approaches toward the end of enabling teachers to select appropriate methods/materials.

**EDRD 414 Literature for Children, Adolescents and Young Adults (3)**

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.

**EDRD 419 Language and Literacy Development of Preschool and Elementary School Children (3)**

Students examine the developmental continua of listening, speaking, reading and writing. Acquaints students with current research on language and literacy development including factors in the environment that enhance or detract from language and literacy acquisition and development.

**EDRD 422 Directed Studies (1-3)**

Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours for one hour of credit in directed studies.) Repeatable, maximum concurrent enrollment is two times.

**EDRD 423 Reading and Writing in the Content Areas (3)**

Full admittance to PTEP or certification at the undergraduate level required. Develop understanding of cognitive affective needs of middle and secondary students in reading and writing to learn. Develop sensitivity to individual needs. Participate in related field experiences.

**EDRD 425 Reading in the Content Areas (1)**

Provisional or 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 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 admittance to PTEP or certification at undergraduate level required. Teaching/learning strategies, reading materials, selection, lesson planning and organizing for instruction in reading across the total curriculum constitute the focus of the course.

**EDRD 511 Elementary Reading Diagnosis and Individualization (3)**

Prerequisites: EDRD 510 or equivalent, Full admittance to PTEP or certification at undergraduate level. Course will emphasize diagnosis leading to instruction through a variety of approaches toward the end of enabling teachers to select appropriate methods/materials.

**EDRD 513 Professional Renewal (1-3)**

Update skills and knowledge of professionals in the discipline. Goals and objectives will be specifically directed at individual professional enhancement rather than the acquisition of general discipline knowledge or methodologies. S/U or letter graded. Repeatable, under different subtitles.

**EDRD 514 Literature for Children, Adolescents and Young Adults (3)**

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.

**EDRD 519 Reading and Writing Development of Preschool/Primary Children (2)**

Acquaints students with current research on early literacy including factors in the environment that enhance or detract from literacy learning and the importance of parents and significant others in literacy development. Implications for primary reading and writing will be included.

**EDRD 523 Reading and Writing in the Content Areas (3)**

Full admittance to PTEP or certification at the undergraduate level required. Develop understanding of cognitive affective needs of middle and secondary students in reading and writing to learn. Develop sensitivity to individual needs. Participate in related field experiences.

**EDRD 601 Practicum in Literacy (1-4)**

Written practicum proposal required before consent of instructor. Supervised professional activity in reading/writing (30 clock hours/credit) designed to enhance individual professional goals. Documentation must follow reading program guidelines. Repeatable, maximum of four credits.

**EDRD 612 Reading in the Elementary Schools (3)**

Full admittance 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 admittance to PTEP or certification at undergraduate level required. Consider locating and evaluating children's and young adult literature and methods of organizing, teaching and evaluating a literature program. Examine issues such as censorship, multicultural literature and style analysis. Mini-research study is required.

**EDRD 615 Topical Seminar in Reading/Literacy (3)**

Advanced study, combined with individual inquiry, in Reading/Literacy education in the elementary and middle school. Addresses landmark research, analysis and synthesis of past/present trends and issues and scholarly pursuit of an individual topic. Repeatable, may be taken four times, under different subtitles.

**EDRD 617 Evaluation and Improvement of Literacy Teaching and Learning (4)**

Required laboratory arranged. Prerequisites: EDRD 612 or EDRD 620 or equivalent. Develop understanding of struggling readers and writers in elementary and secondary schools. Explore diagnostic and instructional strategies to improve literacy teaching and learning.

**EDRD 618 Literacy Instruction for Emerging Readers and Writers at Risk (3)**

Consent of instructor. Intense study and guided application of researched early intervention strategies for emerging readers and writers at risk. Students will design, implement and document personal application of concepts presented.

**EDRD 620 Reading in the Middle and Secondary Schools (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 admittance to PTEP or certification at undergraduate level required. Teaching subject matter to utilize fundamental reading abilities and knowledge acquisition strategies in the development of content concepts and to develop and utilize critical thinking skills in contemporary society.

**EDRD 622 Directed Studies (1-3)**

Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

**EDRD 637 Teaching Reading at the Adult Level (2)**

Consider problems of diagnosis, placement, strategies and materials for teaching remedial or developmental reading to college students or other adults in nonacademic settings. Field experience included.

**EDRD 642 Teaching the Writing Process in Schools (3)**

Assist classroom teachers with children's writing process. Emphasis on: writing process; encouragement of process development; children's growth in writing process; and, recording, assessing and reporting student progress.

**EDRD 645 Reading/Literacy Research (3)**

Study research procedures in reading/literacy and their application to education. Critique reading/literacy research, programs and practices. Develop and present group and/or individual projects and reports.

**EDRD 670 Directing a School-Wide Reading/Writing Program (3)**

Prerequisites: EDRD 612 and EDRD 620 or equivalent. Seminar course intended to prepare reading teachers, specialists, coordinators and administrators for directing textbook adoption, curriculum development and issues, staff development, evaluation and supervision of reading/writing programs.

**EDRD 692 Clinical Practicum in Literacy Coaching (4)**

Prerequisites: EDRD 617 and consent of instructor. Supervised clinical instruction of elementary and secondary disabled readers. Continued professional development, especially in the areas of collegial communications, reflective coaching and leadership capacity.

**EDRD 694 Reading Center Internship: Adult Reading, Literacy and/or Supervision (1-3)**

Prerequisite: EDRD 617. Consent of instructor. Separate internships in each area may be taken for a maximum of six credits. Experiences are individually defined. A minimum 45 hours of supervised work equals one (1) credit. S/U graded.

**EDRD 699 Thesis (1-6)**

Optional for Master of Arts programs on recommendation of major advisor. Successful completion of a formal thesis paper and oral defense required. S/U graded. Repeatable, no limitations.

**EDRD 701 Advanced Practicum in Literacy (1-4)**

Open only by invitation to resident doctoral students. Supervised professional activity in literacy. A well-written paper must be filed with the supervising instructor before credit is graded. Repeatable, maximum of eight credits.

**EDRD 712 Psychology of Reading (3)**

Teach fundamental aspects of the complex skill of reading – linguistic, psychological, social and physiological – and on what is involved in learning to read. Students will consider perceptual, cognitive, linguistic and motivational factors in reading, writing, thinking and learning in general. Students will become acquainted with research on language, information theory, learning theory, the physiology of the eye and brain, psycholinguistics and many other topics.

**EDRD 717 Advanced Diagnostic/ Instructional Problems in Literacy Development (3)**

Laboratory required. Prerequisites: EDRD 612 or EDRD 620; EDRD 617, EDRD 692. Consent of instructor. Refine diagnostic/instructional skills through study of advanced diagnostics, instructional techniques and related research; assist in Center for Literacy Development.

**EDRD 745 Topical Seminar in Reading/Literacy (2-4)**

Advanced study, combined with individual inquiry, in Reading/Literacy education in the elementary and middle school. Addresses landmark research, analysis and synthesis of past/present trends and issues and scholarly pursuit of an individual topic. Repeatable, may be taken four times, under different subtitles.

**EDRD 750 The Contributing Professional in Reading (3)**

Designed for the emerging professional completing a doctoral degree in reading. Includes opportunities to examine and experience a variety of significant professional contributions that are encompassed within the reading of scholarly activities, organizational memberships and service roles for reading and literacy.

**EDRD 795 Supervised Practicum in College Teaching (3)**

Experience in observation and supervised practice of college teaching for doctoral candidates planning to teach at college and university levels. Observations and experiences used as basis for analysis of learning experiences. S/U graded. Repeatable, maximum of nine credits.

**EDRD 797 Doctoral Proposal Research (1-4)**

Required of all doctoral students. Students must earn 4 hours of credit for doctoral dissertation research proposal in partial fulfillment of requirements for doctoral degree before admission to candidacy. S/U graded. Repeatable, maximum of four credits.

**EDRD 799 Doctoral Dissertation (1-12)**

Required of all doctoral candidates. Students must earn 12 hours of credit for the dissertation in partial fulfillment of requirements for the doctoral degree. S/U graded. Repeatable, no limitations.



## EDSE - SPECIAL EDUCATION

### EDSE 100 Understanding the Disabled (1)

Designed to increase awareness of values about diversity as portrayed in film, develop understanding of how personal values influence behavior towards persons with differences. Overview of disabilities/differences among peoples.

### EDSE 200 Human Exceptionality (3)

Designed for non-education majors and is intended to assist in the acquisition of specific information regarding human exceptionality while clarifying and developing more positive attitudes and interactional patterns.

### EDSE 201 Culture of Special Education (3)

Introduction to special education for exceptional learners. Aspects included are: historical perspective, characteristics of individuals with exceptionalities, issues related to identification and services, role of professionals in special and general education.

### EDSE 202 Communication, Consultation, and Collaboration in Special Education (3)

This course addresses the intrapersonal and interpersonal intelligences as applied to the skills of communication, consultation, and collaboration in the context of serving students with special needs in the public schools.

### EDSE 308 Workshop in Special Education (1-3)

For beginning teachers and clinicians. Topics will include observation, techniques, programming for the handicapped, community relations, child development as related to exceptional children and evaluation of children for placement. Materials prescribed by specific workshop offered. Repeatable, under different subtitles.

### EDSE 311 Including Exceptional Students in Middle Grades Classroom (1)

Prerequisites: EDMG 200, ET 248, EDF 366, EPSY 348, EDMG 310. Corequisites: EDMG 320, EDMG 321. Juniors or above. Provisional or full admittance to PTEP required. Introductory course providing a rationale for including students with disabilities in middle grades classrooms. General information about special education such as identification, referral, terminology and issues in the field will be discussed.

### EDSE 320 Assessment in Special Education (3)

Provisional or full admittance to PTEP required. Explore issues in assessment related to exceptional children. Emphasis placed on principles, purposes and processes of assessment related to programming in special education.

### EDSE 323 Methods for Elementary Students with Exceptionalities (3)

Prerequisites: EDSE 201, EDSE 202. Provisional or full admittance to PTEP required. Instructional practices in mathematics, social studies, and science for elementary students with exceptionalities.

### EDSE 324 Special Education Practices in Secondary Schools (4)

Prerequisites: EDSE 201, EDSE 202. Laboratory required. Provisional or full admittance to PTEP required. Describes the array of practices, methodologies, and evaluation options at the secondary level for students with disabilities. Provides opportunities for person-centered planning and subsequent individualized program implementation.

### EDSE 325 Behavioral Dimensions of Students with Exceptionalities I (3)

Prerequisites: EDSE 201 and EDSE 320. Consent of instructor. Provisional or full admittance to PTEP required. Involves theories and their application to create effective environments that integrate methods and techniques for addressing the affective/social development of all learners.

### EDSE 326 Behavioral Dimensions of Students with Exceptionalities II (4)

Prerequisites: EDSE 201, EDSE 320, EDSE 325. Laboratory required. Consent of instructor. Provisional or full admittance to PTEP required. Based on knowledge, skills, and activities of EDSE 325, students will develop interactive and individualized environment that promotes affective/social/academic growth.

### EDSE 360 Adaptation, Modification, and Integration of Curriculum for the Secondary Exceptional Learner (3)

Provisional or full admittance to PTEP required. 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 406 Behavior is Language: Special Education Strategies for Managing Disruptive Behavior (3)

Designed to provide teachers with intervention strategies/behavior techniques to remediate disruptive behaviors and reduce power struggles while increasing classroom control.

### EDSE 409 Exceptional Students in the Secondary Classroom (3)

Provides information about handicapping conditions, including identification procedures and specific techniques and materials appropriate for mainstreaming students in secondary classrooms.

### EDSE 411 Strategies for Teaching the Exceptional Student at the Middle Grade Level (2)

Prerequisites: EDMG 200 or equivalent, ET 248, EDSE 311, EDF 366, EPSY 348, EDMG 310. Corequisites: EDMG 440, EDRD 340, ET 348. Full admittance to PTEP required. Provides information on methods and techniques useful for adapting instruction and building support groups for students who are gifted or disabled at the middle grade level.

### EDSE 422 Directed Studies (1-3)

Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

### EDSE 430 Exceptional Student in the Elementary Classroom (2)

Prerequisites: EDF 366, ET 247. Corequisite: EPSY 346. Provisional or full admittance to PTEP required. This course is designed to provide Elementary level licensure candidates with information about the areas of special learners. This will include current research and practices related to issues such as inclusion. Students will be able to identify and adapt instruction for students with a wide range of disabilities. Field experience will be used extensively.

### EDSE 433 Exceptional Students in the Regular Classroom (2)

Required of students majoring in Fine Arts, Physical Education, Music Education and Vocational Education. Provides information on handicapped and gifted students, identification procedures and teaching techniques.

### EDSE 440 Introduction to the Education of the Visually Handicapped (3)

Non-majors only. Descriptions of visual disabilities, the history and background of formalized educational and rehabilitative services, basic medical and psychological aspects and an overview of the types of organizations serving the field.

### EDSE 442 Language and Literacy for Students with Severe Delays (3)

Prerequisites: EDSE 201, EDSE 202, EDSE 320, EDRD 410, EDRD 411. Full admittance to PTEP required. Exploration of lifespan relationships between significant oral language delays, home/school dialectical mismatches, or language differences (bilingualism, non-English monolingualism) and the acquisition of literacy in both its oral and written dimensions.

### EDSE 443 Support System in Special Education (4)

Prerequisites: EDSE 201, EDSE 202. Laboratory required. Full admittance to PTEP required. Students will acquire skills in case management, facilitating support processes, and delivering direct support within general education for students with IEPs who have educational, communication, medical/physical, and/or behavioral needs.

**EDSE 444 Student Teaching in Special Education (12)**

Prerequisites: EDSE 201, EDSE 202, EDSE 320, EDSE 323, EDSE 324, EDSE 325, EDSE 326. Full admittance to PTEP required. Sixteen weeks full-time teaching (across elementary and secondary settings) in special education, providing competencies for carrying out roles of special education teacher, facilitator of learning, and program manager. Placement is by the University, which also provides a University supervisor and makes arrangements for a qualified supervising teacher in the schools of placement. S/U graded.

**EDSE 450 Introduction, Severe Needs: Hearing (3)**

History of education of individuals who are deaf or hard of hearing, anatomy of the hearing/speech mechanisms, causes and types hearing loss, psychological development of deaf culture, communication, educational and sociological problems.

**EDSE 451 Basic Sign Language (3)**

Laboratory required. Consent of Instructor. Develop basic skills in manual communication of individuals who are deaf or hard of hearing through the use of sign language and fingerspelling.

**EDSE 500 Field of Special Education (3)**

Historical development and present status of individuals with disabilities and those who are gifted. Focus on communication, parent involvement, finance, legal issues, ethics/professionalism and trends in special education.

**EDSE 501 The Exceptional Learner (3)**

Basic issues in dynamics of learning and evaluation related to exceptionality. Emphasizes understanding learning and evaluation processes for purposes of individual and group educational planning.

**EDSE 502 Communication, Collaboration and Consultation for Special Educators (3)**

Develop skills in intrapersonal/interpersonal dynamics in serving exceptional learners. Focus on communication, collaboration and consultation in the context of multicultural educational settings along a continuum of special education.

**EDSE 503 Effective School Environments for Learners with Exceptional Needs (3)**

Study of sociocultural, eco-behavioral, political and economic components of effective/ineffective schools and the relationship to child, family, community and professionals. Roles of special educators and different service delivery models presented/analyzed.

**EDSE 504 Transition Planning and Service Delivery for Students with Special Needs (3)**

Provide theoretical framework in transition process from school to adult life including historical/legal, planning, curricular, interagency, self-determination and parent/family aspects of transition.

**EDSE 505 Assessment of Exceptional Individuals (3)**

Explore issues in assessment related to exceptional children. Emphasis placed on principles, purposes, and processes of assessment related to programming in special education.

**EDSE 506 Teaching Students with Special Needs in Inclusive Settings (3)**

Introductory survey course designed to provide regular classroom teachers with information about various disabilities and the gifted and talented. Emphasis is placed on identifying, accommodating and adapting for a wide range of students in inclusive settings.

**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)**

Prerequisite: EDSE 520. Emphasizes the assessment – intervention – evaluation approach for learners with profound needs. The use of developmental/behavioral/ecological assessment approaches as well as transdisciplinary approaches are emphasized.

**EDSE 522 Methods of Teaching Learners with Profound Needs: Birth to 8 Years (3)**

Prerequisite: EDSE 520. Full admittance 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 520. Full admittance to PTEP or certification at undergraduate level required. Reviews teaching approaches to serve students with profound needs at the prevocational/vocational levels and application of approaches; emphasis on residential-employment competencies and transition from school to work.

**EDSE 524 Seminar in Education of Learners with Profound Needs (3)**

Prerequisites: EDSE 500, EDSE 501, EDSE 502, EDSE 503. Designed to synthesize experience and coursework in the area of educating students with profound needs. Emphases are on issues, research, classroom application and consultation.

**EDSE 525 Research and Policy for Learners with Profound Needs (3)**

Includes research and policy relative to the learners with profound needs. Ethics of conducting research with these individuals, current research results and relevant public policy are the main foci.

**EDSE 526 Practicum with the Severely/Profoundly Handicapped (3-12)**

Prerequisites: EDSE 521, EDSE 522, EDSE 523. Full admittance to PTEP or certification at undergraduate level required. Entails supervised clinical experience with young and older individuals with profound handicaps. Daily supervision by a master teacher with overall supervision by UNC faculty is provided. S/U graded. Repeatable, maximum of 12 credits.

**EDSE 528 Linguistically Diverse Students with Low Incidence Disabilities (2)**

Prerequisites: Regular admission into one of the Special Education Severe Needs Programs, or completion of one of the programs. Introduce instructional and assessment issues related to the education of linguistically diverse students with low incidence disabilities. It provides suggestions for instructional modifications to meet the language and disability needs of these students.

**EDSE 530 Parent/Professional Partnerships (3)**

Prerequisite: EDSE 502. Provides theory and practices regarding understanding and helping parents deal with their young handicapped child. Issues regarding family coping, parent-professional partnerships and parent training are emphasized.

**EDSE 531 Assessing Young Children with Special Needs (3)**

Prerequisites: EDSE 500, EDSE 501, EDSE 502, EDSE 503. Focus on assessment tools and techniques for teacher evaluation of educational progress in young children with special needs. Plan educational programs with appropriate curricular content for individual children.

**EDSE 533 Methods in Early Childhood Special Education (3)**

Prerequisites: EDSE 500, EDSE 501, EDSE 502, EDSE 503. Full admittance to PTEP or certification at undergraduate level required. Provides skills in an assessment-intervention-evaluation programming philosophy. Different aspects of intervention and their common elements are covered. A developmental focus with consideration of child's functional needs is emphasized.

**EDSE 534 Research and Policy in Early Childhood Special Education (3)**

Prerequisites: EDSE 500, EDSE 501, EDSE 502, EDSE 503. Review current policies related to the education of infants and young children with special needs. Familiarize students with research studies and classroom applications.

**EDSE 535 Practicum in Early Childhood Special Education (3-12)**

Prerequisites: EDSE 500, EDSE 501, EDSE 502, EDSE 503. Full admittance to PTEP or certification at undergraduate level required. Integrative field experience in practicum settings under college supervision and certified teacher. Provides experiences of sufficient scope, intensity and length to assure demonstration of competencies in EDSE. S/U graded. Repeatable, maximum of 12 credits.

**EDSE 536 Early Intervention for Infants and Toddlers with Special Needs (3)**

Explores theoretical and practical approaches to early intervention for at-risk or disabled newborns, infants and toddlers. Focus on identification, program development and evaluation, instructional techniques and family involvement.

**EDSE 540 Independent Living for Individuals with Visual Disabilities (1-2)**

Required laboratory arranged. Gain ability to understand the use of adapted materials and techniques in teaching independent living to individuals with visual disabilities. Emphasis given to recreational areas. Repeatable, maximum of 2 credits.

**EDSE 542 Assessment and Methods for Teaching Students with Visual/Multiple Disabilities (3)**

Full admittance to PTEP or certification at undergraduate level required. Discuss causes, characteristics, educational implications and instructional methods for student with visual/multiple disabilities. Learn effective teaming and collaborative planning strategies.

**EDSE 543 Braille Codes and Formats (3)**

Study literary and nemeth codes, basic abacus operations. Techniques of teaching literacy skills to students with visual disabilities are included.

**EDSE 544 Technology for Students with Visual Disabilities (2)**

This course will acquaint the student with state-of-the-art technology for students with visual disabilities. Includes required 4-day seminar on UNC campus.

**EDSE 545 Advanced Braille Codes and Formats (3)**

Prerequisite: EDSE 543 or proof of mastery from an approved examination. Study advanced braille codes and techniques for teaching literacy skills in each code: literary, nemeth, music, foreign language. Basic abacus operations are included.

**EDSE 546 Principles of Orientation and Mobility (2)**

Independence in exploration of the environment as a life need. Techniques in developing orientation skills; pre-cane mobility instruction. Philosophy and history of cane instruction, dog guides and other methods of travel.

**EDSE 547 Individual Instruction in Orientation and Mobility (4)**

Prerequisite: EDSE 546. Full admittance to PTEP or certification at undergraduate level required. Consent of instructor. Required laboratory arranged. A study of methods involved in general navigation and environmental awareness relating to severe vision needs. Travel techniques are gained while working under simulated conditions. Repeatable, maximum of four credits.

**EDSE 549 Rehabilitative Teaching of Individuals with Visual Disabilities (3)**

Full admittance to PTEP or certification at undergraduate level required. Learn how rehabilitation of persons with visual disabilities is accomplished through counseling, evaluation, higher education, coping skills, preparation for employment and independent living. Consider eye conditions and their implications for employment and discuss stereotyped ideas.

**EDSE 551 American Sign Language (4)**

Laboratory required. Students will have the signing knowledge and ability to demonstrate visual discrimination, classifier description, time indicators, house and home, being/affective non-manual markers, transportation and community occupations.

**EDSE 552 Advanced Sign Language (4)**

Laboratory required. Prerequisite: EDSE 451. Designed to improve students' expressive and receptive skills in the use of finger spelling and Signing Exact English (SEE). Manual communication skills used in educational and social settings are emphasized. Focus on increasing sign vocabulary, understanding sign concepts, conversational skills and ability to teach and communicate using Signing Exact English.

**EDSE 553 American Sign Language 2 (3)**

Prerequisite: EDSE 551 or equivalent. Required laboratory arranged. Provides opportunity to increase understanding of linguistic/cultural aspects of American Sign Language, increase receptive/ expressive vocabularies, and recognize/ apply appropriate grammatical rules using ASL.

**EDSE 560 Linguistically Diverse Students with Disabilities (3)**

Introduces students to instructional and assessment issues related to students with disabilities who come from culturally and linguistically diverse backgrounds.

**EDSE 580 Nature and Needs of the Gifted and Talented (3)**

The definitions, characteristics and needs of the gifted and talented will be covered. Emphasis will be placed on the identification and assessment of these children.

**EDSE 581 Teaching Strategies for the Gifted and Talented (3)**

Basic teaching strategies for use with the gifted and talented will be presented. Specific activities for cognitive, emotional and social development will also be included.

**EDSE 582 Curriculum Models for the Gifted and Talented (3)**

Beyond teaching activities and strategies, specific curriculum models for use with the gifted and talented will be presented with specific attention on how to implement these models.

**EDSE 583 History, Organization and Administration of Programs for the Gifted and Talented (3)**

A historical perspective of the education of the gifted and talented will lead to coverage of innovative program design and implementation for the gifted and talented.

**EDSE 584 Practicum in Teaching the Gifted and Talented (1-12)**

Prerequisites: EDSE 580, EDSE 581, EDSE 582. 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 admittance to PTEP or certification at undergraduate level required. Interventions for students with moderate academic difficulties in inclusive settings including (a) collaborating in providing direct service and (b) providing scaffolds to enable students to perform independently.

**EDSE 602 Behavioral Disorders: Characteristics, Identification and Intervention (3)**

Examine typical characteristics associated with severe behavior problems and procedures for identification. Emphasis on development of appropriate intervention programs.

**EDSE 603 Practicum with Moderate Needs Students (3-12)**

Prerequisites: EDSE 500, EDSE 501, EDSE 502, EDSE 503, EDSE 504. Full admittance to PTEP or licensure at the undergraduate level required. Consent of Instructor. Supervised practica 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 admittance to PTEP or certification at undergraduate level required. Teaches about major current techniques, methods, philosophies and trends in teaching communication, affective and cognitive needs students with moderate/severe disabilities.

**EDSE 608 Case Studies with Students with Special Needs (3)**

Required laboratory arranged. Prerequisites: EDSE 500, EDSE 501, EDSE 502, EDSE 503 and EDSE 504. Consent of instructor. Applied experience in assessment and teaching of exceptional individuals. Work a minimum of 45 clock hours one-on-one with exceptional individual in school or clinical setting.

**EDSE 609 Language Development: Disorders of Individuals with Special Needs (3)**

Prerequisites: EDSE 500, EDSE 501, EDSE 502, EDSE 503 or consent of instructor. In-depth study of language and speech disorders, including assessment instruments and teaching strategies related to language and communication. Focuses on the language of students with special needs.

**EDSE 610 Interventions for Students with Severe Affective Needs (3)**

Prerequisites: EDSE 500, EDSE 501, EDSE 502, EDSE 503. Knowledge and classroom application of group and individual interventions for students with severe affective needs. Includes auxiliary services and parent interventions.

**EDSE 611 Seminar in Severe Affective Needs (3)**

Prerequisites: EDSE 500, EDSE 501, EDSE 502 and EDSE 503 or consent of instructor. This course is designed to synthesize experience and coursework in the area of students with severe affective needs. Emphases are on issues, research and classroom application.

**EDSE 612 Practicum with Students with Severe Affective Needs, Ages 5-21 (3-12)**

Prerequisites: EDSE 500, EDSE 501, EDSE 502, EDSE 503, EDSE 504. Full admittance to PTEP or licensure at the undergraduate level required. Consent of instructor. Integrative field experience in practicum settings under college supervisor and licensed teacher. Provides experiences of sufficient scope, intensity, and length to assure demonstration of all Teacher II affective program competencies. Additional seminar time required. S/U graded. Repeatable, maximum of 12 credits.

**EDSE 615 Special Education Law: Cases and Trends (3)**

Enhances skills that enable students to read integratively special education laws and ensuing litigation. Readings will include public laws, court transcripts and a selected case synopsis(es) pertaining to a particular exceptionality.

**EDSE 620 Psycho-Social Aspects of Students with Severe Cognitive Needs (3)**

Prerequisites: EDSE 500, EDSE 501, EDSE 502 and EDSE 503. In-depth study of sociological and psychological aspects of students with severe cognitive needs. Focuses on issues relative to life care and treatment of the cognitive needs student.

**EDSE 621 Seminar in Severe Cognitive Needs (3)**

Prerequisites: EDSE 500, EDSE 501, EDSE 502 and EDSE 503. This course is designed to synthesize experience and coursework in the education of students with severe cognitive needs. Emphases are on issues, research and classroom application.

**EDSE 622 Directed Studies (1-3)**

Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

**EDSE 623 Practicum with Students with Severe Cognitive Needs, Ages 5-21 (3-12)**

Prerequisites: EDSE 500, EDSE 501, EDSE 502, EDSE 504. Full admittance 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 of 12 credits.

**EDSE 630 Seminar in Severe Communication Needs (3)**

Prerequisites: EDSE 500, EDSE 501, EDSE 502 and EDSE 503. This course is designed to synthesize experience and coursework in the education of the severe communication needs. Emphases are on issues, research and classroom application.

**EDSE 631 Practicum with Students with Severe Communication Needs: Ages 5-21 (3-12)**

Prerequisites: EDSE 500, EDSE 501, EDSE 502, EDSE 503, EDSE 504. Full admittance 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 of 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 admittance to PTEP or certification at undergraduate level required. Consent of major advisor required. Integrative field experience in practicum settings under college supervisor and certificated teacher. Provides experiences of sufficient scope, intensity and length to assure demonstration of all Teacher II communication program competencies. S/U graded. Repeatable, maximum of 12 credits.

**EDSE 633 Practicum with Learning Disabled Students, Ages 13-21 (1-12)**

Prerequisites: EDSE 500, EDSE 501, EDSE 502 and EDSE 503. Full admittance to PTEP or certification at undergraduate level required. Consent of major advisor required. Integrative field experience in practicum settings under college supervisor and certificated teacher. Provides experiences of sufficient scope, intensity and length to assure demonstration of all Teacher II communication program competencies. S/U graded. Repeatable, maximum of 12 credits.

**EDSE 641 Medical and Educational Implications of Visual Handicaps (1-3)**

Anatomy/physiology of the eye, medical and educational assessment of low vision and functional implications of various eye conditions. Techniques to develop use of functional vision. Repeatable, maximum of three credits.

**EDSE 642 Advanced Seminar in Education of Students with Visual Handicaps (3)**

Role of teacher of students with visual disabilities, assessments, compensatory skill methodology, IEP/IFSP development, appropriate placements, sourcing materials and equipment, administrative duties, consulting techniques and volunteer coordination.

**EDSE 643 Psychosocial Needs of Individuals with Visual Handicaps (2)**

Study the psychosocial implications of visual impairments, sources of self-esteem, the adjusting process and strategies for meeting the blindness-related counseling needs of individuals with visual disabilities and their parents.

**EDSE 644 Practicum in Education of Students with Visual Handicaps, K-12 (2-12)**

Prerequisites: EDSE 542, EDSE 543, EDSE 544, EDSE 546, EDSE 641 and EDSE 643. Full admittance to PTEP or certification at undergraduate level required. Consent of instructor. Supervised teaching experience with students with visual disabilities, K-12, planning and implementing lessons, preparing materials, participating in staffings, IEP/IFSP development and parent conferences. Repeatable, maximum of 12 credits.

**EDSE 646 Practicum in Rehabilitative Teaching of Individuals with Visual Handicaps, K-12 (6-12)**

Prerequisites: EDSE 543, EDSE 546, EDSE 549, EDSE 641 and EDSE 643. Consent of instructor. Supervised teaching experience with individuals with visual disabilities, 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 admittance 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 disabilities. Student provides individualized instruction to visually impaired person with faculty supervision.

**EDSE 648 Practicum in Orientation and Mobility (9)**

Full admittance to PTEP or certification at undergraduate level required. Consent of major advisor required. Supervised teaching experience with both blind and low vision individuals in orientation and mobility. Observation of varied programs; e.g., resource room itinerant plan, residential school and rehabilitation settings.

**EDSE 652 Speechreading, Auditory Training and Amplification (3)**

Prerequisites: CMDS 370, EDSE 450. 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 individuals who are deaf or hard of hearing.

**EDSE 653 Speech, Severe Needs: Hearing (3)**

Prerequisite: EDSE 450. Full admittance to PTEP or certification at undergraduate level required. Develop competencies to teach speech to individuals who are deaf or hard of hearing, 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 admittance to PTEP or certification at undergraduate level required. Consent of instructor. Required laboratory arranged. Develop competencies to assess, teach and evaluate language for individuals who are deaf or hard of hearing. Select methods, materials and techniques appropriate for each level; develop comprehensive expressive/receptive language program.

**EDSE 655 Reading, Severe Needs: Hearing (3)**

Prerequisite: EDSE 450. Full admittance to PTEP or certification at undergraduate level required. Emphasizes relationship of cognition, language and reading for individuals who are deaf or hard of hearing. 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 admittance 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 individuals who are deaf or hard of hearing.

**EDSE 657 Practicum, Severe Needs: Hearing (6-12)**

Prerequisites: EDSE 653, EDSE 654 and EDSE 656. Full admittance to PTEP or certification at undergraduate level required. Consent of major advisor required. Individual observation and supervised practice in the education of individuals who are deaf or hard of hearing. Repeatable, maximum of 12 credits.

**EDSE 680 Administration and Supervision of Special Education (3)**

The role of various administrative personnel is studied from a situational leadership perspective. Responsibilities of the special education administrator are examined and differences in role will be defined in terms of size of agency. The course is a blend of current theory and practice of administrators of various agencies serving exceptional children.

**EDSE 681 Administrative Planning and Program Evaluation in Special Education (3)**

Prerequisite: EDSE 603. To prepare special education administrators to conduct special education program evaluation, to organize data derived from such evaluations for decision making purposes, to better understand special education resource utilization and to be able to integrate these activities with other special education administrative functions.

**EDSE 718 Advanced Seminar in Education of Students with Hearing and/or Visual Handicaps (3)**

Investigation of the issues and trends in education of infants, children and youth with hearing and/or visual disabilities: focus on research, curriculum, instructional strategies and other administrative concerns.

**EDSE 720 Professional Development (1)**

Consent of instructor. Basic information about doctoral program in Division of Special Education. Students learn about the program, professional activities of professors and opportunities available within the division. S/U graded.

**EDSE 721 Theoretical Foundations of Special Education I (3)**

In-depth study of special education's enrichment by conceptions of the nature of 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 (3)**

Assist learners with development of the skills and knowledge necessary to function as special educators who effectively interact with diverse students, teachers, administrators and parents.

**EDSE 727 Seminar in Exceptionalities (3)**

Investigation of the issues and trends in education of students with exceptionalities. Focus on research, curriculum and instructional strategies.

**EDSE 728 Seminar in Professional Writing (3)**

To develop an understanding of the importance of and the procedures involved in professional writing, with emphasis on writing grant applications for the United States Department of Education.

**EDSE 729 Apprenticeship in Special Education (1-4)**

Consent of instructor. Jointly defined experiences on campus in intensive mentor/apprenticeship project; participating in all aspects of inquiry, administration, or university teaching from planning through dissemination/publication. Repeatable, maximum of 12 credits, under different subtitles.

**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, maximum of 12 credits, under different subtitles.

**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 of 15 credits, under different subtitles.

**EDSE 797 Doctoral Proposal Research (1-4)**

Permission of major advisor. Required of all doctoral students. A student must earn 4 hours of credits as a partial fulfillment of requirements for all doctoral degrees before admission to candidacy. S/U graded. Repeatable, maximum of four credits.

**EDSE 799 Doctoral Dissertation (1-12)**

Permission of major advisor. Required of all doctoral candidates. A student must earn 12 hours of credit for the dissertation as a partial fulfillment of requirements for any doctoral. S/U graded. Repeatable, no limitations.

**EED - ENGLISH EDUCATION****EED 301 Beginning Tutoring Strategies for Composition (1)**

Sophomores or above. Consent of instructor. After training in tutoring strategies, participants will spend 30 class hours assisting in a composition class or writing laboratory to prepare for clinical and student teaching.

**EED 302 Advanced Tutoring Strategies for Composition (2)**

Prerequisite: EED 301. Sophomores or above. Consent of instructor. Additional tutor training. 50 class hours spent working closely with a faculty mentor, tutoring in a composition class/writing laboratory.

**EED 341 Teaching Language and Composition (3)**

Content covers writing process, teaching of writing theory, language and writing development in grades K-12 with an emphasis on methods of teaching writing in K-12.

**EED 402 Methods and Materials for Teaching Young Adult Literature in the Secondary Schools (4)**

Prerequisite: Full admission to STEP or certification at undergraduate level. Prerequisite to student teaching. Selection of literature for young adults, use of media, curriculum and classroom organization, standards-based education, assessment and evaluation in a secondary school program.

**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 541 Teaching Language and Composition (3)**

Content covers writing process, teaching of writing theory, language and writing development in grades K-12 with an emphasis on methods of teaching writing in K-12.

**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 606 Seminar in Literature for Young Adults (3)**

PTEP or certification at undergraduate level required. Books written for young adults, with emphasis upon junior novels and biographies. Consideration of reading guidance based upon student interests and needs. Development of criteria for evaluating literature for young adults.

**EED 754 Supervised Teaching of English: Literature and Composition (2-6)**

Students will prepare and teach classes under the supervision of instructors chosen or designated in order to give practice in and to evaluate teaching.

**ELPS - EDUCATIONAL LEADERSHIP AND POLICY STUDIES****ELPS 385 Law and the Classroom Teacher (2)**

Admission to PTEP required. Develop basic understanding of legal structure of American education. Emphasizes teachers' legal rights, responsibilities and liabilities; employment issues; students' rights and duties; and legal issues in discipline.

**ELPS 508 Workshop (1-3)**

A variety of workshops on special topics within the discipline. Goals and objectives will emphasize the acquisition of general knowledge and skills in the discipline. Repeatable, under different subtitles.

**ELPS 513 Professional Renewal (1-3)**

Update skills and knowledge of professionals in the discipline. Goals and objectives will be specifically directed at individual professional enhancement rather than the acquisition of general discipline knowledge or methodologies. S/U or letter graded. Repeatable, under different subtitles.

**ELPS 601 Leadership Development Through Inquiry (3)**

Experiences help students understand the nature of leadership and the importance inquiry plays in creating, using, and acquiring knowledge.

**ELPS 603 Shaping Organizations: Management and Leadership in Education (5)**

Prerequisite: ELPS 601 or consent of instructor. Introduces students to qualities of effective leadership and management; organizational skill development; organizational behavior; and strategic planning in organizations.

**ELPS 604 Understanding People: Professional Development and Educational Leadership (3)**

Prerequisite: ELPS 601 or consent of instructor. The fundamentals of working with people in educational organizations is reviewed. Emphasis 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. Repeatable, no limitations.

**ELPS 608 Issues in Educational Leadership: Implications for Practice (3)**

Prerequisites: ELPS 601, ELPS 603, ELPS 604, ELPS 605 or consent of instructor. Multiple perspectives will be used to review and analyze critical past issues and current educational dilemmas. Focus on solution strategies and their impact on practice.

**ELPS 622 Directed Studies (1-3)**

Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

**ELPS 650 School Finance and Budgeting (3)**

Prerequisites: ELPS 601, ELPS 603, ELPS 604, ELPS 605 or consent of instructor. Examines economics and politics of education, revenues for school systems, principles of taxation, conflicts between equality and efficient goals and local state and federal policies for education.

**ELPS 651 School Business Management (3)**

Prerequisites: ELPS 601, ELPS 603, ELPS 604, ELPS 605 or consent of instructor. Develops understanding of problems and procedures of such management functions as transportation, property control, food services, facility maintenance, purchasing, insurance and investments. Provisions for applications of technology to financial management.

**ELPS 654 Supervision of Curricular and Instructional Programs (5)**

Prerequisites: ELPS 601, ELPS 603, ELPS 604, ELPS 605 or consent of instructor. Examine the school leader's role in supervising the teaching and learning process. Focus on curriculum development, instructional improvement, and developing capacity of others to become curricular and instructional leaders.

**ELPS 655 Seminar in Learning in Adulthood (3)**

A comprehensive overview of learning in adulthood. Emphasis on context, the participants, learning process and the relevance for practice in educational leadership.

**ELPS 657 Families, Communities and Schools (3)**

Prerequisites: ELPS 601, ELPS 603, ELPS 604, ELPS 605 or consent of instructor. Focus on the role of the educational leader in shaping and maintaining mutually supportive relationships between schools and their environment.

**ELPS 660 Law and the Administrator (3)**

Prerequisites: ELPS 601, ELPS 603, ELPS 604, ELPS 605 or consent of instructor. Relate statutory provisions, court decisions, common law principles and constitutional requirements to legal problems affecting organization and administration of public and private school systems.

**ELPS 662 Design and Delivery of Professional Development (3)**

Prerequisites: ELPS 601, ELPS 603, ELPS 604, ELPS 605 or consent of instructor. Explores the planning, delivery, and evaluation of professional development activities for adults. Emphasizes practical aspects such as needs identification and learning transfer. Course outcomes include creating a professional development program.

**ELPS 663 Developing Grants and Contracts (3)**

Prerequisite: ELPS 601 or consent of instructor. Identifying various funding sources; understanding the explicit and implicit aspects of proposal writing for public and private agencies, proposal review processes, and elements of project operations.

**ELPS 665 Policy Analysis and Development (3)**

Prerequisites: ELPS 601, ELPS 603, ELPS 604, ELPS 605 or consent of instructor. Study standard techniques for analyzing, evaluating and developing policies for educational systems and organizations, with special attention to contemporary policy issues.

**ELPS 666 Planning and Change in Education (3)**

Prerequisites: ELPS 601, ELPS 603, ELPS 604, ELPS 605 or consent of instructor. Understand planning and change theories; strategic planning development; particular emphasis on restructuring educational environments.

**ELPS 670 The Principals' Leadership at the School Site Level (3)**

Prerequisites: ELPS 601, ELPS 603, ELPS 604, ELPS 605 or consent of instructor. Examine leadership and management issues of building principals, instructional leadership and problems facing principals at the site level.

**ELPS 695 Practicum in Educational Leadership (1-3)**

Consent of instructor. Enables students to engage in a particular task/activity in educational leadership in one or more field sites. S/U graded. Repeatable, no limitations.

**ELPS 711 Advanced Theories for Changing Organizations (3)**

Prerequisites: ELPS 603 and ELPS 666 or equivalent. Consent of instructor. Advanced theories of organizations; basic research on organizations and leader behavior; primary research about and models for facilitating change are combined to analyze, plan and evaluate major organizational change processes.

**ELPS 747 Leadership at the School District Level (3)**

Prerequisites: ELPS 601, ELPS 603, ELPS 604, ELPS 605 or consent of instructor. Study the leadership responsibilities of school district administrators, with special emphasis on the knowledge, skills and values needed by effective superintendents.

**ELPS 751 Doctoral Core I (6)**

Consent of instructor. Team-taught seminar focusing on teambuilding and group processing, inquiry and reflective practice, and moral and ethical dimensions of leadership. Extensive attention given to developing scholarly writing skills.

**ELPS 752 Doctoral Core II (6)**

Prerequisite: ELPS 751 or consent of instructor. Continued doctoral study in educational leadership and policy. Team-taught seminar exploring the nature of organizations, leadership and policy through readings, group discussions, and a collaborative research project.

**ELPS 754 Research in Educational Leadership (3)**

Prerequisites: ELPS 751, ELPS 752, SRM 602, SRM 603, or consent of instructor. Classic and contemporary published quantitative and qualitative studies on organizations, leadership and policy studies are used to analyze research strategies and tactics.

**ELPS 797 Doctoral Proposal Research (1-4)**

Prerequisites: ELPS 751, ELPS 752. To enable advanced doctoral students to learn the essential elements of effective research proposals and to develop analytic skills needed to critique other research. S/U graded. Repeatable, maximum of four credits.

**ELPS 799 Doctoral Dissertation in Educational Leadership and Policy Studies (12)**

Prerequisite: ELPS 797. Approval of research advisor required. Complete research of a major problem in educational leadership and policy. Must earn total of 12 hours of credit. S/U graded. Repeatable.

**ENG - ENGLISH****ENG 122 College Composition (3)**

Introduces different modes of expository writing with an extensive review of mechanics. Emphasis on full and logical development of thesis, use of both personal and academic stylistic levels and clear organization.

**ENG 123 College Research Paper (3)**

Prerequisite: ENG 122. Instruction in diction, style, logical analysis, research techniques and organization of college-level research papers.

**ENG 131 Introduction to Literature (3)**

The study of selected poetry, plays and works of fiction with an emphasis on developing skills in analysis, interpretation and critical thinking.

**ENG 138 Modernism in Literature (3)**

Study movements and ideas (e.g. Freudianism, existentialism, magic realism, postmodernism) in twentieth-century American and/or British literature.

**ENG 210 Studies in Literature (3)**

Study of various themes, topics, genres or special problems in literature. Repeatable, maximum of nine credits, under different subtitles.

**ENG 211 Survey of American Literature (3)**

Prerequisite: ENG 122. Study of American Literature from its beginning to the present. Emphasizes the cultural, historical appreciation of selected representative works and contribution of the literature to contemporary life and thought.

**ENG 213 Survey of British Literature I (3)**

Prerequisite: ENG 122. Chronological survey of English literature from the Anglo-Saxon period through the 18th century. This literature will be considered from various perspectives, but with constant attention to its historical context.

**ENG 214 British Literature II (3)**

Prerequisite: ENG 122. Survey of British literature from the Romantic Period to the present. Emphasizes close reading of selected major works in historical context.

**ENG 223 Writing with Sources (3)**

Prerequisite: ENG 122. This intermediate, interdisciplinary course develops skills in critical thinking, in the use of source materials and in creating longer, more complicated pieces of writing than those required in ENG 122.

**ENG 225 Communications on a Theme (3)**

Prerequisite: ENG 122. Topics for writing chosen from ideas of historical influence and/or contemporary problems. Repeatable, may be taken two times, under different subtitles.

**ENG 227 Technical Writing (3)**

Prerequisite: ENG 122. Analysis of sentence structure, order of presentation and use of illustration in writing essential for the technician, engineer, scientist, with emphasis on arranging and stating information clearly.

**ENG 231 Great Writers in England or America (3)**

The in-depth study of one English or American writer not featured elsewhere. Subject of the course determined by subtitle. Repeatable, maximum of nine credits, under different subtitles.

**ENG 235 World in Literature (3)**

Variable content course studying literature of countries predominantly other than England or America. Readings may be thematic, comparative, geographic, generic. Repeatable, maximum of nine credits, under different subtitles.

**ENG 236 Ethnic American Literature (3)**

Prerequisite: ENG 122. Introduce themes and ideas in ethnic American literature by studying representative authors of one or more U.S. ethnicities. Repeatable, 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 of six credits, under different subtitles.

**ENG 239 Topics in Women's Literature (3)**

Investigation, from a feminist perspective, of writing by or about women. Figures, nationalities, genres and periods will vary with subtitles. Repeatable, maximum of nine credits, under different subtitles.

**ENG 240 Introduction to Creative Writing (3)**

Introduction to techniques in writing fiction, poetry, or in theatre, film and television. Repeatable, maximum of nine credits, under different subtitles.

**ENG 245 Critical Approaches to Literature (3)**

Study of literary works through a variety of approaches such as sociological, psychological, deconstructionist and other contemporary theories.

**ENG 250 Introduction to Cultural Studies (3)**

A historical survey of the development of cultural studies. The investigation of "culture" as a symbolic practice, and the various critical methodologies used to interpret cultural "texts."

**ENG 262 Masterpieces of World Literature (3)**

Study of the riches of world literature in translation. Course content will be designated by one of the following subtitles: Continental Masterpieces, Masterpieces of Russian Literature, Masterpieces of the Orient. Repeatable, maximum of nine credits, under different subtitles.

**ENG 303 The Essay (3)**

Prerequisite: ENG 122, ENG 123 or equivalent. An in-depth study of essay modes, structures, and themes in which theory and observation are supplemented with practice as students read and write essays on topics of their choice.

**ENG 308 Workshop in English (1-9)**

A series of specialized English topics. Subject matter may deal with any area of English or English Education. Subtitle will indicate course content. Repeatable, maximum of nine credits, under different subtitles.

**ENG 310 Major Writers of English Literature (3)**

In-depth study of the works of a single writer. Repeatable, maximum of nine credits, under different subtitles.

**ENG 311 Shakespeare (3)**

Prerequisite: ENG 122. An in-depth study of selected plays by Shakespeare using a broad variety of historical and critical approaches.

**ENG 318 Traditional and Modern Grammars (3)**

Describes 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 319 Advanced Expository Techniques (3)**

Prerequisites: ENG 122. Reading, writing and formal analysis of various prose pieces and study of logical fallacies in ancient and modern political writing.

**ENG 325 Studies in Fantasy and Science Fiction (3)**

Different approaches to the literature of wonder, including concentration on a particular writer, a theme such as women in science fiction, or a historical study of the genre.

**ENG 335 World Literature By and About Women (3)**

The contributions of important early and modern women writers. Novels, plays and poetry or short stories of world writers will be studied.

**ENG 336 European Immigrant Literature (3)**

Prerequisite: ENG 122. Study of late nineteenth- and twentieth-century literature by and about European immigrants to the U.S. Also an introduction to theories of ethnicity and literature in the U.S.

**ENG 340 Creative Writing - Advanced (3)**

Prerequisite: ENG 240 in the appropriate subtitle or equivalent. Subtitles: Poetry, Fiction, Drama. Repeatable, maximum of nine credits, under different subtitles.

**ENG 351 Medieval Literature (3)**

Works from the Old and Middle English periods. Selections such as anonymous Anglo-Saxon lyrics, Beowulf, Chaucer, Sir Gawain and the Green Knight and Morte D'Arthur.

**ENG 352 Renaissance Literature (3)**

English poetry and prose of the Renaissance. Selections from such authors as Spenser, Jonson, Marlowe, Bacon, the Metaphysical poets, Milton and the chroniclers.

**ENG 353 Restoration and Eighteenth Century (3)**

Selected authors (Dryden, Pope, Swift, Defoe, Fielding, Boswell, Johnson, Goldsmith, Sheridan) and genres (comic drama, satiric poetry, the novel, biography) representative of literature in England from 1660 to 1800.

**ENG 354 The Romantic Movement (3)**

A study of the development of English Romanticism through the works of such writers as Blake, Wordsworth, Coleridge, Byron, Shelley and Keats.

**ENG 355 Victorian Prose and Poetry (3)**

A study of the major Victorian writers and their themes. Special emphasis upon intellectual currents of the 19th century as reflected in the poetry and prose.

**ENG 356 Twentieth Century English Literature (3)**

Selected reading from authors such as Shaw, Joyce, Woolf, Yeats, Thomas, Lessing and Fowles to bring out themes and intellectual currents of the present century.

**ENG 371 American Literature through the 19th Century (3)**

Careful study of major writers and literary movements from the Puritan period up to 1900.



**ENG 372 American Literature of the 20th Century (3)**

Careful study of major writers and literary movements from 1900 to the present.

**ENG 402 The Short Story (3)**

Analysis of modern short stories.

**ENG 403 Techniques of the Novel (3)**

A study of seven or eight important English and American novels to show different techniques used to reveal the novelists' artistic insight.

**ENG 404 Modern Literature About Childhood and Adolescence (3)**

The concept of childhood and adolescence in the writing of 20th century British and American authors, with emphasis on the ideas of innocence and initiation.

**ENG 406 Advanced Studies in Drama (3)**

Prerequisite: ENG 122. Study of a variety of dramatists, historical periods or special problems in drama; may focus attention on specific dramatist or sub-genre. Repeatable, under different subtitles.

**ENG 407 Advanced Studies in Poetry (3)**

Study of one or more poets or special problems in poetry; may focus attention on a specific poet or sub-genre.

**ENG 408 Advanced Topics in Rhetoric and Composition (3)**

Prerequisite: ENG 122, ENG 123 or equivalent. Advanced study in various topics in rhetoric and composition, such as technical writing, classical rhetoric, computers and writing and writing theory. Repeatable, maximum of six credits, under different subtitles.

**ENG 409 Advanced Topics in Literature (3)**

Topics may focus on themes, literary theory, genres, historical periods or selected writers.

**ENG 414 Greek and Comparative Mythology (3)**

Greek myths as an important source of literary allusion and imagery and as a comparative vehicle to show what is common to all mythologies.

**ENG 418 Advanced Topics in Linguistics (3)**

An investigation of selected topics of current linguistic interest. Topics such as syntax, stylistics, semantics and sociolinguistics are explored. Repeatable, maximum of six credits, under different subtitles.

**ENG 419 Language and the History of English (3)**

A survey of general linguistics as applied to the history of the English language. Includes vocabulary and dictionary study, regional and social dialects, semantics and pragmatics, childhood acquisition of language.

**ENG 422 Directed Studies (1-3)**

Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

**ENG 430 Advanced Studies in World Literature (3)**

An investigation of a theme, form or problem that cuts across periods and nationalities. Repeatable, maximum of nine credits, under different subtitles.

**ENG 436 Major Ethnic Writers (3)**

Prerequisite: ENG 122. Focus on the work of one or two writers and delve into critical and theoretical issues in ethnic studies. Repeatable, maximum of nine credits, under different subtitles.

**ENG 441 Colloquium in Literature (3)**

One great work of literature or a small group of such masterpieces that are closely related either in form or idea. Repeatable, maximum of nine credits, under different subtitles.

**ENG 495 Advanced Cultural Studies (3)**

An intensive study of one particular cultural phenomenon from a variety of critical perspectives. Repeatable, maximum of six credits, under different subtitles.

**ENG 497 Senior Seminar (3)**

Juniors or above. Detailed investigation of a specific author, period, text, or topic in literary studies, composition and rhetoric, or linguistics. Substantial research and at least one oral presentation required. Repeatable, under different subtitles.

**ENG 503 Techniques of the Novel (3)**

A study of seven or eight important English and American novels to show different techniques used to reveal the novelists' artistic insight.

**ENG 506 Advanced Studies in Drama (3)**

Studies of a variety of dramatists, historical period or problems in drama; may focus attention on a specific dramatist or sub-genre. Repeatable, under different subtitles.

**ENG 508 Workshop (1-3)**

A variety of workshops on special topics within the discipline. Goals and objectives will emphasize the acquisition of general knowledge and skills in the discipline. Repeatable, under different subtitles.

**ENG 510 Advanced Placement Program-English (1-3)**

Consent of Instructor. A course designed to provide content and pedagogical information related to the teaching of writing and literature in the secondary school English advanced placement program. S/U graded. Repeatable, no limitations.

**ENG 513 Professional Renewal (1-4)**

Update skills and knowledge of professionals in the discipline. Goals and objectives will be specifically directed at individual professional enhancement rather than the acquisition of general discipline knowledge or methodologies. S/U or letter graded. Repeatable, under different subtitles.

**ENG 514 Greek and Comparative Mythology (3)**

Greek myths as an important source of literary allusion and imagery and as a comparative vehicle to show what is common to all mythologies.

**ENG 515 Colorado Writing Project: Teacher Research Design (3)**

Corequisite ENG 516. Consent of instructor. Course offers experienced teachers of writing the opportunity to do scholarly research in writing pedagogy, analyzing various research designs and project results.

**ENG 516 Colorado Writing Project: The Teacher as a Researcher (3)**

Corequisite ENG 515. Consent of instructor. Course offers experienced teachers of writing the opportunity to develop their own research project, carry it out, evaluate it and present the results both orally and in writing.

**ENG 530 Advanced Studies in World Literature (3)**

An investigation of a theme, form or problem that cuts across periods and nationalities. Repeatable, under different subtitles.

**ENG 535 World Literature By and About Women (3)**

The contributions of important early and modern women writers. Novels, plays and poetry or short stories of world writers will be studied.

**ENG 540 Professional Writing (3)**

Professional-level writing course in various modes of expression according to subtitle designation, such as poetry, exposition, fiction, etc. Repeatable, may be taken nine credits, under different subtitles.

**ENG 593 The Rocky Mountain Writing Project (6)**

Consent of instructor. Teachers teaching teachers about writing to extend their knowledge in theory and practice and to prepare them as teacher consultants resulting in the improvement in the quality of student writing. Open to K-12 and teachers in all disciplines. S/U graded. Repeatable, maximum of 12 credits.

**ENG 594 Practicum in the Teaching of College Composition (4)**

Consent of instructor. Train new teaching assistants in Department of English to teach college level composition to UNC students.

**ENG 600 Introduction to Graduate Study (3)**

An orientation to graduate study in general and the nature and methods of research in particular. Should be taken during the first semester of graduate work.

**ENG 622 Directed Studies (1-3)**

Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

**ENG 623 Studies in Old English (3)**

Seminars in Germanic and Christian lyrics, elegies, historic poetry, selected prose, linguistic studies, including grammar, phonology, vocabulary, especially for West Saxon dialect; backgrounds of Anglo-Saxon culture. Repeatable, maximum of nine credits, under different subtitles.

**ENG 624 Studies in Middle English (3)**

Seminars in Chaucer's works; non-Chaucerian drama, romance, ballads, lyrics, selected prose; linguistic studies, including grammar, phonology, emphasis on East Midland dialect; medieval culture. Repeatable, maximum of nine credits, under different subtitles.

**ENG 625 Studies in the Renaissance (3)**

Seminars in various ideas of the period, genres (drama, prose and poetry) and representative authors. Repeatable, maximum of nine credits, under different subtitles.

**ENG 626 Studies in Restoration and 18th Century (3)**

Seminars in various ideas of the period, genres (criticism, drama, fiction and poetry) and representative authors. Repeatable, maximum of nine credits, under different subtitles.

**ENG 627 Studies in the Romantic Period (3)**

Seminars in the origin, purpose, nature of the Romantic Movement, focusing on two or more representative authors. Repeatable, maximum of nine credits, under different subtitles.

**ENG 628 Studies in the Victorian Period (3)**

Seminars in various genres (criticism, drama, fiction and poetry), representative authors. Repeatable, maximum of nine credits, under different subtitles.

**ENG 629 Studies in 20th Century British Literature (3)**

Seminars in various ideas of the period, genres (criticism, drama, fiction and poetry) and representative authors. Repeatable, maximum of nine credits, under different subtitles.

**ENG 630 Studies in American Literature (Beginnings to Civil War) (3)**

Seminars in various genres (criticism, drama, prose and poetry), ideas and representative authors. Repeatable, maximum of nine credits, under different subtitles.

**ENG 631 Studies in American Literature (Civil War to W.W.I.) (3)**

Seminars in various genres (criticism, drama, fiction and poetry), ideas and representative authors during the late 19th century and early 20th century. Repeatable, maximum of nine credits, under different subtitles.

**ENG 632 Studies in American Literature (W.W.I. to the Present) (3)**

Seminars in various genres (criticism, drama, fiction and poetry), ideas and representative authors during the mid 20th century. Repeatable, maximum of nine credits, under different subtitles.

**ENG 633 Studies in Linguistics (3)**

Seminars in various topics ranging from the evolution of English from its beginnings to dialectology, semantics, stylistics and psycholinguistics. Repeatable, maximum of nine credits, under different subtitles.

**ENG 635 Studies in World Fiction (3)**

Seminars in various short stories and novels in translation to illustrate a generic or ideological approach to fiction beyond Britain and the United States. Repeatable, maximum of nine credits, under different subtitles.

**ENG 636 Studies in World Poetry (3)**

Seminars in various poets and aspects of poetry in translation to illustrate a generic, ideological or cultural approach to poetry beyond Britain and the United States. Repeatable, maximum of nine credits, under different subtitles.

**ENG 637 Studies in World Drama (3)**

Seminars in various plays in translation to illustrate a generic or ideological approach to drama beyond Britain and the United States. Repeatable, maximum of nine credits, under different subtitles.

**ENG 638 Studies in Literary Criticism (3)**

Seminars in various schools of criticism from the Greeks through the 20th century, combined with the practical application of the theories to works of literature. Repeatable, maximum of nine credits, under different subtitles.

**ENG 639 Colloquium in Literature (3)**

Seminars in various topics (e.g., the tragic hero, alienation, the experimental novel) related in form and/or idea and drawn from American, British or world literature in translation. Repeatable, maximum of nine credits, under different subtitles.

**ENG 692 Teaching Internship (3)**

Consent of Instructor. Course offers community college teaching experience to English M.A. students. Interns teach a course at an appropriate community college, receive monitoring, and provide a portfolio describing the teaching experience. Repeatable, may be taken two times.

**ENG 699 Thesis/Creative Project (1-6)**

Proposals must be approved by the student's major advisor and the Dean of the Graduate School. S/U graded. Repeatable, no limitations.

**ENST - ENVIRONMENTAL STUDIES****ENST 100 Introduction to Environmental Studies (3)**

Explore the nature of environmental problems and gain an overall understanding of the complexity of these problems.

**ENST 205 Environment, Politics and Law (3)**

Analysis of the causes and proposed solutions of environmental problems and of environmental issues and their political resolution.

**ENST 215 Human Behavior and Environment (3)**

Prerequisite: ENST 100 recommended. Examine the interrelationship between human behavior and the environment. Review personal, social and structural dimensions of everyday life as they relate to the environment. Understand environmental problems and consider alternative behavior models.

**ENST 225 Energy and the Environment (3)**

Study past, present and future methods of energy production and limitations imposed by the laws of physics. Discuss applications to transportation, home and industry. Taught by the Physics department.

**ENST 235 Chemistry and the Environment (2)**

The cause and effect of nuclear waste, pesticides, air pollution, water pollution, toxic waste, food additives and alternative energy sources from a chemical perspective.

**ENST 245 Nuclear, Solar and Alternative Power (3)**

Basic principles and applications of nuclear and solar power conversion, including fission, fusion and solar-to-electric. Solar heating of businesses and residences. Alternative power possibilities. Taught by the Physics department.

**ENST 247 Politics of the Nuclear Age (2)**

An investigation into the political, social, economic and military implications of nuclear power and weapons, plus the interrelations between the two. Topics will include the Manhattan Project, the Cold War mentality and the efforts to halt the nuclear arms race.

**ENST 255 Atmospheric Environment of Humans (2)**

Air pollution and temperature inversions, global circulation of pollutants, acid rain, human impact on the ozone layer, carbon dioxide and climatic change, nuclear winter and other climate/human relationships.

**ENST 265 Conservation of Natural Resources (2)**

Learn the characteristics of the major natural resources and the scientific basis behind current resource use practices. The environmental consequences of their use and abuse will be emphasized.

**ENST 331 Global Population and Human Needs (3)**

A demographic perspective on human populations. Introduction to population processes of fertility, mortality, migration. Analysis of global patterns of demographic processes and the relation of culture to population growth and decline.

**ENST 335 Environmental and Resource Economics (3)**

Prerequisite: ECON 105. Students will examine the strengths and weaknesses of economic theory in analyzing the seriousness of resource and environmental issues facing society.

**ENST 355 Introduction to Environmental Health (3)**

Discussion of the relationships of environmental pollution to the ecosystem and health of humans. Analyze major areas of environmental pollution: water, air, solid wastes, pesticides, radioactive wastes and population.

**ENST 375 Literature and the Environment (3)**

Explore writing about nature or human relationships with nature from various periods and cultures. What economic, scientific, philosophic and religious attitudes emerge from attitudes about nature and do these influence human treatment of natural things.

**ENST 380 Sustainable Living (3)**

Examine the sustainability of contemporary living patterns. Explore alternative approaches to meeting transportation, domestic power and heating, food production and waste disposal needs on the personal and community levels.

**ENST 385 Art and the Environment (2)**

Investigate and participate in the process of art as it relates to the different environments of human existence.

**ENST 405 Senior Seminar (3)**

Discuss current environmental issues in depth and in detail, on the basis of student background, library resources, interviews and guest speakers. Individuals and small groups analyze and present problems.

**ENST 422 Directed Studies (1-3)**

Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

**ENST 492 Internship in Environmental Studies (4-15)**

Permission of ENST coordinator. Practical experience and training in areas related to the environment. Credit hours and nature of experience arranged individually. Repeatable, maximum of 15 credits.

**ENST 508 Workshop (1-3)**

A variety of workshops on special topics within the discipline. Goals and objectives will emphasize the acquisition of general knowledge and skills in the discipline. Repeatable, under different subtitles.

**ENST 513 Professional Renewal (1-3)**

Update skills and knowledge of professionals in the discipline. Goals and objectives will be specifically directed at individual professional enhancement rather than the acquisition of general discipline knowledge or methodologies. S/U or letter graded. Repeatable, under different subtitles.

**ENST 515 Environment and Environmental Problems (2)**

Examine the structural and functional relationships of the environment with emphasis on present and long-term problems. Previous experience or courses in natural and social sciences useful but not required.

**EPSY - EDUCATIONAL PSYCHOLOGY****EPSY 346 Learning and Development for Teachers (2)**

Corequisites: EDMG 321 for middle grades program; EDSE 430 for elementary education program. Provisional or full admittance to PTEP required. Cognitive, linguistic, affective, and social development, with particular attention to elementary students. Contemporary learning theories and their applications to practice at the elementary level. Emphasis on integration of theory and practice, with numerous classroom applications of psychological theories and principles considered throughout. Geared specifically for pre-service teachers.

**EPSY 347 Educational Psychology for Elementary Teachers (3)**

Provisional or full admittance to PTEP required. Study the relationships between theory, research, and practice in learning, memory, child development, motivation, and educational assessment for elementary classroom settings.

**EPSY 348 Educational Psychology for Middle School Teachers (3)**

Provisional or full admittance to PTEP required. Study the relationships between theory, research, and practice in learning, memory, child development, motivation, and educational assessment for middle school classroom settings.

**EPSY 349 Educational Psychology for Secondary Teachers (3)**

Provisional or full admittance to PTEP required. Study the application of principles derived from research on learning, memory, adolescent development, motivation, and educational assessment and measurement to secondary classroom settings.

**EPSY 508 Workshop (1-3)**

A variety of workshops on special topics within the discipline. Goals and objectives will emphasize the acquisition of general knowledge and skills in the discipline. Repeatable, under different subtitles.

**EPSY 513 Professional Renewal (1-3)**

Update skills and knowledge of professionals in the discipline. Goals and objectives will be specifically directed at individual professional enhancement rather than the acquisition of general discipline knowledge or methodologies. S/U or letter graded. Repeatable, under different subtitles.

**EPSY 530 Life Span Developmental Psychology (3)**

Human growth and development from conception through senescence, focusing on cognitive, affective, social and psychomotor development throughout the life span.

**EPSY 540 Theories and Principles of Learning (3)**

A survey of classical and contemporary theory and research related to human cognition. Topics include the study of learning processes, memory and higher cognitive functions.

**EPSY 622 Directed Studies (1-4)**

Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

**EPSY 630 Child and Adolescent Psychology (3)**

Prerequisite: EPSY 530 or equivalent. Physical, social and emotional development of children from conception through puberty, stressing normal development and major development theories.

**EPSY 631 Psychology of Youth, Adulthood and Aging (3)**

Prerequisite: EPSY 530 or equivalent. Cognitive, social and physical developments that affect transitions in youth, adulthood and senescence.

**EPSY 635 Individual Differences in Cognition (3)**

Prerequisite: EPSY 540 or equivalent. Examine individual differences between learners from a cognitive viewpoint. Review verbal, mathematical and spatial abilities, cognitive styles, problem solving and gender and cultural differences. Seminar format.

**EPSY 654 Seminar in College Teaching (3)**

Practices, issues and research in college teaching. Instructional models and methods, course planning, cognition, testing and grading, student-teacher interaction and ethics.

**EPSY 661 Trends and Issues in Educational Psychology (3)**

Majors only. Examines professional, philosophical, theoretical issues and trends across the discipline. Students practice and receive feedback regarding written and oral communication skills. S/U graded.

**EPSY 663 Apprenticeship (1-3)**

Consent of instructor. Work with faculty member on professional endeavors such as research, writing, course planning or public service. Requires 3 hours per week for each credit. S/U graded. Repeatable, maximum of nine credits.

**EPSY 674 Measurement I: Educational Testing (3)**

Prerequisite: SRM 600. Construction and evaluation of tests and other measures. Topics include score and norm interpretation, reliability and validity. Item construction and analysis, rating scales and questionnaires.

**EPSY 675 Measurement II: Advanced Techniques (3)**

Prerequisite: EPSY 674. Classical and modern measurement theory and methods. Derivations of reliability and validity formulae, test bias, item response theory, logistic models, score equating, standards, individual prediction and classification.

**EPSY 682 Cognition and Instruction (3)**

Prerequisite: EPSY 540. A critical survey and analysis of the research literature in cognitive psychology pertaining to issues of instruction and human performance. Research on learning environments and cognitive apprenticeships is also examined.

**EPSY 684 Advanced Seminar in Human Development (3)**

Prerequisite: EPSY 530. For Graduate students wishing to develop advanced competency. Periodically, seminar may focus on topic reflecting instructor's interest area or on developing a student's inquiry. Repeatable, maximum of nine credits.

**EPSY 685 Advanced Seminar in Learning and Cognition (3)**

Prerequisite: EPSY 540. Pursue original research into learning and cognitive processes under the guidance of a faculty member. Arranged to reflect faculty and students' interests. Repeatable, maximum of nine credits.

**EPSY 686 Advanced Seminar in Measurement and Assessment (3)**

For graduate students wishing to develop a competency in psychological and educational measurement. The seminar will focus on an advanced topic in contemporary measurement and assessment. Repeatable, maximum of nine credits.

**EPSY 692 Internship in Educational Psychology (1-9)**

Consent of instructor. Full-or part-time assignment in a field-based setting under supervision. Students work a minimum of 3 hours per week for each hour of credit. S/U graded. Repeatable, maximum of 18 credits.

**EPSY 694 Practicum (1-9)**

Consent of instructor. Experiential learning in an on-campus setting in conjunction with supervision by a faculty member. Students work a minimum of 3 hours per week for each hour of credit. S/U graded. Repeatable, maximum of 18 credits.

**EPSY 695 Special Topics in Educational Psychology (1-3)**

Specialized topics or contemporary issues. Topics vary. Repeatable, maximum of two times, under different subtitles.

**EPSY 699 Thesis (1-6)**

Empirical investigation under the direction of a graduate faculty member. Thesis must be approved by the faculty committee and submitted in appropriate style and format to the Graduate School. S/U graded. Repeatable, no limitations.

**EPSY 797 Doctoral Proposal Research (1-4)**

Doctoral students must earn 4 hours as partial fulfillment of requirements for the doctorate. Check with the Graduate School regarding appropriate procedures and formats. S/U graded. Repeatable, maximum of four credits.

**EPSY 799 Doctoral Dissertation (1-12)**

Must earn 12 hours as partial fulfillment of requirements for the doctorate. Dissertation must be approved by and defended before the dissertation committee. S/U graded. Repeatable, no limitations.

**ESCI - EARTH SCIENCES****ESCI 265 Earth Science Concepts for Elementary Teachers (3)**

(2 lecture, 2 laboratory) An investigation of basic concepts in the Earth Sciences through lecture, discussion and laboratory investigations. This course is ideal for those seeking elementary teacher certification.

**ESCI 450 Strategies in Teaching in Earth Sciences (1)**

(2 laboratory) Demonstration and strategies appropriate for teaching earth science concepts, presentation of controversial issues and management of laboratory and field trip activities.

**ESCI 484 Earth Sciences Field Experiences (1-15)**

Consent of instructor. Field studies in astronomy, geology, meteorology and/or oceanography, usually preceded by on-campus orientation. Schedule of classes lists specific area and topic to be investigated when course is offered. Repeatable, under different subtitles. Field trip required.

**ESCI 492 Earth Science Internship (1-15)**

Consent of instructor. Internship in a public agency or private firm to provide professional experience under the supervision of an area specialist. S/U graded. Repeatable, maximum of 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.

**ESCI 550 Strategies in Teaching in Earth Sciences (1)**

(2 laboratory) Demonstration and strategies appropriate for teaching earth science concepts, presentation of controversial issues and management of laboratory and field trip activities.

**ESCI 575 Earth Systems Science Education (1-6)**

A variable content course covering integrated science content and pedagogy from the following: atmosphere (air), biosphere (life), hydrosphere (water), and/or lithosphere (land/rock). Repeatable, under different subtitles.

**ESCI 584 Earth Sciences Field Experiences (1-15)**

Consent of instructor. Field studies in astronomy, geology, meteorology and/or oceanography, usually preceded by on-campus orientation. Schedule of classes lists specific area and topic to be investigated when course is offered. Repeatable under different subtitles. Field trip required.

**ESCI 599 Seminar in Earth Sciences (1)**

Consent of instructor. Invited speakers, including graduate students, faculty and guests, present current earth science research topics in seminar format. Required of graduate students all semesters they are in residence at UNC. S/U graded. Repeatable, no limitations.

**ESCI 600 Introduction to Earth Science Research (2)**

Consent of instructor. Nature and methods of research in the earth sciences. Development of research proposal that will provide the basis for thesis or graduate research project. Required of all first year Earth Sciences graduate students.

**ESCI 695 Special Topics in Earth Sciences (2)**

Consent of instructor. Faculty and students select an earth sciences topic for intensive study beyond the scope of existing departmental course offerings. Repeatable, under different subtitles.

**ESCI 697 Graduate Research (1-6)**

Consent of instructor. Qualified graduate students select and research a problem and present professional quality written report. Repeatable, maximum of six credits.

**ESCI 699 Thesis (1-6)**

Intensive study of selected earth sciences topic under the direction of student's graduate studies committee. S/U graded. Repeatable, no limitations.

**ESL - ENGLISH AS A SECOND LANGUAGE****ESL 051 Writing for Foreign Students (1-3)**

Designed to help foreign students with college writing tasks, including essays, term papers, theses. For students whose English language skills are at advanced level. This is a Basic Skills course offered through Continuing Education and does not count in term, cumulative or total credits and will not be calculated in the GPA. Repeatable, no limitations.

**ET - EDUCATIONAL TECHNOLOGY****ET 100 Computer Applications for Composition (1)**

Taken concurrently with composition classes. Word processing, graphics and stylistic analysis applications to improve student's writing process. Includes CAI tutorials and tests.

**ET 247 Technology in Education for Elementary Teaching (1)**

Corequisites: EDF 366. Provisional or full admittance to PTEP required. Instruction and practice using a variety of technology tools. Issues related to the application of these tools (intellectual freedom, critical viewing skills, technology access and equity) within the elementary classroom setting will be emphasized.

**ET 248 Technology in Education for Middle Grades Teaching (1)**

Corequisites: EDMG 200. Instruction and practice using a variety of technology tools. Issues related to the application of these tools (intellectual freedom, critical viewing skills, technology access and equity) within the middle grades classroom setting will be emphasized.

**ET 249 Technology in Education for Secondary Teaching (1)**

Corequisites: STEP 161. Provisional or full admittance to PTEP required. Instruction and practice using a variety of technology tools. Issues related to the application of these tools (intellectual freedom, critical viewing skills, technology access and equity) within the secondary classroom setting will be emphasized.

**ET 347 Educational Technology Applications for Elementary Teaching (1)**

Prerequisite: ET 247. Corequisite: EDEL 430. Full admittance to PTEP required. Sophomores or above. Integration of various instructional delivery systems within teaching. Content-specific and elementary applications of computing, video, print, hypermedia and multimedia, telecommunications technologies and issues relevant to the elementary education community.

**ET 348 Educational Technology Applications for Middle Grades Teaching (1)**

Prerequisite: ET 248. Corequisites: EDMG 440, and EDSE 411. Full admittance to PTEP required. Sophomores or above. Integration of various instructional delivery systems within teaching. Content-specific and middle grades applications of computing, video, print, hypermedia and multimedia, telecommunications technologies and issues relevant to middle grades.

**ET 349 Educational Technology Applications for Secondary Teaching (1)**

Prerequisite: ET 249. Corequisites: STEP 363, EDRD 324 and appropriate secondary methods course for the secondary education program. Full admittance to PTEP required. Sophomores or above. Integration of various instructional delivery systems within teaching. Content-specific and secondary applications of computing, video, print, hypermedia and multimedia, telecommunications technologies and issues of relevance to the secondary education community.

**ET 422 Directed Study (1-3)**

Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

**ET 425 Computer Applications (3)**

Course content includes spreadsheets, word processing, data base, presentation software, communication software, graphics and content specific software applications. S/U graded.

**ET 495 Special Topics in Educational Technology (1-3)**

Consent of instructor. Scheduled on irregular basis. Explore special topics in Educational Technology. An appropriate subtitle will explain each course. Repeatable, may be taken two times, under different subtitles.

**ET 500 Introduction to Educational Technology (3)**

A survey course examining the field of educational technology, especially its impact on teaching and learning. Includes historical and current perspectives, as well as trends and issues in the field.

**ET 501 Introduction to Applications of Educational Technology (3)**

Instruction and practice with computer systems, video and other technological tools. Application include word processing, spreadsheets and presentation software. Visual and information literacy skills and copyright trends are addressed.

**ET 502 Instructional Design (3)**

Covers design procedures and analysis techniques for determining instructional content. Evaluation tools for determining instructional efficiency at the systems, curriculum, course and lesson levels are explored.

**ET 503 Computers in Education (3)**

Prerequisite: ET 501 or permission of instructor. Instruction for intermediate to advanced applications of current computer-based technologies. Introduction to a variety of other technology related topics with an emphasis on educational applications and integration.

**ET 504 Instructional Materials Design (3)**

Procedures for designing and developing instructional materials. Includes scripting and production specifications for graphic, audio, slide/tape and/or video formats.

**ET 508 Workshop (1-3)**

A variety of workshops on special topics within the discipline. Goals and objectives will emphasize the acquisition of general knowledge and skills in the discipline. Repeatable, under different subtitles.

**ET 513 Professional Renewal (1-3)**

Update skills and knowledge of professionals in the discipline. Goals and objectives will be specifically directed at individual professional enhancement rather than the acquisition of general discipline knowledge or methodologies. S/U or letter graded. Repeatable, under different subtitles.

**ET 524 Design of Computer Assisted Instruction (3)**

Prerequisite: ET 503. A study of the design and development of computer assisted instruction, introducing both authoring system and general purpose programming language paradigms.

**ET 530 Media Cataloging and Classification (3)**

Study the purpose, theory and principles of cataloging and classifying media. Includes Dewey Decimal, Library of Congress and other systems, as well as on-line cataloging.

**ET 533 Reference and Information Management (3)**

Discuss suitable materials for elementary, secondary and post-secondary resource centers as well as data bases and research indices for students, instructors and administrators.

**ET 535 Administration of Instructional Resources (3)**

Learn the essentials of organizing and administering instructional resource centers at elementary, secondary and post-secondary levels. Includes budget preparation and personnel management.

**ET 536 Media Selection, Utilization and Evaluation (3)**

Selection principles, utilization strategies and evaluative criteria for print and non-print media for individuals, groups, different ages and cultural groups. Includes CAI/CMI evaluation.

**ET 601 Strategies for Teaching Technology Skills (3)**

Prerequisites: ET 502, ET 503. This course is specifically designed for individuals responsible for teaching technology-related skills to a diverse group of learners. Pedagogical skill development will apply to the teaching/training of K-12 students, college students, inservice and preservice teachers, community college and university faculty and corporate trainees. The focus is on using appropriate instructional design strategies, theories and models to create learning environments that are more efficient, effective and appealing. It also addresses issues related to ethics and interpersonal skills as they relate to the topic.

**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 617 Development of Online Applications (3)**

Prerequisites: ET 502, ET 503 and ET 524; ET 613 or ET 615 strongly recommended. This course is focused on the design, development and implementation of highly interactive online and network applications. Emphasis will be on instructional environments, but application development may occur in a number of areas (e.g. simulations, e-commerce, database development, evaluation). A secondary emphasis will be placed on the creation of online applications that are ADA compliant.

**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, no limitations.

**ET 693 Practicum (1-3)**

Supervised professional activity requiring a minimum of 10 hours per week. Develop project, product or technological device unique to the field. An approved end of semester project report is required. S/U graded. Repeatable, no limitations.

**ET 695 Special Topics in Educational Technology (1-3)**

Consent of instructor. Scheduled on irregular basis. Explore special topics in Educational Technology. An appropriate subtitle will explain each course.

**ET 702 Instructional Design Theory and Research (3)**

Prerequisite: ET 602. Includes examinations of theories underlying instructional design methods. Review and critique of basic and applied research bases is featured.

**ET 735 Design of Complex Technology Systems (3)**

Exploration of the design, organization and administration of large and complex technology systems. Investigation of the essential elements necessary for the successful operation of large complex systems.

**ET 780 Diffusion of Technological Innovations (3)**

Investigation of the literature and research base in diffusion of innovations. Application of theoretical and research findings to the diffusion of technological innovations.

**ET 784 Doctoral Seminar in Educational Technology (3)**

Prerequisite: ET 500. Investigation of the development of the field of educational technology including the theoretical and research bases for the field. Exploration of current research problems and directions for future research in educational technology.

**ET 797 Doctoral Proposal Seminar (1-4)**

Design of research proposals and conducting pilot studies to examine feasibility of proposed hypothesis. Summarize existing research, identify problems, develop hypotheses and justify selection of design components. S/U graded. Repeatable, maximum of four credits.

**ET 799 Doctoral Dissertation (1-12)**

Required of all doctoral candidates. Student must earn 12 hours of credit for the dissertation as partial fulfillment of requirements for all doctoral degrees. Repeatable, no limitations.

**FL - FOREIGN LANGUAGES****FL 341 Methods of Teaching in the Secondary School (3)**

Full admittance 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 395 Special Topics (1-4 credits)**

Explore a special topic related to foreign language study. Conducted in English or in any language taught in the Department of Foreign Languages. Repeatable, under different subtitles.

**FL 400 Traditions in International Film (3)**

Research and discuss film in international and cross-cultural contexts, especially Western film in relation to ongoing European film traditions and theories. Conducted in English.

**FL 440 Methods of Teaching Foreign Languages in K-6 (3)**

Designed to prepare future foreign language teachers to teach at the kindergarten through sixth grade levels. Language learners of all ages will be examined in order to serve as a foundation for effective overall foreign language instruction, with an emphasis in grades K-6.

**FL 508 Workshop (1-10)**

A variety of workshops on special topics within the discipline. Goals and objectives will emphasize the acquisition of general knowledge and skills in the discipline. Repeatable, under different subtitles.

**FL 513 Professional Renewal (1-10)**

Update skills and knowledge of professionals in the discipline. Goals and objectives will be specifically directed at individual professional enhancement rather than the acquisition of general discipline knowledge or methodologies. S/U or letter graded. Repeatable, under different subtitles.

**FL 531 Teaching of Foreign Languages (1-4)**

Study problems in teaching at secondary and elementary school levels, content development for course of study, organization of learning materials, teaching procedures, testing and evaluating. Normally conducted in workshop format. Repeatable, under different subtitles.

**FL 601 Practicum (1-10)**

Open only by invitation to resident graduate students. Supervised professional activity in student's area of interest. Repeatable, maximum of ten credits.

**FND - FOOD, NUTRITION AND DIETETICS****FND 210 Medical Terminology (2)**

For students of any major. Terminology used in medical sciences. Development of medical vocabulary.

**FND 250 Principles of Nutrition (3)**

For students of any major. Investigation of the principles of nutrition as applied to humans.

**FND 251 Introductory Nutrition (3)**

Prerequisite: CHEM 108 or CHEM 131. Basic nutrient concepts including individual nutrients and their interactions.

**FND 252 Nutrition in the Life Cycle (3)**

Prerequisite: FND 250. Nutrition applied to the various stages of life, from conception to the later years. Socioeconomic, psychological, physiological factors affecting food intake.

**FND 308 Workshops in Food, Nutrition and Dietetics (1-3)**

Investigate various issues in Food, Nutrition and Dietetics. Each workshop has a subtitle and no subtitle may be repeated for credit. Repeatable, under different subtitles.

**FND 342 Food Science (4)**

(2 lecture, 2 laboratory) Prerequisites: CHEM 108, FND 250. Study of the chemical and physical properties of food and the effects of processing and preparation, preservation and storage.

**FND 357 Nutrition in Health and Illness (4)**

Prerequisites: CHEM 108, ZOO 245 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 370 Nutrition Education and Application Strategies (3)**

Prerequisites: FND 250 or FND 357. Nutrition education and application strategies to enhance dietary change.

**FND 410 Professional Development Seminar (2)**

Dietetic majors only. Development of the dietetic profession. Examination of topics in nutrition and dietetics not covered in previous coursework. S/U graded.

**FND 420 Maternal and Child Nutrition (3)**

Prerequisite: FND 250 or FND 357. The study of developmental stages, nutrient requirements, appropriate diet and eating behaviors for children from conception through school age, common nutrition related conditions of children and nutrition for the pregnant and lactating woman.

**FND 422 Directed Studies (1-3)**

Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

**FND 430 Nutrition Assessment and Intervention (3)**

(2 lecture, 1 laboratory) Prerequisites: FND 252, ZOO 245, CHEM 109. Nutrition assessment and intervention during acute and chronic disease. Theory and practical application presented.

**FND 431 Medical Nutrition Intervention (3)**

(2 lecture, 1 laboratory) Prerequisite: FND 430. Continuation of FND 430. Laboratory arranged. Nutrition assessment and intervention during acute and chronic disease. Theory and practical application presented.

**FND 446 Foodservice Systems Management (4)**

(3 lecture, 1 laboratory) Prerequisites: FND 252, FND 342. Laboratory required. Systems approach applied to commercial and noncommercial food service facilities including: procurement, production, distribution, service and maintenance. Management of foodservice operations.

**FND 451 Advanced Nutrition (3)**

Prerequisites: FND 250, CHEM 109, ZOO 245. Metabolic, physiological and biochemical functions of nutrients and subcellular components and their role in maintaining the integrity of the organism.

**FND 452 Community Nutrition (3)**

Prerequisites: FND 250 and FND 252. Systematic analysis of community food and nutrition problems and programs. Role of public and private sectors in community health promotion.

**FND 453 Nutrition Intervention Practicum (1-2)**

Prerequisites: FND 430, FND 431 or take concurrently. Consent of instructor. Majors only. Application of the principles of clinical and community nutrition through laboratory and clinical experiences. Repeatable, maximum of two credits.

**FND 455 Nutrition for Fitness and Athletic Performance (3)**

The study of nutrition principles as they apply to the promotion of optimal physical fitness and athletic performance. Current research and evaluation of nutritional recommendations will be stressed.

**FND 508 Workshop (1-3)**

A variety of workshops on special topics within the discipline. Goals and objectives will emphasize the acquisition of general knowledge and skills in the discipline. Repeatable, under different subtitles.

**FND 513 Professional Renewal (1-3)**

Consent of instructor. Enrollment restricted. Update skills and knowledge of professionals in the discipline. Goals and objectives will be specifically directed at individual professional enhancement rather than the acquisition of general discipline knowledge or methodologies. S/U or letter graded. Repeatable, under different subtitles.

**FND 520 Maternal and Child Nutrition (3)**

Prerequisite: FND 250 or FND 357. The study of developmental stages, nutrient requirements, appropriate diet and eating behaviors for children from conception through school age, common nutrition related conditions of children and nutrition for the pregnant and lactating woman.

**FND 555 Nutrition for Fitness and Athletic Performance (3)**

The study of nutrition principles as they apply to the promotion of optimal physical fitness and athletic performance. Current research and evaluation of nutritional recommendations will be stressed.

**FR - FRENCH****FR 101 Elementary French I (4)**

Corequisite: FR 151. For students with no previous French. Develop four language skills, especially speaking. Stresses practical communication, comprehension, pronunciation, fluency and cultural awareness.

**FR 102 Elementary French II (4)**

Prerequisite: FR 101 or equivalent. Corequisite: FR 152. Continuation of FR 101 or equivalent. Develop four language skills, especially speaking. Stresses practical communication, comprehension, pronunciation, fluency and cultural awareness.

**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 151 Elementary French Lab I (1)**

Practice elementary French skills through workbook and lab activities commensurate with skill level in FR 101. Repeatable, may be taken two times.

**FR 152 Elementary French Lab II (1)**

Practice elementary French skills through workbook and lab activities commensurate with skill level in FR 102. Repeatable, may be taken two times.

**FR 201 Intermediate French I (3)**

Corequisite: FR 251. Review language structures and develop reading and writing skills. Gain vocabulary through conversational practice on topics of cultural interest.

**FR 202 Intermediate French II (3)**

Prerequisite: FR 201 or equivalent. Corequisite: FR 252. Review language structures and develop reading and writing skills. Gain vocabulary through conversational practice on topics of cultural and literary interest.

**FR 251 Intermediate French Lab I (1)**

Practice intermediate French skills through the use of workbook exercises and computer software commensurate with skill level in FR 201. Repeatable, may be taken two times.

**FR 252 Intermediate French Lab II (1)**

Practice intermediate French skills through the use of workbook exercises and computer software commensurate with skill level in FR 202. Repeatable, may be taken two times.

**FR 301 France: Its People and Culture (3)**

Prerequisite: FR 202 or equivalent. Develop fluency in writing and conversation and build vocabulary through discussion and compositions about everyday life in contemporary France.

**FR 302 Current Events in France (3)**

Prerequisite: FR 202 or equivalent. Acquire advanced reading, writing and conversation skills through discussions and compositions about current events in France.

**FR 311 French Civilization and Literature Survey I (3)**

Prerequisite: FR 202 or equivalent. Study of French civilization from prehistoric times up through the eighteenth century, including the historical, geographical, economic, political, artistic and literary development of France. Conducted in French.

**FR 312 French Civilization and Literature Survey II (3)**

Prerequisite: FR 202 or equivalent. Study of French civilization from the French Revolution to the present, including the historical, economic, political, social, artistic and literary development of France. Conducted in French.

**FR 401 Intensive French (1-8)**

Available only on Study Abroad. Experience intensive training in active use of French through formal classroom instruction. Special attention to grammar review, idioms and media language. Conducted in French. Repeatable, maximum of eight credits (if course content varies).

**FR 402 Contemporary Life in France (1-6)**

Available only on Study Abroad. Examine the customs, institutions and mores of present-day France. Study the historical context of these traditions and how they reflect the French character. Conducted in French. Repeatable, maximum of six credits (if course content varies).

**FR 403 France of the Ancient Regime (1-8)**

Available only on Study Abroad. Study of social, cultural and political developments in French-speaking Europe from prehistory to the French Revolution with attention to art, architecture, theatre and music. Conducted in French. Repeatable, maximum of eight credits (if course content varies).

**FR 404 Modern France (1-8)**

Available only on Study Abroad. Study of social, cultural and political developments in post French Revolution, French-speaking Europe, with special attention paid to art, architecture, theatre and music. Conducted in French. Repeatable, maximum of 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 411 France Then and Now (2)**

Prerequisite: FR 202 or equivalent. Study the importance of selected periods of French history. Examine the role and the art, literature and philosophy of these periods in the development of contemporary French civilization. Repeatable, under different subtitles.

**FR 412 French Politics and Society (2)**

Prerequisite: FR 202 or equivalent. Study the political and social systems of modern France. Learn of France's involvement in the European Community and the implications of this involvement for French politics and society.

**FR 413 The Francophone World (2)**

Prerequisite: FR 202 or equivalent. Study the differing cultures of countries and/or regions of the non-European francophone world, in particular Quebec, the French West Indies, and French-speaking Africa.

**FR 414 Language and Society (2)**

Prerequisite: FR 202 or equivalent. Study areas of the evolving French language relative to contemporary French society. Topics include commercial French, French in the popular press, familiar language and slang, and regionalism.

**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 Readings in French Literature (3)**

Prerequisite: FR 202 or equivalent. Study the masterpieces and literary movements of French literature. Learn to read and discuss complete works of literature in French. Acquire the skills to write research papers on course topics. Repeatable, under different subtitles.



**FR 475 Research Seminar: French Texts and Contexts (3)**

Prerequisite: FR 202 or equivalent. Study thematically related literary, historical, cultural and contemporary texts. Develop, express and critique textual interpretation and analysis in a research paper. In French and English. Repeatable, under different subtitles.

**FR 502 Contemporary Life in France (3)**

Graduate status in French. Available only on Study Abroad. Examine the customs, institutions and mores of present-day France. Study the historical context of these traditions and how they reflect the French character. Conducted in French. Repeatable, maximum of six credits (if course content varies).

**FR 505 Topics in French Civilization (1-3)**

Graduate status or consent of instructor. Study a variety of selected topics relevant to the Francophone world. Topics to be considered also as material for presentation in the secondary classroom. Conducted in French. Repeatable, maximum of 15 credits, under different subtitles.

**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, maximum of ten credits, under different subtitles.

**FR 507 French for Oral Proficiency (3)**

Graduate status in French. Designed to develop oral proficiency by exposing students to advanced and superior linguistic functions, as defined in the American Council on the Teaching of Foreign Languages (ACTFL) proficiency guidelines for the Oral Proficiency Interview (OPI).

**FR 508 Workshop (1-10)**

A variety of workshops on special topics within the discipline. Goals and objectives will emphasize the acquisition of general knowledge and skills in the discipline. Repeatable, under different subtitles.

**FR 511 French Civilization and Literature Survey I (3)**

Graduate status in French. Study of French Civilization and prehistoric times up through the eighteenth century, including the historical, geographical, economic, political, artistic and literary development of France. Conducted in French.

**FR 512 French Civilization and Literature Survey II (3)**

Graduate status in French. Study of French civilization from the French Revolution to the present, including the historical, economic, political, social, artistic and literary development of France. Conducted in French.

**FR 513 Professional Renewal (1-10)**

Update skills and knowledge of professionals in the discipline. Goals and objectives will be specifically directed at individual professional enhancement rather than the acquisition of general discipline knowledge or methodologies. S/U or letter graded. Repeatable, under different subtitles.

**FR 521 Problems in Advanced Grammar (1-3)**

Graduate status or consent of instructor. Learn the more difficult grammatical structures with special emphasis on structures presenting special difficulties in teaching French. Conducted in French. Repeatable, maximum of five credits, under different subtitles.

**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, maximum of five credits, 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.

## GEOG - GEOGRAPHY

**GEOG 100 World Geography (3)**

Introduction to the complex relationships that link humans with their physical, cultural and spatial environments. Students will investigate these diverse relationships through a variety of worldwide examples.

**GEOG 110 Geography of the United States and Canada (3)**

An analysis of the cultural and environmental patterns of North America, with emphasis on the geographic processes that shape them.

**GEOG 200 Human Geography (3)**

Study the role of location and locational questions in human behavior including how locational factors influence behavior and resulting social and cultural modifications.

**GEOG 232 Physical Geography (4)**

(3 lecture, 2 laboratory) Study the natural environments that cover the earth, the processes that shape them and their role as settings for human action. Field trip required.

**GEOG 264 Maps and Imagery (3)**

Learn effective use of maps and globes and develop skill in reading and interpreting maps and imagery.

**GEOG 300 Advanced Human Geography: Topics (3)**

Prerequisite: GEOG 200. Examine the evidence and imprint of cultural values on geographic landscapes; utilize techniques of spatial diffusion, cultural ecology and integration and landscape analysis to identify and investigate culture regions. Repeatable, under different subtitles.

**GEOG 302 Cartography (3)**

Required laboratory arranged. Prerequisite: GEOG 264. Study the fundamentals, theory and practice of maps and graphic representation. Two one-hour lectures and one credit hour for arranged laboratory work.

**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 232. Explore the theoretical nature of human-environment systems from a geographical viewpoint and examine locational factors that influence behavior and resulting geographic patterns.

**GEOG 318 Australia (2)**

Prerequisite: GEOG 100 or GEOG 110. 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 232 or equivalent. 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 or GEOG 110. 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 or GEOG 110. Study the complex patterns of population, politics, economy and lifestyles as they relate to the diverse physical and multicultural environments of Middle America. Analyze the strategic location of this region as it pertains to United States foreign relations.

**GEOG 340 Europe (3)**

Prerequisite: GEOG 100 or GEOG 110. 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 or GEOG 110. 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 100 or GEOG 110. Study the geographical and human resources of Colorado, including physical features, climate, landform regions and natural resources and their utilization and conservation.

**GEOG 360 Political Geography (3)**

Prerequisite: GEOG 100. Learn about political phenomena as they relate to a particular geographic setting. Topics of study include territorial expansion, global overpopulation, national resources, territorial sea and warfare. Adequate time will be devoted to class discussion.

**GEOG 365 Russia and Eurasia (3)**

Prerequisite: GEOG 100 or GEOG 110. 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 375 Quantitative Techniques in Geography (3)**

Prerequisite: STAT 150 or consent of instructor. Examine elementary statistical techniques useful to the analysis of geographical data. Some background in mathematics useful.

**GEOG 392 Field Course in Geography (1-6)**

Study and apply the techniques used in solving geographic problems in the field and effectively present the results of such studies. Repeatable, may be taken two times.

**GEOG 407 Geographic Information Science (3)**

Principles and applications of geographic information science (GIS), a body of technological methods for the management and analysis of spatial data. Examines the nature and accuracy of spatially referenced data, as well as methods of data capture, storage, retrieval, modeling and output using GIS software.

**GEOG 410 Teaching Geography in Secondary Curriculum (1)**

Prerequisite: SOSC 341 or equivalent. Full admittance to PTEP or current licensure required. Study fundamental themes in geography, use current materials and create new lessons and materials for teaching geography at the secondary level. S/U graded.

**GEOG 411 Geography Concepts and Issues (2)**

Prerequisites: GEOG 100 or GEOG 110; and at least one GEOG course at the 200 level or higher OR consent of instructor (need to interview student to determine expertise and academic background). Investigation and analysis of geography's major concepts and issues with examples of successful pedagogical approaches for teaching such standards-based geography concepts and skills.

**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 432 Rural Development in the American West (3)**

Prerequisites: GEOG 200, GEOG 312 or consent of instructor. Analyze rural geography and economic development in the American West. Special emphasis on historical development of the Rocky Mountain region, and the geographic economic processes driving growth and development today.

**GEOG 438 South America (3)**

Prerequisite: GEOG 100 or GEOG 110. Analyze physical features and patterns, placing major emphasis on land utilization, agriculture, resource development, settlement and migration patterns and processes of industrialization.

**GEOG 453 Geography of the Great Plains (3)**

Prerequisite: GEOG 100 or 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 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. Repeatable, no limitations.

**GEOG 495 Senior Seminar (3)**

Research selected geographic topics based on the student's major emphasis. Course focuses on the assessment of students' geographic knowledge base, research and analysis skills.

**GEOG 507 Geographic Information Science (3)**

Consent of instructor (interview to determine expertise and academic background). Principles and applications of geographic information science (GIS), a body of technological methods for the management and analysis of spatial data. Examines the nature and accuracy of spatially referenced data, as well as methods of data capture, storage, retrieval, modeling and output using GIS software.

**GEOG 508 Workshop (1-3)**

A variety of workshops on special topics within the discipline. Goals and objectives will emphasize the acquisition of general knowledge and skills in the discipline. Repeatable, under different subtitles.

**GEOG 510 Topics in Teaching Geography (2)**

Appraise and become familiar with various concepts, theories and skills in geography and with the techniques and methodologies appropriate for teaching them. Repeatable, maximum of six credits.

**GEOG 513 Professional Renewal (1-3)**

Update skills and knowledge of professionals in the discipline. Goals and objectives will be specifically directed at individual professional enhancement rather than the acquisition of general discipline knowledge or methodologies. S/U or letter graded. Repeatable, under different subtitles.

**GEOG 520 Topics in Systematic Geography (2)**

Graduates only or consent of instructor. Examine a selected area of systematic geography; consider appropriate pedagogical approaches in teaching about that geographic topic.

**GEOG 525 Topics in Regional Geography (2)**

Graduates only or consent of instructor. Examine a selected geographic region; consider appropriate pedagogical approaches in teaching the geography of the region.

**GEOG 538 South America (3)**

Analyze physical features and patterns, placing major emphasis on land utilization, agriculture, resource development, settlement and migration patterns and processes of industrialization.

**GEOG 553 Geography of the Great Plains (3)**

Survey the physical and cultural landscapes of the Great Plains, particularly the unifying character of the physical environment and aspects of culture that make this a distinct geographic region. Field trips encouraged.

**GEOG 560 Maps and Mapping in Geographic Education (2)**

Graduates only or consent of instructor. Study concepts of location on the earth's surface, map projections, data acquisition and processing, thematic mapping. Work with computer-assisted drafting and thematic mapping packages. Develop applications for teaching geography.

**GEOG 565 Computer Applications in Geographic Education (2)**

Graduates only or consent of instructor. Examine computer-based resources for managing and displaying geographic information; develop applications for teaching geography.

**GEOG 570 Classroom Technology in Geographic Education (2)**

Graduates only or consent of instructor. Introduce non-interactive and interactive technology appropriate for teaching K-12 geography. Develop units using interactive technology for teaching geography.

**GEOG 575 Seminar in Quantitative Geography (3)**

Prerequisite: GEOG 475 or equivalent. Undertake selected research projects that provide experience in the use of quantitative techniques in interpreting geographical data.

**GEOG 592 Field Course in Geography (1-6)**

Study and apply techniques used, solve geographic problems in the field and effectively present results of such studies. Repeatable, no limitations.

**GEOG 622 Directed Studies (1-3)**

Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

**GEOL - GEOLOGY****GEOL 100 General Geology (4)**

(3 lecture, 2 laboratory) Survey for non-science majors. Origins and classification of minerals and rocks, landscape development and earth's structure and history. Field trips required. No credit for both GEOL 100 and GEOL 201.

**GEOL 110 Our Geological Environment (3)**

A general education course in geology that deals with the interaction between people and the geologic environment. Includes the nature and structure of the earth, earth materials, geologic time, the origin of landscapes, mineral and energy resources, and geologic hazards such as earthquakes, volcanoes, floods and landslides.

**GEOL 201 Physical Geology (4)**

(3 lecture, 3 laboratory) For Geology and other science majors. Introduction to earth materials, landform development, geologic structures and tectonics. Field trips required. No credit for both GEOL 100 and GEOL 201.

**GEOL 202 Historical Geology (4)**

(3 lecture, 3 laboratory) Prerequisite: GEOL 100 or GEOL 201 or equivalent. Geologic history of the earth and its past life and principles and techniques employed to interpret this history from rocks and fossils. Field trips to investigate local geologic history required.

**GEOL 320 Mineralogy (4)**

(2 lecture, 4 laboratory) Prerequisites: GEOL 201, CHEM 111. Introduction to crystallography, crystal chemistry, descriptive and determinative mineralogy, study of mineral occurrences and associations. Examine crystallography and identify minerals by physical and x-ray techniques in laboratory. Field trip(s) required.

**GEOL 330 Earth Materials (3)**

(2 lecture, 3 laboratory) Prerequisite: GEOL 100 or GEOL 201. Crystals, minerals and igneous, metamorphic and sedimentary rocks - their origins, descriptions and classifications.

**GEOL 340 Paleontology (4)**

(2 lecture; 6 laboratory) Prerequisite: GEOL 202. Fossil animals and plants - fossilization processes, collecting procedures, specimen preparation, description, classification, functional morphology, paleoecology, biostratigraphy, evolutionary trends. Field trip required.

**GEOL 390 Colorado Geology (3)**

Prerequisite: GEOL 100 or equivalent. Colorado rocks, minerals, fossils, landforms, oil, coal, oil shale, geologic history and geologic hazards explored in informal atmosphere. Includes four-day field trip to investigate geological features in natural settings.

**GEOL 410 Groundwater Geology (2)**

Prerequisite: GEOL 201. Groundwater in the geologic setting. Hydrology of groundwater basins. Well hydraulics. Principles of flow in saturated and unsaturated materials. Modeling of hydrogeologic systems. Applications to groundwater contamination and management problems.

**GEOL 421 Optical Mineralogy and Petrography (4)**

(2 lecture, 4 laboratory) Prerequisite: GEOL 320. Use of the petrographic microscope to study minerals in immersion media and in rock thin sections and the hand sample and microscopic description of rocks.

**GEOL 422 Directed Studies (1-4)**

Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

**GEOL 450 Sedimentology and Stratigraphy (4)**

(3 lecture, 3 laboratory) Prerequisite: GEOL 202. Sedimentary processes; depositional environments; classification and structures of sedimentary rocks; field and laboratory methods of analyzing and interpreting outcrops and samples. Regional stratigraphy of northeastern Colorado investigated. Field trips required.

**GEOL 460 Geomorphology (3)**

(2 lecture, 3 laboratory) Prerequisite: GEOL 100 or GEOL 201. Origin and evolution of landforms with emphasis on fluvial processes; hydraulic characteristics of streams, morphology of drainage basins, landscape evolution by stream sculpture and deposition and lithologic, climatic and structural controls.

**GEOL 464 Glacial and Quaternary Geology (3)**

Prerequisite: GEOL 100 or GEOL 201. A survey of geologic phenomena that characterized the Quaternary Period, with emphasis on the behavior of glaciers, glacial landforms and sediment and climatic implications. Two Saturday field trips required.

**GEOL 470 Structural Geology (4)**

(3 lecture, 3 laboratory) Prerequisites: GEOL 201, PHYS 220, MATH 125. Mechanics of rock deformation and geologic structures of the earth's crust - their description and classification, theories and facts regarding their origins and methods of investigating them. Field trips required.

**GEOL 481 Geologic Field Techniques (2)**

(4 laboratory) Prerequisites: GEOL 202, GEOL 470. Techniques of obtaining and recording geological data in the field and constructing geological maps. Includes use of Brunton compass, plane table and aerial photographs and the preparation of geological reports.

**GEOL 482 Geology Field Camp (6)**

Prerequisites: GEOL 421, GEOL 470, GEOL 481. Six weeks of field geology including mapping of a variety of geological terrains using topographic maps, aerial photographs, plane table and other methods.

**GEOL 510 Groundwater Geology (2)**

Groundwater in the geologic setting. Hydrology of groundwater basins. Well hydraulics. Principles of flow in saturated and unsaturated materials. Modeling of hydrogeologic systems. Applications to groundwater contamination and management problems.

**GEOL 521 Optical Mineralogy and Petrography (4)**

(2 lecture, 4 laboratory) Prerequisite: GEOL 320. Use of the petrographic microscope to study minerals in immersion media and in rock thin sections and the hand sample and microscopic description of rocks.

**GEOL 525 Economic Geology (3)**

Prerequisite: GEOL 320. Deals with the origin and occurrence of metallic and related mineral deposits and also with the origin, migration and accumulation of oil and natural gas deposits. Field trip required.

**GEOL 533 Sedimentary Petrology (2)**

(1 lecture, 3 laboratory) Prerequisite: GEOL 421 or GEOL 521. Advanced study of sedimentary rocks. Various techniques, including use of the petrographic microscope, will be employed to analyze these rocks and to interpret their histories. Field trip required.

**GEOL 535 Tectonics (2)**

Prerequisite: GEOL 202. The earth's tectonic features and the models which have attempted to explain them. Detailed study of modern plate tectonic theory and the evidence which supports it.

**GEOL 540 Paleontology (4)**

(2 lecture; 6 laboratory) Prerequisite: GEOL 202. Fossil animals and plants - fossilization processes, collecting procedures, specimen preparation, description, classification, functional morphology, paleoecology, biostratigraphy, evolutionary trends. Field trip required.

**GEOL 550 Sedimentology and Stratigraphy (4)**

(3 lecture, 3 laboratory) Prerequisite: GEOL 202. Sedimentary processes; depositional environments; classification and structures of sedimentary rocks; field and laboratory methods of analyzing and interpreting outcrops and samples. Regional stratigraphy of northeastern Colorado investigated. Field trips required.

**GEOL 560 Geomorphology (3)**

(2 lecture, 3 laboratory) Prerequisite: GEOL 100 or GEOL 201. Origin and evolution of landforms with emphasis on fluvial processes; hydraulic characteristics of streams, morphology of drainage basins, landscape evolution by stream sculpture and deposition and lithologic, climatic and structural controls.

**GEOL 564 Glacial and Quaternary Geology (3)**

Prerequisite: GEOL 100 or GEOL 201. A survey of geologic phenomena that characterized the Quaternary Period, with emphasis on the behavior of glaciers, glacial landforms and sediment and climatic implications. Two Saturday field trips required.

**GEOL 567 Volcanic Geology (3)**

(2 lecture, 3 laboratory) Prerequisite: GEOL 421 or GEOL 521 or consent of instructor. A study of volcanoes and volcanic processes and products. Emphasis on the origin, classification and interpretation of volcanic rocks and ejecta and volcanic structures and landforms.

**GEOL 570 Structural Geology (4)**

(3 lecture, 3 laboratory) Prerequisites: GEOL 201, PHYS 220, MATH 125. Mechanics of rock deformation and geologic structures of the earth's crust - their description and classification, theories and facts regarding their origins and methods of investigating them. Field trips required.

**GEOL 581 Geologic Field Techniques (2)**

(4 laboratory) Prerequisites: GEOL 202 and GEOL 470. Techniques of obtaining and recording geological data in the field and constructing geological maps. Includes use of Brunton compass, plane table and aerial photographs and the preparation of geological reports.

**GEOL 582 Geology Field Camp (6)**

Prerequisites: GEOL 421 or GEOL 521, GEOL 470 or GEOL 570, GEOL 481 or GEOL 581. Six weeks of field geology including mapping of a variety of geological terrains using topographic maps, aerial photographs, plane table and other methods.

**GEOL 590 Rocky Mountain Geology Seminar (2)**

Consent of instructor. Geology of selected Rocky Mountain area thoroughly investigated by means of four-day field trip to that area followed by seminar presentations on topics relevant to geology of specified area.

**GEOL 595 Special Topics in Geology (1-4)**

An opportunity to explore areas of geology beyond the scope of existing departmental offerings. Repeatable, under different subtitles.

**GEOL 622 Directed Studies (1-4)**

Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

**GEP - GENERAL EDUCATION PILOT****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. Credit in General Education category 4 for Fine Arts or History or Literature or Philosophy.

**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. Credit in General Education category 4 for Fine Arts, History, Literature or Philosophy.

**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. Credit in General Education category 4 for Fine Arts, History, Literature or Philosophy.

**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 issues 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, methodologies, analytical skills, and ethics in the social world. Issues of gender, class and multiculturalism will be examined.

## GER - GERMAN

### GER 101 Elementary German I (4)

Corequisite: GER 251. For students with no previous German. Develop four language skills, especially speaking. Stresses practical communication, comprehension, pronunciation, fluency and cultural awareness.

### GER 102 Elementary German II (4)

Prerequisite: GER 101 or equivalent. Corequisite: GER 152. Continuation of GER 101 or equivalent. Develop four language skills, especially speaking. Stresses practical communication, comprehension, pronunciation, fluency and cultural awareness.

### 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 151 Elementary German Lab I (1)

Practice elementary German skills through workbook and lab activities commensurate with skill level in GER 101. Repeatable, may be taken two times.

### GER 152 Elementary German Lab II (1)

Practice elementary German skills through workbook and lab activities commensurate with skill level in GER 102. Repeatable, may be taken two times.

### GER 201 Intermediate German I (3)

Corequisite: GER 251. Review language structures and develop reading and writing skills. Gain vocabulary through conversational practice on topics of cultural interest.

### GER 202 Intermediate German II (3)

Prerequisite: GER 201 or equivalent. Corequisite: GER 252. Review language structures and develop reading and writing skills. Gain vocabulary through conversational practice on topics of cultural and literary interest.

### GER 251 Intermediate German Lab I (1)

Practice intermediate German skills through the use of workbook exercises and computer software commensurate with skill level in GER 201. Repeatable, may be taken two times.

### GER 252 Intermediate German Lab II (1)

Practice intermediate German skills through the use of workbook exercises and computer software commensurate with skill level in GER 202. Repeatable, may be taken two times.

### GER 301 Germany and the Germans I (3)

Prerequisite: GER 202 or equivalent. Practice advanced language skills and acquire flexibility in written and spoken expression using a wide variety of authentic materials.

### GER 302 Germany and the Germans II (3)

Prerequisite: GER 202 or equivalent. Continue to study complex elements of German syntax and structure. Use authentic materials to acquire idiomatic expressions and versatility in speaking and writing.

### GER 311 German Civilization and Literature Survey I (3)

Prerequisite: GER 202 or equivalent. Study of German civilization from prehistoric times up to the 19th century, including the historical, geographical, economic, political, artistic and literary development of Germany. Conducted in German.

### GER 312 German Civilization and Literature Survey II (3)

Prerequisite: GER 202 or equivalent. Study of German civilization from the Revolution of 1848 to the present, including the historical, economic, political, social, artistic and literary development of Germany. Conducted in German.

### GER 405 Business German (3)

Prerequisite: GER 202 or equivalent. Learn language skills for use in commercial, professional and government activities. Emphasize acquiring professional vocabulary, building reading and conversational skills and developing mechanics, style and translation of correspondence. Conducted in German.

### GER 407 German for Oral Proficiency (3)

Intermediate oral proficiency in German. Designed to develop oral proficiency by exposing students to advanced and superior linguistic functions, as defined in the American Council on the Teaching of Foreign Languages (ACTFL) proficiency guidelines for the Oral Proficiency Interview (OPI).

### GER 411 Germany Then and Now (2)

Prerequisite: GER 202 or equivalent. Examine one important period in German history and understand its *Zeitgeist* as an interaction among politics, economics, social aspects, philosophical developments and the arts. Repeatable, under different subtitles.

### GER 412 Politics and Society (2)

Prerequisite: GER 202 or equivalent. Study the political and social systems of Germany; interpret current events from the complex interaction of German history, today's society and Germany's role in the world.

### GER 413 German Cultural Identity (2)

Prerequisite: GER 202 or equivalent. Examine surface-culture phenomena of deep culture in both the U.S. and Germany. Explore the ramifications of immigration on German culture and the impact of German-American culture on the U.S.

### GER 414 Language, Society and the Profession (2)

Prerequisite: GER 202 or equivalent. Learn about many aspects of German, especially language history dialects and sociolects. Study specific professional vocabulary and terminology of a field determined by the student's interest.

### 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 Literature, Self and Society (3)

Prerequisite: GER 202 or equivalent. Variable topics include analysis and discussion of literary topics, genres and periods from the Middle Ages to present, including how literature reflects personal and social issues. Repeatable, under different subtitles.

### GER 475 Research Seminar: German Texts and Contexts (3)

Prerequisite: GER 202 or equivalent. Study thematically related literary, historical, cultural and contemporary texts. Develop, express and critique textual interpretation and analysis in a research paper. In German and English. Repeatable, under different subtitles.

### GER 501 Intensive German (4)

Graduate status in German. Available only on Study Abroad. Emphasize active use of the language through formal classroom instruction. Special attention to idioms, nuances of German and language of the media. Conducted in German. Repeatable, maximum eight credits (if course content varies).

### GER 502 Contemporary Life in Germany (3)

Graduate status in German. Available only on Study Abroad. Examine the customs, institutions and mores of present-day Germany. Study the historical context of these traditions and how they reflect the German character. Conducted in German. Repeatable, maximum six credits (if course content varies).

### GER 503 Practicum in Germany (4)

Graduate status in German. Available only on Study Abroad. Experience work environment of the German business person, artisan, worker or professional through direct work experience. Conducted in German. Repeatable, maximum eight credits (if course content varies).

### GER 504 Modern Germany (4)

Graduate status in German. Available only on Study Abroad. Examine traditions, customs, institutions and mores of today's German-speaking Europe and how these reflect the national character of the people. Conducted in German. Repeatable, maximum eight credits (if course content varies).

### GER 507 German for Oral Proficiency (3)

Graduate status in German. Designed to develop oral proficiency by exposing students to advanced and superior linguistic functions, as defined in the American Council on the Teaching of Foreign Languages (ACTFL) proficiency guidelines for the Oral Proficiency Interview (OPI).

### GER 508 Workshop (1-10)

A variety of workshops on special topics within the discipline. Goals and objectives will emphasize the acquisition of general knowledge and skills in the discipline. Repeatable, under different subtitles.

**GER 511 German Civilization and Literature Survey I (3)**

Graduate status in German. Study of German civilization from prehistoric times up through the 19th century, including the historical, geographical, economic, artistic and literary development of Germany. Conducted in German.

**GER 512 German Civilization and Literature Survey II (3)**

Graduate status in German. Study of German civilization from the Revolution of 1848 to the present, including the historical, economic, political, social, artistic and literary development of Germany. Conducted in German.

**GER 513 Professional Renewal (1-10)**

Update skills and knowledge of professionals in the discipline. Goals and objectives will be specifically directed at individual professional enhancement rather than the acquisition of general discipline knowledge or methodologies. S/U or letter graded. Repeatable, under different subtitles.

**GER 575 Seminar in German Literature (2)**

Graduate status in German. Analyze and discuss German literature pertaining to a specific topic. Prepare a research paper for class discussion and critique. Conducted in English. Repeatable, under different subtitles.

**GER 622 Directed Studies (1-4)**

Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

**GERO - GERONTOLOGY**

**GERO 205 Introduction to Gerontology (3)**

Survey of the field of gerontology with attention to the physical, psychological, social, economic and cross-cultural aspects of aging.

**GERO 394 Practicum in Gerontology (1-4)**

Make application to the department before registration. Repeatable, maximum of eight credits.

**GERO 422 Directed Studies (1-4)**

Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

**GERO 460 Community Resources for the Elderly (4)**

Field experience required. Review service needs of older persons and existing community resources. Evaluate the full continuum of long-term care in relation to program models, service gaps and funding mechanisms.

**GERO 465 Management Concepts in Aging Services (3)**

Examines basic concepts of management and administration of human service organizations. Emphasizes principles and practices currently used in public, private nonprofit and proprietary aging programs.

**GERO 490 Senior Seminar and Research in Gerontology (3)**

Traces history and current status of the field of Gerontology through the integration of previous coursework. Emphasizes research and research methodology. Explores career goals and internship opportunities.

**GERO 492 Undergraduate Internship in Gerontology (6-15)**

Completion of 21 hours of required gerontology courses. Only 12 credits may be counted towards degree program. S/U graded. Repeatable, maximum of 15 credits.

**GERO 495 Special Topics in Gerontology (1-4)**

Course designed to investigate specific aspect of Gerontology. Repeatable, maximum of six credits, under different subtitles.

**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 for Aging Services (3)**

Examines basic concepts of management and administration of human service organizations. Emphasizes principles and practices currently used in public, private nonprofit and proprietary aging programs.

**GERO 595 Special Topics in Gerontology (1-4)**

Course designed to investigate specific aspect of Gerontology. Repeatable, maximum of six credits, under different subtitles.

**GERO 622 Directed Study in Gerontology (1-4)**

Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

**GERO 625 Psychosocial Aspects of Aging (3)**

Applies developmental theories to explain concepts of aging. Emphasizes current research in the exploration of issues facing older adults.

**GERO 630 Intervention Strategies with the Elderly (3)**

Analyze major intervention strategies and techniques for utilization with older adults. Emphasizes individual, group and paraprofessional systems. Classroom practice of actual treatment techniques.

**GERO 635 Social Policies of Aging (3)**

Traces history and current status of major policies that benefit elderly. Reviews legislation, levels of policy-making and policy concerns of older population. Includes recent policy changes and policy directions.

**GERO 640 Health Aspects of Gerontology (3)**

Identifies major health problems, concerns and practices of the elderly. Examines health care policies, financing, health promotion and wellness concepts.

**GERO 650 Personnel Practices of Aging (3)**

Surveys basic personnel management practices: employee recruitment, selection, performance enhancement, performance review and promotion. Includes issues of volunteers, older workers and legal aspects of human resource management.

**GERO 655 Program Planning and Evaluation in Gerontology (3)**

Survey of basic concepts used in the development and implementation of aging programs. Emphasizes methods and skills needed for the assessment, development and evaluation of programs.

**GERO 660 Financial Management and Budgeting for Aging Programs (3)**

Overview of financial and budgeting functions within human services. Emphasizes public and private nonprofits. Directed to non-accountants. Develop basic skills in financial control and fund-raising.

**GERO 665 Grant Development and Administration (3)**

Overview of proposal planning and grant development process. Application of skills in identifying funding options, program planning, proposal writing, budgeting and establishing controls for grant administration.

**GERO 692 Graduate Internship in Gerontology (6-15)**

Only 12 credits may be counted towards degree program. S/U graded. Repeatable, maximum of 15 credits.

**GERO 694 Practicum in Gerontology (1-4)**

Make application to the department before registration. Repeatable, maximum of eight credits.

**GERO 699 Thesis (1-6)**

S/U graded. Repeatable, no limitations.

## HESA HIGHER EDUCATION AND STUDENT AFFAIRS LEADERSHIP

### HESA 173 Career Theories and Employment Trends (1)

Designed to explore career theories and their application to the world of work. Students will investigate current occupational information and trends of the future.

### HESA 210 Human Values (2)

Identify, clarify and critique personal values. Expand awareness of cross-cultural values, life-style choices, sources of values and the process of making value commitments.

### HESA 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.

### HESA 260 Paraprofessionals in Residence Life (2)

Consent of Instructor. For resident assistants only. Offers practical preparation to those who assist students making the transition to the University setting and living in the residence hall environment.

### HESA 263 Peer Advising I (1)

Study several current theories of student development and practice the interpersonal communication skills needed by effective peer helpers; discuss and critique strategies for assisting students making the transition into postsecondary education.

### HESA 308 College Student Personnel Administration Workshop (1-5)

Special short course for undergraduates on topics or issues in College Student Personnel Administration. Offered during summers and other semesters as need arises and resources are available. S/U graded. Repeatable, under different subtitles.

### HESA 355 Perspectives of Orientation in Student Affairs (1)

Consent of instructor. Provides an overview of student development theory, basic helping skills, and current issues on college campuses from an orientation perspective.

### HESA 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. Repeatable, no limitations.

### HESA 361 College Student Governance (2)

Consent of instructor. Course designed to assist in personal and leadership development, awareness of current social and campus issues; to help translate course information into practical applications and better understanding of issues facing Higher Education.

### HESA 362 Cultural Relations/Study Abroad (2)

Consent of instructor. This course has been developed to assist students who are studying abroad in the process of understanding cultural issues in their new environment. Repeatable, may be taken two times.

### HESA 363 Peer Advising II (1)

Prerequisite: HESA 263. Study theories of cognitive development, psychological type, and learning strategies as they apply to the increasingly diverse needs of incoming college students; discuss and practice strategies for mentoring students.

### HESA 365 Tutorial Assistance in the College Classroom: Level I Supplemental Instruction (1)

Beginning tutorial leaders will become acquainted with the history of Student Affairs, student development theory, principles of learning assistance, communication skills, and standards of professional behavior.

### HESA 367 The Experienced Resident Assistant (1)

Consent of instructor. Juniors or above. For resident assistants only. Will examine both theoretical and practical issues of leadership on the University campus in general and in the residence halls specifically.

### HESA 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.

### HESA 431 McNair Scholars Research Studies I (2)

Prerequisites: Admission to the McNair Scholars Program. Gives students an overview of the research process and skills for graduate school success, as well as a mentored opportunity to participate in the initial steps of research development.

### HESA 432 McNair Scholars Research Studies II (2)

Prerequisites: HESA 431. Provides students an overview of research design and method, as well as a mentored opportunity to design a research study.

### HESA 463 Peer Advising III (1)

Prerequisites: HESA 263, HESA 363. Research topics related to the creation of a cohesive campus community and a welcoming environment for students; take a leadership role in activities designed to provide a smoother transition for new students.

### HESA 465 Tutorial Assistance in the College Classroom: Level 2 Supplemental Instruction (SI) Leader (1)

Prerequisite: HESA 365. Increases tutorial leaders' competencies in applying learning assistance theory, facilitating structured study sessions, and attending to individual differences; particular emphasis is placed on the development of leadership and mentoring skills.

### HESA 467 The Experienced Student Leader (1)

Consent of instructor. Juniors or above. For resident assistants only. This class will explore student development and other theoretical perspectives of working with college students and translating leadership experience into transferable skills for a career.

### HESA 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.

### HESA 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.

### HESA 583 Crisis Intervention (1)

Prerequisite: PSY 344 or PPSY 612 or equivalent. A theoretical and practical approach to intervention in crises common to college students. Emphasis on individual, group and environmental interventions.

### HESA 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.

### HESA 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.

### HESA 651 Philosophical, Historical and Cultural Foundations of Student Affairs in Higher Education (3)

Study philosophies of education and epistemology. Outlines history of higher education in the United States. Origin/history of role of student affairs. Emphasizes cultural perspective of ethnic minorities, women and other cultural subgroups in higher education.

### HESA 652 Enrollment Management Services (3)

Examines and reviews the history, purposes, functions, organization and administration of Admissions, Financial Aid, Records and Registration, Advising and Orientation.

**HESA 653 Services for Environmental and Student Development (3)**

Covers history, purposes, functions, administrative and programming needs of such student services as counseling, health, career development and placement, student activities, residence life and services for diverse populations.

**HESA 655 Multiculturalism in Higher Education (3)**

Understand various cultures' impact on formation of values, attitudes and behaviors. Various factors are examined in relation to their influence on students' ability to benefit from higher education.

**HESA 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.

**HESA 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.

**HESA 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.

**HESA 668 Higher Education in the United States (3)**

Prerequisites: ELPS 601, ELPS 603, ELPS 604, ELPS 605 or consent of instructor. Organization and leadership of higher education from department, campus wide, state and federal levels is examined by tracing historical antecedents and using contemporary research findings, models and theories.

**HESA 669 College and University Curriculum (3)**

Prerequisites: ELPS 601, ELPS 603, ELPS 604, ELPS 605 or consent of instructor. Develop an understanding of college and university curriculum by examining undergraduate and graduate program structures for liberal arts and professional programs, curriculum development processes, and current issues impacting curriculum.

**HESA 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.

**HESA 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 of 12 credits, under different subtitles.

**HESA 680 Law and Higher Education (3)**

Prerequisites: ELPS 601, ELPS 603, ELPS 604, ELPS 605 or consent of instructor. Relate statutory provisions, court decisions, common law principles and constitutional requirements to legal problems affecting public and private higher education institutions and systems.

**HESA 682 Legal Issues in Student Affairs (3)**

An examination of the legal implications for College Student Personnel Administration and the student-institutional relationship.

**HESA 683 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.

**HESA 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.

**HESA 685 Human Resources in Higher Education (3)**

Prerequisites: ELPS 601, ELPS 603, ELPS 604, ELPS 605 or consent of instructor. The course focuses on understanding Human Resource Management (HRM) as an energy source for shaping institutions. Emphasis is on the practical application of achieving change through personnel and compensation administration.

**HESA 750 College Students: Culture, Characteristics, Campus Life (3)**

Prerequisite: HESA 650. Investigates student affairs profession and impact on development of college students. Examines current college subcultures. Considers effect on students' progress and success, of campus norms and student characteristics.

**HESA 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.

**HESA 753 Evaluative Strategies for Student Affairs (2)**

Examine techniques of evaluating student personnel services in higher education. Evaluate reported research and identify areas of needed research.

**HESA 755 Advanced Research Seminar (1)**

Prerequisite: SRM 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, may be taken one time.

**HESA 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 ten credits.

**HESA 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.

**HESA 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.

**HESA 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

**HHS - HEALTH AND HUMAN SCIENCES****HHS 300 Genetics and Health (2-3)**

(2 credits without lab, 3 with lab). Introduction to principles of human genetics relating to health. Goals and objectives focus on application of these principles to health promotion, counseling and referral. Recommended for students studying health related fields.

**HHS 415 Bio-Physical Changes in Aging (3)**

Prerequisite: ZOO 115, ZOO 245 or equivalent. Study of systemic, physiological and psychomotor changes that take place during normal human aging. Theorized and known effects of behavioral changes will be examined relative to their impact on the biological and physical aging processes.



**HHS 431 Informatics for Health Care Professionals (2)**

Participants have the opportunity to gain basic skills in health care informatics and use of computer technology. Focuses on information technologies for health care professionals, electronic communication and knowledge resources online and related software.

**HHS 492 Internship in Health and Human Sciences (1-7 credits)**

Consent of instructor. The underlying philosophy of this course is that health and human service managers and leaders must possess knowledge of self, others, organizations, and society necessary to perform creatively and effectively in diverse environments. Supervised experience in health or human services organizations will allow students to apply concepts of management and leadership necessary for responsible administration of organizations. S/U graded. Repeatable, maximum of seven credits.

**HHS 508 Workshop in Health and Human Sciences (1-3)**

A variety of workshops on special health-related topics. Goals and objectives will emphasize the acquisition of general knowledge and skills in health topic. Repeatable, under different subtitles.

**HHS 515 Bio-Physical Changes in Aging (3)**

Prerequisite: ZOO 115, ZOO 245 or equivalent. Study of systemic, physiological and psychomotor changes that take place during normal human aging. Theorized and known effects of behavioral changes will be examined relative to their impact on the biological and physical aging processes.

**HHS 758 Seminar in Collaborative Research in Human Sciences (3)**

Doctoral students only. Students will receive supervised experience in conducting collaborative research in the field of human sciences. This collaborative research experience will provide students with hands-on experience in research methods, design, and statistical analyses. Students will submit their research paper to an academic journal of their choice. Repeatable, maximum of six credits.

## HISP - HISPANIC STUDIES AND MAS - MEXICAN AMERICAN STUDIES

**MAS 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.

**MAS 110 Contemporary Chicano Literature (3)**

Course provides students with basic understanding of literature written by outstanding Chicano authors. Focus is on major works contemporary fiction, theater, poetry, autobiography. Socio-historical context plus cultural images, style, structure, technique, themes studied.

**HISP 111 Introduction to Hispanic Literature (3)**

An introduction to prominent contemporary writers. Includes theatre, novel, short story and poetry in translation. Works of Lorca, Matute, Unamuno, Borges, Rulfo, Garcia Marquez, Anaya. Taught in English.

**HISP 121 Spanish Civilization and Culture (3)**

Introduction to the general trends of Spanish civilization and culture. Historical, economical, political and artistic developments of Spain from prehistoric times to the present. Taught in English.

**HISP 131 Latin American Civilization and Culture (3)**

Introduction to the general trends of Latin American civilization and culture. Historical, economic, political and artistic development from the pre-Columbian period to the present. Taught in English.

**MAS 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 life-style of the contemporary Mexican. Taught in English.

**MAS 260 Electoral Politics and the Mexican American Community (3)**

The course examines the politics/political experiences and practices of Mexican-American community. The focus includes political systems, institutions, power, authority, role of government and linkage to political participation. Overall, the goal of the course is for students to have a better understanding of the linkage of political opinions, electoral activities and public policy.

**MAS 275 Schooling of Mexican Origin Students (3)**

Prerequisite: Completion of 30 undergraduate credits. The course will inform students who plan to teach about current research and knowledge concerning the schooling experience of Mexican Origin students.

**MAS 300 Social Stratification in the Mexican-American Community (3)**

Examines the variables affecting the social stratification of the Mexican-American community in the Anglo-American society, social class differences in Mexican-American communities and Mexican-American social mobility. Taught in English.

**MAS 320 La Chicana (3)**

Chicana presented through variety of historical, psychological, social, political issues. Students expected to integrate theory and empirical data, personal experiences to identify and discuss many variables that impact contemporary Chicana.

**MAS 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.

**MAS 370 Chicano Psychology (3)**

In this course we will examine traditional psychological theory and methodology as applied to Mexican Americans. In addition, students will learn about innovative theory and methodology developed by Mexican American and other Hispanic social scientists specifically for Chicana/o populations. We will examine the major themes in contemporary Hispanic psychology.

**HISP 395 Historical, Philosophical, Legal and Cultural Dimensions of Bilingual Education (3)**

Designed to examine the linguistic, political and cultural assumptions underlying American public education. Taught in English.

**HISP 400 Methods and Assessment for Bilingual Education and ESL (3)**

Prepare teachers to work/meet linguistic needs of children in bilingual/ESL classrooms. Learn theory, implement corresponding instructional techniques, understand cultural/linguistic forces that affect children, know appropriate assessment instruments, techniques. Required for K-6 or 5-9 Bilingual endorsement.

**MAS 405 Comparative Global Ethnic Accommodation in Relationship to the Mexican American (3)**

The course is designed as a comparative analysis of public policy focusing on ethnic accommodation in first and third world states. The course will examine the Mexican American ethnic experience given United States public policy in comparison to national minorities of other nation states across the globe.

**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.

**MAS 414 Contemporary Chicano Issues (3)**

A study of external and internal issues affecting the Chicano community.

**HISP 422 Directed Studies (1-3)**

Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

**HISP 508 Workshop (1-3)**

A variety of workshops on special topics within the discipline. Goals and objectives will emphasize the acquisition of general knowledge and skills in the discipline. Repeatable, under different subtitles.

**HISP 513 Professional Renewal (1-3)**

Update skills and knowledge of professionals in the discipline. Goals and objectives will be specifically directed at individual professional enhancement rather than the acquisition of general discipline knowledge or methodologies. S/U or letter graded. Repeatable, under different subtitles.

**HISP 622 Directed Studies (1-3)**

Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

**HIST - HISTORY****HIST 100 Survey of American History from Its Beginnings to 1877 (3)**

Survey of American history through Reconstruction to examine efforts to found New World communities, gain an American identity, secure independence and to define and secure the union under a federal government.

**HIST 101 Survey of American History from 1877 to the Present (3)**

Survey of American history from Reconstruction to the present to examine geographical expansion, the rise of industrial and military power, five American wars, reform cycles and the shaping of modern America.

**HIST 110 African Civilization (3)**

An introduction to the society, economy, culture and politics of traditional Africa from the Empire of Ghana to the European conquest in the nineteenth century.

**HIST 112 Asian Civilization I: From Prehistory to the 1600s (3)**

Introduction to the historical development of pre-modern cultures in East, South and Southeast Asia.

**HIST 113 Asian Civilization II: The Modern Transformation (3)**

Examination of the modern transformation of East, South and Southeast Asian societies.

**HIST 118 History of Mexico (3)**

Mexican history from pre-Columbian times to the present emphasizing 19th and 20th centuries. Covers socioeconomic, political and cultural change.

**HIST 120 Western Civilization from Ancient Greece to 1689 (3)**

A survey of Western Civilization from ancient Greece to the Glorious Revolution.

**HIST 121 Western Civilization from 1689 to the Present (3)**

A survey of Western Civilization from the Glorious Revolution to the present.

**HIST 130 Middle East History I (3)**

The Middle East from the rise of Islam to the fall of Baghdad in 1258 with an emphasis on political and cultural achievements.

**HIST 131 Middle East History II (3)**

The Middle East from the Mongols to the present with an emphasis on Ottoman institutions and European imperialism.

**HIST 216 History of Spain and Portugal (3)**

A survey of Iberian history from the Reconquista to the post-Franco era emphasizing political and cultural developments.

**HIST 217 Europe and Islam: Myth and Reality (3)**

With reference to literature, art, film and memoir, this course examines the changing ways in which European society (Christendom) has viewed its Middle Eastern counterpart (Islam) over the centuries and vice versa.

**HIST 218 The Modern Middle East (3)**

Chronologically surveys the political and social history of the modern Middle East over the past two hundred years with an emphasis on the Arab states, Iran and Turkey.

**HIST 224 History of Colorado (3)**

A survey of Colorado history from prehistoric times to the post-World War II era.

**HIST 230 Class and Culture in America (3)**

An introduction to the role of class distinctions and cultural pluralism in American life. Emphasis is on timeline of culture and class from 1492 to the present.

**HIST 240 Modern America, 1914-Present (3)**

A tracing of American history 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 Cultural History (3)**

Prerequisites: HIST 100 or HIST 101. An examination of the growth and development of American thought and culture by surveying major works of literature and examples of popular culture in their historical context.

**HIST 263 European Intellectual History (3)**

A consideration in depth of selected topics in European intellectual history from the Enlightenment to the present.

**HIST 265 Women in Europe to 1700 (3)**

This survey of the history of women from circa 1200 B.C. - 1700 A.D. examines western institutions and intellectual and religious traditions that controlled and shaped women's lives.

**HIST 266 Women in Europe 1700 to the Present (3)**

Women's roles in history, and the opportunities and obstacles offered to women by European social, cultural, and political institutions from the Enlightenment to the present.

**HIST 267 Age of Revolution Since the 17th Century (3)**

An examination of selected political and ideological revolutionary upheavals since the 17th century. Emphasis will be on comparative analysis and applicability of this analysis to 20th century revolution or liberation movements.

**HIST 283 Russian Civilization (3)**

Development of Russian culture and society from the beginning to the present, with emphasis on the late 19th and 20th centuries.

**HIST 286 History of Imperial Russia, 1700-1917 (3)**

A history of imperial Russia from the reign of Peter the Great to the coming of the Russian revolutions and the end of the Romanov Dynasty in 1917.

**HIST 290 American Immigration (3)**

An examination of immigration to the United States, emphasizing 19th and 20th centuries. Includes Irish, English, German, Italian, Scandinavian, Jewish, Asian and Latin American immigrants as well as nativist and immigration legislation.

**HIST 300 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 307 History of China to 1840 (3)**

A study of the development of Chinese civilization from antiquity to the Opium War, stressing social, political and cultural change.

**HIST 309 Modern Southeast Asia (3)**

An analysis of the historical experience of Vietnamese, Filipinos, Indonesians, Thais and others caught between China/India, religions of the West and East, colonialism/nationalism and traditional vs. modern life-styles.

**HIST 310 Modern China (3)**

An analysis of the Chinese experience from the impact of Western imperialism in the mid-19th century to the present. Emphasizes internal changes in China's political, social, economic and cultural institutions.

**HIST 311 Modern Japan (3)**

An historical analysis of the late Tokugawa period to the present. Emphasizes internal changes in political, social, economic and cultural institutions.

**HIST 313 India (3)**

A study of the layers in Indian history, including the Indus Civilization, Brahmanic and Buddhist culture, the Gupta classical age, Islam's impact, Mughal India, the British Raj, the nationalist period and independent India.

**HIST 314 History of Latin America to 1855 (3)**

A survey of Spanish America and Brazil from pre-Columbian civilizations to 1855. Covers conquest, church, Indian labor, administration, independence and beginning of nations.

**HIST 315 History of Latin America: 1855 to the Present (3)**

A thematic study of personalism, nationalism, militarism, foreign influences and socioeconomic classes with particular reference to Nicaragua, Cuba, Chile, Argentina and Brazil.

**HIST 316 Central America and the Caribbean (3)**

Explores major historical themes in the area in the 20th century: revolution, indigenous cultures, dictatorships, religion, reform efforts and U.S. influence. Emphasis on revolutions in Cuba and Nicaragua.

**HIST 317 Faces of Latin America: People and Issues (3)**

Explores 20th century topics and the forces which affect the daily lives of the people of the hemisphere: urban migration, occupations, children, race, gender, guerrilla movements, drug traffic, environmental changes and popular culture.

**HIST 318 Modern Africa (3)**

A study of the social, political, economic and cultural transformation of 20th century Africa.

**HIST 320 Colonial America, 1492-1763 (3)**

An examination of the European background of colonization, the founding of New World communities, the growth of an Anglo-American identity and the growing tension and conflict between England and her colonies.

**HIST 321 The New American Nation, 1763-1800 (3)**

A study of the background of the American Revolution, the Revolution itself, the Confederation, the framing of the Federal Constitution and the social, economic, political and religious patterns of the Early Republic.

**HIST 327 The Early American West (3)**

Divides the American frontier into two parts: the Spanish and English language frontiers. Included is analysis of themes of environment, culture and perception of the frontier before 1846.

**HIST 328 The United States West Since 1846 (3)**

Analyzes the themes of modernization, cultural change, environment and perception that arose from the American presence in the West after the war with Mexico, including the 20th century.

**HIST 329 American Indian History (3)**

Covers the American Indian experience from prehistory to the present, emphasizing themes of environment, diversity and perception of native peoples by outside observers.

**HIST 330 Age of Jackson (3)**

An examination of post-1815 nationalism, the political and economic trends in the Jacksonian Era and the ramifications of the expansionist, religious, sectionalist and reform movements, which characterized the period.

**HIST 331 Civil War and Reconstruction (3)**

Major topics studied include political upheavals in the 1850s, the growth of southern nationalism, attempts at compromising constitutional differences, the Civil War and problems in reconstructing the Union.

**HIST 332 United States Diplomatic History to 1914 (3)**

A survey of American foreign policy from the War for Independence to World War I, emphasizing territorial expansion and the emergence of the United States as a great world power.

**HIST 333 United States Diplomatic History Since 1914 (3)**

A survey of American foreign policy from World War I to the present, emphasizing the problems of war and peace and the internationalist-isolationist conflict in the 20th century.

**HIST 337 History of American Education (3)**

The development of American education from colonial times to the present, focusing on the European roots of the educational system to its impact on America's character.

**HIST 340 American Constitutional History to 1870 (3)**

An analysis of the origins of the constitution, differences over constitutional philosophy and the drafting, ratification and subsequent shaping of the federal constitution to 1870 by executive, legislative and judicial actions.

**HIST 341 American Constitutional History from 1870 (3)**

A thematic survey of the development of constitutional interpretation from the post-Civil War era to the present by examining major cases in their historical context.

**HIST 345 Baseball and American Society, 1840-1992 (3)**

Examines American society from the perspective of professional baseball and its development. It deals with the rise of professionalism as well as changes in racial attitudes, technology and business practices.

**HIST 347 United States Women's History to 1877 (3)**

A survey of women in the United States to 1877. Examines gender ideologies, population movements, patterns of work, reform activities, and early women's rights from Colonization through Reconstruction.

**HIST 348 United States Women's History Since 1877 (3)**

A survey of women in the United States since 1877. Examines gender ideologies, population movements, patterns of work, reform activities, and feminist politics from Reconstruction to the present.

**HIST 350 Industrial America (3)**

Focus on the industrial transformation of the United States during the late 19th century. The economic developments as well as the political, social and cultural ones will be examined.

**HIST 352 History of World War II (3)**

A survey of World War II from the rise of the totalitarian states to the dropping of the atomic bombs, with an emphasis on American military and naval operations.

**HIST 354 The United States and the Vietnam Wars (3)**

Prerequisite: HIST 101. Through a variety of readings, the course will concentrate on the political, social and cultural importance of Vietnam for American history from 1945 to 1975 and beyond.

**HIST 361 History of Classical Greece and Rome (3)**

A survey of Greek and Roman civilization from the origins of Greece to the decline of Rome. Emphasis will be placed on their cultural and intellectual heritage.

**HIST 363 Medieval History (3)**

A survey of the Christian, Islamic, Greek and Jewish civilizations from the decline of Rome to the Renaissance (500-1500).

**HIST 367 History of the Renaissance and 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.

**HIST 374 Old Regime, 1648-1789 (3)**

An examination of Western European political, economic, intellectual and cultural developments, beginning with the Peace of Westphalia and ending with the outbreak of the French Revolution. Focus is France in its greatest century.

**HIST 375 France in Revolution, 1774-1848 (3)**

A study of the causes and consequences of the French Revolution of 1789 and its impact on 19th century France and Europe. After Napoleon, the course will analyze strains of politics, intellectual life and society leading to 1848 upheaval.

**HIST 376 France from 1848 (3)**

A study of the significant personalities and political and constitutional issues in French history from the Revolution of 1848 to the present, examining the Second Republic, Second Empire, Third, Fourth and Fifth Republics.

**HIST 382 Hitler's Germany 1890-1945 (3)**

The recent history of Germany focusing on the forces, events and individuals that gave rise to National Socialism and contributed to the decline of Europe into war and revolution.

**HIST 385 History of the Holocaust, 1933 to the Present (3)**

An examination of the intellectual and racial antecedents of the Holocaust, its bureaucracy, operating mechanics for murder and the steps taken toward the "final solution," the elimination of European Jewry.

**HIST 386 Twentieth Century Russia (3)**

A detailed consideration of the establishment of the Soviet Union, its dissolution, and the contemporary role of Russia in the world.

**HIST 387 Russian Intellectual-Cultural History, 1700-Present (3)**

A detailed discussion of Russian-Soviet intellectual and cultural history, 1700 to the present at the advanced level.

**HIST 389 Modern Europe (3)**

A consideration in depth of European historical development from 1815 to the present, focusing on political, diplomatic and economic matters. Repeatable, maximum of nine credits, under different subtitles.

**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 400 Teaching History in the Secondary Curriculum (1)**

Prerequisites: SOSC 341 (may be taken concurrently). Provisional or full admittance to PTEP required, or current licensure in social studies. Teaching history methods, emphasizing content based history standards at secondary school level. S/U graded.

**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, maximum of six credits, under different subtitles.

**HIST 492 Internship (1-3)**

Independent, individualized projects jointly directed by faculty supervisors and staff of cooperating office or institution. Repeatable, maximum of 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, maximum of six credits, under different subtitles.

**HIST 508 Workshop (1-3)**

Graduates only. A variety of workshops on special topics within the discipline. Goals and objectives will emphasize the acquisition of general knowledge and skills in the discipline. Repeatable, under different subtitles.

**HIST 509 Modern Southeast Asia (3)**

Graduates only. 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 life-styles.

**HIST 510 Modern China (3)**

Graduates only. An analysis of the Chinese experience from the impact of Western imperialism in the mid-19th century to the present. Emphasizes internal changes in China's political, social, economic and cultural institutions.

**HIST 511 Modern Japan (3)**

Graduates only. 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)**

Graduates only. Investigates selected topics in the history of China, Japan, India and Southeast Asia. Repeatable, maximum of six credits, under different subtitles.

**HIST 513 Professional Renewal (1-3)**

Graduates only. Update skills and knowledge of professionals in the discipline. Goals and objectives will be specifically directed at individual professional enhancement rather than the acquisition of general discipline knowledge or methodologies. S/U or letter graded. Repeatable, under different subtitles.

**HIST 514 History of Latin America to 1855 (3)**

Graduates only. A survey of Spanish America and Brazil from pre-Columbian civilizations to 1855. Covers conquest, church, Indian labor, administration, independence and beginning of nations.

**HIST 515 History of Latin America: 1855 to the Present (3)**

Graduates only. 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)**

Graduates only. Investigates selected topics in Latin American history. May focus on colonial or post-independence period. Repeatable, may be taken two times, under different subtitles.

**HIST 518 Modern Africa (3)**

Graduates only. 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 Colonial America 1492 to 1763 (3)**

Graduates only. Investigates topics in the history of colonial and revolutionary America through direct research and/or readings.

**HIST 522 Seminar in Southwest History (3)**

Graduates only. Focus of seminar will be on research and writing topics for the American Southwest from the Spanish period through the territorial period to the statehood period when full admission secured.

**HIST 529 American Indian History (3)**

Graduates only. 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)**

Graduates only. Investigation of a topic in American history. Content depends on instructor. Repeatable, maximum of 15 credits, under different subtitles.

**HIST 533 United States Diplomatic History Since 1914 (3)**

Graduates only. A survey of American foreign policy from World War I to the present, emphasizing the problems of war and peace and the internationalist-isolationist conflict in the 20th century.

**HIST 535 Advanced Placement Program-US History (1-3)**

Graduates only. Intensive course in United States historiography and interpretation, designed for secondary school teachers teaching advanced placement courses in United States history. Includes writing of model syllabi and extensive historical analysis. S/U graded. Repeatable, no limitations.

**HIST 536 Advanced Placement Program in European History (1-3)**

Graduates only. 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. Repeatable, no limitations.

**HIST 537 Advanced Study in the History of American Education (3)**

Graduates only. 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)**

Graduates only. A consideration of selected topics in European Intellectual History from the Enlightenment to the present in a seminar format.

**HIST 550 Industrial America (3)**

Graduates only. Focus on the industrial transformation of the United States during the late nineteenth century. The economic developments as well as the political, social and cultural ones will be examined.

**HIST 552 History of World War II (3)**

Graduates only. 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)**

Graduates only. A seminar for advanced undergraduate and graduate students that will investigate select topics in Medieval and Renaissance history through research and readings.

**HIST 589 Modern Europe (3)**

Graduates only. A consideration in depth of European historical development from 1815 to the present, focusing on political, diplomatic and economic matters. Repeatable, maximum of 15 credits, under different subtitles.

**HIST 600 Introduction to Graduate Historical Study (3)**

Examines the nature of history, historical research and the writing of history.

**HIST 622 Directed Studies (1-6)**

Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

**HIST 699 Thesis (1-6)**

Optional for Master of Arts programs on recommendation of the major advisor. S/U graded. Repeatable.

**HON - HONORS PROGRAM****HON 100 Honors Connections Seminar I (2)**

A variable content seminar for Honors students only, emphasizing the connections between areas of knowledge such as the Sciences, Arts, Philosophy, History, Literature and Sociology.

**HON 200 Honors Connections Seminar II (2)**

A variable content seminar for Honors students only that will engage them in a concentrated analysis of their values in the context of their times.

**HON 351 Junior Honors Seminar (1-2)**

Consent of instructor. A seminar or tutorial required of juniors in honors. Provides enrichment work in the student's discipline of choice and a start on the senior honors research thesis. Repeatable, maximum of two 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 of four credits

**HRS - HUMAN REHABILITATIVE SERVICES****HRS 290 Introduction to Human Rehabilitative Services (3)**

Overview of human rehabilitative service delivery systems such as rehabilitation, social services, mental health and corrections. Orientation to current practices of the rehabilitative services professional.

**HRS 308 Workshop in Human Services (1-4)**

Course designed to investigate a specific aspect of human services. Repeatable, maximum of nine credits, under different subtitles.

**HRS 380 Rehabilitation Principles and Case Management (3)**

Introduction to comprehensive rehabilitation history, philosophy, legislation and process. Details role and functions of case management and coordination with community, government, industry.

**HRS 385 Working with Families in Rehabilitation (3)**

Prerequisite: HRS 290 or consent of instructor. Provides an analysis of relevant issues and critical problems concerning the effective utilization of family members in rehabilitation. Concerns of families in different cultures are addressed.

**HRS 394 Practicum in Human Services (1-4)**

Supervised experience in service agency. Supervisor evaluation and written report describing agency experience must be filed with instructor. S/U graded. Repeatable, maximum of eight credits.

**HRS 397 Rehabilitation of the Substance Abuser (3)**

Psychological, biological, sociological and cultural problems related to substance abuse, effects on family and adult children of alcoholics. Emphasis on treatment, multidimensional assessment program development and community resources.

**HRS 422 Directed Studies in Human Rehabilitation (1-4)**

Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

**HRS 470 Client Assessment (3)**

Basic principles and practices utilized in vocational assessment. Emphasis on the unique interpretation necessary for handicapping conditions and special adaptations of assessment tools for persons with disabilities.

**HRS 480 Human Service Helping Skills (3)**

Study and develop effective interpersonal communications and human relations skills for human service workers.

**HRS 485 Medical/Psychological Aspects of Disability for Human Service Workers (3)**

Juniors or above. An introduction to the nature of specific disabling conditions as well as various disease entities common among human service clients.

**HRS 490 Career Planning and Placement (3)**

Investigate career development process and sources of occupational information. Focus on developing skills in job development, job analysis and job placement through self-exploration.

**HRS 492 Clinical Internship (1-18)**

Application to Department one semester before registration. Supervised experience in service agency. Time participation in an approved setting. Minimum of 600 clock hours over the 18 credit hours. S/U graded. Repeatable, maximum of 18 credits.

**HRS 495 Special Topics in Rehabilitation (1-4)**

Course designed to investigate a specific aspect of rehabilitation. Repeatable, maximum of nine credits.

**HRS 508 Workshop (1-3)**

A variety of workshops on special topics within the discipline. Goals and objectives will emphasize the acquisition of general knowledge and skills in the discipline. Repeatable, under different subtitles.

**HRS 513 Professional Renewal (1-3)**

Update skills and knowledge of professionals in the discipline. Goals and objectives will be specifically directed at individual professional enhancement rather than the acquisition of general discipline knowledge or methodologies. S/U or letter graded. Repeatable, under different subtitles.

**HRS 580 Rehabilitation Principles and Case Management (3)**

Introduction to comprehensive rehabilitation history, philosophy, legislation and process. Details role and functions of case management and coordination with community, government and industry.

**HRS 581 Vocational Evaluation and Assessment of People with Disabilities (3)**

Basic principles in vocational evaluation and assessment of persons with disabilities. Skills development in use of various testing instruments, methods and effective interpretation of results.

**HRS 585 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 590 Rehabilitation Services in Facilities and the Private Sector (3)**

Prepares counselors for rehabilitation service delivery in private-for-profit rehabilitation programs, community service facilities, business and industry. Addresses legal issues, worker compensation, expert witness, transition, supported work and ethics.

**HRS 595 Special Topics in Rehabilitation (1-4)**

Course designed to investigate a specific aspect of rehabilitation. Repeatable, maximum of nine credits, under different subtitles.

**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. Repeatable, no limitations.

**HRS 604 Family, Cultural and Psychological Aspects of Disability (3)**

Develop an understanding of and sensitivity to the psychological, social, interpersonal and cultural aspects of disability. Relationship of disadvantage, minority status, social problems, behavior disorders and chronic illness, family, cultural adjustments to disability and successful vocational outcomes.

**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 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 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 659 Seminar in Rehabilitation Counseling Supervision (2)**

An investigation of the major approaches to counseling supervision intended to increase the student's understanding of clinical supervision as it relates to rehabilitation counselor training. Students will develop their individual model of supervision upon a detailed examination of relevant literature.

**HRS 660 Advanced Seminar in Client Assessment (3)**

Consent of instructor. Practices individual client assessment, particularly vocational implications of assessment techniques and the application of information in client treatment plans.

**HRS 692 Clinical Internship in Rehabilitation (1-18)**

Prerequisites: HRS 630, HRS 694. Field experience for qualified human service major at department approved location. Written application to department at least one semester before registration. S/U graded. Repeatable, maximum of 18 credits.

**HRS 693 Practicum in Vocational Evaluation (6)**

Prerequisite: HRS 581. Consent of instructor. Meets minimum of 12 hours per week. Qualified human services majors engage in vocational evaluation activities in department's clinic under the supervision of one or more university staff. S/U graded.

**HRS 694 Supervised Counseling in Human Services (6)**

Prerequisite: HRS 630. Meets minimum of 12 hours per week. Qualified human services majors engage in counseling interviews and activities under the supervision of one or more university staff members. S/U graded.

**HRS 695 Seminar in Foundations of Human Rehabilitation (3)**

This graduate seminar will focus on core issues confronting the field of rehabilitation. Issues will be examined from a historical, theoretical and research perspective to understand the current status and future of human rehabilitation society.

**HRS 696 Advanced Rehabilitation Counseling Theories and Approaches (3)**

Prerequisite: HRS 630 or equivalent. Consent of instructor. Major counseling theories are comprehensively reviewed in terms of their utility with individuals who have disabilities and in order to enhance student preparation for rehabilitation counselor education and supervision.

**HRS 706 Advanced Seminar in Psychosocial Aspects of Disability (3)**

Theoretical and conceptual frameworks of adjustment of various disabling conditions are comprehensively investigated. A thorough review of the research literature regarding psychosocial aspects of disability will be undertaken, in order to enhance student preparation for rehabilitation counselor education and research.

**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 of 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 of nine credits.

**HRS 759 Advanced Practicum in Rehabilitation Counseling Supervision (3)**

Majors only. Students receive supervised experience in studying problems in training rehabilitation counselors. Approximately 150 clock hours per semester required for three credits. Repeatable, maximum nine credits.

**HRS 797 Doctoral Proposal Research (1-4)**

Majors only. Required of doctoral students. Students must earn 4 hours of credit towards doctoral degrees before candidacy. S/U graded. Repeatable, maximum four credits.

**HRS 799 Doctoral Dissertation (1-12)**

Majors only. Required of doctoral candidates. Students must earn 12 hours of dissertation credit for doctoral requirements. S/U graded. Repeatable, no limitations.

**HUM - HUMANITIES****HUM 120 Introduction to Film (3)**

Learn to analyze film and appreciate film as art by looking at a variety of styles, genres, and ideological directions in Hollywood and non-Hollywood films.

**HUM 320 Topics in Film (3)**

Prerequisite: HUM 120. Study of a particular area of film criticism, history, or theory, considering classical and contemporary debates. Repeatable, maximum of nine credits, under different subtitles.

**HUM 331 Images of Women in Literature and the Arts (3)**

Investigation of stereotypes, dreams, roles and goals of women manifested in creative works by and about women.

**ID - INTERDISCIPLINARY STUDIES****ID 108 Freshman Workshop (1-3)**

Study topics relevant to the freshman's transition into the academic community. Emphasis on critical thinking, writing, and problem-solving skills. Repeatable, under different subtitles.

**ID 308 Workshop (1-3)**

Study problems in education, with area covered in any one workshop determined by title. Repeatable, under different subtitles.

**ID 420 Legal Research and Writing (3)**

Develop knowledge, skills and attitudes for legal research and writing. Emphasis is on practical skills which are helpful to think like an attorney about the law.

**ID 508 Workshop (1-3)**

A variety of workshops on special topics within the discipline. Goals and objectives will emphasize the acquisition of general knowledge and skills in the discipline. Repeatable, under different subtitles.

**ID 513 Professional Renewal (1-4)**

Update skills and knowledge of professionals in the discipline. Goals and objectives will be specifically directed at individual professional enhancement rather than the acquisition of general discipline knowledge or methodologies. S/U or letter graded. Repeatable, under different subtitles.

**JAPAN - JAPANESE**

Note: Not all Japanese courses are offered on a regular basis. Consult the Department of Foreign Languages for current offerings.

**JAPN 101 Beginning Japanese (5)**

For students with no previous Japanese. Conversational Japanese using oral techniques with reading and writing skills. Stresses comprehension, structure, pronunciation, fluency and cultural awareness.

**JAPN 102 Elementary Japanese II (5)**

Prerequisite: JAPN 101. Continuation of JAPN 101. Conversational Japanese using oral techniques with reading and writing drills. Stresses comprehension, structure, pronunciation, fluency and cultural awareness.

**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.

**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.

**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.

**JMC - JOURNALISM AND MASS COMMUNICATIONS****JMC 100 Introduction to Journalism and Mass Communications (3)**

The economic, social and legal forces shaping media content today; how our perception of mass media is a reflection of their history and current function.

**JMC 210 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.

**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.

**JMC 340 Broadcast Newswriting (3)**

Prerequisite: JMC 210. Majors only. News for the ear and for the television camera eye; radio, television and cable newscasts.

**JMC 342 Television Production (4)**

Consent of instructor. Majors only. Learn the terminology, procedures and skills of basic studio television production. Application of techniques to the production of programs.

**JMC 345 Broadcast Advertising and Promotion (3)**

Majors and minors 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.

**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.

**JMC 380 Public Relations (3)**

Majors and minors only. Consent of instructor needed for recreation majors. The concepts, procedures and theories behind public relations work. Examine current practices in business, government and other settings.

**JMC 385 Media Planning and Research (3)**

Majors only. A managerial approach to the study of media research and media planning strategies. Methods and procedures used in the planning and evaluation of the media mix will be examined.

**JMC 387 Advertising Copywriting (3)**

Prerequisite: JMC 210. Majors only. Advertising from the copywriter's standpoint; planning and writing creative strategies. Create copy for broadcast and print media and learn illustration and layout concepts.

**JMC 390 Impact of Mass Communications on Society (3)**

The effects of media content and media industries on contemporary society; evaluation of current media criticism and the role of media in society.

**JMC 391 Literary Journalism (3)**

Juniors or above. Explores the writings of journalists, relating major themes in journalism and fiction. Questions of narrative form are stressed.

**JMC 397 History of Mass Communication (3)**

Survey of the cultural, technological and economic evolution of the mass media, with emphasis on issues and trends in mediated communications.

**JMC 404 Practicum (1-3)**

By arrangement with advisor. Incorporate discipline specific skills in practical working situations on-campus. Repeatable, maximum three credits.

**JMC 408 Special Topics (3)**

Current issues or problems in journalism and mass communications. Repeatable, under different subtitles.

**JMC 410 Advanced News and Feature Writing (3)**

Prerequisite: JMC 210. Majors and minors only. Covering news beats, C-SPAN events. Researching and writing features, editorials and columns for all media.

**JMC 422 Directed Study (1-3)**

Individual project or research developed and conducted under the direct supervision of a JMC faculty member. Repeatable, maximum concurrent enrollment is two times.

**JMC 443 Electronic Field Production (4)**

Prerequisite: JMC 342. Consent of instructor. Majors only. Principles and techniques of videography, field reporting and video editing.

**JMC 444 Cable Television Production (3)**

Prerequisites: JMC 342, JMC 443. Consent of instructor. Majors only. Practical application of visual communication skills in producing television news programming.

**JMC 460 Media Management (3)**

Majors only. Procedures, issues and responsibilities that must be mastered by managers of newspapers and radio and television stations.

**JMC 481 Public Relations Techniques (3)**

Prerequisites: JMC 210, JMC 380. Majors only. Effective tools and techniques used by the professional public relations practitioner.

**JMC 484 Advertising and Society (3)**

Majors and minors 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 Mass Communications Internship (1-3)**

Prerequisite: JMC 342 or JMC 350. Consent of advisor. Majors only. Off-campus work experience in a professional media enterprise specific to the student's major emphasis. Repeatable maximum three credits.

**JMC 495 Television Criticism (3)**

Study television as an informative, persuasive, entertaining and culturally-indoctrinating medium.

**JMC 497 Mass Communications Law (3)**

Seniors or above. Current and perennial ethical and legal issues in journalism and mass communications media that affect journalists, media management and the public.

**JMC 508 Workshop (1-3)**

A variety of workshops on special topics within the discipline. Goals and objectives will emphasize the acquisition of general knowledge and skills in the discipline. Repeatable, under different subtitles.

**JMC 513 Professional Renewal (1-3)**

Update skills and knowledge of professionals in the discipline. Goals and objectives will be specifically directed at individual professional enhancement rather than the acquisition of general discipline knowledge or methodologies. S/U or letter graded. Repeatable, under different subtitles.

**JMC 543 Electronic Field Production (4)**

Majors only. The techniques of remote video production and video editing. Produce short programs or segments using these techniques.

**JMC 544 Cable Television Production (3)**

Prerequisites: JMC 342, JMC 443. Majors only. The techniques necessary as part of a production unit for a regularly scheduled cable television program.

**JMC 580 Public Relations (3)**

Majors only. Recreation majors can get consent of instructor. Concepts, procedures and theories behind public relations work. Examine current practices in business, government and other settings.

**JMC 581 Public Relations Techniques (3)**

Prerequisites: JMC 210, JMC 380. Effective tools and techniques used by the professional public relations practitioner.

**JMC 583 Philosophies and Procedures of Public Relations (3)**

Case study approach to advanced study of the public relations process and its application to a variety of institutions from business to education.

**JMC 591 Seminar: International Mass Communications (3)**

The economics, social impact and philosophical dimensions of international mass communications: the industries, the policies and the issues. Special focus is given to case studies of particular countries and the impact of one country's media on the life and culture of another.

**JMC 592 News Media and Public Policy (3)**

The structure, policies and content of the news media and how these relate to issues of public policy.

**JMC 593 Professional Perspectives (3)**

The ethics and responsibilities of professional communicators in journalism and mass media, especially as they relate to and result from the problems and situations they confront as employees and managers.

**JMC 622 Directed Studies (1-3)**

Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

## KINE - KINESIOLOGY

**KINE 206 Overview of Kinesiology (3)**

Introduction of the basic concepts, principles, and components of Kinesiology. Career opportunities and field experiences at specific worksites will cover career development.

**KINE 220 Anatomical Kinesiology (3)**

Study of the anatomical bases of human movement. Laboratory provides application of principles.



**KINE 221 Biomechanics (3)**

Prerequisites: KINE 220 and 3 Math credits or equivalent. Application of mechanical principles in the study of human movement. Laboratory provides application of concepts.

**KINE 300 Fitness Management (3)**

Majors only. Management, marketing, risk management and legal strategies as related to the exercise and fitness industry. Students observe, practice and analyze management, marketing and legal strategies.

**KINE 322 Exercise Physiology I (3)**

Prerequisites: KINE 220 and KINE 221. Investigate the basic concepts in the physiological components of human movement. Laboratory provides application of principles.

**KINE 323 Motor Learning and Development (3)**

Study of the neuropsychological components of motor behavior, with an emphasis on movement problems. Laboratory provides application of concepts.

**KINE 324 Exercise Physiology II (3)**

Prerequisites: KINE 220, KINE 221, and KINE 322. Application of the physiological principles of human movement during special circumstances such as training, altitude, hot and cold environments, and ergogenic aids.

**KINE 330 Practicum in Exercise Leadership (3)**

Prerequisite: KINE 220, KINE 322 or equivalent. Students will gain practical skills in exercise leadership. Students will be exposed to a wide sampling of practical experiences in the fitness/wellness area. These practical experiences will entail being exercise leaders in aerobics, step aerobics, muscle toning, weight training, fitness assessment, and other fitness related activities on the University of Northern Colorado campus. Repeatable, maximum of nine credits.

**KINE 333 Psychological Analysis of Sports, Exercise and Physical Activity (3)**

An introduction to the theories, subject matter and latest empirical research concerning the cognitive processes and emotional states that regulate and influence performance in sports, exercise and other physical activities.

**KINE 380 Prevention and Care of Sports Injuries (2)**

Prerequisites: KINE 220 or equivalent. Emphasis on prevention of injury to the young athlete participating in sport. Includes an overview of mechanisms, initial care, reconditioning and basic wrapping and taping techniques of common sports injuries and organization of preventive programs.

**KINE 381 Practical Experiences in Care of Athletic Injuries (3)**

Prerequisite: KINE 380 or equivalent. Admission to Athletic Training Clinical Program required. Consent of instructor. Divided into five modules for three semester hours each. One module will be offered each semester. Modules are: applied anatomy, emergency care and referral, nutrition and ergogenic aids, equipment and biomechanics, and therapeutic exercise. Repeatable, maximum of 15 credits.

**KINE 390 Cardiopulmonary Resuscitation Certification (1)**

Basis, skills and techniques of basic life support. Includes emergency medical systems, CPR for adult and child, obstruction for adult and child and special situation techniques. Upon successful completion, student will receive certification through the American Heart Association and/or the American Red Cross.

**KINE 401 Physiological Implications for Human Performance (3)**

This course is designed to explore the scientific principles of human physiology as related to exercise and performance. Kinesiology and Physical Education majors will not be able to use this course as part of the core requirements for their programs.

**KINE 404 Exercise Nutrition and Body Composition (3)**

Prerequisite: KINE 322 or equivalent. The nutritional aspects of human performance will be explored with a focus on fitness. The current methods of assessment of body composition are included.

**KINE 405 Exercise Programming for Cancer Patients (3)**

Prerequisites: KINE 322 and KINE 324 or equivalent. This course will provide critical content information and practical application that will prepare individuals to design and conduct exercise intervention programs for cancer patients. The physiological alterations that occur during and following cancer therapy and the effects that exercise has on eliminating or reducing these effects will be presented.

**KINE 408 Workshop in Kinesiology (1-3)**

Offers a variety of workshops on special topics. S/U or letter graded. Repeatable, under different subtitles.

**KINE 410 Cardiac Rehabilitation (3)**

Prerequisite: KINE 322 or equivalent. Majors only. Juniors or above. Basic electrocardiography and ECG interpretation will be studied. Emphasis is placed on interpretation of resting and exercise EKG's, monitoring procedures, interpretation of abnormalities and drugs that may affect exercise.

**KINE 415 Senior Research Project (1-3)**

Consent of instructor. Provide an opportunity for senior students to participate in a research project. S/U graded. Repeatable, maximum of three credits.

**KINE 422 Directed Studies (1-3)**

Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

**KINE 436 Social Influences on Sport and Exercise Behavior (3)**

Application of sociological concepts and theories to examine current practices, problems and issues in physical activity, exercise and sport.

**KINE 485 Mechanism and Evaluation of Sports Injury (4)**

Prerequisite: KINE 380 or equivalent. Admission to the Athletic Training Clinical Program required and consent of instructor. Majors only. Techniques, procedures while teaching the skill required to effectively recognize and evaluate the acute, chronic and life threatening injuries. Includes history, inspection, palpation, functional testing and special evaluation techniques. A systematic approach will include an introduction, evaluation of the upper and lower extremities, trunk and head. A laboratory day will be incorporated to provide adequate practical application.

**KINE 486 Clinical Methods of Sports Injury Rehabilitation (4)**

Prerequisite: KINE 380 or equivalent. Admission to the Athletic Training Clinical Program required and consent of instructor. Majors only. Neurophysiological basis, techniques and skills utilized in the prevention and rehabilitation of sports injuries. Includes indications, contraindications, applications of therapeutic exercise, protective aids and return to participation parameters. Clinical application will be taught with hands-on techniques in lab.

**KINE 487 Therapeutic Modalities (3)**

Prerequisites: admission to the Athletic Training Clinical Program required and consent of instructor. Majors only. Introduction and practical application of theory, basis, and uses of the following modalities: cold, heat, hydrotherapy, muscle stimulation, compression, biofeedback, ultrasound, massage and other modalities utilized in the management of sports injury. A laboratory day will be incorporated to provide adequate practical application.

**KINE 488 Athletic Training Administration (2)**

Admission to Clinical Athletic Training Program required and consent of instructor. Majors only. Organization and administration of athletic training and sports medicine program. Topics include facilities, equipment, medical personal, budgets, insurance, emergency planning, risk management, professional code of ethics and other current topics.

**KINE 490 Exercise Assessment and Programming (4)**

Prerequisites: KINE 220, KINE 221, KINE 300, KINE 322, KINE 323 and KINE 324; successful completion of Competency Assessment I test. Majors only. Juniors and seniors only. Application of the theoretical foundations of exercise physiology involved in fitness assessments and the subsequent development, organization and implementation of exercise programs for healthy individuals and individuals with controlled diseases. Laboratory provides application of principles.

**KINE 492 Exercise and Sport Science(6-12)**

Prerequisites: Completion of KINE prefix courses with a GPA of 2.7; current CPR certification and consent of the Internship Director. Supervised experience in fitness and exercise programs or cardiac rehabilitation. S/U graded. Repeatable, maximum of 12 credits.

**KINE 508 Workshop (1-3)**

A variety of workshops on special topics within the discipline. Goals and objectives will emphasize the acquisition of general knowledge and skills in the discipline. Repeatable, under different subtitles.

**KINE 510 Cardiac Rehabilitation (3)**

Prerequisite: KINE 322 or KINE 626 or equivalent. Majors only. Basic electrocardiography and ECG interpretation will be studied. Emphasis is placed on interpretation of resting and exercise EKG's and monitoring procedures, interpretation of abnormalities and drugs that may affect exercise.

**KINE 513 Professional Renewal (1-3)**

Update skills and knowledge of professionals in the discipline. Goals and objectives will be specifically directed at individual professional enhancement rather than the acquisition of general discipline knowledge or methodologies. S/U or letter graded. Repeatable, under different subtitles.

**KINE 550 Neural Aspects of Kinesiology (3)**

Advanced study of the neurological influences to movement. Learn terminology, structures of the human nervous system, cellular and macroscopic neurophysiology, and clinical applications associated with reflexive and voluntary movements and posture.

**KINE 580 Advanced Prevention, Care and Rehabilitation of Athletic Injuries (3)**

Prerequisite: KINE 380 or equivalent. Analyze, evaluate and apply current techniques and practices to injuries in the school physical activity and sports programs.

**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.

**KINE 621 Advanced Biomechanics (3)**

Prerequisite: KINE 221 or equivalent. Make an advanced study of the mechanical components of human movement, stressing the analysis of movement problems.

**KINE 622 Directed Studies (1-4)**

Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

**KINE 623 Advanced Neuromotor Kinesiology (3)**

Prerequisite: KINE 323 or equivalent. Advanced study of the neuropsychological components of motor learning and control with an emphasis on physical activity applications.

**KINE 624 Advanced Developmental Kinesiology (3)**

Prerequisite: KINE 323 or equivalent. Advanced study of the influence of developmental and aging processes upon movement across the lifespan.

**KINE 625 Laboratory Techniques in Kinesiological Research (3)**

Consent of instructor. Titles: Laboratory Techniques in Biomechanics; Techniques in Exercise Physiology; and Laboratory Techniques in Social Psychological Kinesiology. Repeatable, under different subtitles.

**KINE 626 Advanced Physiological Kinesiology I (3)**

Prerequisite: KINE 322 or equivalent. Advanced study of energy metabolism and exercise nutrition involved with human movement.

**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 (3)**

Experiences provided are: Biomechanics of Locomotion, Cardiopulmonary Physiology and Motivation. Repeatable, under different subtitles.

**KINE 635 Exercise and Sports Psychology (3)**

Application of psychological concepts, principles and empirical findings to exercise programs and organized sport settings.

**KINE 670 Advanced Sociological Kinesiology (3)**

Advanced study of the application of sociological concepts and theories to current issues in kinesiology.

**KINE 690 Graduate Seminar in Kinesiology (1)**

Consent of advisor. Examine professional and scholarly issues in kinesiology, physical education and sport administration through readings, discussions, laboratory tutorials and presentations of current research topics. S/U graded. Repeatable, maximum of three credits.

**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 of three credits.

**KINE 699 Thesis (1-6)**

Optional for Master of Arts students on recommendation of major advisor. S/U graded. Repeatable, no limitations.

**KINE 755 Supervised Practicum in College Teaching (1-6)**

Experience supervised teaching of undergraduate kinesiology lessons. Develop course outlines and effective teaching techniques. S/U graded. Repeatable, maximum of six credits.

**KINE 797 Doctoral Proposal Research (1-4)**

Required of all doctoral students. Students must earn four hours of credit for the doctoral dissertation proposal research in partial fulfillment of doctoral requirements before admission to candidacy. S/U graded. Repeatable, maximum of four credits.

**KINE 799 Doctoral Dissertation (1-12)**

Required of all doctoral candidates. Students must earn 12 hours of credit for dissertation as partial fulfillment of the doctoral requirements. S/U graded. Repeatable, no limitations.

**LIB - UNIVERSITY LIBRARIES****LIB 150 Introduction to Undergraduate Research (1)**

Designed to give the undergraduate student active learning experience in managing information in a dynamic research environment. Includes skills in identifying, retrieving, organizing, and evaluating information necessary for academic research and postgraduate careers.

**MATH - MATHEMATICS****MATH 023 Intermediate Algebra (3)**

Elementary concepts of algebra including quadratic equations, the function concept and systems of linear equations. This is a Basic Skills course offered through Continuing Education and does not count in term, cumulative or total credits and will not be calculated in the GPA.

**MATH 113 Professional Renewal (1-8)**

Concentrate on various topics in mathematics, depending on instructor conducting course. Repeatable, under different subtitles.

**MATH 120 Mathematics and Liberal Arts (3)**

Prerequisite: Minimum of one full year of high school algebra with a grade of "C" or better and score at a predetermined level on the placement exam. Non-majors only. Learn about several topics in mathematics through intuitive presentation to help those who want to know more about mathematics. Not open to mathematics majors and minors.

**MATH 124 College Algebra (4)**

Prerequisite: 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)**

Prerequisite: 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 I (4)**

Prerequisite: MATH 124 and MATH 125, or MATH 127, or trigonometry and two years of high school algebra, with a grade of "C" or better. First course in a three course sequence in calculus. Differentiation and related concepts, applications of derivatives, including exponential, logarithmic and trigonometric functions.

**MATH 132 Calculus II (4)**

Prerequisite: MATH 131 with the grade of "C" or better. Second course in three course sequence in calculus. Integration and applications of integration, sequences and series.

**MATH 175 Topics in Finite Mathematics (3)**

Prerequisite: 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. Techniques and applications of differential and integral calculus with an emphasis on applications to economics and business.

**MATH 181 Fundamentals of Mathematics I (3)**

First of a 3-course sequence particularly pertinent to prospective arithmetic teachers, presenting arithmetic and algebra from modern approach. Understand mathematical structures, including natural numbers, integers, rational numbers, relations, functions and equations.

**MATH 182 Fundamentals of Mathematics II (2)**

Prerequisite: MATH 181. Continuation of MATH 181. Includes probability, statistics, measurement and applications of mathematics in science.

**MATH 221 Elementary Linear Algebra (3)**

Prerequisite: MATH 131 with the grade of "C" or better. Vector spaces, linear transformations, matrices, determinants, eigenvalues and eigenvectors, applications.

**MATH 228 Discrete Mathematics (3)**

Prerequisite: MATH 132 with the grade of "C" or better. A survey course of non-calculus based mathematics used extensively in computer science and other disciplines. Study sets, types of proofs, logic, recursion and related topics.

**MATH 229 Graph Theory (3)**

Prerequisite: MATH 132 or MATH 228 with the grade of "C" or better. Study concepts of graph theory and several applications. Topics: planar graphs, chains, cycles, trees, map coloring, Euler's formula, matching and optimization problems.

**MATH 233 Calculus III (4)**

Prerequisite: MATH 132 with the grade of "C" or better. Third course in a three course sequence in calculus. Differentiation and integration of functions of several variables, vector functions, parametric equations, Green's Theorem.

**MATH 283 Informal Geometry (2)**

Prerequisites: MATH 132, MATH 181. Study informal Euclidean geometry suitable for the K-8 curriculum, employing laboratory techniques where applicable.

**MATH 305 Mathematics of Finance (3)**

Prerequisite: Ability to solve algebraic equations and use logarithms. Study simple and compound interest, bank discount, annuities, amortization and insurance. Scientific or business calculator required.

**MATH 321 Introduction to Abstract Algebra (4)**

Prerequisites: MATH 221 and MATH 228 with the grade of "C" or better. Standard concepts of abstract algebra including groups, rings, integral domains and fields.

**MATH 335 Differential Equations I (3)**

Prerequisite: MATH 233 with the grade of "C" or better. Study the theory and solutions of ordinary differential equations including applications.

**MATH 336 Differential Equations II (3)**

Prerequisite: MATH 335 with the grade of "C" or better. Continuation of MATH 335. The existence and uniqueness theory, systems of equations, boundary value problems and an introduction to partial differential equations.

**MATH 341 Introduction to Modern Geometry (4)**

Prerequisites: MATH 221, MATH 228 and high school synthetic geometry with the grade of "C" or better. Build on Euclidean geometry background by proving classical and modern Euclidean theorems. Study the foundations of geometry through investigating non-Euclidean and projective geometries.

**MATH 350 Elementary Probability Theory (3)**

Prerequisite: MATH 132 with the grade of "C" or better. Learn about discrete and continuous probability, Bayes' theorem, one-dimensional random variables and the expected values of random variables, Bernoulli, binomial, Poisson geometric, hypergeometric and multinomial probability law.

**MATH 351 Elementary Statistics Theory (3)**

Prerequisite: MATH 233, MATH 350 with a grade of "C" or better. A continuation of MATH 350. Learn about jointly distributed random variables, central limit theorem, sampling distributions, maximum likelihood estimation, properties of estimation, confidence intervals and tests of hypothesis.

**MATH 375 Elementary Numerical Analysis (3)**

Prerequisites: MATH 221 with the grade of "C" or better, MATH 233 and ability to program. Numerical solutions of equations and systems of equations; interpolation and approximation; numerical differentiation and integration; numerical solutions of differential equations.

**MATH 387 Mathematics in Our Technological World (4)**

The impact of technology and the changes technology brings to the classroom environment are linked to the learning and teaching of mathematics. An introduction to rigorous thought, LOGO programming, contemplation of numbers and infinity, geometries beyond the Euclidean, and dealing with data, chance and random events are addressed.

**MATH 391 Introduction to Number Theory (3)**

Prerequisites: MATH 228. Topics will include basic properties of the Natural Numbers, prime numbers, divisibility, factorization, congruences, Euler's phi function, introduction to Diophantine Equations and some group theory.

**MATH 395 Topics in Mathematics for Teachers (3)**

Prerequisites: MATH 182, MATH 228. Emphasis will be on problem solving skills, reasonableness of answers, using calculators and computers and on problem posing.

**MATH 403 Structure of Numbers (3)**

Prerequisite: MATH 132 with the grade of "C" or better. Beginning with Peano's postulates for the natural numbers, the integers are obtained by extension. Rational and real and complex numbers are then obtained by further extensions. Isomorphisms are stressed.

**MATH 422 Directed Studies (1-3)**

Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

**MATH 431 Basic Analysis I (4)**

Prerequisite: MATH 233 with grade of "C" or better. Sequence of two courses to extend studies of calculus and analysis into the mathematical rigor and logic of analysis. Includes: real numbers, sequences, topology, limits, continuity, differentiation, series and integration.

**MATH 432 Basic Analysis II (4)**

Prerequisite: MATH 431 with grade of "C" or better. Continuation of MATH 431.

**MATH 437 Mathematical Modeling (3)**

Prerequisites: CG 120 with grade of "C" or better, MATH 221 and MATH 233. Use mathematical tools to develop models of practical problems. Emphasize development, verification and interpretation of models and communication of results.

**MATH 460 Introduction to Complex Analysis (3)**

Prerequisite: MATH 233 with a grade of "C" or better or equivalent. First course in complex variables, especially for potential calculus teachers. After preliminaries, proceed directly to power series, Laurent's series, contour integration, residue theory, polynomials and rational function.

**MATH 464 Introduction to History of Mathematics (3)**

Prerequisites: MATH 221, MATH 228, MATH 341. Junior or above in Mathematics. Survey of mathematical conceptual development and the people involved from antiquity to the present, including pedagogical applications, content connections, and use of reference resources.

**MATH 495 Topics in Mathematics (1-3)**

Consent of instructor. Surveys topics in areas such as geometry, analysis, algebra, statistics, numerical analysis, topology and number theory not in existing courses, which reflect specific interests of instructors and students. Repeatable, under different subtitles.

**MATH 508 Workshop (1-3)**

A variety of workshops on special topics within the discipline. Goals and objectives will emphasize the acquisition of general knowledge and skills in the discipline. Repeatable, under different subtitles.

**MATH 510 Seminar in Mathematics (1)**

Study discussion and student presentation of topics in mathematics. S/U graded. Repeatable, under different subtitles.

**MATH 513 Professional Renewal (1-3)**

Update skills and knowledge of professionals in the discipline. Goals and objectives will be specifically directed at individual professional enhancement rather than the acquisition of general discipline knowledge or methodologies. S/U or letter graded. Repeatable, under different subtitles.

**MATH 520 Functions and Equations (3)**

Graduates only. Polynomial equations including DeMoivre's Theorem, the Fundamental Theorem of Algebra, methods of root extraction (e.g. Newton, Graffe) multiplicities, symmetric functions, matrices and determinants. Elementary computer applications.

**MATH 521 Vectors and Matrices (2)**

Graduates only. Study of vectors and matrices, connections to other areas, and topics in mathematics and the use of vectors and matrices in applications.

**MATH 523 Modern Algebra (3)**

A study of groups, rings and fields with a special emphasis on groups and fields.

**MATH 525 Linear Algebra I (3)**

Prerequisite: MATH 321. Vector spaces, linear transformations, matrices, eigenvalues, canonical forms, quadratic forms and other selected topics.

**MATH 528 Discrete Mathematics (3)**

Graduates only. A broad, yet deep, survey of topics in combinatorics and graph theory addressing three broad categories of problems: existence, enumeration and optimization. Blend of mathematics, real-world applications and development of mathematical reasoning skills, guided by the NCTM Yearbook.

**MATH 529 Mathematical Problem Solving (2)**

Graduates only. Techniques in problem solving applied to algebra, number theory, geometry, probability, discrete mathematics, logic and calculus. A study of Polya's heuristic rules of mathematical discovery.

**MATH 534 Continuous Mathematics (3)**

Graduates only. Students will explore selected topics in mathematical analysis such as differential mappings and chaotic systems.

**MATH 537 Mathematical Modeling (3)**

Graduates only. Introduction to the process of mathematical modeling and its use in teaching secondary school mathematics. Emphasizes development and communication of models.

**MATH 540 Introduction to Topology (3)**

Point-set topology and the foundations of real analysis.

**MATH 543 Modern Geometry (3)**

A survey of both traditional Euclidean geometry and contemporary geometries, in which applications of geometry are integrated into the study of the mathematical structure of geometrical systems.

**MATH 544 Introduction to Differential Geometry (3)**

Prerequisite: MATH 432 or equivalent. The geometry of curves and surfaces will be studied. The notions of curvature for lines and surfaces will be analyzed and their relationships to topology discussed.

**MATH 545 Introductory Analysis (3)**

Prerequisite: MATH 540. Sequences, series, differentiation, Riemann-Stieltjes Integral, series of functions, special functions and functions of several variables.

**MATH 550 Applied Probability and Statistics (3)**

Graduates only. Applied statistics and probability concepts to include history, counting techniques, distributions and inference (confidence intervals, point estimation, testing, ANOVA, regression, non-parametrics) will be covered in a context for use in secondary mathematics.

**MATH 560 Introductory Complex Variables (3)**

Prerequisite: MATH 432 or equivalent. First course in complex variables, especially for potential calculus teachers. After preliminaries, proceed directly to power series, Laurent's series, contour integration, residue theory, polynomials and rational functions.

**MATH 564 Topics in History of Mathematics (3)**

Explore a period of time, an area of mathematics and/or a group of mathematicians. Consult instructor for emphasis. Repeatable, under different subtitles.

**MATH 591 Abstract Algebra and Number Theory (3)**

Basic methods of problem solving in abstract algebra and number theory with applications in secondary school mathematics.

**MATH 609 Abstract Algebra I (3)**

Prerequisite MATH 523 or equivalent. Groups and rings and their structure. Sylow theorems. Modules. History and applications.

**MATH 622 Directed Studies (1-4)**

Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

**MATH 623 Abstract Algebra II (3)**

Prerequisite: MATH 609. Polynomial Noetherian rings and ideals. Fields and Galois theory. Structure of fields. History and applications.

**MATH 632 Complex Variables (3)**

Prerequisite: A course in complex analysis. Analytic and meromorphic functions in the complex plane. Integration, conformal mapping and advanced topics.

**MATH 633 Geometric Analysis (3)**

Prerequisites: MATH 525; MATH 540 recommended. Analysis of functions of several variables, unifying and extending ideas from calculus and linear algebra. Includes the implicit function theorem and Stokes' Theorem.

**MATH 635 Real Analysis (3)**

Abstract spaces, Lebesgue measure, continuity, integration and differentiation theorems, Baire category.

**MATH 644 Differential Geometry (3)**

Prerequisite: A course in Analysis. 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)**

Applications of difference equations in problem solving and modeling, especially in the area of chaos.

**MATH 678 Mathematical Logic (3)**

The notion of proof, first order logic, set theory, ordinals, cardinals and an overview of the most important recent results in the field.

**MATH 691 Number Theory (3)**

Prerequisite: MATH 632. A survey of topics in arithmetic and analytic number theory, such as Eulers' function, quadratic reciprocity, continued fractions and the distribution of prime numbers.

**MATH 695 Special Topics (3)**

Topics from various fields of mathematics, for example, algebraic topology, functional analysis, Lie groups and algebras or nonlinear analysis. Repeatable, may be taken two times, under different subtitles.

**MATH 700 Advanced Seminar (2)**

Consent of Instructor. An advanced seminar in an active area of mathematical research. Content depends upon instructor's choice. Repeatable, may be taken two times, under different subtitles.

**MATH 727 Representation Theory (3)**

Introduction to Representation Theory of various mathematical structures. Emphasis is on group representations.

**MATH 728 Topics in Discrete Mathematics (3)**

Prerequisite: MATH 678. A broad yet deep survey of current topics in combinatorics and graph theory essential for teachers K-16, including applications to probability, coding theory, sorting and matching algorithms and optimization.

**MATH 736 Real Analysis II (3)**

Prerequisite: MATH 635. Topics from real and functional analysis such as: measure theory, distributions, metric spaces and other topics of the instructor's choice.

**MATH 797 Doctoral Proposal Research (1-4)**

Required of all doctoral students. Four hours of credit for doctoral dissertation proposal research must be earned in partial fulfillment of requirements before admission to candidacy. Repeatable, maximum of four credits.

**MATH 799 Doctoral Dissertation (1-12)**

Required of all doctoral candidates. S/U grading. Repeatable, no limitations.

## MCS - MULTICULTURAL STUDIES

**MCS 101 Multiculturalism in the United States: Concepts and Issues (3)**

An introduction to concepts and issues of multicultural behavior and group dynamics in contemporary United States society. The course will focus on the experiences of ethnic minority groups and women.

## MED - MATHEMATICS EDUCATION

**MED 272 Mathematics Tutoring (1)**

Upon completion of 2 hours of instruction on how to tutor in mathematics, the student will complete 30 clock hours of tutoring. S/U graded. Repeatable, may be taken two times.

**MED 422 Directed Studies (1-3)**

Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

**MED 441 Methods of Teaching Mathematics (3)**

Corequisite: STEP 363. Full admittance to PTEP required. For prospective teachers seeking certification at the middle school, junior high or senior high school level. Gain skill in constructing teaching strategies, understanding curriculum problems and applying basic theories in teaching and learning mathematics. Early field experience desirable.

**MED 487 Technology, Manipulatives and NCTM Standards (3)**

Classroom use of mathematics software, calculators, pattern blocks, attribute blocks, geoboards, geometric solids, MIRA's and others presented to teach problem solving, skills and concepts. S/U graded.

**MED 508 Workshop (1-3)**

A variety of workshops on special topics within the discipline. Goals and objectives will emphasize the acquisition of general knowledge and skills in the discipline. Repeatable, under different subtitles.

**MED 509 Advanced Placement Program AB and BC Calculus (1-3)**

Topics in calculus and pedagogical information related to establishing and maintaining a calculus advanced placement program. S/U graded. Repeatable, no limitations.

**MED 513 Professional Renewal (1-3)**

Update skills and knowledge of professionals in the discipline. Goals and objectives will be specifically directed at individual professional enhancement rather than the acquisition of general discipline knowledge or methodologies. S/U or letter graded. Repeatable, under different subtitles.

**MED 528 Teaching of Discrete Mathematics (2)**

Graduates only. Methods of teaching discrete mathematics including using technology, projects, cooperative groups and the development of curriculum materials. Topics will include the teaching of existence problems, counting problems and optimization problems.

**MED 534 Teaching Algebra and Trigonometry (2)**

Graduates only. Current research on instruction in algebra/trigonometry; current curricular issues. Approach teaching of Algebra and Trigonometry from a conceptual and problem solving point of view.

**MED 543 Teaching Geometry (2)**

Graduates only. Students will develop teaching modules and models based on current theories of cognition and recommendations of professional societies.

**MED 550 Teaching Applied Probability and Statistics (2)**

Graduates only. Methods of teaching topics of probability and statistics including hands-on experience in collecting and analyzing data. Topics include descriptive techniques, random variables, curve fitting and use of technology.

**MED 577 Mathematics Teachers Workshop (1-3)**

No more than six credits may be applied on any one graduate degree. Work on problems K-14. S/U graded. Repeatable, maximum of 12 credits, under different subtitles.

**MED 585 Teaching Elementary and Middle School Mathematics (2)**

Graduates only. Designed for those certified elementary/middle school teachers who will be pursuing a specialization in the teaching of mathematics. Strong mathematics content background necessary.

**MED 587 Technology, Manipulatives and NCTM Standards (3)**

Classroom use of mathematics software, calculators, pattern blocks, attribute blocks, geoboards, geometric solids, MIRA's and others presented to teach problem solving, skills and concepts. S/U graded.

**MED 595 Teaching Advanced Topics in Secondary School Mathematics (2)**

Graduates only. Methods of teaching advanced mathematics topics in high school mathematics with emphasis on pedagogy, working cooperatively and developing curriculum materials for teaching such topics as vectors, fractals and transformations.

**MED 600 Introduction to Research in Mathematics Education (3)**

Examination of research issues and trends in the teaching and learning of mathematics, applications to classroom practice and introduction to design and analysis of quantitative and qualitative research in mathematics education.

**MED 610 Survey of Research in Mathematics Education (3)**

Graduates only. The goals of this course are to synthesize and re-conceptualize past research, suggest areas of research most useful to advancing the field and provide implications for classroom practice.

**MED 622 Directed Studies (1-3)**

Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

**MED 630 Technology in Mathematics Education (2)**

Prerequisite: MED 600 or consent of instructor. Graduates only. Hands-on training in using new software tools for the instruction of mathematics. Current research and curriculum reform efforts concerning technology in teaching will be examined. Repeatable, may be taken two times.

**MED 654 Seminar in College Mathematics Teaching (1)**

Prerequisite: Graduates only. Improvement of undergraduate mathematics via active student-based learning and implementation of a learning cycle of informed practice and information gathering, reflection and analysis, and planning and modified practice. S/U graded. Repeatable, no limitations.

**MED 672 Trends in Mathematics Education (4)**

Graduates only. Current trends and issues that affect the teaching of school mathematics. Projects, readings and group work with focus on national and international studies and movements related to the teaching of mathematics.

**MED 673 Teaching and Learning Mathematics on the Elementary Level (3)**

Prerequisite: B.A. in mathematics or equivalent. To prepare elementary/middle school mathematics specialists. Includes mathematics review of number theory, geometry and other content, NCTM curriculum, professional and assessment standards, use of technology and manipulatives and research.

**MED 674 Teaching and Learning Mathematics on the Secondary Level (3)**

Prerequisite: MED 610. Graduates only. Address and evaluate specific problems in mathematics education. Allow students to examine curricular concerns, evaluation, teaching special populations and cognitive issues relating specifically to the secondary level.

**MED 675 Teaching and Learning Mathematics on the Post-Secondary Level (3)**

Prerequisite: MED 610 or consent of instructor. Graduates only. Address community college and undergraduate level mathematics education issues. Focus on current curriculum reform and research into learning and teaching on the post-secondary level.

**MED 678 Special Topics (2-3)**

No more than six hours may be applied to any one graduate degree. Prerequisites and topics announced in Schedule of Classes. Repeatable, may be taken three times, under different subtitles.

**MED 700 Cognitive Processes in Mathematics (3)**

Prerequisite: Consent of instructor. Analyze research concerning cognitive science in mathematics education. Conduct case study on cognition in mathematics.

**MED 701 Educational Mathematics Research (3)**

Learn advanced research concepts and methods that are unique in the study of educational mathematics. Includes data analysis and advanced statistical techniques.

**MED 702 Qualitative Research in Mathematics Education (3)**

Prerequisites: MED 700. Paradigms, issues and methods of qualitative research common in mathematics education. Immersion in and critical analysis of field-specific literature. Possible limited collection and analysis of data from mathematics learning environments.

**MED 703 Teaching and Learning K-12 Mathematics (3)**

Prerequisites: MED 610, MED 700, or consent of instructor. Focus on issues relevant to working with preservice and inservice K-12 mathematics teachers. Students will develop expertise in promoting standards-based content, curriculum, pedagogy, and assessment in the context of reform-oriented research and national reports, including the NCTM Standards. Examination of current curricular materials and classroom technology, observation of K-12 teaching, collaboration with teacher enhancement initiatives may be included.

**MED 710 Seminar in Post-Secondary Mathematics Teaching (1)**

Curricular, pedagogical and ethical issues in college mathematics teaching. Students and faculty reflect on and discuss ways to improve and reform teaching. S/U graded.

**MED 750 History and Philosophy of Mathematics Education (3)**

Prerequisite: MED 700 or consent of instructor. This course explores the underpinnings of current K-16 mathematics education by examining the historical development of the enterprise as well as perspectives and schools of thought that have influenced the teaching of mathematics.

**MED 765 Mathematical Structures and Education (3)**

Course presents various approaches to basic and advanced mathematical structures. Analyzes educational difficulties related with each approach. Content depends on instructor's choice.

**MET - METEOROLOGY****MET 110 Our Violent Atmosphere (3)**

A general education course in which weather and climate are analyzed in terms of their physical basis and their historical, economic and human consequences. Emphasis is placed on the impacts of extreme weather such as hurricanes, severe thunderstorms, winter storms and floods.

**MET 205 General Meteorology (4)**

(3 lecture, 2 laboratory) The basic course in meteorology. The atmosphere, its structure and composition. Radiation, temperature, pressure, wind, humidity, precipitation, clouds, air masses and fronts. Measurements. Weather maps.

**MET 260 Mesoscale Meteorology (3)**

Prerequisites: MET 205, MATH 131 or take concurrently. Study of atmospheric phenomena on medium time and space scales. Topics covered include mountain/valley winds, sea breeze circulations, gravity currents and waves, thunderstorms and related phenomena, hurricanes, and problems in mesoscale forecasting.

**MET 306 Dynamic Meteorology I (3)**  
(2 lecture, 3 laboratory) Prerequisites: MET 205, MATH 131. In-depth treatment of gas laws, atmosphere thermodynamics and stability, cloud dynamics and adiabatic charts.

**MET 315 Meteorological Instruments and Codes (2)**

(4 laboratory) Prerequisite: MET 205 or MET 306. Meteorological instruments and their operations; weather maps and data exchange; codes and plotting of charts.

**MET 360 Physical Meteorology (3)**

Prerequisites: MET 205, MATH 124. Physical structure of the atmosphere, radiation in atmosphere, radiation laws, cloud microphysics, precipitation processes.

**MET 376 Meteorological COOP Education (1-12)**

Prerequisites: MET 205, MET 306. Credit given for participation in cooperative work/study program with National Weather Service, NOAA and/or other agencies. Summary paper required for work and/or research activities. Repeatable, maximum of 24 credits.

**MET 407 Dynamic Meteorology II (4)**

(3 lecture, 2 laboratory) Prerequisite: MET 306. Atmospheric motion and laws governing it. Planetary and secondary circulations, jet streams, vorticity, cyclogenesis, air masses and fronts.

**MET 421 Climatology (3)**

Prerequisite: MET 205 or MET 500. Factors of climate; analytical methods of climatology; climatic classification. Regional distribution of climates around the world. Applied climatology.

**MET 422 Directed Studies (1-4)**

Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

**MET 441 Synoptic Meteorology (3)**

Prerequisite: MET 407/MET 507. Corequisite: MET 442/MET 542. Development and movement of air masses, fronts and associated weather systems. Synoptic weather charts and their uses.

**MET 442 Synoptic Meteorology Laboratory (3)**

Corequisite: MET 441/MET 541. Use of weather charts and data in forecasting of current weather and analysis of historical weather. Field trip to NOAA and National Weather Service Forecast Office.

**MET 465 Radar Meteorology (3)**

Prerequisites: MET 205, MATH 131. Majors only. Principles of radar operation and radar remote sensing techniques. Types of radar and their applications in meteorology.

**MET 470 Satellite Meteorology (3)**

Prerequisites: MET 407 or MET 441 or MET 507 and MET 541. Use of atmospheric data and cloud imagery from satellites for understanding the atmosphere and forecasting the weather.

**MET 495 Special Topics in Meteorology (1-4)**

Explore topics in meteorology beyond regular departmental offerings. Specific topics determined by student interest and instructor. Repeatable, under different subtitles.

**MET 500 Survey of Meteorology (3)**

(2 lecture, 3 laboratory) Principles of atmospheric science for teachers. Earth-atmosphere energy budget, pressure, temperature, wind, humidity, clouds, atmospheric stability, precipitation processes, air masses and fronts, current weather.

**MET 507 Dynamic Meteorology II (4)**

(3 lecture, 2 laboratory) Prerequisite: MET 306. Atmospheric motion and laws governing it. Planetary and secondary circulations, jet streams, vorticity, cyclogenesis, air masses and fronts.

**MET 521 Climatology (3)**

Prerequisite: MET 205 or MET 500. Factors of climate; analytical methods of climatology; climatic classification. Regional distribution of climates around the world. Applied climatology.

**MET 536 Biometeorology (3)**

Prerequisite: MET 205 or MET 500. Relationships between living organisms and atmospheric environment. Effects of weather on human health, agriculture and animals. Soil and air temperature, radiation and energy budgets, water cycle, heat units, comfort indices.

**MET 541 Synoptic Meteorology (3)**

Prerequisite: MET 407/MET 507. Corequisite: MET 442/MET 542. Development and movement of air masses, fronts and associated weather systems. Synoptic weather charts and their uses.

**MET 542 Synoptic Meteorology Laboratory (2)**

(4 laboratory) Corequisite: MET 441/MET 541. Analysis and forecasting exercises and activities.

**MET 560 Mesometeorology (3)**

Prerequisite: MET 306. Mesoscale weather phenomena, such as thunderstorms, tornadoes, tropical cyclones, lee wave and downslope winds.

**MET 565 Radar Meteorology (3)**

Prerequisites: MET 205 and MATH 131. Majors only. Principles of radar operation and radar remote sensing techniques. Types of radar and their applications in meteorology.

**MET 570 Satellite Meteorology (3)**

Prerequisites: MET 407 or MET 441 or MET 507 and MET 541. Use of atmospheric data and cloud imagery from satellites for understanding the atmosphere and forecasting the weather.

**MET 575 Air Pollution Meteorology (3)**

Prerequisites: MET 205, MATH 124 and CG 105 or demonstrated abilities equivalent to these courses. Course provides background in air pollution meteorology necessary to interact knowledgeably with scientists, administrators and policy makers on environmental topics related to the atmosphere. Students will also gain hands-on experience working with air pollution and meteorological data, as well as report writing.

**MET 595 Special Topics in Meteorology (1-4)**

Consent of instructor. Explore topics in Meteorology beyond existing departmental offerings. Specific topics determined by student interest and instructor. Repeatable, under different subtitles.

**MET 622 Directed Studies (1-3)**

Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

## MIND - LIFE OF THE MIND PROGRAM

**MIND 180 Great Ideas of the Western Tradition (3)**

An introduction to the intellectual tradition of the western world through reading and discussion of basic works by Plato, Dante, Machiavelli, others. Credit in General Education category 4 for Philosophy or Literature or History.

**MIND 181 Great Traditions of Asia: India, China and Japan (3)**

Interdisciplinary study of the traditions of Asian countries, dealing with historical contexts and literary and artistic expressions. Offered by History, English and Visual Arts. Credit in General Education category 4 for History or Literature or Fine Arts.

**MIND 182 Confluence of Cultures (3)**

An exploration of African American, Asian American, Hispanic American and Native American cultures from historical, literary and artistic perspectives. Credit in General Education category 7 for Multicultural courses.

**MIND 286 Value Issues in Political Economy (3)**

A study of the political and economic viewpoints on key value issues in society, exploring the influence of seminal thinkers in their time and now. Credit in either Political Science or Economics in General Education category 5.

**MIND 288 Contemporary Arts Connections (3)**

Designed to involve students in synthesizing, analyzing and evaluating present-day visual art/music/theatre/dance and understanding its impact on and relationship to society. Team-taught by Music, Theatre and/or Visual Arts. Credit in General Education category 4.

**MIND 289 Coming of Age in the Twentieth Century (3)**

An investigation through primary readings into the questions: How has our century been a coming of age? Into what age have we come? Credit in General Education category 7.

**MIND 290 Search for Meaning (3)**

An investigation through primary readings into the search for meaning of three world thinkers (Socrates, Lao Tzu, Francis of Assisi) and a study of the relevance of their search to our own. Team-taught by Philosophy and History. Credit in General Education category 4 for Philosophy or History.

**MIND 292 Ideas in Conflict (3)**

An examination of the conflicts between sets of ideas in modern times in both the West and the Third World. Credit in General Education category 7.

**MIND 293 Play as a Route to Insight and Creation (3)**

An examination through primary sources of the ideas of artists, philosophers and scientists regarding the role of play in intellectual insight and artistic creation. Credit in General Education category 4 for Philosophy or Literature.

**MIND 294 Revolutions in Science (3)**

Any UNC Science laboratory course required or consent of instructor. A science course engaging students in scientific inquiry while introducing them to principal scientific revolutions since the 16th century such as inertia, evolution, thermodynamics, genetics, plate tectonics, cosmology and others. Credit in General Education category 6 for Earth Sciences or Life Sciences or Physical Science.

**MIND 297 Creativity in the Arts (3)**

Experience, experiment with and analyze artistic creativity. The course combines readings, discussions and hands-on creative projects in the arts. Team-taught by Music, Theatre and/or Visual Arts for General Education credit in category 4.

**MIND 299 Great Ideas in the History of the Arts (3)**

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.

**MS - MILITARY SCIENCE****MS 111 Introduction to Military Skills I (2)**

Basic military skills to include: rifle marksmanship, repelling, customs, traditions and organization and role of the United States Army. Physical fitness training.

**MS 121 Introduction to Military Skills II (2)**

Basic military skills to include: first aid, winter survival, compass and map reading and orienteering. Physical fitness training.

**MS 211 Contemporary Management Principles (2)**

Management Simulation Program. Development of management skills to include: delegation and control, interpersonal skills and behavioral evaluation techniques. Physical fitness training.

**MS 221 Dynamics of Military Leadership (2)**

Theories of conflict; small unit operations; troop leading procedures; observing and classifying behavior; physical fitness training.

**MS 287 Army ROTC Basic Camp (2-8)**

Prerequisite: Consent of instructor. Leadership development and management training applied to military operations environments. Basic military skills to include rifle marksmanship, rappelling, compass and map reading, survival, physical training and small unit operations during 5-week paid ROTC Basic Camp at Fort Knox, Kentucky.

**MS 311 Leadership Assessment (3)**

Prerequisites: MS 111, MS 121, MS 211 and MS 221 or consent of instructor. Laboratory required. Leadership Development Program. Leadership style of each student assessed through simulations and role play. Physical fitness training.

**MS 321 Applied Leadership (3)**

Laboratory required. Consent of instructor. Techniques of command and staff functions. Development of operation orders and the conduct of tactical unit operations. Physical fitness training. Class includes 3-day field training exercises.

**MS 322 Directed Studies (1-3)**

Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

**MS 387 Practicum in Leadership and Military Operations (8)**

(2 lecture, 6 laboratory) Prerequisite: MS 321 or consent of instructor. Theories and principles of leadership applied to actual field situations during 6-week paid ROTC advanced camp at Fort Lewis, Washington.

**MS 401 Staff Functions and Leadership Principles (2)**

Consent of instructor. Corequisite: HIST 250 during fall semester of MS IV year. Laboratory required. Application of military staff functions while serving in leadership roles in the Army ROTC program. Physical fitness training.

**MS 421 Role and Ethics of the Officer (3)**

Consent of instructor. Laboratory required. Role of the Army Officer. Ethics and professionalism, military justice, law of land warfare and preparation for active duty. Physical fitness training.

**MS 422 Directed Studies (1-3)**

Individualized investigation under the direct supervision of a faculty member. (Minimum, 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

**MT - MUSICAL THEATRE****MT 161 Introduction to Musical Theatre Performance (1)**

(2 lecture; 1 laboratory) Prerequisite: THEA 160. This class is designed to provide the beginning musical theatre student with the basic mechanical, analytical and physical skills needed to perform musical theatre.

**MT 260 Acting in Musical Theatre (3)**

Prerequisite: THEA 160. Musical Theatre or Voice Majors only. A step-by-step process approach to acting a song. Units will be covered connecting the actor with the event/discovery of purpose/obstacle/relationship/choices and action clarification.

**MT 261 Singing for Actors (2)**

Acting Emphasis only or consent of instructor. Focus on basic singing technique for actors. Within the context of this class the acting students will study both theory and practical application of vocal technique as it applies to musical theatre and musical theatre auditioning.

**MT 285 Performance in Musical Theatre (1-3)**

Consent of instructor. Practical experience in the production of a musical. Techniques of acting, singing, dancing, directing and other facets necessary for preparation of a show for public performance will be offered. Repeatable, no limitations.

**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 Musical Theatre (3)**

(2 lecture; 3 laboratory) Prerequisite: THEA 240. A study of specific techniques required for the director for production of various musical theatre styles and production problems.

**MT 343 Choreographing the Musical (2)**

(2 lecture; 2 laboratory) This course will increase awareness of period styles and staging musical theatre technique by choreographing musical theatre production numbers.



**MT 353 Musical Theatre Production (2)**

Admission by audition only. Production and presentation of musical theatre or tour format before live audiences. Repeatable, no limitations.

**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 369 Individual Performance in Musical Theatre Voice (2)**

Hours arranged. Required of all Musical Theatre majors. Advanced instruction in Musical Theatre vocal styles. Study will involve the elements of technique for safe singing and the basic anatomy and physiology of the voice. Repeatable, maximum of eight credits.

**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. Repeatable, no limitations.

**MT 390 Advanced Musical Theatre Scene Study (2)**

(2 lecture; 3 laboratory) Prerequisites: THEA 160, MT 260, MT 360. This course will further the student's act/sing technique with a focus on advanced partnering.

**MT 465 Musical Theatre Workshop (3)**

(2 Lecture; 2 Laboratory) Consent of instructor. Study of the role preparation and styles, particularly developing the necessary skills to prepare audition materials. Repeatable, maximum of six credits.

**MT 470 Senior Project in Musical Theatre (3)**

Consent of instructor. Corequisite: MUS 407. Qualified seniors in musical theatre major only. Practical experience in the preparation and performance of a musical theatre role study.

**MT 485 Performance in Musical Theatre (1-3)**

Consent of instructor. Practical experience in the production of a musical. Techniques of acting, singing, dancing, directing and other facets necessary for preparation of a show for public performance will be offered. Repeatable, no limitations.

**MTEC - MEDICAL TECHNOLOGY****MTEC 410 Clinical Chemistry (3)**

Basic principles of chemistry instrumentation, quality control and clinical chemistry tests; meaning and use of electrolyte, blood gas, protein, liver function, renal function, lipid, carbohydrate, enzyme, endocrine, drug monitoring and other clinical chemistry tests.

**MTEC 411 Chemistry Laboratory I (2)**

Theoretical and technical aspects of automated, semi-automated and manual chemistry procedures, quality control requirements and test data flow in the clinical chemistry laboratory.

**MTEC 412 Chemistry Laboratory II (2)**

Additional testing procedures with emphasis on gaining proficiency in performance of tests utilizing skills learned in MTEC 411.

**MTEC 413 Chemistry Laboratory III (1)**

New testing procedures, methods development and more about applying quality control methods for verification of test procedures.

**MTEC 430 Immunology-Immunohematology (2)**

Basics of immunology and serology techniques utilized in the clinical laboratory, covering blood banking principles and methods and uses of blood transfusions and component therapy in medicine.

**MTEC 431 Immunohematology Laboratory I (2)**

Principles and procedures of blood banking, selection and drawing of blood donors and the processing, pretesting and cross-matching of recipient's blood for transfusion.

**MTEC 432 Immunohematology Laboratory II (1)**

Advanced principles of blood banking including auto-immune disorders, component usage and preparation, syphilis serology and case studies.

**MTEC 440 Medical Microbiology (3)**

Identification of human pathogenic bacteria, fungi and parasites. The role of viruses, rickettsia, bacteria, fungi in disease, antibiotic therapy and susceptibility testing and quality control.

**MTEC 441 Microbiology Laboratory I (2)**

Clinically significant bacteria, specimen collection, initial inoculation, organism isolation and identification, staining methods, biochemical and serological testing methods, susceptibility testing and quality control.

**MTEC 442 Microbiology Laboratory II (3)**

Less frequently isolated and clinically significant bacteria, parasites and fungi causing disease in humans; review of MTEC 441.

**MTEC 460 Urinalysis and Clinical Microscopy (1)**

Basic principles, interpretation and clinical significance of various tests performed on urine specimens and other body fluids.

**MTEC 490 Hematology-Coagulation (3)**

Basic principles of hematology methods, blood dyscrasias and other hematologic abnormalities like anemias, leukemias, changes in hematologic tests associated with multiple other diseases, the coagulation system and clinical coagulation testing applications.

**MTEC 491 Hematology Laboratory I (2)**

Basic theory, techniques and skills required to perform routine analysis of patient specimens in hematology. Must be completed before MTEC 493.

**MTEC 492 Hematology Laboratory II (2)**

Basic theory, techniques and skills required to perform routine analysis of patient specimens in urinalysis and coagulation. Must be completed before MTEC 493.

**MTEC 493 Hematology-Serology-Electrophoresis Laboratory III (1)**

Prerequisites: MTEC 491, MTEC 492. Theory, techniques and skills required to perform serologic and immunologic assays, including electrophoresis, as well as diagnosis of blood dyscrasias in blood smears.

**MUS - MUSIC****MUS 100 Recitals, Concerts and Productions (0)**

All undergraduate Music majors are required to attend all weekly departmental recitals in their major areas, all Convocations, plus a minimum of 12 major recitals, concerts and productions each semester in residence. S/U graded. Repeatable, no limitations.

**MUS 101 Sight-Singing and Theory I (4)**

Sight-singing of diatonic melodies; melodic, harmonic and rhythmic dictation; study of intervals, scales, triads, the dominant seventh chord and non-harmonic tones in analysis and the connection of triads in four voice writing. Class meets 4 days a week, with the fifth day for keyboard laboratory. Class is open to all students, but is intended primarily for music majors and minors. Repeatable, no limitations.

**MUS 102 Sight-Singing and Theory II (4)**

Prerequisite: MUS 101. Continuation of the ear-training and written materials of MUS 101 in greater depth and detail. Principles of harmonic progression, diatonic common chord modulation, non-harmonic tones, the Classic Period, developmental techniques and small homophonic forms. Class meets 4 days, with the fifth day for keyboard laboratory.

**MUS 140 Introduction to Music (3)**

A non-technical course aiming to increase the enjoyment and appreciation of music for students with little or no previous background. This course will be devoted to listening and discussion of the assigned listening.

**MUS 141 Music Literature and Styles I (2)**

An introduction to analysis and description of music, its elements and vocabulary. A survey of music literature in Medieval, Renaissance, Baroque and Classical styles.

**MUS 142 Music Literature and Styles II (2)**

A continuation of MUS 141. A survey of music literature in Baroque, Classical, Romantic and 20th Century styles, including a brief survey of the diversity of American Music.

**MUS 152 Writing and Scholarship in the Performing and Visual Arts (3)**

Prerequisite: ENG 122 or equivalent. Majors only. A study of the basics of communication and scholarship necessary to students of music, fine arts and theatre, with emphasis on problems of style, organization, logical thinking and sources unique to these areas.

**MUS 159 Class Piano for Non-Music Majors (1)**

For non-music majors without a background in piano. Develop basic piano skills in harmonization, sightreading, repertoire and technique.

**MUS 160 Beginning Class Piano I (1)**

For music majors only without background in piano. Corequisite: MUS 101 or demonstrate an equivalent knowledge of the material covered in that class. Develop performance in sight reading, harmonization and piano technique.

**MUS 161 Beginning Class Piano II (1)**

Prerequisite: MUS 160 or consent of instructor. Majors only. For music majors continuing to develop reading skills, technique and style necessary for playing elementary piano music.

**MUS 201 Advanced Sight-Singing and Theory I (3)**

Prerequisite: MUS 102. A study of diatonic seventh chords, borrowed chords, secondary dominants, augmented sixth chords, chromatic and inharmonic modulation and musical forms of the Classic and Romantic Periods; sight-singing and harmonic and melodic dictation related to chromatic harmony; early 20th century techniques. Class meets 3 days each week, plus one half-hour keyboard laboratory.

**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.

**MUS 204 Music Fundamentals and Experiences (3)**

For university students with minimal musical background. The purpose of this course is to acquire knowledge and understanding of musical concepts and terminology through research, critical writing, music analysis and performance.

**MUS 206 Music Methods and Materials for Elementary Teachers (1)**

Prerequisite: MUS 101 or MUS 204. Develop understandings and musical skills related to methodology for a multifaceted music curriculum in the elementary classroom, including the integration of music with other disciplines. Two class meetings per week.

**MUS 209 Introduction to MIDI and Music Software (2)**

This project orientated course introduces the language of MIDI and the basics of music sequencing and notation software. These skills allow the production of computer playback files and engraved scores.

**MUS 210 Introduction to Music Education (1)**

Prerequisite: MUS 102. Music majors only. For prospective teachers of music. Covers the history and present status of music in the schools, qualifications of music teachers and beginning instructional problems. Weekly observation and aiding required.

**MUS 221 Small Jazz Ensembles (1)**

Open to any student by audition. Groups consist of rhythm section plus three or four horns. Repeatable, no limitations. Students should have an improvisation background before audition. MUS 223 is recommended.

**MUS 223 Jazz Theory and Improvisation (2)**

Prerequisite: MUS 102 or consent of instructor. Class will focus on chords, symbols and major, minor and dorian scales; will investigate chord progressions and substitutions; and will cover basic jazz piano and individual instrument techniques.

**MUS 224 Vocal Jazz Ensembles (1)**

Audition required. Each ensemble limited to 20 voices: 4 sopranos, 4 altos, 4 tenors, 4 baritones, 4 basses, plus rhythm section and horns. Sing standard jazz literature; sing scat and deal with contemporary jazz notation. Perform on and off campus. Open to any UNC student. Repeatable, no limitations.

**MUS 225 Jazz Ensemble (1)**

Audition required. For brass, woodwind and rhythm players. Concentrates on the idioms of jazz music. Get thorough preparation for teaching at both secondary and college levels. Repeatable, no limitations.

**MUS 230 String Ensemble (1)**

Small chamber groups that rehearse regularly and are coached by a faculty member. Repeatable, no limitations.

**MUS 231 Brass Ensemble (1)**

Small chamber groups that rehearse regularly and are coached by a faculty member. Repeatable, no limitations.

**MUS 232 Woodwind Ensemble (1)**

Small chamber groups that rehearse regularly and are coached by a faculty member. Repeatable, no limitations.

**MUS 233 Percussion Ensemble (1)**

Small chamber groups that rehearse regularly and are coached by a faculty member. Repeatable, no limitations.

**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. Repeatable, no limitations.

**MUS 241 Perceiving the Arts (3)**

The purpose of this course is to develop and extend perception and understanding of the constituent elements of music, theatre, visual arts and dance. The student will explore, encounter and discuss varied art forms and media as integral parts of the processes of reading, attending arts events and critical writing.

**MUS 243 History of Music I (3)**

The history of change in music from earliest times through the 16th Century to the end of the Baroque Period with emphasis on the changes in style.

**MUS 244 History of Music II (3)**

A study of historical changes that took place in music in the Classic and Romantic Periods and the 20th Century.

**MUS 246 Music in American History and Culture (3)**

The purpose of this course is to examine select areas of American music in a historical and cultural framework. Material to be discussed includes musical traditions of various ethnic groups.

**MUS 247 Music Cultures of the World (3)**

The purpose of this course is to increase the student's understanding and appreciation of the music of other cultures through the study of many types of folk music and an introduction to the methods of ethnomusicology.

**MUS 250 Voice Class for Musical Theatre I (1)**

(2 contact hours per week). Required of all Musical Theatre majors in the dance and acting emphases. Beginning instruction in singing. Study will involve the elements of a basic technique for singing and an introduction to the anatomy and physiology of the voice.

**MUS 251 Voice Class for Musical Theatre II (1)**

(2 contact hours per week). Prerequisite: MUS 250. Required of all Musical Theatre majors in the dance and acting emphases. Continuation of concepts learned in MUS 250 in greater depth and detail. Emphasis will be placed on developing musicianship, more independent learning and greater accuracy in singing.

**MUS 260 Intermediate Class Piano I (1)**

Prerequisite: MUS 102, MUS 161 or consent of instructor. Functional piano for music majors with slight background in piano. Expand basic skills in sight-reading, harmonization and technique to early intermediate piano level.

**MUS 261 Intermediate Class Piano II (1)**

Prerequisite: MUS 260 or consent of instructor. Develop further reading skills, techniques and styles necessary to play simple accompaniments and intermediate piano music.

**MUS 265 Individual Performance in Collaborative Piano (2-4)**

Consent of instructor. In-depth study of repertoire and refinement of skills for the collaborative pianist. Repeatable, no limitations.

**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. Repeatable, no limitations.

**MUS 267 University Symphony Orchestra (1-3)**

Audition required. Comprised of the best string, wind, brass and percussion players. Read and perform standard repertoire of the modern symphony orchestra. Perform concerts regularly both on and off campus. Annually sponsors a Concerto Competition. Repeatable, no limitations.

**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. Repeatable, no limitations.

**MUS 269 Individual Performance in Voice for Those with Non-Voice Emphasis (2-4)**

Consent of instructor. Instruction concentrates on fundamental principles of voice production. Development of rhythmic and melodic accuracy receives primary consideration. Repeatable, no limitations.

**MUS 270 Individual Performance in Voice (2-4)**

Consent of instructor. Repeatable, no limitations.

**MUS 271 Individual Performance in Piano (2-4)**

Consent of instructor. Repeatable, no limitations.

**MUS 272 Individual Performance in Organ (2-4)**

Consent of instructor. Repeatable, no limitations.

**MUS 273 Individual Performance in Strings (2-4)**

Consent of instructor. Repeatable, no limitations.

**MUS 274 Individual Performance in Woodwinds (2-4)**

Consent of instructor. Repeatable, no limitations.

**MUS 275 Individual Performance in Brass (2-4)**

Consent of instructor. Repeatable, no limitations.

**MUS 276 Individual Performance in Percussion (2-4)**

Consent of instructor. Repeatable, no limitations.

**MUS 277 Individual Instruction in Composition (2-4)**

Consent of instructor. Repeatable, no limitations.

**MUS 278 Individual Performance in Harp (2-4)**

Consent of instructor. Repeatable, no limitations.

**MUS 279 Individual Performance in Guitar (2-4)**

Consent of instructor. Repeatable, no limitations.

**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. Repeatable, no limitations.

**MUS 281 Women's Glee Club (1)**

Audition required. Membership in this group of 30-40 singers is open to all female students. The Glee Club performs concerts on campus each semester and joins with the Concert Choir in performance of large masterworks with orchestra. Repeatable, no limitations.

**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. Repeatable, no limitations.

**MUS 284 Men's Glee Club (1)**

Audition required. Open to all University men, this group performs often on campus and in the community, in addition to touring within the state. The Men's Glee Club sings a wide variety of literature from sacred anthems to spirituals, folk songs and popular music. Repeatable, no limitations.

**MUS 285 Performance in Opera Theatre (1-3)**

Audition required. Practical experience in the production and performance of a complete operatic work. Techniques of acting, singing, character analysis and stage direction will be studied. Repeatable, no limitations.

**MUS 286 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. Repeatable, no limitations.

**MUS 287 Summer Symphonic Band (1-3)**

Audition required. Open to all students interested in performing the highest quality literature available. The Summer Season consists of five outdoor concerts. Repeatable, no limitations.

**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. Repeatable, no limitations.

**MUS 289 University Brass Choir (1)**

Audition required. Select performing ensemble of 21 brass and percussion students. Concentrate on literature for brass instrumental media, development of musical sensitivity, phrasing, style and intonation. Major ensemble credit. Repeatable, no limitations.

**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. Repeatable, no limitations.

**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. Repeatable, no limitations.

**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. Repeatable, no limitations.

**MUS 297 Summer Festival Orchestra (1-3)**

Audition required. Serves as the nucleus of the summer music festival, presenting two concerts and accompanying the opera. Repeatable, no limitations.

**MUS 301 18th Century Counterpoint (2)**

Prerequisite: MUS 202. A study of two- and three-voice counterpoint as found in the invention, canon, fugue and chorale prelude.

**MUS 302 Form and Analysis (2)**

Prerequisite: MUS 202. The study of homophonic forms, beginning with the motif and continuing with the analysis of the sonata, rondo and variation forms.

**MUS 303 Instrumentation (2)**

Prerequisite: MUS 202. A course planned to develop knowledge and skill in arranging and orchestrating for various combinations of instruments from a few instruments to a full symphony orchestra.

**MUS 307 History of Instruments and Instrumental Practice (3)**

A historical study of the development of musical instruments and the performance practices associated with them.

**MUS 308 Music Workshop (1-4)**

Receive information about current important ideas in many fields of knowledge from authorities nationally known in their fields of specialization. S/U graded. Repeatable, no limitations.

**MUS 309 Music for Video (2)**

Prerequisite: MUS 209. An introduction to skills needed for success in the music industry. Among the topics discussed will be creating "humanized" computer playback, and synchronizing computer playback to video and other sources.

**MUS 310 Teaching General Music in Elementary Schools (2)**

Prerequisite: MUS 210. Admission to PTEP required. A comprehensive study of the teaching of music to students in elementary school general music classes. Clinical experiences required.

**MUS 311 Teaching General Music in Secondary Schools (2)**

Prerequisite: MUS 310. Study the role and nature of required and elective general music, arts and humanities courses in junior and senior high schools.

**MUS 312 Teaching Instrumental Music in Elementary Schools (2)**

Prerequisite: MUS 210. Admission to PTEP required. Examine materials, methods and procedures for teaching instrumental music in elementary schools. In-class presentations and clinical experience required.

**MUS 313 Synthesis and Sampling (2)**

(2 hours lecture) Prerequisites: MUS 209. This project oriented course gives students a professional level familiarity with electronic musical instruments. The class will focus on the production and design of synthetic and sampled sounds.

**MUS 314 Guitar in the Classroom (1)**

Music majors only or consent of instructor. Learn to play guitar, including basic folk and classical techniques. Approached from a pedagogical, accompaniment and conceptual standpoint useful for the development of a guitar program in public school music curriculum and for accompaniment development in the general music and vocal public school program.

**MUS 317 Teaching Instrumental Music in Secondary Schools (2)**

Required clinical experience arranged. Prerequisite: MUS 312. Full admittance to PTEP required. Investigate the factors relating to the teaching of instrumental music in the secondary school and develop an understanding of the administrative skills necessary to develop and maintain an outstanding secondary instrumental music program.

**MUS 318 Music in Early Childhood (2)**

Prerequisite: MUS 202 or MUS 206. Explore a broad range of teaching ideas that nurture musicality in children ages two to seven.

**MUS 319 Instrumental Techniques and Conducting (1)**

Prerequisite: MUS 202. Develop effective hand and baton technique; learn drill and various meter patterns, tempo, style, dynamics, musical terms; study and perform musical scores, using a laboratory band and orchestra.

**MUS 320 Wind Literature, Pedagogy and Conducting (2)**

Prerequisite: MUS 319. Designed to continue conducting instruction begun in MUS 319, with emphasis on wind literature and rehearsal techniques appropriate for elementary through high school bands.

**MUS 323 Choral Techniques and Conducting (2)**

Prerequisite: MUS 202. Develop basic conducting technique as a choral musician. Study and apply meter patterns, preparatory beats, cueing and releases. Discuss tone production, diction, blend, score preparation and rehearsal techniques.

**MUS 324 Choral Conducting and Pedagogy for Elementary and Secondary Schools (2)**

Prerequisite: MUS 323. Continue work begun in MUS 323, refining conducting techniques; studying more complex scores; other advanced problems in conducting; examining materials, methods and procedures relevant to teaching vocal music in elementary and secondary schools.

**MUS 325 Choral Methods and Literature for Elementary and Secondary Schools (1)**

Prerequisite: MUS 320 or MUS 323 or consent of instructor. Examine choral literature for use with elementary through high school choral organizations.

**MUS 328 Intermediate Jazz Improvisation (2)**

Prerequisite: MUS 223 or consent of instructor. Audition required. Further develop ability to create and perform jazz solos involving more complex chord progressions and rhythmic and formal frameworks. Cover effective techniques and materials for teaching these skills at secondary levels.

**MUS 330 String Techniques (1)**

The study of the problems of string playing through performance on string instruments and the study of available literature for teaching strings in preparation for establishing string classes upon graduation.

**MUS 331 String Pedagogy and Literature for the Instrumental Music Teacher (2)**

Prerequisites: MUS 319, MUS 330 or consent of instructor. Laboratory required. Full admittance to PTEP required. Additional studies in string performance and literature are presented for the instrumental B.M.E. major.

**MUS 332 Observation and Study of Audio Engineering (1)**

(1 hour lecture) Prerequisites: MUS 209, MUS 308/MUS 508 Audio Engineering Workshop. This course is designed for students interested in audio recording. It will stress basic audio definitions and concepts as well as audio components and their use.

**MUS 333 Practicum in Audio Engineering (2)**

(2 hours lecture) Prerequisites: MUS 332. This course is a continuation of MUS 332 Observation and Study of Audio Engineering. This course is designed for students interested in audio recording. It will stress basic audio definitions and concepts as well as audio components and their use.

**MUS 334 Acting for Singers (2)**

Instruction in the special needs of the singer/actor: staging of arias, improvisation, freeing the voice through movement. Repeatable, may be taken two times.

**MUS 336 German Art Song (3)**

An introduction to the origins of the art song form with in-depth study of the German art song from its historical beginnings through the present day.

**MUS 338 French/Italian Art Song (2)**

Course in the performance of 19th and 20th Century French and Italian Art Song with particular emphasis upon style, technical requirements and diction.

**MUS 339 British/American Art Song (2)**

In-depth study of British and American art song. Emphasis will be on research and performance of 20th century materials.

**MUS 340 Survey of History and Literature of Jazz (3)**

An in-depth study of the history and literature of jazz from its beginnings to the present. Listening skills and critical writing skills are stressed. Open to all students.

**MUS 346 Jazz Arranging, Small Ensembles and Big Bands (2)**

Prerequisite: MUS 202 or consent of instructor. Learn the art of calligraphy, the basics for arranging for small jazz ensembles and work with big band scoring.

**MUS 347 Jazz Arranging, Vocal Jazz and Studio Orchestra (2)**

Prerequisite: MUS 346/MUS 546 or consent of instructor. Continuance of MUS 346 with focus on vocal jazz and studio orchestra composition. Performance of material at end of semester by studio orchestra and vocal jazz ensemble.

**MUS 348 Accompanying and Coaching I (2)**

Consent of instructor. Acquaint students with necessary skills for collaborative performance through the study of listening, rhythm, sightreading, technique and 4-hand repertoire. Class performances required. Repeatable, no limitations.

**MUS 349 Accompanying and Coaching II (2)**

Prerequisite: MUS 348/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. Repeatable, no limitations.

**MUS 352 Principles of Piano Teaching I (2)**

Compare current piano methods. Study technical and musical problems with a beginning student. Offered every other year.

**MUS 353 Principles of Piano Teaching II (2)**

Prerequisite: s/MUS 552 or consent of instructor. A study of the methods of teaching musicianship and pianistic skills. Observe private and group lessons. Supervised teaching internship required. Offered every other year.

**MUS 356 Marching Band Techniques (1)**

Designed to develop the necessary skills and knowledge needed to organize, administer, plan and teach marching band shows. Clinical experience required.

**MUS 359 Woodwind Class (1)**

Required of all Music majors with vocal, piano and general emphasis. Cover the fundamentals of woodwind instruments and training literature for woodwinds.

**MUS 360 Voice Class (1)**

Beginning instruction in singing. Primarily for the student who is not a voice major. Study will involve the elements of a basic technique for singing and beginning solo repertoire.

**MUS 361 Clarinet and Saxophone Class (1)**

Develop a teaching knowledge of clarinet and saxophone, their problems, functions and possibilities. As a prospective teacher, learn pedagogic and concert literature to understand tone production problems and acquire sufficient skill to demonstrate the instruments.

**MUS 362 Double Reed and Flute Class (1)**

Develop a teaching knowledge of the flute, oboe and bassoon. As a prospective teacher, learn pedagogic and concert literature and sufficient skills to demonstrate the instruments.

**MUS 364 Brass and Percussion Class (2)**

Prerequisite: MUS 102. Develop a teaching knowledge of the brass and percussion instruments. Acquire sufficient playing skill for purposes of demonstration.

**MUS 367 Materials and Techniques for Brass and Percussion (1)**

Required of all music majors with vocal, piano and general music emphasis (B.M.E.). Covers the teaching fundamentals of brass and percussion instruments.

**MUS 403 Acoustics of Music (2)**

A study of the physical properties of sound as compared with the psychoacoustical characteristics of perceived experience. Emphasis is placed on practical applications in music that are of value to the musician.

**MUS 404 Jazz Methods and Materials (1)**

Majors only. An overview of literature, methodologies, and teaching strategies for the junior high/high school music educator. Hands on experience with conducting and rehearsing literature appropriate to the age level.

**MUS 406 UNC String Project Pedagogy and Supervised Teaching Practicum (1-2)**

Consent of Director, UNC String Project. Qualified students are assigned to specific, supervised string teaching assignments. Students are continuously involved in planning/teaching process on a weekly basis, including pedagogical class sessions. Credit hours, not to exceed two per semester, dependent upon classroom/clinical experience hours assigned. Repeatable, no limitations.

**MUS 407 Individual Coaching in Musical Theatre Repertory (2)**

Consent of instructor. Qualified seniors in musical theatre major only. Corequisite: MT 470. Performance experience providing the advanced student with training in integration of music and theatre techniques. Culminates in the musical theatre major's final project.

**MUS 410 Vocal Pedagogy (2)**

An introduction to the science and teaching of singing. Emphasis is placed upon the study of the skeletal system and the muscles involved in breathing and phonation, vocal acoustics and learning theories, past and present.

**MUS 414 Contemporary Issues in Music Education (2)**

Prerequisite: MUS 206 or MUS 310. Full admittance to PTEP required. Designed to examine contemporary issues in music education. Study will include issues such as the inclusion of students with handicapping conditions into the classroom and trends in assessments of musical growth for all students.

**MUS 415 Keyboard Literature I (2)**

Sightreading at Level III or above required. The study of keyboard music from its earliest beginnings through the works of Frederic Chopin and Robert Schumann. Offered every other year.

**MUS 416 Keyboard Literature II (2)**

Sightreading at Level III or above required. Concentrate on keyboard works from Franz Liszt and Johannes Brahms through the Twentieth Century. Offered every other year.

**MUS 421 Small Jazz Ensembles (1)**

Open to any student by audition. Groups consist of a rhythm section plus 3 or 4 horns. Repeatable, no limitations.

**MUS 422 Directed Studies in Music (1-4)**

Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

**MUS 424 Vocal Jazz Ensembles (1)**

Audition required. Each ensemble limited to 20 voices: 4 sopranos, 4 altos, 4 tenors, 4 baritones, 4 basses, plus rhythm section and horns. Sing standard jazz literature; sing scat and deal with contemporary jazz notation. Perform on and off campus. Open to any UNC student. Repeatable, no limitations.

**MUS 425 Jazz Ensemble (1)**

Audition required. For brass, woodwind and rhythm players. Concentrate on jazz idiom music. Get thorough preparation for teaching at both secondary and college levels. Repeatable, no limitations.

**MUS 426 Orchestral Excerpts: Percussion (1)**

Consent of instructor. Emphasis is on professional level performance of standard orchestral literature. Repeatable, no limitations.

**MUS 427 Orchestral Excerpts: Strings (1)**

Consent of instructor. Emphasis is on professional level performance of standard orchestral literature. Separate classes in violin, viola, cello and bass, depending on need. Repeatable, no limitations.

**MUS 428 Orchestral Excerpts: Brass (1)**

Consent of instructor. Emphasis is on professional level performance of standard orchestral literature. Separate excerpts classes in trumpet, horn and low brass offered. Repeatable, no limitations.

**MUS 429 Orchestral Excerpts: Woodwind (1)**

Consent of instructor. Depending on need, separate excerpt classes in bassoon, clarinet, flute and oboe are offered. Repeatable, no limitations.

**MUS 430 String Ensemble (1)**

Small chamber groups that rehearse regularly and are coached by a faculty member. Repeatable, no limitations.

**MUS 431 Brass Ensemble (1)**

Small chamber groups that rehearse regularly and are coached by a faculty member. Repeatable, no limitations.

**MUS 432 Woodwind Ensemble (1)**

Small chamber groups that rehearse regularly and are coached by a faculty member. Repeatable, no limitations.

**MUS 433 Percussion Ensemble (1)**

Small chamber groups that rehearse regularly and are coached by a faculty member. Repeatable, no limitations.

**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. Repeatable, no limitations.

**MUS 444 English Diction (1)**

A course in the performance of English Song Literature with particular emphasis upon the problems of singing in one's own language.

**MUS 445 German Diction (1)**

A course in the performance of 19th and 20th century German art song, with particular emphasis upon style and diction.

**MUS 446 French Diction (1)**

A course in the performance of 19th and 20th century French art song, with particular emphasis upon style and diction.

**MUS 447 Italian Diction (1)**

A course in the performance of songs and airs written before the 19th century, with particular emphasis upon style and diction. Repeatable, no limitations.

**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. Repeatable, no limitations.

**MUS 450 Seminar in Student Teaching for Music Educators (1)**

Full admittance to PTEP required. This seminar is designed to provide student teachers in music education with pertinent information and a support system that will aid them during their field experience.

**MUS 452 Orff Schulwerk and Kodaly Choral Method in American Schools (2)**

Prerequisite: MUS 206 or MUS 310. A comparative study of Orff and Kodaly approaches to teaching music including philosophy, instructional principles, activities and current materials.

**MUS 454 Pedagogical Approaches to Keyboard Literature (2)**

Evaluate various approaches to the study of keyboard literature through student participation in teaching and performing. Repeatable, no limitations.

**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. Repeatable, no limitations.

**MUS 466 Madrigal Singers (1)**

Membership in the Concert Choir required or by special permission. The UNC Madrigal Singers is a highly select group of 16 to 20 performers. The group performs a wide variety of choral chamber works in concerts throughout the year.

**MUS 467 University Symphony Orchestra (1-3)**

Audition required. Comprised of the best string, wind, brass and percussion players. Read and perform standard repertoire of the modern symphony orchestra. Perform concerts regularly both on and off campus. Annually sponsors a Concerto Competition. Repeatable, no limitations.

**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. Repeatable, no limitations.

**MUS 469 Individual Performance in Voice for Those with Non-Voice Emphasis (2-4)**

Consent of instructor. Instruction concentrates on fundamental principles of voice production. Development of rhythmic and melodic accuracy receives primary consideration. Repeatable, no limitations.

**MUS 470 Individual Performance in Voice (2-4)**

Consent of instructor. Repeatable, no limitations.

**MUS 471 Individual Performance in Piano (2-4)**

Consent of instructor. Repeatable, no limitations.

**MUS 472 Individual Performance in Organ (2-4)**

Consent of instructor. Repeatable, no limitations.

**MUS 473 Individual Performance in Strings (2-4)**

Consent of instructor. Repeatable, no limitations.

**MUS 474 Individual Performance in Woodwinds (2-4)**

Consent of instructor. Repeatable, no limitations.

**MUS 475 Individual Performance in Brass (2-4)**

Consent of instructor. Repeatable, no limitations.

**MUS 476 Individual Performance in Percussion (2-4)**

Consent of instructor. Repeatable, no limitations.

**MUS 477 Individual Instruction in Composition (2-4)**

Consent of instructor. Repeatable, no limitations.

**MUS 478 Individual Performance in Harp (2-4)**

Consent of instructor. Repeatable, no limitations.

**MUS 479 Individual Performance in Guitar (2-4)**

Consent of instructor. Repeatable, no limitations.

**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. Repeatable, no limitations.

**MUS 481 Women's Glee Club (1)**

Audition required. Membership in this group of 30-40 singers is open to all female students. The Glee Club performs concerts on campus each semester and joins with the Concert Choir in performance of large masterworks with orchestra. Repeatable, no limitations.

**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. Repeatable, no limitations.

**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. Repeatable, no limitations.

**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. Repeatable, no limitations.

**MUS 486 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. Repeatable, no limitations.

**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. Repeatable, no limitations.

**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. Repeatable, no limitations.

**MUS 489 University Brass Choir (1)**

Audition required. Select performing ensemble of 21 brass and percussion students. Concentrate on literature for brass instrumental media, development of musical sensitivity, phrasing, style and intonation. Major ensemble credit. Repeatable, no limitations.

**MUS 490 Symphonic Band (1-3)**

Audition required. Selected from the finest performers on campus. Although most members are music majors, students specializing in other fields often qualify for this ensemble. Literature is drawn from contemporary and traditional repertoire. Repeatable, no limitations.

**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. Repeatable, no limitations.

**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. Repeatable, no limitations.

**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. Repeatable, no limitations.

**MUS 501 18th Century Counterpoint (2)**

Prerequisite: MUS 202. Study of two- and three-voice counterpoint as found in the invention, canon, fugue and chorale prelude.

**MUS 502 Harmony and Form I (3)**

Study 18th and early 19th century harmonic practice and tonality concepts.

**MUS 503 Harmony and Form II (3)**

Prerequisite: MUS 502 or consent of instructor. The study of late 19th and 20th century harmonic and formal concepts.

**MUS 505 Sixteenth Century Counterpoint (3)**

Study the style of 16th century polyphonic music, emphasizing actual period music as well as theoretical concepts. Compose two-, three- and four-voice motets.

**MUS 506 UNC String Project Pedagogy and Supervised Teaching Practicum (1-2)**

Consent of Director, UNC String Project. Qualified students are assigned to specific, supervised string teaching assignments. Students are continuously involved in planning/teaching process on a weekly basis, including pedagogical class sessions. Credit hours, not to exceed two per semester, dependent upon classroom/clinical experience hours assigned. Repeatable, no limitations.

**MUS 507 History of Instruments and Instrumental Practices (3)**

A historical study of the background and development of musical instruments, with emphasis on the related performance practices.

**MUS 508 Workshop (1-3)**

A variety of workshops on special topics within the discipline. Goals and objectives will emphasize the acquisition of general knowledge and skills in the discipline. Repeatable, no limitations.

**MUS 509 Electronic Music (3)**

Describe materials used in electronic music and the techniques and equipment employed to transform and organize these into compositions. Students learn to use the synthesizer.

**MUS 510 Vocal Pedagogy (2)**

An introduction to the science and teaching of singing. Emphasis is placed upon the study of the skeletal system and the muscles involved in breathing and phonation, vocal acoustics and learning theories, past and present.

**MUS 511 History and Literature of the Wind Band (2)**

A survey of the origins, development and historical significance of the wind band, including an overview of its literature, instrumentation and growth in Europe and in the United States.

**MUS 512 Symphonic Repertoire (2)**

Historical overview of the symphony orchestra and its literature. Addresses questions of style, performance, practice and programming. Includes a unit of study on music for younger orchestras.

**MUS 513 Professional Renewal (1-3)**

Update skills and knowledge of professionals in the discipline. Goals and objectives will be specifically directed at individual professional enhancement rather than the acquisition of general discipline knowledge or methodologies. S/U or letter graded. Repeatable, no limitations.

**MUS 515 Keyboard Literature I (2)**

Sightreading at Level III or above required. The study of keyboard music from its earliest beginnings through the works of Frederic Chopin and Robert Schumann. Offered every other year.

**MUS 516 Keyboard Literature II (2)**

Sightreading at Level III or above required. Concentrate on keyboard works from Franz Liszt and Johannes Brahms through the twentieth century. Offered every other year.

**MUS 519 Foundations of Music Education (3)**

Study historical, philosophical and psychological issues and principles that provide the context for contemporary music education.

**MUS 521 Saxophone Pedagogy (2)**

Consent of instructor. Develop teaching techniques for the saxophone in the areas of performance, style, repertoire, intonation and historical perspective.

**MUS 524 Flute Pedagogy (2)**

Consent of instructor. Majors only. Develop teaching techniques for the flute in the areas of performance, style, repertoire, intonation and historical perspective. Repeatable, no limitations.

**MUS 525 Oboe Pedagogy (2)**

Consent of instructor. Majors only. Develop teaching techniques for the oboe in the areas of performance, style, repertoire, intonation and historical perspective. Repeatable, no limitations.

**MUS 533 Curriculum Trends in Music Education (3)**

Study curriculum trends in music education, including methods of teaching, curriculum development and aesthetic education.

**MUS 534 Acting for Singers (2)**

Instruction in the special needs of the singer/actor: staging of arias, improvisation, freeing the voice through movement.

**MUS 536 German Art Song (3)**

An introduction to the origins of the art song form with in-depth study of the German art song from its historical beginnings through the present day.

**MUS 538 French/Italian Art Song (2)**

Course in the performance of 19th and 20th century French and Italian Art Song with particular emphasis upon style, technical requirements and diction.

**MUS 539 British/American Art Song (2)**

In-depth study of British and American art song. Emphasis will be on research and performance of 20th century materials.

**MUS 542 Jazz Pedagogy (2)**

Graduate and qualified senior music majors only. Takes a pedagogical approach to the analysis of jazz ensemble scores, rehearsal techniques and rhythm sections. Looks at concert planning and audience building.

**MUS 543 Jazz Program Administration, Planning and Development (2)**

Graduate students and qualified senior Music majors. Deal with public relations, grant writing, promotion, programming, recruiting and other aspects of the development of a Jazz Studies Program. Learn planning and follow-through of the annual Jazz Festival.

**MUS 546 Jazz Arranging, Small Ensembles and Big Bands (2)**

Prerequisite: MUS 202 or consent of instructor. Learn the art of calligraphy, the basics for arranging for small jazz ensembles and work with big band scoring.

**MUS 547 Jazz Arranging, Vocal Jazz and Studio Orchestra (2)**

Prerequisite: MUS 546 or consent of instructor. Continuance of MUS 546 with focus on vocal jazz and studio orchestra composition. Performance of material at end of semester by studio orchestra and vocal jazz ensemble.

**MUS 548 Accompanying and Coaching I (2)**

Consent of instructor. Acquaint students with necessary skills for collaborative performance through the study of listening, rhythm, sightreading, technique and 4-hand repertoire. Class performances required. Repeatable, no limitations.

**MUS 549 Accompanying and Coaching II (2)**

Prerequisite: MUS 348/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. Repeatable, no limitations.

**MUS 550 Score Reading and Analysis (1)**

A continuing course dealing with analysis of wind/orchestral/choral literature. Emphasis is placed on relating analysis techniques to preparation and performance of compositions for wind/orchestral/choral ensemble. Literature studied will vary from semester to semester. Repeatable, may be taken four times.

**MUS 551 Individual Performance in Conducting (2)**

Continuing study of advanced problems in instrumental conducting. Emphasis is placed on physical and mental aspects of the art. Regular conducting experience with University ensembles is an integral part of the course. Repeatable, may be taken four times.

**MUS 552 Principles of Piano Teaching I (2)**

Compare current piano methods. Study technical and musical problems with a beginning student. Offered every other year.

**MUS 553 Principles of Piano Teaching II (2)**

Prerequisite: MUS 352/MUS 552 or consent of instructor. A study of the methods of teaching musicianship and pianistic skills. Observe private and group lessons. Supervised teaching internship required. Offered every other year.

**MUS 554 Pedagogical Approaches to Keyboard Literature I (2)**

Evaluate various approaches to the study of keyboard literature through student participation in teaching and performing. Repeatable, no limitations.

**MUS 559 Opera and Oratorio Literature (2)**

Study of the solo repertoire in opera and oratorio literature.

**MUS 560 Opera Directing Seminar (1-3)**

Prerequisites: Previous opera or music theatre performance experience. Consent of instructor. A study of stage directing as it relates specifically to opera literature. This seminar will include selecting repertoire, designing floor plans, stage properties, hand properties, costume needs, make-up needs and most important, the staging itself. All production aspects and direction of specific opera scenes will be studied.

**MUS 564 Problems in Teaching Voice (2)**

Prerequisite: MUS 410/MUS 510 and consent of instructor. Emphasis is placed upon practical aspects of vocal pedagogy: repertoire selection, program building, learning theories and teaching concepts. Advanced studies in vocal acoustics and anatomy and vocal problems are included.

**MUS 565 Principles of Ensemble Intonation (1)**

Examine various tuning temperaments, emphasizing concepts of "just intonation" and its application to all flexible pitched ensembles. Employ electronic tuning devices with practical experience gained through small ensemble participation.

**MUS 580 String Techniques for the Conductor (2)**

The conductor will acquire the necessary skills to make musical and technical decisions based on a thorough understanding of orchestral string techniques.

**MUS 585 Advanced Jazz Improvisation (2)**

Consent of instructor. Develop skills in advanced jazz improvisation. Prepare highly chromatic material at various tempi. Study advanced jazz theory principles and apply to keyboard and other instrumental and vocal disciplines. Use music technology to enhance these skills. Course content will change each semester. Repeatable, no limitations.

**MUS 600 Introduction to Musical Scholarship (2)**

An introduction to writing and scholarly research problems in music. Attitudes and aims of the music scholar, studies in bibliography, reference materials, sources, editions, oral and written reports, reviews, outline procedures and various types of research included. Required of all Masters of Music candidates. Must be taken as early as possible.

**MUS 603 Analytical Studies in Music (3)**

Master of traditional harmony required. Students analyze the structure of music.

**MUS 604 Seminar in Schenker Analysis (2)**

A study of the application of the ideas of Heinrich Schenker to music analysis, performance and music theory.

**MUS 606 Graduate Seminar in Elementary School Music (3)**

Graduate standing and previous school music teaching experience. Broaden individual perspectives regarding content, materials, methodology and philosophy of teaching and learning general music in elementary schools.

**MUS 607 Graduate Seminar in Junior and Senior High School Instrumental Music (3)**

Address problems encountered by instrumental music teachers in public schools. Participate as a contributor or lecturer on topics chosen by class.

**MUS 609 Graduate Seminar in Middle and Junior High Choral and General Music (3)**

Graduate standing and school music teaching experience. Discover materials, methodologies, philosophies and trends in teaching choral and general music at these levels.

**MUS 610 Research in Music Education (3)**

Develop concepts and skills that will enable the music educator to understand and evaluate research in music education. Study the design and techniques of empirical research in music education. Complete a research study to present for publication consideration.

**MUS 611 Comprehensive Musicianship in High School Choral Performing Groups (3)**

Make a comprehensive study of choral literature for high school performing groups, emphasizing the style, history, analysis, conducting, rehearsal techniques and performance of literature.

**MUS 614 Seminar in Administration and Coordination of the School Music Program (3)**

Graduate standing and school music teaching experience. Overview problems of organizing, administering and coordinating K-12 music programs, including curriculum, teacher growth, scheduling, budget and public relations.

**MUS 621 Small Jazz Ensembles (1)**

Open to any student by audition. Groups consist of rhythm section plus 3 or 4 horns. Groups are listed in Music degree section of this Catalog. Repeatable, no limitations.

**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 of 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. Repeatable, no limitations.

**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. Repeatable, no limitations.

**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. Repeatable, no limitations.

**MUS 630 String Ensemble (1)**

Small chamber groups that rehearse regularly and are coached by a faculty member. Repeatable, no limitations.

**MUS 631 Brass Ensemble (1)**

Small chamber groups that rehearse regularly and are coached by a faculty member. Repeatable, no limitations.

**MUS 632 Woodwind Ensemble (1)**

Small chamber groups that rehearse regularly and are coached by a faculty member. Repeatable, no limitations.

**MUS 633 Percussion Ensemble (1)**

Small chamber groups that rehearse regularly and are coached by a faculty member. Repeatable, no limitations.

**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. Repeatable, no limitations.

**MUS 643 Seminar: Medieval Music (3)**

A study of musical style in its historical, theoretical and practical aspects during the Middle Ages.

**MUS 644 Seminar: Music in the Renaissance (3)**

A cultural and historical examination of music and musical style during the 15th and 16th centuries. Flemish composers, the Madrigal, the Venetian School and similar subjects will receive special attention.

**MUS 645 Seminar: The Baroque Period (3)**

Music from 1600 to 1750. Investigate opera from Florentine beginnings in 1600, through Venetian, Neapolitan and French styles to 1750; growth of chamber, orchestral and solo instrumental music, religious vocal music and principal forms.

**MUS 646 Seminar: The Classic Period (3)**

Historical and cultural influences bearing upon emergence of 18th century classicism in music. The composers, representative works, forms, styles and media of the Classic era.

**MUS 647 Seminar: The Romantic Period (3)**

Representative composers, musical styles, works, related literary movements, aesthetic theories and musical criticism of the period will be researched and discussed.

**MUS 648 Seminar: Music in the Twentieth Century (3)**

A study of the major trends in the music of the twentieth century accompanied by an investigation into their social and cultural bases. The technical aspects of twentieth century music are more thoroughly investigated in the companion course, MUS 503.

**MUS 650 Seminar: Choral Music (2)**

A seminar to allow discussion of a variety of subjects related to choral literature. Individual projects will be assigned, calling for creative research.

**MUS 653 Vocal Literature and Styles (3)**

A study of the stylistic, aesthetic and repertorial aspects of vocal music, including opera and choral music, through the various historical periods in music.

**MUS 657 Instrumental Literature and Styles (3)**

A study of the stylistic, aesthetic and repertorial aspects of instrumental music, including orchestral and chamber music, through the various historical periods in music.

**MUS 658 Brass Pedagogy (3)**

Prerequisite: MUS 364 or consent of instructor. In-depth study of brass materials and performance techniques. Class is designed to help solve specific brass teaching problems encountered by the experienced teacher at the K-12 and college levels.

**MUS 661 Percussion Pedagogy (2)**

Prerequisite: MUS 364 or consent of instructor. Explore advanced techniques, methods and materials related to all the percussion instruments.

**MUS 662 Woodwind Pedagogy (2)**

Prerequisites: MUS 361, MUS 362 or consent of instructor. Majors only. In depth study of teaching material and techniques related to the flute, clarinet, saxophone, oboe and bassoon. Designed to explore the problems and solutions encountered by the teacher of woodwind instruments at the K-12 level.

**MUS 665 Individual Performance in Collaborative Piano (2-4)**

Prerequisites: MUS 348, MUS 349 and MUS 465 or consent of instructor. In-depth study of repertoire and refinement of skills for the collaborative pianist. Repeatable, no limitations.

**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. Repeatable, no limitations.

**MUS 667 University Symphony Orchestra (1-3)**

Audition required. Comprised of the best string, wind, brass and percussion players. Read and perform standard repertoire of modern symphony orchestra. Perform concerts regularly both on and off campus. Annually sponsors a Concerto Competition. Repeatable, no limitations.

**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. Repeatable, no limitations.

**MUS 669 Individual Performance in Voice for Those with Non-Voice Emphasis (2-4)**

Consent of instructor. Instruction concentrates on fundamental principles of voice production. Development of rhythmic and melodic accuracy receives primary consideration. Repeatable, no limitations.

**MUS 670 Individual Performance in Voice (2-4)**

Consent of instructor. Repeatable, no limitations.

**MUS 671 Individual Performance in Piano (2-4)**

Consent of instructor. Repeatable, no limitations.

**MUS 672 Individual Performance in Organ (2-4)**

Consent of instructor. Repeatable, no limitations.

**MUS 673 Individual Performance in Strings (2-4)**

Consent of instructor. Repeatable, no limitations.

**MUS 674 Individual Performance in Woodwinds (2-4)**

Consent of instructor. Repeatable, no limitations.

**MUS 675 Individual Performance in Brass (2-4)**

Consent of instructor. Repeatable, no limitations.

**MUS 676 Individual Performance in Percussion (2-4)**

Consent of instructor. Repeatable, no limitations.

**MUS 677 Individual Instruction in Composition (2-4)**

Consent of instructor. Repeatable, no limitations.

**MUS 678 Individual Performance in Harp (2-4)**

Consent of instructor. Repeatable, no limitations.

**MUS 679 Individual Performance in Guitar (2-4)**

Consent of instructor. Repeatable, no limitations.

**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. Repeatable, no limitations.

**MUS 681 Women's Glee Club (1)**

Audition required. Membership in this group of 30-40 singers is open to all female students. The Glee Club performs concerts on campus each semester and joins with the Concert Choir in performance of large masterworks with orchestra. Repeatable, no limitations.

**MUS 682 University Singers (1)**

Audition required. Membership in Concert Choir required or consent of instructor. This select group of 25 singers performs an extremely varied repertoire from Renaissance motets to contemporary works. Repeatable, no limitations.

**MUS 684 Men's Glee Club (1)**

Audition required. Open to all University men, this group performs often on campus and in the community, in addition to touring within the state. The Men's Glee Club sings a wide variety of literature from sacred anthems to spirituals, folk songs and popular music. Repeatable, no limitations.

**MUS 685 Performance in Opera Theatre (1-12)**

Audition required. Practical experience in the production and performance of a complete operatic work. Techniques of acting, singing, character analysis and stage direction will be studied. Repeatable, no limitations.

**MUS 686 Scene Studies in Opera (1-3)**

Audition required. Studying techniques of acting, singing, character analysis and stage department through the staging and performing of selected opera scenes and arias. Repeatable, no limitations.

**MUS 687 Summer Symphonic Band (1-3)**

Audition required. Open to all students interested in performing the highest quality literature available. The Summer Season consists of five outdoor concerts. Repeatable, no limitations.

**MUS 688 Concert Band (1-3)**

Audition required. Comprised of music majors and students from other disciplines. Members perform a wide variety of interesting literature selected from standard and current repertoire. Repeatable, no limitations.

**MUS 689 University Brass Choir (1)**

Select performing ensemble of 21 brass and percussion students. Concentrate on literature from brass instrumental media. Develop musical sensitivity, phrasing, style and intonation. Major ensemble credit. Repeatable, no limitations.

**MUS 690 Symphonic Band (1-3)**

Audition required. Selected from the finest performers on campus. Although most members are music majors, students specializing in other fields often qualify for this ensemble. Literature is drawn from contemporary and traditional repertoire. Repeatable, no limitations.

**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. Repeatable, no limitations.

**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. Repeatable, no limitations.

**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. Repeatable, no limitations.

**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. Repeatable, no limitations.

**MUS 699 Thesis (1-6)**

Required of Master of Music Education students pursuing Track IV and Master of Music students majoring in Theory and Composition. Consult respective department for specific requirements. S/U graded. Repeatable, no limitations.

**MUS 700 Introduction to Doctoral Research (3)**

Analytical studies in music writing and research techniques for dissertation and field studies; survey critical problems in music; prepare research and proposal outlines.

**MUS 794 Supervised Practicum in College Teaching (2)**

Observe and practice college teaching under supervision and as a basis for analysis of learning experiences. Repeatable, maximum six credits.

**MUS 797 Doctoral Proposal Research (1-4)**

Required of all doctoral students. Repeatable, maximum of four credits.

**MUS 799 Doctoral Dissertation (1-12)**

Required of all doctoral candidates. Repeatable, no limitations.

**NURS - NURSING****NURS 200 Women's Health Care (3)**

For students of any major. Examines women's health care concerns over the adult life span and the accompanying psychological, sociological and cultural implications. Includes an historical perspective.

**NURS 310 Foundations of Professional Practice I (3)**

Majors only. Admission into clinical program. Explores the roles of the professional nurse in multidimensional health care settings. Concepts of professionalism, accountability and theory-based practice are introduced.

**NURS 312 Health Assessment (3)**

Corequisite: NURS 314. Majors only. Admission into clinical program. A theoretical health assessment course for healthy individuals and their families. It focuses on physical, mental, developmental and cultural appraisals.

**NURS 314 Health Assessment Practicum (1)**

Corequisite: NURS 312. Majors only. Application of health assessment techniques for individuals and their families. Involves skills lab practice.

**NURS 317 HIV/AIDS Issues in Health Care (1)**

Clinical level nursing student, RN, LPN or other health care professionals. Emphasizes psychosocial, ethical, legal and policy issues related to HIV/AIDS. Public health interventions will be explored and evaluated and the role of the health care professional. S/U graded.

**NURS 318 Health Care Systems (3)**

For students of any major. Introduces the concepts of health and health care systems: explores philosophical, historical, political and professional relationships that exist in health care delivery.

**NURS 319 Cultural Issues in Health Care (1)**

Identifies social and cultural influences on health care and emphasizes the application of transcultural theory concepts to nursing practice. S/U graded.

**NURS 320 Basic EKG Interpretation (2)**  
Prerequisites: ZOO 341, ZOO 350.  
Clinical level nursing student or RN. An introduction to the basic concepts of EKG and arrhythmias recognition. S/U or letter graded.

**NURS 321 Interpretation of Laboratory Data (1)**  
Clinical majors or consent of instructor. Designed to assist the nurse in understanding laboratory data. Emphasis is placed on those tests utilized for health promotion, maintenance and monitoring of disease progress.

**NURS 324 Therapeutic Interventions (4)**  
Clinical nursing majors only. Emphasis is on therapeutic interventions appropriate for individuals, families and communities across the life span in a variety of settings, focusing on psychomotor and communication skills. S/U graded.

**NURS 326 Pathophysiology (3)**  
Prerequisite: A previous basic anatomy and physiology course. A systems approach to alteration and disruption of physiologic functions. Focus on differentiation of pathophysiological findings and identification of treatment modalities.

**NURS 328 Health Assessment (for RNs only) (4)**  
Consent of instructor. A health assessment course for RNs which focuses on healthy individuals, families, and communities with particular emphasis on family and beginning community appraisal.

**NURS 335 Foundations of Professional Practice II (3)**  
Prerequisites: STAT 250, ENG 123. Majors only. Develops beginning research skills in relationship to the health outcomes throughout the lifespan. The emphasis will be on research, education and culture.

**NURS 354 Healthy Individuals and Families Practicum (6)**  
Corequisite: NURS 355. Majors only. Completion of Semester I courses. Provides clinical opportunities for health promotion, disease prevention and therapeutic interventions for healthy individuals across the lifespan and their families within their communities. S/U graded.

**NURS 355 Healthy Individuals and Families Across the Lifespan (4)**  
Corequisite: NURS 354. Majors only. Completion of Semester I courses. Explores the role of nursing in health promotion, disease prevention, and therapeutic interventions for healthy individuals across the lifespan and families within their communities.

**NURS 384 Episodic Alterations in Adult/Child Health Practicum (7)**  
Corequisite: NURS 385, NURS 386. Majors only. This course focuses on the application of the therapeutic intervention guided by application of the nursing process in the acute, episodic care of individuals and their families across the lifespan. S/U graded.

**NURS 385 Episodic Alterations in Adult/Child Health I (4)**  
Corequisite: NURS 384, NURS 386. Majors only. Completion of Semester II courses. Emphasis is on understanding of therapeutic interventions guided by the nursing process to maximize self-care capabilities in the episodic care of children, adults and their families.

**NURS 386 Episodic Alterations in Adult/Child Health II (4)**  
Corequisite: NURS 384, NURS 385. Majors only. Completion of Semester 1 and 2 courses. Emphasis is on further understanding of therapeutic interventions guided by the nursing process to maximize self-care capabilities in the episodic care of children, adults and their families.

**NURS 391 Standards and Practice of Intravenous Therapy (1)**  
Prerequisites: completion of Semester III/ RN. Theory and practice related to peripheral and central intravenous therapy for the professional RN student/ RN. IV medication administration and current standard of care in IV therapy will be addressed. S/U graded.

**NURS 404 Community and Public Health Nursing Practicum (3)**  
Corequisite: NURS 405. Majors only. Therapeutic nursing interventions applied to community and public health nursing for families, communities and populations. Emphasis on application of concepts of health maintenance, health promotion and disease prevention.

**NURS 405 Community and Public Health Nursing (3)**  
Corequisite: NURS 404. Majors only. completion of Semester III courses. Nursing theory applied to community and public health concepts. Focuses on principles of health maintenance, health promotion and disease prevention for families, communities and populations.

**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)**  
Qualified undergraduate students will conduct original research or implement the utilization of nursing research in clinical practice. Repeatable, maximum five credits.

**NURS 410 Foundations of Professional Practice III (3)**  
Majors only. Completion of Semester II courses. This course emphasizes issues in professional nursing as they relate to the changing health care environment. Students will utilize principles of change, qualitative research, policy and politics.

**NURS 414 Psychiatric Mental Health Nursing Practicum (3)**  
Corequisite: NURS 415. Majors only. Nursing intervention for clients with psychiatric disorders. Emphasis is on nursing process for continued development of therapeutic skills in caring for acute and chronic psychiatric disorders. S/U Graded.

**NURS 415 Psychiatric Mental Health Nursing (3)**  
Corequisite: NURS 414. Majors only. Completion of Semester III courses. Nursing theory applied to biological, psychological and sociocultural dimensions of mental health care. Concepts of chronic illness are introduced and applied to select care problems.

**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 435 Foundations of Professional Practice IV (3)**  
Majors only. Completion of Semester III courses. The emphasis of this course is on the nurse as leader/manager in society with respect to current issues and trends.

**NURS 453 Community Health Nursing for RNs (4)**  
Majors only. Admission into clinical nursing program. Nursing theory applied to chronic illness and community health concepts. A focus will be placed on nursing management and facilitation of optimal health for individuals, families and communities.

**NURS 454 Community Health Nursing Practicum for RNs (4)**  
Majors only. Admission into clinical program. This course focuses on therapeutic nursing interventions applied to chronic illness management and community health nursing. An emphasis will be placed on case management of complex and chronic health problems in community settings. S/U graded.

**NURS 455 Hemodynamic Monitoring (2)**  
Clinical nursing major or RN status. An overview of hemodynamic monitoring with emphasis on nursing management of the patient being monitored. S/U or letter graded.

**NURS 464 Professional Roles for RNs (5)**

Majors only. Admission into clinical program. A combination of seminar and preceptored practicum that provides socialization into the role set of the professional nurse with an emphasis on leadership and management. S/U graded.

**NURS 465 Professional Roles with Individuals, Families and Communities (10)**

Majors only. Completion of Semester IV courses. A combination of seminar and preceptored practicum that provides socialization into the role set of the professional nurse with an emphasis on leadership and management. S/U graded

**NURS 471 Care of the Terminally Ill (1)**

Admission to Clinical Level III required. Discuss historical and contemporary attitudes toward death and dying. Examines clinical management techniques used in symptom control. Explore emotional and spiritual concerns. Analyze professional, organizational and societal factors. S/U graded.

**NURS 505 Nursing Research (3)**

Introduction of advanced research and methodology. Critique of selected nursing research projects to determine cost effective outcome, relevance to nursing practice, contribution to theory development.

**NURS 507 Leadership and Nursing Issues (3)**

Involves comprehensive investigation and analysis of health care issues and leadership theory and skills which are imperative in today's health care environment.

**NURS 508 Workshop (1-3)**

A variety of workshops on special topics within the discipline. Goals and objectives will emphasize the acquisition of general knowledge and skills in the discipline. Repeatable, under different subtitles.

**NURS 510 Concepts in Transcultural Nursing (3)**

For seniors, post-B.S. or M.S. in nursing students. Summers only. Focuses on transcultural nursing and cultural assessment for the purpose of providing culturally congruent and competent nursing care. Describes culture care beliefs, values and practices of specific cultures.

**NURS 511 Advanced Transcultural Nursing and Research (2)**

Prerequisites: NURS 510 and a graduate elective; ANT 580 or SRM 680 or others with instructor approval. Summers only. The use of ethnonursing, ethnography and other qualitative research methods to generate and analyze cultural differences and similarities in care, health beliefs, values and practice of various cultures.

**NURS 512 Transcultural Nursing Field Experience (2-3)**

Pre or Co-requisite: NURS 511. Summers only. The application of the ethnonursing research methodology to analyze differences and similarities within a cultural experience as determined by the student and faculty. S/U graded.

**NURS 513 Professional Renewal (1-3)**

Update skills and knowledge of professionals in the discipline. Goals and objectives will be specifically directed at individual professional enhancement rather than the acquisition of general discipline knowledge or methodologies. S/U or letter graded. Repeatable, under different subtitles.

**NURS 595 Special Topics (1-3)**

Graduate students only. Intensive study of advanced nursing topics beyond the scope of existing departmental course offerings. Two copies of scholarly paper must be filed before credit is given. Repeatable, under different subtitles.

**NURS 600 Nursing Theory (3)**

Admission to Master's Program required. Introduction to theoretical foundations for advanced nursing practice. Application of theory to clinical nursing practice and to nursing education. Emphasis on the development, application and critique of nursing models.

**NURS 602 Concepts in Chronic Illness (4)**

Admission to master's program required. Required laboratory arranged. The impact of chronic illness across the lifespan is examined using a conceptual approach. Health promotion and illness management are emphasized through case management care delivery.

**NURS 604 Care of Chronically Ill Adult and Child (4)**

Prerequisites: NURS 600, NURS 602; NURS 505 or take concurrently. Required laboratory arranged. Application of the nursing process and case management is examined in the development of health promotion and illness management strategies for the chronically ill adult and child.

**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 (4)**

Examine clinical pharmacokinetics and pharmacotherapeutics. Focus on selected drug groups and their safe and appropriate utilization in primary care practice.

**NURS 614 Advanced Pathophysiology (3)**

Focus on pathophysiology, symptomology and etiology of commonly encountered acute and chronic clinical entities of children and adults.

**NURS 622 Directed Studies (1-3)**

Graduate students only. Individualized investigation under the supervision of a faculty member. Two copies of scholarly paper must be filed before credit is given. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

**NURS 630 Teaching Strategies in Nursing (3)**

Prerequisites: EPSY 540, EPSY 674. Practice teaching of nursing students, practicing nurses and/or clients. Analyze teaching strategies in academic and clinical settings.

**NURS 640 Health Care of Families I (4)**

Majors only. Required laboratory arranged. Prerequisites: NURS 600, NURS 610, NURS 612 and NURS 614. Application of theoretical and research based developmental approaches to primary health care of families with particular emphasis on childhood/adolescence.

**NURS 645 Health Care of Families II (4)**

Majors only. Required laboratory arranged. Prerequisites: NURS 600, NURS 612 and NURS 614. 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. 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 (4)**

Prerequisites: EPSY 540 or equivalent. Synthesis of concepts from nursing theory, research and education courses. Experience with curriculum development and analysis.

**NURS 680 Advanced Practice Role Practicum (9)**

Corequisite: NURS 690. Graduates and Majors only. Final clinical experience (24-32 hours per week) provides students an opportunity to practice advanced roles intervention in underserved and/or rural areas. S/U graded.

**NURS 690 Advanced Professional Role (2-3)**

Prerequisites: NURS 602, NURS 604, NURS 650. Majors only. Advanced practice role development in health maintenance and illness management is examined from several perspectives.

**NURS 691 Applied Nursing Research (3)**

Majors only. Application of concepts from graduate research in a completed scholarly project, under direction of a graduate faculty member.

**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.

**NURS 780 The Professorial Role in Nursing Education (3)**

Prerequisite: Licensed RN and accepted into doctoral program. Involves comprehensive investigation of the academic nursing role in higher education relative to administration, student issues, program requirements and faculty expectations.

**NURS 790 Advanced Academic Nursing Roles (2-3)**

Prerequisite: Licensed RN and accepted into doctoral program. The emphasis of this course is on direct responsibility/accountability for experience in the role of academic clinical and didactic teaching or administrative roles.

**OCN - OCEANOGRAPHY****OCN 110 Our Ocean Systems (3)**

A general education course that examines the ocean environment and its impact on people. Topics include description and dynamics of the ocean systems, marine exploration, international political issues, marine food and mineral resources, coastal erosion, pollution and recent technological developments.

**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.

**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.

**OCN 302 Geological and Biological Oceanography (4)**

(3 lecture, 2 laboratory) Geological and biological aspects of the ocean including origin of oceans and ocean floors, marine sediments and geomorphology, distribution and ecology of marine organisms and ocean productivity. Required field trip.

**OCN 422 Directed Studies (1-4)**

Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

**OCN 500 Survey of Oceanography (3)**

Principles of oceanography from a non-mathematical approach. Physical features of water, currents, geological features of sea floors, life, food and mineral resources, recent technological developments and international political implications.

**OCN 622 Directed Studies (1-4)**

Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

**PE - PHYSICAL EDUCATION**

Courses numbered 100 to 195 have Repeatable, no limitations.

**PE 100 Basketball (1)**

Gain knowledge and skill in the game of basketball.

**PE 101 Flag Football (1)**

Gain knowledge and skill in the game of flag football.

**PE 102 Soccer (1)**

Gain knowledge and skill in the game of soccer.

**PE 103 Softball (1)**

Gain knowledge and skill in the game of softball.

**PE 104 Volleyball (1)**

Gain knowledge and skill in the game of volleyball.

**PE 110 Badminton (1)**

Gain knowledge and skill in the game of badminton.

**PE 111 Bowling (1)**

Gain knowledge and skill in the game of bowling. Participation fee.

**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. Participation fee.

**PE 115 In-Line Skating (1)**

Gain knowledge and skill in the activity of in-line 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.

**PE 117 Racquetball (1)**

Gain knowledge and skill in the game of racquetball. Participation fee.

**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.

**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.

**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.

**PE 127 Cross-Country Skiing (1)**

Gain knowledge and skill in the activity of cross-country skiing. Participation fee.

**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. Participation fee.

**PE 130 Kayaking (1)**

Gain knowledge and skill in the activity of kayaking. Participation fee.

**PE 131 Orienteering (1)**

Gain knowledge and skill in the activities of orienteering.

**PE 132 Challenge Ropes Course (1)**

Students will participate in high and low level rope adventure activities.

**PE 133 Scuba Diving (1)**

Gain knowledge and skill in the activity of scuba diving. Participation fee.

**PE 134 Self Defense (1)**

Gain knowledge and skill in the activity of self defense.

**PE 135 Rock Climbing (1)**

Gain knowledge and skill in the activity of technical climbing.

**PE 136 Intermediate Challenge Ropes Course (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.

**PE 137 Outdoor Activities (2)**

Designed to acquaint physical education majors with outdoor activities as appropriate by season, e.g., backpacking and orienteering, that are appropriate for school settings.

**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.

**PE 147 Aquacize (1)**

Improve personal skills and fitness through aquacize activities.

**PE 148 Exercise and Weight Control (1)**

Improve personal skills and fitness through exercise and weight control activities.

**PE 149 Fitness and Conditioning (1)**

Improve personal skills and fitness through fitness and conditioning activities.

**PE 150 Jogging and Walking (1)**

Improve personal skills and fitness through jogging and walking.

**PE 152 Swimming Conditioning (1)**

Improve personal skills and fitness through swimming activities.

**PE 153 Weight Training (1)**

Improve personal skills and fitness through weight training activities.

**PE 165 American Square and Folk Dance (1)**

Gain knowledge and skill in the activity of square and folk dance.

**PE 169 Gymnastics (1)**

Gain knowledge and skill in the activity of gymnastics

**PE 174 Social Dance (1)**

Gain knowledge and skill in social dance. Includes traditional dance steps: polka, foxtrot, waltz, two-step; Latin American Rhythms: Cha Cha, Rhumba, Tango; country swing and swing, social etiquette and mixers.

**PE 185 Varsity Baseball (1)**

Consent of instructor. Participate in the sport of varsity baseball.

**PE 186 Varsity Basketball (1)**

Consent of instructor. Participate in the sport of varsity basketball.

**PE 187 Varsity Football (1)**

Consent of instructor. Participate in the sport of varsity football.

**PE 190 Varsity Swimming (1)**

Consent of instructor. Participate in the sport of varsity swimming.

**PE 191 Varsity Tennis (1)**

Consent of instructor. Participate in the sport of varsity tennis.

**PE 192 Varsity Track and Field (1)**

Consent of instructor. Participate in the sport of varsity track.

**PE 193 Varsity Volleyball (1)**

Consent of instructor. Participate in the sport of varsity volleyball.

**PE 194 Varsity Wrestling (1)**

Consent of instructor. Participate in the sport of varsity wrestling.

**PE 195 Varsity Women's Soccer (1)**

Participate in Varsity Women's Soccer.

**PE 200 Weight Training and Conditioning (1)**

Prerequisite: KINE 220. Majors and minors only. Motor skill acquisition, advanced techniques, and knowledge appropriate for the successful participation and instruction in strength training activities and conditioning.

**PE 201 Track and Field (1)**

Majors and minors only. To teach the rules, training principles, techniques, movement skills, and analyses of the sport of track and field to professional preparation candidates completing a physical education major.

**PE 209 Dance Activities (1)**

Majors and minors only. Presents a wide variety of types of dance appropriate for physical education experiences above the elementary level. The focus is on basic rhythmical analyses for traditional social, American folk and square, and current popular dance forms.

**PE 210 Developmentally Appropriate Elementary Activities (3)**

Majors and minors only. Exploration, participation, and analysis of broad-based variety of physical activities that promote an optimal childhood development of movement foundations.

**PE 232 Pedagogy of Outdoor Physical Education (3)**

Designed to explore the history, principles, philosophy and pedagogy of outdoor physical education. Topics will include environmental understanding outdoor hazards and emergency procedures, planning and conducting outdoor physical education activities, and equipment, clothing, training, and nourishment.

**PE 233 Advanced First Aid and Cardiopulmonary Resuscitation (2)**

Provide advanced and additional topics relative to first aid, i.e., increase proficiency skills, update CPR knowledge, increase knowledge in preventive and causative factors of injury and illness.

**PE 234 Analysis and Teaching of Cycling (2)**

Prerequisite: PE 232 or equivalent. Develop students' knowledge and skills in teaching bicycle touring, cycling and mountain biking. Focus on approaches and methodology of teaching and leading bike touring. Bike racing will also be introduced.

**PE 235 Analysis and Teaching of Backcountry Skiing (2)**

Prerequisite: PE 232 or equivalent. Develop students' skills and knowledge in teaching backcountry skiing. Cross-country, telemark, nordic and back-country skiing included.

**PE 236 Analysis and Teaching of Technical Rock Climbing (2)**

Prerequisite: PE 232 or equivalent. Develop knowledge and techniques for teaching technical rock climbing, particularly top-rope climbing experiences.

**PE 237 Analysis and Teaching of Paddle Sports (2)**

Prerequisite: PE 232 or equivalent. Focuses on approaches and methodology of teaching and leading safe lake and river travel. Students learn about paddle techniques for lakes and rivers, minimum impact camping and wilderness canoeing.

**PE 238 Analysis and Teaching of Winter Camping (2)**

Prerequisite: PE 232 or equivalent. Focuses on approaches and methodology of teaching and leading safe winter travel experiences. Students learn about winter environments, snow mechanics, avalanche prediction, winter camping and back country ski expeditions.

**PE 239 Analysis and Teaching of Backpacking (2)**

Prerequisite: PE 232 or equivalent. Focuses on approaches and methodology of teaching and leading safe backpacking and wilderness travel experiences. Students learn backpacking skills, wilderness camping, navigation skills and minimum impact camping techniques.

**PE 240 Games I (2)**

Majors and minors only. Facilitates enhanced performance, analysis, and tactical understanding of invasion games (e.g., basketball, soccer, lacrosse, football, speedball, ultimate frisbee, hockey).

**PE 241 Games II (2)**

Majors and minors only. Facilitates enhanced performance, analysis, and tactical understanding of Net/Wall games (e.g., tennis, volleyball, badminton).

**PE 242 Games III (2)**

Majors and minors only. Facilitates enhanced performance, analysis, and tactical understanding of base/run scoring (e.g., softball, baseball, cricket) and target (golf, boccie, frisbee golf) games.

**PE 266 Introduction to Physical Education as a Profession (3)**

Prerequisites: PTEP oral proficiency requirements, 2.5 overall GPA, and 2.7 major GPA. Corequisites: EDFE 170 and EDF 366. Majors and minors only. Focus on historical and current issues and philosophical perspectives of physical education, sport, and fitness. Implications for today's physical education programs will be identified and discussed.

**PE 288 Physical Education Activities for the Elementary School (1)**

Elementary Majors and minors only. Full PTEP admittance required. Study of effective teaching, learning theories, basic movement principles and activities included in a quality, well-rounded program of physical education in the elementary school.

**PE 312 Coaching and Officiating of Baseball (2)**

Study techniques and strategies of coaching competitive baseball and obtain background and understanding of rules and techniques of baseball officiating.

**PE 313 Coaching and Officiating of Basketball (2)**

Study techniques and strategies of coaching competitive basketball and obtain background and understanding of rules and techniques of basketball officiating.

**PE 314 Coaching and Officiating of Football (2)**

Study techniques and strategies of coaching football and obtain background and understanding of rules and techniques of football officiating.

**PE 315 Coaching and Officiating of Gymnastics (2)**

Study techniques and strategies of coaching competitive gymnastics and obtain background and understanding of rules and techniques of gymnastics officiating.

**PE 316 Coaching and Officiating Tennis (2)**

Study techniques and strategies of coaching competitive tennis and obtain background and understanding of rules and techniques of tennis officiating.

**PE 317 Coaching and Officiating of Track and Field (2)**

Study techniques and strategies of coaching competitive track and field and obtain background and understanding of rules and techniques of track and field officiating.

**PE 318 Coaching and Officiating of Soccer (2)**

Study techniques and strategies of coaching competitive soccer and obtain background and understanding of rules and techniques of soccer 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 322 or equivalent. Study methods and techniques of teaching all types of fitness activities. Class management/organization, giving cues and feedback, and motivational techniques will be included, as well as instructional strategies.

**PE 335 Sports Pedagogy (2)**

Designed to analyze and study teaching and coaching behaviors that are necessary for students interested in the coaching profession.

**PE 340 Planning and Instructional Design (3)**

Prerequisites: PE 266, PE 240; plus six (6) other activity credits; and PLACE Basic Skills test passed. Majors and minors only. This course is the introductory course in a sequence of professional teaching skills courses. Emphasis is to identify and develop the beginning teaching skills that are necessary for effective instruction in physical education and other sport settings. Laboratory provides application of principles.

**PE 341 Learner Assessment and Physical Education Technology (3)**

Prerequisite: PE 340. Majors and minors only. A conceptual and practical understanding of alternative and traditional assessment of student learning in school physical education. Emphasis will be on formal and informal assessment and technological strategies that enhance learning, assess performance, provide feedback, and communicate progress.

**PE 342 Teaching Health-Related Fitness (3)**

Prerequisites: KINE 220, KINE 322 and Full admittance to PTEP required. Majors and minors only. Facilitates future teacher's knowledge, skills appreciation and confidence needed to lead school-aged children in the development of active healthy lives.

**PE 344 Clinical Experience in Teaching Physical Education (3)**

Corequisites: PE 345, PE 346 and PE 347. Full admittance 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 admittance 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 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, may be taken two times.

**PE 400 Wilderness First Responder/CPR (3)**

(3 lecture, 1 laboratory) Designed to provide outdoor teachers, leaders, guides, rangers and travelers with the knowledge needed to deal with emergencies in remote settings. It is an 80-hour curriculum that includes standards for urban and extended care situation. Emphasis is placed on prevention and decision making. Successful completion of this course will certify students as a Wilderness First Responder.

**PE 408 Workshop in Physical Education (1-3)**

Study in the problem areas of participants. Problems will vary with experts conducting workshops. S/U or letter graded. Repeatable, under different subtitles.

**PE 422 Directed Studies (1-3)**

Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

**PE 440 Developing Pedagogical Skills in Elementary Physical Education (3)**

Prerequisites: KINE 323, PE 210, PE 340, and Full admittance to PTEP required. Majors and minors only. Course is the second in the sequence of professional teaching courses in physical education. Purpose is to develop skills and knowledge related to teaching physical education to young children. Laboratory provides application of principles.

**PE 442 Developing Pedagogical Skills in Secondary Physical Education (3)**

Prerequisite: PE 440. Majors and minors only. Course is the third in the sequence of professional teaching courses in physical education. Designed to provide the preservice physical education teacher with the theoretical knowledge and the practical experiences required to successfully teach in the secondary schools settings. Laboratory provides application of principles.

**PE 444 Teaching Diverse Populations (3)**

Prerequisites: Full admittance to PTEP required. PE 340, and PE 342. Majors and minors only. Acquire methods and techniques for teaching individuals with special needs in physical education settings.

**PE 461 Administration and Law (3)**

Juniors or above. This course is designed to introduce the student to the legal and administrative principles involved in physical education teaching and coaching and working in recreational settings.

**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 500 Wilderness First Responder/CPR (3)**

Designed to provide outdoor teachers, leaders, guides, rangers and travelers with the knowledge needed to deal with emergencies in remote settings. It is an 80-hour curriculum that includes standards for urban and extended care situations. Emphasis is placed on prevention and decision making. Successful completion of this course will certify students as a Wilderness First Responder.

**PE 508 Workshop (1-3)**

A variety of workshops on special topics within the discipline. Goals and objectives will emphasize the acquisition of general knowledge and skills in the discipline. Repeatable, under different subtitles.

**PE 513 Professional Renewal (1-3)**

Update skills and knowledge of professionals in the discipline. Goals and objectives will be specifically directed at individual professional enhancement rather than the acquisition of general discipline knowledge or methodologies. S/U or letter graded. Repeatable, under different subtitles.

**PE 550 Program Management (3)**

Develop an understanding of theories and principles involved in managing a program in human performance and leisure studies.

**PE 555 Supervised Practicum in Teaching a College Basic Activity Course (1-3)**

Consent of advisor. Provide a supervised college teaching experience of a basic activity course for qualified graduate students. S/U graded. Repeatable, maximum of three credits.

**PE 560 Issues and Ethics in Sport Management (3)**

An exploration of major issues, ethical theories, moral reasoning and their impact on the operation of programs in sport, physical education, fitness, athletics and recreation.

**PE 576 Sport Promotion and Marketing (3)**

Develop understanding of and skill in the marketing process as it relates to promotion and public relations activities in physical education, athletics and commercial sport operations. Primary focus will be on the application of marketing principles to specific sport scenarios.

**PE 594 Practicum in Outdoor Leadership (1-6)**

Advanced course in the area of wilderness-based teaching and leadership. Specifically designed for teachers and leaders in the fields of outdoor education and recreation; however, it is also suited for counselors interested in wilderness based therapy. Field based: classroom is in remote wilderness settings. Repeatable, maximum of 12 credits.

**PE 602 Introduction to Research in Kinesiology and Physical Education (3)**

Receive an introduction and some application of strategy and methods of research to problem solving in physical education, recreation and kinesiology.

**PE 612 Measurement of Human Performance (3)**

Receive sound background in tools, techniques and methods of evaluation. Emphasize construction of both written and activity tests and use of other evaluative tools.

**PE 614 Analysis of Teaching in Physical Education (3)**

Present and analyze systems used in evaluating student behavior, teacher behavior and student-teacher interaction. Study strategies for planning and implementing effective teaching and supervising in physical education.

**PE 615 Qualitative Research in Physical Education, Recreation and Kinesiology (3)**

The epistemological and practical underpinnings of qualitative research as an alternative or complement to quantitative research will be studied in this course through readings, class discussions and a practical project.

**PE 622 Directed Studies (1-3)**

Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

**PE 629 Facilitating the Adventure Experience (3)**

This course is recommended for all new facilitators, teachers, group leaders or anyone desiring to utilize the experiential challenge course approach to teaching/leading. It will provide the participant with an introduction to the philosophy, goals and standards of adventure activities with specific emphasis on challenge course programs. Key in this instruction will be the participant's involvement in a group process experience while at the same time being introduced to the skills, knowledge and awareness necessary to conduct safe, ethical and effective challenge course programs.

**PE 630 Challenge 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 Education (3)**

Study the history, philosophy and principles of outdoor physical education. Focus will be on the interdisciplinary nature and educational growth through outdoor experiences.

**PE 635 Seminar in Sport Administration (2)**

Student will undertake an in-depth study of current topics related to the administration and management of sport, physical education, fitness and athletic programs.

**PE 640 Curriculum in Physical Education (3)**

Consider the principles underlying curriculum instruction, various curriculum elements and build a curriculum in physical education.

**PE 641 Instructional Strategies for Elementary School Physical Education (3)**

Study of research and advanced techniques in teaching elementary physical education. Emphasis on teacher instruction and management, student skill learning time and current program planning.

**PE 642 Instructional Strategies for Secondary School Physical Education (3)**

Study of research and advanced techniques in teaching secondary physical education. Emphasis on understanding the role of the secondary teacher and secondary student needs in teaching physical education.

**PE 650 Financial Management for Sport Organizations (3)**

Develop an understanding of and skill in financial resource management for the operation of programs in sport, physical education, fitness, athletics and recreation.

**PE 660 Sport Personnel Management (3)**

Develop understanding of and skill in human resource management for the operation of programs in sport, physical education, fitness and athletics.

**PE 670 Sport and Higher Education (3)**

Identify contemporary issues and problems in sport in American higher education, their historical foundation, and propose methods for their resolution. A primary objective is that students be cognizant of issues and concerns in sport which may have a direct bearing in their future involvement in sport at the collegiate level.

**PE 675 Management of Sports Facilities and Equipment (3)**

An examination of the functions of planning, management, evaluation, maintenance operations and situational analysis as they relate to management of sport facilities and equipment.



**PE 676 Sport Public Relations and Information Systems (3)**

Presentation of principles, standards and guidelines in sport public relations and information systems involved in sport information management.

**PE 678 Event Development and Management (3)**

Provide student with the skills necessary to develop, propose and conduct sport-related contests and special events including game management and facility management.

**PE 680 Perspectives in Physical Education and Sport (3)**

Philosophical perspectives of issues in physical education and sport, which are influenced by contemporary trends in American education.

**PE 685 Critical Pedagogy (3)**

Students will examine critical pedagogical philosophies and strategies while analyzing socialization process in schools. Also, students will learn how to develop critical awareness and take transformative action in schools.

**PE 688 Legal Aspects of Sport (3)**

Study the law and implications relative to physical education and sport. Emphasis on legal theory and responsibilities and risk management.

**PE 692 Graduate Internship in Physical Education (1-6)**

Consent of instructor. Put into practice the knowledge and skills learned in the classroom. Assume responsibilities in administration supervision and evaluation in physical education and athletic settings. S/U graded. Repeatable, maximum of six credits.

**PE 695 Seminar in Physical Education (2)**

Consent of instructor. Students will make an in-depth study of contemporary topics under guidance of qualified graduate faculty and consultants. Repeatable, may be taken two times.

**PE 696 College Teaching (3)**

Consent of instructor. Examines instructional models, issues and practices specific to teaching at the college level. Presentation modes such as lecture, discussion, questioning and small group procedures will be included.

**PE 699 Thesis (1-6)**

Optional for Master of Arts students on recommendation of major advisor. S/U graded. Repeatable, no limitations.

**PE 703 Research Seminar in Physical Education (3)**

For doctoral candidates planning to conduct research in Physical Education or allied areas. Learn techniques and procedures of research and receive aids in development of required research outline for degree.

**PE 797 Doctoral Proposal Research (1-4)**

Doctoral students must earn a minimum-maximum of 4 hours credit in partial fulfillment of degree requirements. S/U graded. Repeatable, maximum of four credits.

**PE 799 Doctoral Dissertation (1-12)**

Doctoral students must earn a minimum-maximum of 12 hours of credit for the dissertation. S/U graded. Repeatable, no limitations.

**PHIL - PHILOSOPHY****PHIL 100 Introduction to Philosophy (3)**

An examination of issues pertaining to knowledge, reality and morality. Issues examined might include the following: Can we know anything? Does God exist? Is morality merely personal opinion?

**PHIL 101 Critical Thinking and Writing (3)**

Prerequisite: ENG 122. Introduction to methods of critical thinking as required for critical and evaluative writing.

**PHIL 105 Philosophical Perspectives on Current Issues (3)**

Offerings under this heading will examine the philosophical dimensions of specific issues of lively current interest.

**PHIL 110 Figures in Western Philosophy (3)**

Figures studied will include three to five of the following: Plato, Aristotle, Aquinas, Descartes, Hobbes, Leibniz, Berkeley, Hume, Kant, James, Sartre.

**PHIL 115 Philosophy and Current Affairs (1-3)**

Offerings under this heading will explore philosophical issues connected with matters of widespread current controversy or general public debate. Repeatable, under different subtitles.

**PHIL 220 The Nature of Legal Reasoning (3)**

No background in philosophy is required. A study of the reasoning involved in the law. Students will read cases, write legal briefs and argue their cases orally.

**PHIL 240 Formal Logic I (3)**

A first course in logic which provides an intensive introduction to the basic principles and methods of formal logic.

**PHIL 241 Formal Logic II (3)**

Prerequisite: PHIL 240. A second course in logic which rounds out the development of the formalized language introduced in the first semester by providing a system of inference rules for first order logic and then establishing a number of metatheorems.

**PHIL 260 History of Ancient Philosophy (3)**

A study of the major figures in the history of Western philosophy from the pre-Socratics to Plotinus.

**PHIL 261 History of Modern Philosophy (3)**

A study of the major figures in Western philosophy from Descartes through Kant.

**PHIL 300 Topics in Philosophy (3)**

Offerings under this heading will focus on areas of philosophical interest not regularly covered at the 300 level (e.g., Philosophy of Mind). Repeatable, under different subtitles.

**PHIL 305 Ethics in Theory and Practice (3)**

Acquaint students with the history of ethical theories and enable students to apply the theories to contemporary ethical problems.

**PHIL 350 Ethics (3)**

In-depth examination of selected topics in ethics (e.g. ethical relativism and subjectivism, the possibility of moral knowledge, the structure of moral reasoning, freedom and responsibility).

**PHIL 352 Business Ethics (3)**

In-depth examination of selected topics in business ethics (e.g. reverse discrimination in hiring, the social responsibilities of business, conflict of employee obligations, ethical issues in advertising.)

**PHIL 355 Social and Political Philosophy (3)**

In-depth examination of selected topics in social and political philosophy (e.g. the concept of political obligation, freedom and dissent, equality and justice, human rights).

**PHIL 370 Philosophy of Religion (3)**

In-depth examination of selected topics in philosophy of religion (e.g. the nature and justification of religious belief, freedom and sin, arguments for and against God's existence).

**PHIL 385 Epistemology (3)**

In-depth examination of selected topics in theory of knowledge (e.g. the nature and limits of human knowledge, knowledge and belief, doubt and certainty, perception and intuition, faith and justification).

**PHIL 390 Metaphysics (3)**

In-depth examination of selected topics in metaphysics (e.g. the nature of space and time, particulars and universals, the different senses of 'being,' substance, causality, identity and difference).

**PHIL 422 Directed Study (1-3)**

Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

**PHIL 495 Advanced Seminar (3)**

Detailed investigation of a specific philosophical issue. Substantial independent research and at least one oral presentation required. Repeatable, no limitations.

**PHIL 497 Student Internship (1-3)**

Consent of instructor. Practical training in one or more areas of the profession. Only six credits counted for major and 3 for minor. S/U graded. Repeatable, no limitations.

**PHIL 622 Directed Study (1-3)**

Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

**PHYS - PHYSICS****PHYS 220 Introductory Physics I (5)**

(4 lecture, 3 laboratory) Prerequisite: MATH 124 or high school algebra. First semester of algebra-based physics. Areas covered are classical mechanics and heat.

**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.

**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.

**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.

**PHYS 301 Seminar in Physics (1)**

Focus on current topics in physics not covered in existing departmental offerings. Oral report required. Repeatable, maximum of two credits.

**PHYS 310 Machining Skills (2)**

(4 laboratory) Scheduled individually on consent of Physics Department. Methods of using machine tools, specifications, reading and using engineering drawings, shop safety.

**PHYS 320 Mathematical Applications (3)**

Prerequisites: MATH 132, PHYS 241 or take concurrently. Survey of mathematical applications in advanced physical sciences, including vector calculus, integration techniques, complex variables, Laplace and Fourier transforms and matrix algebra.

**PHYS 321 Elementary Modern Physics (3)**

Prerequisites: PHYS 221 or PHYS 241. PHYS 241 may be taken concurrently. Important topics in physics of 20th century, including relativity, atomic, nuclear, quantum concepts, uncertainty, lasers.

**PHYS 325 Graphics and Modeling for Engineering and Physics (3)**

Prerequisite: PHYS 241 or consent of instructor. An introductory course in the techniques of engineering design and computer modeling. Automated computer programs in engineering design, mathematics, data visualization and graphics will be used.

**PHYS 340 Mechanics I (3)**

Prerequisite: PHYS 241. First of a sequence of two courses. Newton's Laws, particle and rigid body statics, work and energy, particle motion in a constant field and one-dimensional oscillatory motion.

**PHYS 341 Electricity and Magnetism I (3)**

Prerequisite: PHYS 241. First of a sequence of two courses. Intermediate study of electric fields, electric potential, magnetic fields and induced electromotive force.

**PHYS 343 Digital and Analog Electronics (4)**

(3 lecture, 3 laboratory) Prerequisites: PHYS 241 and MATH 132. DC and AC circuits. Theory and use of electronic devices and circuits including analog and digital electronics, D/A and A/D conversion and computer interfacing. Structure of solid state devices.

**PHYS 345 Atomic and Quantum Physics (5)**

(4 lecture, 3 laboratory) Prerequisites: PHYS 241, PHYS 321. Relativity, quantum mechanics of the atom, the Schrodinger equation in one and three dimensions, justification of the periodic chart, uncertainty, the nature of quantum theory.

**PHYS 347 Optics (4)**

(3 lecture, 3 laboratory) Prerequisites: PHYS 241, MATH 132. Geometric and physical optics, instrumentation, wave theory, light sources and lasers.

**PHYS 420 Thermodynamics and Statistical Physics (3)**

Prerequisites: PHYS 241, MATH 233 (prerequisite or concurrent). Introduction to kinetic theory and statistical mechanics, thermodynamic systems, equations of state and laws of thermodynamics.

**PHYS 421 Mathematical Applications in Physics II (3)**

Prerequisite: PHYS 320. Continuation of PHYS 320. Boundary value problems, partial differential equation, numerical integration, numerical solutions to differential equations, contour integration, probability and statistics. Emphasis on applications to physics and engineering.

**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 wave theory.

**PHYS 443 Electronic Systems and Controls (4)**

(3 lecture, 3 laboratory) Prerequisites: PHYS 343 and MATH 233. Analysis and design of electronic systems for collecting and processing signals, controls and automation. Further topics in D/A and A/D conversion, structure of solid state devices, computer interfacing and computer algorithms for use in signal processing and controls.

**PHYS 445 Nuclear and Condensed Matter Physics (5)**

(4 lecture, 3 laboratory) Prerequisites: PHYS 345, MATH 233. Nuclear reactions, decay schemes, nuclear models, detection and evaluation of radiation, fundamental particles, molecular binding, stimulated emission, electron statistics, properties of solids, junction theory, superconductivity.

**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.

**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, perturbation theory and many-particle systems.

**PHYS 470 Senior Research (1-3)**

Prerequisite: Two years of physics courses that apply to major. Independent experimental or theoretic research project in physics. Weekly conferences with research advisor. A well-written paper or oral presentation is required. Repeatable, maximum of 12 credits.

**PHYS 475 Seminar in Teaching Physics (2)**

Teaching physics and physical science at elementary and secondary levels. Professional responsibilities of teaching science. Entry level operational knowledge of strategies and available materials.

**PHYS 495 Special Topics in Physics (1-3)**

Prerequisites: PHYS 221 or PHYS 241. Consent of instructor. Topics of special interest in areas of physics not covered by other courses. Repeatable, 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

## PLP - PRESIDENTIAL LEADERSHIP PROGRAM

**PLP 100 Foundations of Leadership (3)**

Prerequisite: MIND 180 to be taken prior to or concurrent with PLP 100. This course traces the theory and role of leaders and leadership in selected past and contemporary cultures. A program journal is begun, and the MIND 180 understanding of leadership is further developed and refined through readings, presentations, guest lecturers and field experiences.

**PLP 200 The Entrepreneur in America (2)**

Prerequisites: MIND 180 and PLP 100. The entrepreneur, the self-made individual who triumphs in the marketplace, is an American archetype. This course explores the lives and careers of representative American entrepreneurs from Ben Franklin to Bill Gates, whose achievements are such that they are or have been cultural icons. The entrepreneur, who changes old markets and develops new ones, is seen within the context of the larger American story of marketplace, industrial and technological development.

**PLP 492 Internship in PLP (1-3)**

Prerequisites: MIND 180, PLP 100, PLP 200. PLP 492 offers variable credit to PLP students for approved internships. This required internship will be developed in conjunction with PLP staff, and experiential learning consists of apprenticeship or other structured international learning and training in business, government or the arts.

**PLP 499 Capstone Course/Project (2)**

This course is the final experience/capstone course in the Presidential Leadership Program. It is to be taken during the student's final semester.

## PPSY - PROFESSIONAL PSYCHOLOGY

**PPSY 468 Psychology of Women (2)**

Theory and psychological issues influencing gender identity such as definitions of abnormality, achievement and interactional influences upon development.

**PPSY 508 Workshop (1-3)**

A variety of workshops on special topics within the discipline. Goals and objectives will emphasize the acquisition of general knowledge and skills in the discipline. Repeatable, under different subtitles.

**PPSY 513 Professional Renewal (1-3)**

Update skills and knowledge of professionals in the discipline. Goals and objectives will be specifically directed at individual professional enhancement rather than the acquisition of general discipline knowledge or methodologies. S/U or letter graded. Repeatable, under different subtitles.

**PPSY 558 Abnormal Psychology (3)**

Graduate students only. Study of abnormal behavior, causes, symptoms, characteristics, classifications, prevention and treatment.

**PPSY 559 Introduction to Clinical Hypnosis (2)**

Prerequisites: PPSY 612 or equivalent. Consent of instructor. Graduate students only. Introduction to techniques and applications of hypnosis in academic and mental health settings. Achievement of competence with basic hypnotic techniques and their appropriate utilization in psychotherapeutic processes.

**PPSY 562 Teacher Effectiveness (2)**

Designed for teachers, counselors, administrators, psychologists and other school personnel to learn specific skills for developing and fostering effective relationships with students, parents, colleagues.

**PPSY 565 Psychology of Prejudice (2)**

Graduate students only. Examination of the development of prejudicial attitudes through consideration of the counseling and social psychological literature. Discussion will focus on current changes in the United States with regard to demographic, socioeconomic and sociocultural trends.

**PPSY 566 At Risk Students: Opportunities and Strategies (3)**

Gain knowledge and understanding of "high risk students" and expand the teachers' repertory of skills when educating at risk students. Prevalence, family characteristics and systems, and successful strategies will be studied.

**PPSY 568 Psychology of Women (2)**

Graduate students only. Theory and psychological issues influencing gender identity such as definitions of abnormality, achievement and interactional influences upon development.

**PPSY 569 Violence Against Women and Children (2)**

Seniors or above. Explores causes of interpersonal violence, societal conditions supporting such violence, intervention methodologies and treatment strategies for female and child victims of abuse and abusers.

**PPSY 580 Computer Applications to Professional Psychology (2)**

Graduate students only. Overview of effective applications of computers in professional psychological environments. Learn how to select, use, modify relevant software, legal and ethical limitations and their implications.

**PPSY 585 Family Counseling and Education in School Settings (2)**

Introduction to family systems and the incorporation of this knowledge into schools. A three-level program of counseling and education in schools will be presented.

**PPSY 601 Practicum (1-3)**

Consent of instructor. Majors only. Open by invitation to graduate students. Supervised professional activity in student's major field; approximately 25 clock hours of work per credit. Two copies of a well-written paper must be filed before credit is given, one with instructor and one with division director. S/U graded. Repeatable, maximum of three credits.

**PPSY 602 Foundations of School Guidance (3)**

Study principles of school guidance, its application, functions of counselors, administrators, teachers and parents in meeting student needs. Focus on elementary, secondary and post-secondary school guidance.

**PPSY 603 Counseling Children and Adolescents (3)**

Provides a comprehensive study of a variety of therapeutic counseling approaches and techniques used effectively with children and adolescents. Focuses on how significant others in the lives of children and adolescents may be involved in therapeutic counseling within the home, school and community.

**PPSY 604 Career Development and Occupational Systems (2)**

Analyze career development theories, society/changing values, career development, world of work classification, labor force/employment trends and educational-vocational planning principles.

**PPSY 605 Group Laboratory Experience (1)**

Corequisite: PPSY 606 or PPSY 662. Consent of practicum coordinator. Provides an opportunity to participate in a group experience facilitated by an advanced doctoral student or faculty member. S/U graded.

**PPSY 606 Theories and Practices in Group Guidance (2)**

Corequisite: PPSY 605. Study theory and methods of group counseling including applications in school settings for helping students with educational planning, career decisions and interpersonal relations.

**PPSY 607 Theories of Counseling (3)**

Majors only. The study and critical analysis of the major counseling theories and elements of effective psychotherapy as they apply to the counseling process.

**PPSY 608 Organization, Administration and Consultation in Guidance Services (3)**

Organization, administration and consultation in guidance services within institutions and agencies with emphasis being placed on the use of personnel services, effective utilization of leadership skills, consultation and management techniques.

**PPSY 610 Theories of Personality (2)**

An overview of the psychological factors underlying personality and its development. Theories, critical periods, applications to counseling and education are addressed.

**PPSY 611 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. Repeatable, maximum of 10 credits.

**PPSY 613 Internship: Guidance and 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: Guidance and 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 school or post-secondary 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 615 Supervision in Agencies and Schools (1)**

Prerequisite: PPSY 612 and consent of instructor. Provides an overview of the supervision process and the theoretical orientation and practical skills necessary to function effectively as a supervisor of counselors.

**PPSY 616 Career Theory, Counseling and Assessment (3)**

Study theory and methods of career counseling, introduce and become familiar with career assessment instruments, and discuss current issues in the field of career counseling.

**PPSY 617 Play Therapy: Theory and Practicum (3)**

Prerequisites: PPSY 612 and consent of instructor. Study theoretical bases for play therapy and conduct play therapy under faculty supervision.

**PPSY 622 Directed Studies (1-3)**

Minimum of 25 clock hours required per credit hour. Individualized investigation under the direct supervision of a faculty member. Repeatable, maximum concurrent enrollment is two times.

**PPSY 623 Counseling Diverse Populations (2)**

Majors only. An examination of various counseling skills and strategies which may be helpful in counseling individuals from diverse cultural backgrounds. Sensitizes students to the concerns of various ethnic and non-ethnic 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 658 Ethics and Law in Schools for Psychologists and Counselors (3)**

Considers legal and ethical issues affecting professional practice in public school and higher education settings. Special consideration given to state and federal legislation, special and regular education case law, psychological practice case law, contradictions of ethical standards, legal mandates and court decisions concerning psychological practice in schools.

**PPSY 660 Psychological Consultation: Theory and Practice (3)**

Overview of consultation theory and practice. Mental health, expert, collaborative, behavioral and organizational models will be discussed and applied to problems in school and agency settings.

**PPSY 662 Group Dynamics and Facilitation (2)**

Corequisite: PPSY 605. Consent of practicum coordinator. Majors only. The course is designed to study the theoretical bases of group process; including leadership roles, stages of group development, facilitation styles and the research and development of the use of groups in counseling and therapy.

**PPSY 663 Research Apprenticeship: School Psychology (1-2)**

Consent of instructor. Serve as research apprentice to faculty member; must complete minimum of 2 semester credits, 75 clock hours each. Repeatable, maximum of two credits.

**PPSY 664 Therapeutic Parenting (2)**

The application and appropriate utilization of therapeutic parenting techniques in academic and mental health settings.

**PPSY 665 Family Systems (3)**

Study general systems theory of family development and interactions. Structural, communication and behavioral approaches to family therapy will be examined as well as ethics, legal issues and current research.

**PPSY 666 Couples and Marriage Therapy (2)**

Prerequisite: PPSY 665. Majors only. Study basic theories of relationship therapy and technical interventions utilized within the major approaches to couple/marital therapy. Also includes spouse abuse, divorce mediation and adjustment and ethical considerations.

**PPSY 668 Sexuality Counseling (3)**

Designed to increase the effectiveness of counselors in treating various sexual issues. Topics to be covered include male and female sexual systems, sexual myths, variations in sexual behavior and common sexual concerns. Various therapeutic approaches to treatment will be presented.

**PPSY 669 Advanced Methods: Marriage and Family Therapy (3)**

Prerequisites: PPSY 612, PPSY 662 and PPSY 665. Course will expand on family therapy models presented in PPSY 665 and include other significant models in the field. Training activities will include diagnosis, assessment, case presentations, enactments and other experiential work. Video use and analysis is significant part of course.

**PPSY 670 Psychological Testing and Measurement (2)**

Understanding psychological testing through an overview of measurement principles, the psychological assessment process, test construction and development and the use of test results in individual psychological evaluations.

**PPSY 671 Testing: Analysis and Interpretation (2)**

Prerequisite: PPSY 670. Investigate standardized and non-standardized psychological instruments, including aptitude, achievement, interest, intelligence and personality tests and analyze them in terms of use, interpretation, ethics, testing programs and case studies.

**PPSY 672 Neuropsychology of Learning Disabilities and Traumatic Brain Injuries (3)**

Prerequisite: PPSY 670. Theoretical and evaluative strategies for understanding learning disabilities and traumatic brain injuries. Covers dysfunctions of neuropsychological processes including perceptual, expressive, attentional, emotional and integrative manifestations; emphasizes remedial and compensatory rehabilitation.

**PPSY 673 Individual Tests of Intelligence and Personality (3)**

Prerequisite: PPSY 670. A survey course of the major intelligence and personality tests used by professional psychologists. Test interpretation and utilization of reports are addressed; test administration is not taught.

**PPSY 674 Assessment for Intervention: Cognitive and Academic (5)**

Prerequisites: PPSY 670 and consent of instructor. Covers the historical and theoretical bases of psychological and educational assessment concentrating primarily in the areas of cognitive abilities and academic achievement and their relation to interventions. Includes supervised practice in the administration, scoring, interpretation and reporting of assessment results. The implications and role of assessment data in intervention design is discussed.

**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.

**PPSY 676 Assessment for Intervention: Infant and Toddler (3)**

Prerequisites: PPSY 660, PPSY 674 and consent of instructor. Covers the provision of psychological services to children ages birth to 3 years. Includes coverage of federal and state mandates relevant to this population, typical and atypical development, multicultural issues, and family-centered and consultative psychological intervention services. Provides practice in assessment for intervention with infants, toddlers and young children, with an emphasis on nontraditional methods.

**PPSY 678 Assessment for Intervention: Personality and Behavior (5)**

Prerequisites: PPSY 674 and consent of instructor. Provides supervised experience in the administration and interpretation of ecologically valid psychological data including personality, behavioral, cognitive and academic data. Emphasis is placed on designing, implementing and evaluating culturally and ethnically appropriate ecologically-based interventions. Both direct and indirect models of intervention are considered.

**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 of 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 Internship (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 of eight credits.

**PPSY 694 Practicum in Family Therapy (4)**

Prerequisites: PPSY 612, or PPSY 712, PPSY 666. Consent of practicum coordinator. Majors only. Receive supervised experiential training in counseling with families. Develop diagnostic and therapeutic skills in systemic approaches. Master's level students must also have completed PPSY 669. S/U graded.

**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 701 Professional Development Seminar in Counseling Psychology (1)**

Majors only. An overview of current issues in the discipline of counseling psychology, as well as an introduction to the program and the faculty in the division.

**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.

**PPSY 703 Professional Development Seminar in Counselor Education (1-3)**

Majors only. An overview of current professional issues in Counselor Education with special focus on understanding and developing a professional identity in the field. Research will be strongly emphasized. Repeatable, maximum of three credits.

**PPSY 707 Seminar in Personality and Counseling Theories (3)**

Majors only. A comparative and critical in-depth analysis of personality and counseling theories including the interrelationship, philosophical foundations and practical applications.

**PPSY 712 Advanced Practicum in Individual Counseling (4)**

Prerequisites: PPSY 702, PPSY 707 and consent of practicum coordinator. Majors only. For the student with prior counseling experience, this course offers opportunity to develop counseling skills and philosophy in depth with clients in an individual counseling situation. S/U graded.

**PPSY 713 Practicum in Supervision of Play Therapy (3)**

Prerequisite: PPSY 617. Consent of practicum coordinator. Majors only. Doctoral candidates receive experience in supervising child psychotherapy training through working with a staff member.

**PPSY 714 Practicum in Supervision of Counseling (3-6)**

Prerequisites: PPSY 702, PPSY 712 and consent of practicum coordinator. Majors only. Students gain experience with a faculty member in supervising counseling practice. Repeatable, maximum of six credits.

**PPSY 715 Seminar in Counselor Supervision and Theory (2)**

Prerequisites: PPSY 702, PPSY 707, PPSY 712 and consent of practicum coordinator. Corequisite: PPSY 714. Majors only. Study problems involved in training individuals to engage in the therapeutic process.

**PPSY 716 Research Seminar in Counselor Education (3)**

Majors only. Review and analysis of reported research in counselor education with special emphasis on research published during the last ten years in the professional journals.

**PPSY 733 Research Apprenticeship (1)**

Consent of instructor. Majors only. Requires approximately 3-5 hours per week. Serve as an apprentice to a chosen faculty member and work on professional endeavors such as course planning, writing and research, library searches. S/U graded. Repeatable, maximum of two credits.

**PPSY 738 Practicum in Evidenced-Based Interventions (3)**

Prerequisites: PPSY 607, PPSY 638, and consent of practicum coordinator. Practice implementing interventions with children and adolescents with a variety of behavioral and emotional problems, with special emphasis on identifying and implementing evidenced-based interventions.

**PPSY 755 Supervised Practicum in College Teaching (1-6)**

Consent of instructor. Majors only. Doctoral students receive experience in observation and supervised practice in college teaching. Repeatable, maximum of six credits.

**PPSY 758 Advanced Psychopathology (3)**

Prerequisite: PSY 355 or PPSY 558. Consent of instructor. Acquire understanding of developmental and behavioral disorders of childhood through adulthood. Thorough knowledge of specific pathologies and conditions through intensive reading, research or practical experience.

**PPSY 762 Practicum in Group Facilitation (4)**

Prerequisites: PPSY 605 and PPSY 662 or equivalent, PPSY 702, PPSY 712. Consent of instructor. 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 763 Seminar in School Psychology (3)**

Admission to graduate school psychology program required. Professional issues and problems concerning the school psychologist, including certification and licensure requirements, confidentiality, legal and ethical issues, roles and responsibilities. Observations in schools.

**PPSY 773 Practicum in Supervision of Group Facilitation (3)**

Prerequisite: Consent of practicum coordinator. Majors only. Doctoral candidates receive experience in supervision of group facilitator training. Work with regular staff member supervising group practicum, observe techniques and processes and receive feedback on progress.

**PPSY 774 Practicum in Supervision of Family Therapy (3)**

Prerequisites: PPSY 694 and consent of practicum coordinator. Majors only. Doctoral candidates receive experience in supervision of family therapist training. Work with regular staff member in supervising family therapy practicum, observe techniques and processes, receive feedback on progress.

**PPSY 775 Supervision of Psychological Testing (3-9)**

Consent of instructor. Under faculty supervision, participate in instruction and supervision of students in testing courses from test administration to the final reporting of test findings.

**PPSY 777 Applied Neuropsychology (4)**

Prerequisites: PPSY 612 or PPSY 702; PPSY 674 or PPSY 675; and PPSY 678. Study of brain-behavior relationships with emphasis on procedures for diagnosing brain dysfunction and developing appropriate neuropsychological interventions. Study of assessment techniques and professional practice issues from conception to adulthood.

**PPSY 778 Clinical Neuropsychology Practicum (2)**

Prerequisites: PPSY 612, PPSY 672, PPSY 678, PPSY 777 or consent of instructor. Supervised practice in administering and interpreting neuropsychological tests and procedures for children, adolescents, and adults. Emphasizes rehabilitation, intervention development, neuropsychological report writing and use of the Halstead-Reitan Batteries.

**PPSY 779 Practicum in School Psychology (3)**

Prerequisites: PPSY 674, PPSY 678 and consent of instructor. Provide opportunity to experience various roles frequently expected of school psychologists. Experience takes place in public schools or affiliated agencies with supervision by practicing licensed school psychologists.

**PPSY 781 Evaluation of Psychological Services (3)**

Prerequisite: SRM 602. Learn the theory and practice of psychological program evaluation, taking both a non-statistical and statistical approach. Use data to promote systems change techniques for evaluating effectiveness of consultation therapy, guidance and placement.

**PPSY 782 Introduction to Rorschach Administration and Scoring (2)**

Prerequisites: PPSY 558, PPSY 675 and PPSY 678. Learn conceptual basis for comparing projective with traditional psychometric procedures and begin skills in administration and scoring of Rorschach test.

**PPSY 789 Internship in School Psychology (2-10)**

Prerequisites: PPSY 674, PPSY 678, PPSY 779 or consent of instructor. A minimum of 12 hours credit required. Full-time field experience in school psychology under qualified supervisors in selected settings; taken at end of program. S/U graded. Repeatable, maximum of 20 credits.

**PPSY 791 Internship in Counseling Psychology (1-5)**

Consent of instructor. Majors only. For the doctoral candidate in counseling psychology who will successfully complete a 2,000-hour internship in not less than one year (register for three consecutive semesters) nor more than two years (register for six consecutive semesters) after completion of all coursework required for the Psy.D. - degree. Repeatable, maximum of 18 credits.

**PPSY 792 Internship in Counselor Education and Supervision (2-6)**

Consent of instructor. For the doctoral student in Counselor Education and Supervision. Must complete a total of 1200 on site hours in an approved setting. Repeatable, maximum of 20 credits.

**PPSY 793 Psychological Services Clinic I (1)**

Prerequisites PPSY 702, PPSY 712 and either PPSY 617 and PPSY 694, and consent of practicum coordinator. Majors only. An introduction for students to gain experience as staff clinicians, conducting intake sessions, making recommendations for treatment, participating in clinic administrative duties and providing therapeutic services to clients. S/U graded.

**PPSY 794 Psychological Services Clinic II (2)**

Prerequisites: PPSY 702, PPSY 712, PPSY 793 and consent of practicum coordinator. Majors only. This course offers the opportunity to refine assessment and therapeutic skills with children, adolescents and adults, couples or families, and refine administrative skills including outreach to community agencies. S/U graded. Repeatable, maximum of four credits.

**PPSY 797 Doctoral Proposal Research (1-4)**

Consent of instructor. Majors only. Required for all doctoral students. Student must earn a maximum of 4 hours of credit in this course in partial fulfillment of requirements for all doctoral degrees, before admission to candidacy. S/U graded. Repeatable, maximum of four credits.

**PPSY 799 Doctoral Dissertation (1-12)**

Consent of instructor. Majors only and admission to candidacy. Required of all doctoral candidates. A student must earn a minimum of 12 hours of credit for the dissertation in partial fulfillment of requirements for all doctoral degrees. S/U graded. Repeatable, no limitations.

**PSCI - POLITICAL SCIENCE****PSCI 100 United States National Government (3)**

Identification and analysis of the principal rules, actors and institutions of national politics and explanation of their development. Required of all PSCI majors and minors.

**PSCI 105 Fundamentals of Politics (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 203 Colorado Politics (3)**

Examination of Colorado state and local politics including the institutions and processes of policy making from a comparative perspective.

**PSCI 207 Women and Politics (3)**

Examination of the women's movement and its development including the strategies and tactics employed and the ends sought.

**PSCI 208 Introduction to Public Administration (3)**

Consider historical background and theory of public administration. Interrelationships of public policy formulation and administrative execution and technological and environmental pressures on administrators. Emphasize bureaucratic decision-making, planning, budgeting and public personnel administration.

**PSCI 210 Politics in the European Community (3)**

Prerequisite: PSCI 105. Sophomores or above. An examination of the relations among European-community states and the domestic politics of select members with emphasis on Great Britain, France and Germany.

**PSCI 220 Introduction to International Relations (3)**

Learn the basic principles, processes and problems of the international political system.

**PSCI 230 The Evolution of the Modern State (3)**

An examination of the historical development of the modern state, its accompanying social structures and intellectual foundations, from the Renaissance to the late-twentieth century.

**PSCI 301 Electoral Politics in the United States (3)**

Prerequisite: PSCI 100. Sophomores or above. An examination of the process for the nomination and election of national officials. What are the roles of the electorate, interest groups, political parties and the media.

**PSCI 302 Power in America (3)**

Prerequisite: PSCI 100. Sophomores or above. An examination of the law-making process with emphasis on the Presidency and Congress and the roles of the public interest groups, political parties and the media in the identification and resolution of issues.

**PSCI 303 Public Policy in the United States (3)**

Prerequisite: PSCI 100. Sophomores or above. American public policy in the areas of health care, transportation, education, housing, labor-management relations, income maintenance and taxation.

**PSCI 305 Politics of Education (3)**

Prerequisite: One Social Science Course. An examination of the policies adopted by the states and the national government and the roles played by interest groups and formal institutions in their formation.

**PSCI 306 Constitutional Law (3)**

Prerequisite: PSCI 100. Sophomores or above. An analysis of Supreme Court decisions regarding civil liberties and relations among the branches of the national government and between the national and state governments.

**PSCI 310 Politics of Central and East European States (3)**

Prerequisite: PSCI 105. Sophomores or above. An examination of the politics of the former Communist states in the area including Russia and of relations among the members of the Commonwealth of Independent States.

**PSCI 315 Comparative Public Policy (3)**

Prerequisites: PSCI 100, PSCI 105. Sophomores or above. Cross-nationally compare public policy in such areas as education, transportation, taxation, population and income maintenance. Identify and explain differences and similarities across policy areas within one country and cross-nationally.

**PSCI 318 The Politics of the Developing States (3)**

Prerequisite: PSCI 105. Sophomores or above. Analysis of the politics of the developing states from a comparative and historical perspective. Emergence of a Third World and domestic politics of selected states will be examined.

**PSCI 319 Pacific Rim Politics (3)**

An examination of the politics, public policies and economic development of Pacific Rim countries (with emphasis on China and Japan).

**PSCI 320 American Foreign Policy (3)**

Prerequisites: PSCI 100, PSCI 105. Sophomores or above. Analysis of American foreign policy with emphasis on the Twentieth Century and of the process by which policy is made.

**PSCI 321 War and Peace (3)**

Sophomores or above. Examination of the causes and occasions of wars and of the peaceful resolution of international disputes.

**PSCI 325 Conflict in the Middle East (3)**

Sophomores or above. Examination of the principal governmental and non-governmental actors and their policies in the Middle East and relations among them.

**PSCI 328 International Law and Organizations (3)**

Prerequisites: PSCI 105, PSCI 220. Sophomores or above. An examination of international organizations, e.g. U.N. and O.A.S. and international agreements concerning the environment, health, finance, trade, etc.

**PSCI 331 Political Philosophy I (3)**

Juniors or above. Analysis and evaluation of the principles and institutions proposed by major philosophers from Plato to Locke.

**PSCI 332 Political Philosophy II (3)**

Juniors or above. Analysis and evaluation of the principles and institutions proposed by major philosophers from Rousseau to Mill.

**PSCI 335 American Political Philosophy (3)**

Juniors or above. Analysis and evaluation of the principles and institutions proposed by major American philosophers from Madison to Dewey.

**PSCI 392 Internship (3-10)**

Prerequisite: Applicants must have 12 semester hours in political science. Provides opportunity for field experience as an observer and assistant to a public policymaker with supervised but self-directed research. Repeatable, maximum of 10 credits.

**PSCI 405 Problems in American Politics (3)**

Prerequisites: PSCI 100, PSCI 105 and a course in Group A. Seniors only. Select problems in American politics will be examined.

**PSCI 415 Problems in Comparative Politics (3)**

Prerequisites: PSCI 100, PSCI 105 and a course in Group D. Seniors only. Topics of current interest or controversy in comparative politics.

**PSCI 422 Directed Studies (1-3)**

Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Juniors and seniors only. To count for credit toward major, students must have taken two courses in the elective group they propose to do the directed study. Repeatable, maximum concurrent enrollment is two times.

**PSCI 425 Problems in International Relations (3)**

Prerequisites: PSCI 100, PSCI 105 and a course in Group B. Seniors only. Select problems and theories for close and lengthy examination.

**PSCI 435 Problems in Political Philosophy (3)**

Prerequisites: PSCI 100, PSCI 105 and a course in Group C. Seniors only. Select problems or philosophies for close and lengthy attention.

**PSY - PSYCHOLOGY**

**PSY 120 Principles of Psychology (4)**

Surveys psychology as a science and applied discipline, including research methods, statistics, learning, motivation, sensation, perception, intelligence, personality and physiological, developmental, social and abnormal psychology.

**PSY 200 Psychological Statistics and Design (3)**

(2 lecture, 2 laboratory) Prerequisite: PSY 120. Required laboratory arranged. Introduction to scientific methods and statistical analysis procedures basic to research in psychology. Probability, distribution statistics and hypothesis testing emphasized. Includes computer applications for research report writing, data gathering and analysis.

**PSY 230 Human Growth and Development (4)**

(3 lecture, 3 laboratory) Laboratory required. Negative PPD tuberculin skin test within past six months required. Study basic concepts and issues of growth and development from conception through senescence. Emphasis on cognitive, psychomotor and socioemotional development.

**PSY 265 Social Psychology (3)**

Survey major areas of social psychology, discussing nature of and factors involved in human social behavior, impression management, prosocial behavior, aggression, conformity, obedience to authority, attitude change and interpersonal attraction.

**PSY 271 Psychological Testing and Measurements (3)**

Receive an introduction to psychological test theory, interpretation of results, group and individual tests (cognitive, affective and psychomotor), reliability, validity and standardization procedures.

**PSY 323 Health Psychology (3)**

Prerequisite: PSY 120. Explore psychological factors in maintenance of wellness, treatment of illnesses and recovery from or adjustment to ongoing health problems. Study theory, research methods and clinical applications in health psychology.

**PSY 330 Child and Adolescent Psychology (3)**

Prerequisite: PSY 230. Focus on human development from conception through adolescence, particularly physical, cognitive and socioemotional development. Learn research methods for studying developmental processes.

**PSY 331 Maturity and Aging (3)**

Prerequisite: PSY 230. Explore physical, cognitive and socioemotional variables related to adult development encompassing an age range from 20 to over 100. Emphasis in learning various research methods.

**PSY 341 Principles of Learning (3)**

Prerequisite: PSY 120. Explore principles of classical and operant conditioning. Understand principles as the basis for concept learning, problem-solving, information processing and memory. Emphasis on human behavior in everyday life.

**PSY 342 Cognitive and Behavioral Change: Theory, Assessment and Application (3)**

Prerequisite: PSY 341. Examine various behavioral and cognitive change procedures in terms of their theoretical basis, assessment procedures and applied strategies. Includes operant, respondent and social learning and cognitive procedures.

**PSY 344 Group Processes and Roles (3)**

Majors only. Examine human interactions from perspectives of human relations, communication and group dynamics. Practice effective small and large group membership and leadership roles relevant to growth, therapy and task groups. Students may be asked to participate in personal growth groups as part of the course experience.

**PSY 350 Theories of Personality (3)**

Prerequisite: PSY 120. Study psychological theories and research methods used to explain personality development and functioning including psychoanalytic, neopsychoanalytic, cognitive, behavioral, humanistic and type-trait theories.

**PSY 365 Psychology and the Law (3)**

Prerequisite: PSY 265 or SOC 332. Examine how social psychological theories and methods have been applied to understand issues related to the legal system. Consider the role of psychology factors in jury selection, eyewitness testimony, death penalty cases and other areas.

**PSY 366 Industrial Psychology (3)**

Discover basic methods employed by psychologists in selection, placement, training and motivation of industrial personnel. Examine psychological factors influencing morale, production and job satisfaction.

**PSY 375 Sensation and Perception (3)**

Prerequisite: PSY 120. Laboratory arranged. 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.

**PSY 389 Research in Human Development (3)**

Become familiar with methodologies, ethical issues and research literature in the study of human development. Learn critical thinking and scientific writing skills through the process of conducting research.

**PSY 400 Research Design and Analysis (5)**

(4 lecture, 2 laboratory) Prerequisites: PSY 120, PSY 200. Laboratory required. 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.

**PSY 407 Introduction to Counseling Theories (3)**

Prerequisite: PSY 350. Survey current theoretical approaches with individuals and groups. Not intended as training in counseling approaches, but as basis for future study.

**PSY 422 Directed Studies (1-3)**

Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

**PSY 440 Cognition (3)**

Prerequisite: PSY 120. Explore human cognition by examining perception, attention, memory, intelligence, problem and cognitive development. Become familiar with neural bases of cognition, theoretical perspectives and research methods.

**PSY 443 Motivation (3)**

Prerequisite: PSY 120. Investigate motivational concepts and related research: drive, goals, direction, incentive, reinforcement, external stimulation, emotion, homeostasis, biological aspects, instinct and self-actualization.

**PSY 455 Abnormal Psychology (3)**

Prerequisite: PSY 120. Juniors or above. Study abnormal behavior: causes, symptoms, characteristics, classification, prevention and treatment.

**PSY 467 Psychology of Prejudice (3)**

Understand basic causes of prejudice and how prejudicial behavior is learned and diminished. Experience increased understanding of others.



**PSY 480 Physiological Psychology (5)**  
(4 lecture, 2 laboratory) Prerequisites: PSY 120, introduction to BIO/ZOO or equivalent. Required laboratory. Survey neuroanatomy and neurophysiology, functional relationship between nervous system and behavior. Review sensory and motor processes and investigative procedures. Consider biochemical correlates of learning and other behaviors.

**PSY 482 Behavioral Genetics (3)**  
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. 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 graded. Repeatable, maximum of six credits.

**PSY 493 Practicum in Psychology (1-3)**  
Consent of instructor and department chairperson. Students assist psychology professor with research or laboratory. Thirty-eight (38) clock hours must be spent for each hour of credit. Students may apply a maximum of four (4) credits to a psychology major. S/U graded. Repeatable, maximum of six credits.

**PSY 495 Special Topics in Psychology (1-5)**  
Scheduled on irregular basis. Repeatable, under different subtitles.

**PSY 508 Workshop (1-3)**  
A variety of workshops on special topics within the discipline. Goals and objectives will emphasize the acquisition of general knowledge and skills in the discipline. Repeatable, under different subtitles.

**PSY 513 Professional Renewal (1-3)**  
Update skills and knowledge of professionals in the discipline. Goals and objectives will be specifically directed at individual professional enhancement rather than the acquisition of general discipline knowledge or methodologies. S/U or letter graded. Repeatable, under different subtitles.

**PSY 550 Cognitive Development (3)**  
A survey of empirical research and theory on the cognitive development of children. Classic and contemporary theoretical approaches will be considered as will such specific topics as the development of attention, perception, memory, intelligence and reasoning.

**PSY 582 Behavioral Genetics (3)**  
Prerequisite: PSY 120. Introductory genetics course recommended. Consider genetic basis of behavior in humans and animals, contemporary issues, including genetic counseling, eugenics, intelligence and genetic correlates of psychopathology.

**PSY 590 Seminar in History and Systems (3)**  
Philosophical perspectives and major theories and systems are reviewed as they contributed to the development of contemporary psychology. Course required for state psychology board licensing eligibility.

**PSY 595 Special Topics in Psychology (1-5)**  
Scheduled on an irregular basis to explore special areas in psychology and carries a subtitle for each offering. Check department office for topics currently planned. Repeatable, under different subtitles.

**PSY 600 Graduate Research Methodology (3)**  
Graduates only. Majors only. Introduction to basic concepts in psychology research, including experimental design, nonexperimental methods, statistical analysis and researchers' ethical responsibilities. Overview of ongoing research in Psychology Department.

**PSY 620 Assessment and Interviewing (2)**  
Develop verbal and written skills in interview and assessment procedures; study related ethical and legal issues.

**PSY 621 Practicum in College Teaching of Psychology (2)**  
Master's students arrange with individual faculty to receive experience in observation and supervised practice. S/U graded. Repeatable, maximum of four credits.

**PSY 622 Directed Studies (1-3)**  
Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

**PSY 625 Principles of Neuropsychology (3)**  
Survey of functional neuroanatomy and neurophysiology related to human psychological processes. Discussion of theories of neuropsychology and their experimental and clinical applications. Introduction to neuropsychological disorders and their assessment/treatment.

**PSY 626 Introduction to Neuropsychological Assessment (3)**  
Prerequisite: PSY 625. Principles of behavioral and neurophysiological assessment. Standards of practice. Practice experience with behavioral/neurophysiological measurement, development of problem-lists and report writing.

**PSY 627 Psychometrics (3)**  
Survey of psychometric considerations within areas of personality, psychopathology, intelligence, neuropsychology. Topics include: domain theory test construction, test operating characteristics, multivariate methods within psychometrics, exemplars across major areas.

**PSY 643 Theories of Motivation (3)**  
Biological, learned, social, cognitive, operational and stimulus-based approaches to motivation; emphasis on implications for study of human behavior.

**PSY 664 Advanced Social Psychology (3)**  
Survey major social psychology areas, learning social observation techniques, nature and factors of human social behavior, cooperation, prosocial behavior, aggression, attitude change, interpersonal attraction and impression management. Observe social psychological phenomena in laboratory sessions.

**PSY 680 Neuroscience Seminar (3)**  
Graduates only. Reviews current theories and research regarding neurophysiological underpinnings of typical and atypical human behavior. Topics include: neuroscientific investigation of behavioral domains, cognitive models, genetic contributions, and developmental influences.

**PSY 693 Research Practicum (1-3)**  
Each student will collaborate in research with a psychology professor. The research topic and nature of involvement are determined by consultation between student and professor. S/U graded.

**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 and report results. S/U graded. Repeatable, maximum of 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.

## REC - RECREATION

### REC 203 Introduction to Recreation and Leisure (3)

Study the conceptual foundations of play, recreation and leisure, historical perspectives, economic and political significance, leisure behavior and the environment, relationship of leisure service agencies, professionalism, and issues and trends.

### REC 204 Introduction to Therapeutic Recreation (3)

Study cultural and historical significance of therapeutic recreation, the psychological, sociological, physiological nature of illness and disability; impact of social attitudes; advocacy accessibility and inclusionary practices; settings, services, and professional roles.

### REC 206 Commercial Recreation and Tourism (3)

The organization of commercial recreation and tourism. Supply and demand components, and historical perspectives, marketing and public relations and promotional techniques in leisure services, roles and relationships of commercial leisure delivery systems, and programming strategies.

### 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 351 Areas and Facilities in Parks and Recreation (3)

Study planning, designing and operating areas and facilities; environmental impact; relationship between leisure services and resource management; needs assessments, standards and regulations, maintenance, facility operations, construction, equipment adaptations and roles of contractors and consultants.

### REC 368 Programs in Recreation (3)

Prerequisites: REC 203, REC 204, REC 206. Majors and minors only. The role and content of leisure programs and services for all populations in diverse leisure delivery settings including marketing and public relations, assessment, planning, implementation and evaluation of programs and services.

### REC 372 Recreation Leadership (3)

Prerequisite: REC 203, REC 204, REC 206. Majors and minors only. Through observation and practical experience, study organization, assessment, promotion, and conduct of leisure programs and services for all populations throughout the lifespan in a variety of settings using various leadership techniques, strategies and resources.

### REC 394 Practicum in Recreation and Therapeutic Recreation (3)

Prerequisites: REC 203, REC 204, REC 206. CPR and First Aid, 50 clock hours of experience in recreation and/or therapeutic recreation settings. Consent of instructor. Supervised experience in agency, which provides recreation and/or therapeutic recreation services. Agency and student placement are pre-approved. Repeatable, maximum of six credits.

### REC 395 Special Topics in Recreation (1-3)

Designed to investigate a specific aspect of recreation. S/U graded. Repeatable, maximum of six credits, under different subtitles.

### REC 408 Workshop (1-3)

A variety of workshops on topics in professional preparation standards taught by practitioners on site. Topics cover standards that require students to demonstrate didactic skills and use agency resources not available on campus. Repeatable, under different subtitles.

### REC 415 Clinical Aspects in Therapeutic Recreation (3)

Prerequisite: REC 203, REC 204, REC 206. Medical, psychiatric and pharmacological terminology, medical and disabling conditions and illnesses, health and human service systems and practitioners and the role of therapeutic recreation in various settings, documentation and assessment processes. Restricted course.

### REC 416 Techniques of Therapeutic Recreation (3)

Prerequisite: REC 415. Gain experience in developing therapeutic relationships, planning and using leadership, supervision, facilitation and adaptation techniques to implement a variety of interventions and selecting and using a variety of assistive techniques, adaptive devices and equipment to assist individuals with illnesses and disabilities to promote independence. Restricted course.

### REC 421 Program Design in Therapeutic Recreation (3)

Prerequisite: REC 203, REC 204, REC 206. Application of the therapeutic recreation process to design individual and group programs and treatment plans. Plan client transitions, evaluate outcomes, and assess the impact of professional and regulatory standards on therapeutic recreation programs and services. Restricted course.

### 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 Management and Issues in Therapeutic Recreation (3)

Prerequisites: REC 204, REC 415, REC 421. Therapeutic recreation service history, theory, models, concepts and issues; management practices, especially financial, personnel and risk and safety procedures, legal and legislative issues, ethical practices, standards of practice, governmental and regulatory standards and credentialing processes.

### REC 444 Professional Participation and Issues (3)

Professional participation in on-site activities of affiliated agencies and professional associations. Experiences include standards, issues, legislation, regulations, conference planning, employment procedures, and historical and current theories and practices guiding professionals.

### REC 451 Administration of Leisure Delivery Systems (3)

Prerequisites: REC 368, REC 372, REC 394. Majors only. Personnel, budgeting, financing, organizational practices, legal and legislative processes, regulatory standards, risk management and applications of computers and technology to the management of recreation services.

### REC 492 Internship in Recreation and Therapeutic Recreation (12)

Prerequisites: All major course work completed. CPR and First Aid. 500 clock hours of approved experience in recreation and therapeutic recreation settings. 2.5 GPA in major courses. Consent of instructor. One full semester, 480-600 clock hours, minimum of 12-15 weeks, in approved agency under qualified supervisor with tasks encompassed by professional competencies of accreditation and certification bodies.

### REC 494 Recreation Evaluation and Research (3)

Prerequisites: All course work in major should be completed and/or concurrent enrollment in REC 451, excluding REC 492. Majors only. Apply research and evaluation procedures. Use communication tools, media and computers to present evaluation and research in leisure services.

## RUS - RUSSIAN

Note: Russian courses are not offered on a regular basis. Consult the Department of Foreign Languages for current status of the program.

### RUS 101 Elementary Russian I (5)

For students with no previous Russian. Conversational Russian using oral techniques with reading and writing drills. Stresses comprehension, structure, pronunciation, fluency and cultural awareness.

**RUS 102 Elementary Russian II (5)**

Prerequisite: RUS 101. Continuation of RUS 101. Conversational Russian using oral techniques with reading and writing drills. Stresses comprehension, structure, pronunciation, fluency and cultural awareness.

## SCED - SCIENCE EDUCATION

**SCED 422 Directed Studies (1-4)**

Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

**SCED 441 Methods of Teaching Secondary School Science (3)**

Full admittance to PTEP or certification at the undergraduate level required. Corequisite: EDLS 363. Prerequisite to student teaching. Consider curriculum and classroom organization, testing and evaluation, procedures and materials, relationship of subject area to total secondary program, emphasizing teaching techniques.

**SCED 470 Teaching Science in the Elementary School (3)**

(2 lecture, 2 laboratory) Full admittance 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.

**SCED 508 Workshop (1-3)**

A variety of workshops on special topics within the discipline. Goals and objectives will emphasize the acquisition of general knowledge and skills in the discipline. Repeatable, under different subtitles.

**SCED 513 Professional Renewal (1-12)**

Update skills and knowledge of professionals in the discipline. Goals and objectives will be specifically directed at individual professional enhancement rather than the acquisition of general discipline knowledge or methodologies. S/U or letter graded. Repeatable, under different subtitles.

**SCED 541 Methods of Teaching Secondary School Science (3)**

Full admittance to PTEP or certification at the undergraduate level required. Corequisite: EDLS 363. Prerequisite to student teaching. Consider curriculum and classroom organization, testing and evaluation, procedures and materials, relationship of subject area to total secondary program, emphasizing teaching techniques.

**SCED 570 Teaching Science in the Elementary School (3)**

(2 lecture, 2 laboratory) Full admittance 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.

**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 (3)**

Analysis of elementary and middle level science programs in terms of learning theory research and application including teaching strategies and influence of science, technology and society on science teaching.

**SCED 678 Science Education Seminar (1-2)**

Investigate current science education research, report on topics of interest in recent literature, discuss individual research problems. Repeatable, maximum of four credits.

**SCED 680 Science Curricula in Secondary/College Settings (3)**

A survey of contemporary trends and issues associated with designing, implementing and evaluating science curricula at the secondary and tertiary levels.

**SCED 694 Science Education Research (3)**

Prerequisite: SRM 502 or equivalent. An introduction to research in discipline-based science education, providing background and experience in the major activities associated with current practice in both field-based and quantitative studies.

## SCI - SCIENCE

**SCI 103 Physical Science for the 21st Century (3)**

Important concepts in physical science applications to 20th century problems and anticipated applications in the 21st century. Taught by Physics or Chemistry faculty.

**SCI 106 Introduction to Spaceflight (3)**

Topics to be covered include history of spaceflight, mechanics of propulsion and satellite motion, living and working in space and the space shuttle. Taught by Physics faculty.

**SCI 109 The Cosmos (3)**

Present concepts of the universe, including the "big bang" and "steady state" theories, black holes and continuing expansion. Recent television programs such as "Cosmos" will be studied. Taught by Physics faculty.

**SCI 115 Equity Issues in a Technological Society (3)**

Develop science/mathematics process skills. Become familiar with activities designed to increase the interests and skills of subgroups under-represented in science/mathematics/ technology professions.

**SCI 265 Physical Science Concepts (4)**

(3 lecture, 2 laboratory) Investigation of physical science concepts, emphasizing their application to the physical world.

**SCI 291 Scientific Writing (3)**

Prerequisite: ENG 122. Techniques of problem identification, literature survey, data interpretation and synthesis and technical reports.

**SCI 391 Computer Applications in Science (2)**

(1 lecture, 2 laboratory) Science teachers will learn how to apply the microcomputer as a tool in the classroom for interfacing with equipment, data management, software evaluation, record keeping and word processing.

**SCI 465 Principles of Scientific Inquiry: Finding Order in Chaos (3)**

Prerequisites: two of the following courses: BIO 265, ESCI 265 or SCI 265. A look at the nature of scientific inquiry by investigating scientific breakthroughs in each of the four areas of science: biology, chemistry, earth sciences and physics.

**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)**

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)**

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)**

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)**

Prerequisites: SCI 535, SCI 536 or equivalents. Investigation of basic principles of quantum physics and special relativity with applications in atomic, nuclear and astrophysics. For certified teachers interested in improving understanding and pedagogic delivery of physics concepts.

**SCI 591 Computer Applications in Science (2)**

(1 lecture, 2 laboratory) Science teachers will learn how to apply the microcomputer as a tool in the classroom for interfacing with equipment, data management, software evaluation, record keeping and word processing.

**SOC - SOCIOLOGY**

**SOC 100 Principles of Sociology (3)**

Overview of basic theories, methods, concepts and issues central to the discipline of sociology. Examine the relationship between social behavior and society.

**SOC 120 Introduction to Family Studies (3)**

Survey the characteristics, issues and problems of the family as a social institution. Topics discussed include: marital satisfaction, conflict, mate selection, alternatives and social change.

**SOC 141 Introduction to Criminal Justice (3)**

A survey of the three components of the criminal justice system: police, courts and correction. Emphasis on the structural and situational factors influencing the way these agencies of social control operate.

**SOC 170 Social Problems (3)**

Theoretical and conceptual perspectives on social problems and related social policy implications. Definitional and social causation models of social problems are examined.

**SOC 221 Sociology of Gender (3)**

Prerequisite: SOC 100 or equivalent. Examine gender stratification and social inequality. Topics include cultural definitions of masculinity and femininity, socialization and social change.

**SOC 235 Social Change (3)**

Prerequisite: SOC 100 or equivalent. Study various sociological approaches to change including social movements and revolutions as the product of multiple social factors. Compare the processes of change in underdeveloped countries with change in industrial societies.

**SOC 237 Sociology of Minorities (3)**

Prerequisite: SOC 100 or equivalent. Examine intergroup relations and the dynamics of power relating to ethnicity and other dimensions of social life that have produced tension and conflict among groups historically and in the present.

**SOC 247 Social Deviance (3)**

Prerequisite: SOC 100 or equivalent. Study social deviancy, particularly in terms of types, sources, functions, dysfunctions and social control mechanisms that operate relative to those departures 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, social epidemiological help-seeking behavior, social impacts of treatment, mental health delivery systems and social policy issues.

**SOC 277 Social Movements (3)**

Prerequisite: SOC 100 or equivalent. Explore significant aspects of unconventional political, economic, religious and cultist organizations. Study institutionalized and uninstitutionalized groups and their members.

**SOC 302 Variable Topics in Sociology (1-4)**

Prerequisite: SOC 100 or equivalent. Topics may include sociology of religion, human ecology, social conflict, fascism, urban sociology, etc. Repeatable, may be taken 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 120. Examine theoretical perspectives and research issues in the family. Analyze current issues in the family studies areas. Possible topics: singlehood, prenuptial contracts, dual career households, divorce, parenting, cohabitation, custody arrangements.

**SOC 326 Sociology of Childhood and Adolescence (3)**

Prerequisite: SOC 100 or equivalent. Examine the societal definition of childhood and adolescence and how social institutions influence socialization.

**SOC 330 Social Organizations (3)**

Prerequisite: SOC 100 or equivalent. Study the social structure of modern bureaucratic organizations. Review human behavior in organizations from a social psychological perspective.

**SOC 332 Social Psychology (3)**

Prerequisite: SOC 100 or equivalent. Examine the relationships between individuals and social systems. Focus on language interaction, self-conceptualizing behaviors and change. Review dominant social psychological theories and issues.

**SOC 333 Social Class and Inequality (3)**

Prerequisite: SOC 100 or equivalent. Presents a critical analysis of the realities of America's open-class system, making use of current theoretical perspectives and systematic research. Examines cross-cultural perspectives of stratification.

**SOC 340 Juvenile Delinquency (3)**

Prerequisite: SOC 100 or equivalent. Study the history of juvenile law, enforcement structures and explanations for the emergence of delinquency. Study the American juvenile legal system and its major problems.

**SOC 346 Criminology (3)**

Prerequisite: SOC 100 or equivalent. Survey criminal behavior generally, including theories of causation, types of crime, extent of crime, law enforcement, criminal justice, punishment and treatment.

**SOC 347 Sociology of Corrections (3)**

Prerequisite: SOC 100 or equivalent. Survey of the history and structure of punishment in Western societies. Review of the major philosophies and practices of modern corrections.

**SOC 351 Classical Social Theory (3)**

Prerequisite: SOC 100 or equivalent. Study the major pioneering classical social theorists who established the foundations of modern sociology during the late 19th and early 20th centuries. Focus on the emergence of sociology as a discipline.

**SOC 352 Contemporary Social Theory (3)**

Prerequisites: SOC 100, SOC 351. Review the major modern theoretical paradigms and prominent contemporary theorists in sociology. Examine contemporary issues in sociology.

**SOC 360 Computer Applications in the Social Sciences (3)**

Prerequisite: SOC 100 or equivalent. Basic skills in the application of computer technology to substantive issues in sociology. Data collection, data analysis, simulation and data archives. Mainframe, mini- and microcomputer applications.

**SOC 361 Social Research (3)**

Prerequisites: SOC 100 or equivalent, STAT 150. Juniors or above. Introduce research methodologies in the social sciences. Study the logic of research, role of theory, measurement, sampling and research designs.

**SOC 362 Social Statistics (3)**

Prerequisites: SOC 100 or equivalent, STAT 150. Introduce applied statistics in social science research. Levels of measurement; measures of central tendency and variability, probability; estimation and hypothesis testing; measures of association - reduction in error and variance models; chi square.

**SOC 371 Sociology of Aging (3)**

Prerequisite: SOC 100 or equivalent. Survey theories and research on the social aspects of aging with emphasis on later maturity and old age.

**SOC 372 Gangs, Schools and Community (3)**

Prerequisite: SOC 100. An examination of why today's youth join, remain in and leave gangs. This course also provides prospective teachers with strategies for dealing with gangs in their classroom, school and community.

**SOC 373 Political Sociology (3)**

Prerequisite: SOC 100 or equivalent. Evaluate structural strains and alternatives of left and right development in society. Analyze the state, its relationship to the masses, elites and problems of legitimacy.

**SOC 378 Sociology of Education (3)**

Prerequisite: SOC 100 or equivalent. Systematically attempt to relate sociological concepts to the educational institution. Focus on a scientific analysis of social processes and patterns involved in the educational system.

**SOC 409 Senior Seminar in Sociology (3)**

Prerequisite: SOC 100 and three of the following courses: SOC 351, SOC 352, SOC 361 or SOC 362. Majors only. Culminating seminar to provide opportunity for students to experience sociology by conducting a research project on an instructor-approved topic. Capstone course for Social Issues and Sociology of Education Emphases.

**SOC 422 Directed Studies (1-3)**

Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

**SOC 423 Violence and the Family (3)**

Prerequisite: SOC 100 or equivalent. Juniors or above. 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 425 Sociology of Work and Occupations (3)**

Prerequisite: SOC 100 or equivalent. Survey of the origins of work and occupations, of the structure and administration of work and occupations, and of the future of work and occupations. Other topics covered are occupational choice, occupational socialization, managing workers, feelings about work and occupations, work and occupational deviance, work occupations and the family.

**SOC 444 Sociology of Criminal Law (3)**

Prerequisites: SOC 100. Majors only. Seniors or above. Focus on substantive and procedural criminal law in the context of sociological theory, research and jurisprudence. Capstone course for criminal justice emphasis.

**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 447 Introduction to Grant Proposal Writing (3)**

Prerequisite: SOC 100 or equivalent. A course for juniors and seniors designed to teach students how to prepare grant proposals. This course gives students opportunities to learn by actively participating in the writing of a grant proposal. Students who are not Sociology majors may be asked to identify a faculty mentor in their subject area who is willing to supervise the drafting of a proposal for this class.

**SOC 452 Applied Social Theory (3)**

Prerequisites: SOC 100, Junior or senior status and permission of instructor. Provide understanding of the role of theory in the social sciences, provide knowledge of major paradigms utilized in contemporary social science, assess applied explanatory strengths and weaknesses of these paradigms.

**SOC 480 Social Policy Analysis (3)**

Examines the relationship between social policy and society. Socio-cultural historical conditions and social institutions which affect policy formation are studied. Social change and social policy, as well as utilization of sociological concepts and methods in applied settings are examined.

**SOC 490 Internship (3-9)**

Prerequisite: SOC 100 or equivalent. Study the basic principles of field research by working as a volunteer intern with a community service agency. Repeatable, maximum of nine credits.

**SOC 491 Internship in Social Issues (3-9)**

Prerequisites: SOC 100, SOC 272, SOC 351 or equivalent. Social Issues Internship provides the student with an opportunity to study and gain experience in a social issue by working with a community agency or group. Repeatable, maximum of nine credits.

**SOC 493 Practicum in Family Studies (3-9)**

Prerequisites: SOC 100, SOC 120, SOC 324, SOC 351, SOC 352, SOC 361, SOC 362. Majors only. Permission of instructor. 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 494 Research Practicum (3-6)**

Complete an Individualized research project for a non-profit organization. Classroom component addresses issues in applied research. Project must be initiated before the beginning of enrollment and pre-approval of the project is required. UNC contact hour requirements for internships apply. Capstone course for Not-for-Profit Interdisciplinary Program.

**SOC 508 Workshop (1-6)**

A variety of workshops on special topics within the discipline. Goals and objectives will emphasize the acquisition of general knowledge and skills in the discipline. Repeatable, under different subtitles.

**SOC 513 Professional Renewal (1-3)**

Update skills and knowledge of professionals in the discipline. Goals and objectives will be specifically directed at individual professional enhancement rather than the acquisition of general discipline knowledge or methodologies. S/U or letter graded. Repeatable, under different subtitles.

**SOC 520 Seminar in the Family (3)**

Explore family in depth, focusing primarily on American family. Also, contrast the American system with that of other societies.

**SOC 523 Violence and the Family (3)**

Examine major issues in family violence such as defining family violence, comparing types of explanations from different disciplines and translating social science perspectives to policy and social service delivery systems.

**SOC 530 Organizational Analysis (3)**

Analysis of complex organizations in a number of different spheres such as education, health, criminal justice, business, media, etc. application of theories in explaining structures of organizations, behaviors of individuals within organizations and inter organizational relationships.

**SOC 532 Social Psychology and Group Dynamics (3)**

Prerequisite: SOC 332 or consent of instructor. Analyze and discuss issues, trends, paradigms and applications. Includes social interaction theories, small group dynamics and group based methodologies.

**SOC 539 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 544 Sociology of Criminal Law (3)**

Graduates only. Focus on substantive and procedural criminal law in the context of sociological theory, research and jurisprudence.

**SOC 550 Philosophical Issues in Sociology (3)**

Prerequisite: SOC 351 or equivalent. Explore a variety of philosophical problems, issues and contentions forming a backdrop to theoretical and empirical sociology.

**SOC 551 Classical Social Theory (3)**

Study the major pioneering classical social theorists who established the foundations of modern sociology during the late 19th and early 20th centuries. Focus on the emergence of sociology as a discipline.

**SOC 552 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 554 Criminological Theories (3)**

Analyze and evaluate the major historical and contemporary theories of criminal behavior.

**SOC 561 Social Research (3)**

Prerequisites: SOC 100 or equivalent, STAT 150. Introduce research methodologies in the social sciences. Study the logic of research, role of theory, measurement, sampling and research designs.

**SOC 562 Social Statistics (3)**

Prerequisites: SOC 100 or equivalent, STAT 150. Introduce applied statistics in social science research. Levels of measurement; measures of central tendency and variability, probability; estimation and hypothesis testing; measures of association - reduction in error and variance models; chi square.

**SOC 563 Qualitative Methods (3)**

Examination of major qualitative methods in sociology: ethnography, participant observation, phenomenological sociology, ethnomethodology, Verstehen sociology, hermeneutics and other methods. Emphasis is on field research and application of specific qualitative methods.

**SOC 571 Sociology of Aging (3)**

Prerequisite: SOC 100 or equivalent. Survey theories and research on the social aspects of aging with emphasis on later maturity and old age.

**SOC 580 Social Policy Analysis (3)**

Examines the relationship between social policy and society. Socio-cultural historical conditions and social institutions which affect policy formation are studied. Social change and social policy as well as utilization of sociological concepts and methods in applied settings are examined.

**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, may be taken 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 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 690 Practicum in College Teaching of Sociology (2)**

Masters students arrange with individual faculty to receive experience in observation and supervised practice. S/U Graded.

**SOC 691 Research Internship (1-9)**

Prerequisites: Nine hours of graduate credit in sociology and consent of instructor. S/U graded. Put classroom learning into practice with research in an organizational setting. Repeatable, maximum of nine credits.

**SOSC - SOCIAL SCIENCE****SOSC 300 Social Studies Methods of Inquiry (3)**

Prerequisites: One course from *a*, *b*, and *c*:  
*a*. HIST 100, HIST 101 or HIST 121;  
*b*. GEOG 100, GEOG 110 or GEOG 200;  
*c*. ECON 101, ECON 103, ECON 105, PSCI 100 or PSCI 105. This course is designed to explain and integrate methods and forms of explanation found in the social science disciplines and history.

**SOSC 341 Teaching Secondary Social Studies (3)**

Full admittance 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 admittance to PTEP or certification at undergraduate level required. Consider recent trends in the organization and teaching of social studies courses in the secondary school and evaluate new courses of study, new materials and new equipment.

**SOSC 699 Thesis (1-6)**

Required of Master of Arts Candidates in Sociology on recommendation of major advisor. S/U graded. Repeatable, no limitations.

**SPAN - SPANISH****SPAN 101 Elementary Spanish I (5)**

First part of a two semester sequence emphasizing the development of a functional proficiency in the four basic language skills of listening, speaking, reading and writing. Oral communication is stressed.

**SPAN 102 Elementary Spanish II (5)**

Prerequisite: SPAN 101 or equivalent. A continuation of SPAN 101.

**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.

**SPAN 202 Intermediate Spanish II (3)**

Prerequisite: SPAN 201 or three years of high school Spanish. A continuation of SPAN 201.

**SPAN 255 Music of the Hispanic World (3)**

Prerequisite: Two years of high school Spanish or one year of college Spanish. An introduction to Hispanic culture through music. Music, songs and instruments will be studied in their cultural perspectives. Course helps to develop Spanish language, vocabulary and pronunciation. Taught in Spanish.

**SPAN 301 Spanish Grammar (3)**

Prerequisite: At least three years of high school Spanish or equivalent. A systematic study of the more complex theories and forms of Spanish grammar with emphasis on mood, tense and voice.

**SPAN 302 Spanish Composition (3)**

Prerequisite: SPAN 301. Designed to increase the student's composition skills in Spanish through the use of original essays, descriptions, compositions, research papers and translations.

**SPAN 303 Spanish Conversation (3)**

Prerequisite: At least three years of high school Spanish or equivalent. A course designed to develop a high level of proficiency in spoken Spanish. Language functions are practiced in the context of practical everyday situations.

**SPAN 304 Introduction to Hispanic Literature (3)**

Prerequisite: At least three years of high school Spanish or equivalent. To acquaint the student with the elements of the various literary genres and literary criticism. The MLA Handbook will be introduced for research writing.

**SPAN 321 Spanish Civilization and Culture (3)**

Prerequisite: Two years of college Spanish or equivalent. Designed to acquaint students with general trends of Spanish civilization and culture. Includes historical, economic, political and artistic developments of Spain from prehistoric times to the present.

**SPAN 331 Latin American Civilization and Culture (3)**

Prerequisite: Two years of college Spanish or equivalent. Designed to examine the historical and cultural development of the Latin American countries. Surveys the major historical events from the pre-Columbian period to the present.

**SPAN 350 Masterpieces of Spanish Literature (3)**

Prerequisite: SPAN 321. Study Spanish Golden Age, Spanish and Spanish American Baroque and Latin American literary works of the period after independence. Includes poetry, novel, essay and drama.

**SPAN 351 Masterpieces of Latin American Literature (3)**

Prerequisite: SPAN 350. Study the masters of contemporary Latin American literature and the late 19th and 20th century Spanish literature.

**SPAN 405 Spanish Phonetics and Dialects (3)**

Prerequisite: Three years of high school Spanish or equivalent. The study of the major semantic, syntactic and phonological aspects of the Spanish language dialects and the standard Latin American Spanish found in the Americas.

**SPAN 406 Introduction to Translation (3)**

Prerequisites: SPAN 301, SPAN 302, SPAN 303, SPAN 405. Introduction to translation techniques and resource material in a wide variety of subjects and styles. Emphasis will be placed on translation accuracy.

**SPAN 407 Spanish for Oral Proficiency (3)**

Prerequisite: Four years of high school Spanish or equivalent. A course designed to develop oral proficiency by exposing students to advanced and superior linguistic functions.

**SPAN 410 Chicano Spanish Linguistics (3)**

Prerequisite: SPAN 202. This course examines concepts and theories relevant to the linguistic situation of the Chicano in the Southwest. Focus of the course will be on Spanish and English varieties pertinent to Chicanos, and the linguistic/cultural situation that emerges when these two languages come into contact along the U.S.-Mexico border and throughout the nation. Chicano Spanish linguistics draws from a variety of disciplines including: linguistics, sociology and psychology, and attempts to delve into the forces that have contributed to the present reality of Chicanos and their language.

**SPAN 411 Spanish for Bilingual Education I (3)**

Prerequisite: At least two years of college Spanish or equivalent. Develops Spanish language skills for teaching language arts and math. ACTFL/ETS Spanish Oral Proficiency Interview must be taken before student teaching. Can be taken after SPAN 412.

**SPAN 412 Spanish for Bilingual Education II (3)**

Prerequisite: At least two years of college Spanish or equivalent. Develops Spanish language skills for teaching science and social studies. ACTFL/ETS Spanish Oral Proficiency Interview must be taken before student teaching. Can be taken before SPAN 411.

**SPAN 414 Contrastive Features of Spanish and English (3)**

Prerequisite: At least three years of high school Spanish or equivalent. Consent of instructor. General contrastive approach to analysis Spanish/English. Underscores areas of ease or difficulty through which native speakers of Spanish and native speakers of English pass when learning their respective second language. Course taught in Spanish, interest for teaching bilingual education, ESL.

**SPAN 422 Directed Studies (1-3)**

Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

**SPAN 452 Mexican Literature (3)**

Prerequisite: Two years of college Spanish or equivalent. A study of the most outstanding works of Mexican literature. Examines the works from the Mexican Revolution, Criollismo, Magical Realism and contemporary Social-Realism.

**SPAN 455 Spanish Readings (3)**

Prerequisite: Two years of college Spanish or equivalent. Designed to accommodate the reading abilities and interests of students. Extensive reading to be discussed in class and in conference. Reading content is variable and determined by instructor.

**SPAN 456 Spanish and Latin American Short Story (3)**

Prerequisite: Two years of college Spanish or equivalent. Study of the short story in Spain and Spanish America. Will review its development from the Middle Ages to the present. Includes works of Matute, Garcia Marquez, Borges and Rulfo.

**SPAN 457 Literature of U. S. Hispanics (3)**

Prerequisite: Two years of college Spanish or equivalent. Examines the most important works of literature written by Hispanics from the United States. Includes the four genres: poetry, drama, novel and short story.

**SPAN 458 Cervantes (3)**

Prerequisite: Two years of college Spanish or equivalent. To become acquainted with the creative process of the author, the structure of the novel and the characters and understand the life and culture of Spain during this period.

**SPAN 459 Hispanic Drama (3)**

Prerequisite: Two years of college Spanish or equivalent. A study of Hispanic drama masterpieces from Spain's Golden Age to the post-Civil War period; Latin America's Contemporary Theatre of Social Protest; and the United States' Hispanic Theatre Movement.

**SPAN 501 Spanish Grammar (3)**

Prerequisite: Three years of high school Spanish or equivalent. A systematic study of the more complex theories and forms of Spanish grammar with emphasis on mood, tense and voice.

**SPAN 502 Spanish Composition (3)**

Prerequisite: SPAN 301. Designed to increase the student's composition skills in Spanish through the use of original essays, descriptions, compositions, research papers and translations.

**SPAN 503 Spanish Conversation (3)**

Prerequisite: Three years of high school Spanish or equivalent. A course designed to develop a high level of proficiency in spoken Spanish. Language functions are practiced in the context of practical everyday situations.

**SPAN 505 Spanish Phonetics and Dialects (3)**

Prerequisite: Three years of high school Spanish or equivalent. The study of the major semantic, syntactic and phonological aspects of the Spanish language dialects and the standard Latin American Spanish found in the Americas.

**SPAN 506 Translation (2)**

Students will be introduced to techniques, theory and history of translation in understanding the complexities involved in the translation of English to Spanish or Spanish to English.

**SPAN 507 Spanish for Oral Proficiency (3)**

Prerequisite: Four years of high school Spanish or equivalent. A course designed to develop oral proficiency by exposing students to advanced and superior linguistic functions.

**SPAN 508 Workshop (1-3)**

A variety of workshops on special topics within the discipline. Goals and objectives will emphasize the acquisition of general knowledge and skills in the discipline. Repeatable, under different subtitles.

**SPAN 510 Advanced Placement Program-Spanish (1-3)**

Consent of instructor. A course designed to provide content and pedagogical information related to the teaching of grammar and literature in the secondary school Spanish advanced placement program. S/U graded. Repeatable, no limitations.

**SPAN 513 Professional Renewal (1-3)**

Update skills and knowledge of professionals in the discipline. Goals and objectives will be specifically directed at individual professional enhancement rather than the acquisition of general discipline knowledge or methodologies. S/U or letter graded. Repeatable, under different subtitles.

**SPAN 514 Contrastive Features of Spanish and English (3)**

Prerequisite: three years of high school Spanish or equivalent. Consent of instructor. General contrastive approach to analysis Spanish/English. Underscores areas of ease or difficulty through which native speakers of Spanish and native speakers of English pass when learning their respective second language. Course taught in Spanish, interest for teaching bilingual education, ESL.

**SPAN 521 Spanish Civilization and Culture (3)**

Prerequisite: Two years of college Spanish or equivalent. Designed to acquaint students with general trends of Spanish civilization and culture. Includes historical, economic, political and artistic developments of Spain from prehistoric times to the present.

**SPAN 531 Latin American Civilization and Culture (3)**

Prerequisite: Two years of college Spanish or equivalent. Designed to examine the historical and cultural development of the Latin American countries. Surveys the major historical events from the pre-Columbian period to the present.

**SPAN 550 Masterpieces of Spanish Literature (3)**

Prerequisite: SPAN 521. Study Spanish Golden Age, Spanish and Spanish American Baroque and Latin American literary works of the period after independence. Includes poetry, novel, essay and drama.

**SPAN 551 Masterpieces of Latin American Literature (3)**

Prerequisite: SPAN 550. Study the masters of contemporary Latin American literature and the late 19th and 20th century Spanish literature.

**SPAN 552 Mexican Literature (3)**

Prerequisite: Two years of college Spanish or equivalent. A study of the most outstanding works of Mexican literature. Examines the works from the Mexican Revolution, Criollismo, Magical Realism and contemporary Social-Realism.

**SPAN 555 Spanish Readings (3)**

Prerequisite: Two years of college Spanish or equivalent. Designed to accommodate the reading abilities and interests of students. Extensive reading to be discussed in class and in conference. Reading content is variable and determined by instructor.

**SPAN 560 Spanish Civilization and Culture (2)**

Prerequisite: Three years of college Spanish or equivalent. Interpretation of the civilization and culture of Spain from its earliest beginnings to the present. Includes an analysis of the artistic, political and economic currents that have shaped modern Spain.

**SPAN 561 Latin American Civilization and Culture (2)**

Prerequisite: Three years of college Spanish or equivalent. Designed to examine the cultural heritage of Latin America and its current state of political, economic and social development. Forces affecting the everyday life of the people are 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 of three credits.

**SPAN 570 Readings in United States Hispanic Literature (1-3)**

Prerequisite: Three years college Spanish or equivalent. Designed to cover literature in English or Spanish by United States Hispanics: Mexican, Cuban or Puerto Rican Americans. Readings in narrative, theatre, poetry. Content is variable and determined by instructor. Repeatable, maximum of 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 of three credits.

**SPAN 573 National Literatures (2)**

Prerequisite: Three years of college Spanish or equivalent. Give a basic understanding of the most important writers and their works of a given Spanish-speaking country.

**SPAN 574 Masterpieces of 20th Century Spain (2)**

Prerequisite: Three years of college Spanish or equivalent. Study the Masterpieces of 20th Century Spanish literature. Topics might include the generation of 1898, poetry and theatre of 20th century, pre-Civil War novel and post-Civil War novel.

**SPAN 575 Masterpieces of 20th Century Latin America (2)**

Prerequisite: Three years of college Spanish or equivalent. A study of the most representative Masterpieces of 20th century Latin American literature. Representative topics might include the modern novel, the essay, contemporary theatre and poetry and fantastic literature.

**SPAN 576 Mexican Literature (2)**

Prerequisite: Three years of college Spanish or equivalent. Provides a basic understanding of Mexican contemporary literature, its general trends and some of the most important authors in each of the four genres: poetry, novel, theatre and short story.

**SPAN 580 Grammar Topics (1-3)**

Prerequisite: Three years of college Spanish or equivalent. An in-depth study of difficult and selected structures of the language, which traditionally present problems; such as: the subjunctive mood, ser and estar, preterite vs. imperfect and others. Repeatable, maximum of three credits.

**SPAN 581 Advanced Spanish Grammar (2)**

Prerequisite: Three years of college Spanish or equivalent. An intensive study of the more complex theories and forms of Spanish grammar, with emphasis on mood, tense and voice.

**SPAN 582 Spanish for Oral Proficiency (2)**

Prerequisite: Three years of college Spanish or equivalent. A course designed to develop oral proficiency by exposing students to superior linguistic functions.



**SPAN 583 Oral and Written Discourse (2)**

Prerequisite: Three years of college Spanish or equivalent. Designed to enable students to speak and write extensively in Spanish, using description, narrations and exposition. Emphasis will be on fluency, accuracy and organization.

**SPAN 584 Spanish Pronunciation and Dialects (2)**

Prerequisite: Three years of college Spanish or equivalent. Study the semantic, phonological and syntactic characteristics of the Spanish language dialects spoken in the United States. Special emphasis on Spanish pronunciation is included.

**SPAN 622 Directed Studies (1-3)**

Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

**SPCO - SPEECH COMMUNICATION****SPCO 100 Basics of Public Speaking (1)**

Corequisite: SPCO 103. Overview of concepts central to effective public speaking including managing nervousness, researching and organizing information, thinking critically, delivering messages, fielding questions and influencing an audience.

**SPCO 102 Introduction to Speech Communication (3)**

An introduction to the nature of speech communication as symbolic behavior including an overview of communication contexts.

**SPCO 103 Speaking Evaluation (2)**

Corequisite: SPCO 100. Evaluation of basic concepts central to effective speaking, listening, responding and critical thinking in an oral context.

**SPCO 111 Oral Interpretation (3)**

(2 lecture, 2 laboratory) A study in the oral interpretation of literature, especially prose and poetry. Laboratory experiences include substantial student performance in individual and group presentations.

**SPCO 201 Inquiry in Speech Communication (3)**

An introduction to speech communication inquiry; includes practice with skills of critical thinking, library research and social science techniques.

**SPCO 211 Argumentation and Debate (3)**

Study the basics of argumentation including reasoning, evidence and critical thinking. Practice the practical skills of public debating.

**SPCO 212 Professional Speaking (3)**

Prerequisite: SPCO 100 or instructor's consent. Practical experience in presentation design and delivery to facilitate understanding of a message and for influence of others.

**SPCO 221 Non-Verbal Communication (3)**

An overview of current theory and research in non-verbal communication. The course will focus on non-verbal communication message systems and their impact on the communication process.

**SPCO 232 Principles of Interviewing (3)**

Study interviewing from the perspectives of both the interviewer and interviewee. Examine information seeking, employment, appraisal, grievance, firing and exit interviews.

**SPCO 321 Interpersonal Theory (3)**

An undergraduate course focusing on the philosophical and theoretical issues of self-perception and relationships as they are affected by verbal and non-verbal communication.

**SPCO 323 Intercultural Communication (3)**

Learn about the communication concepts and theories inherent in the process of interacting with individuals in cross-cultural and inter-ethnic situations.

**SPCO 324 Family Communication (3)**

Investigate family structure from a human communication perspective.

**SPCO 330 Small Group Communication (3)**

Consent of instructor. Apply problem-solving and decision-making techniques and theories, particularly in the relationship between communication and group variables such as leadership roles and cohesiveness.

**SPCO 331 Organizational Communication (3)**

Study the dynamics of communication activities within an organization.

**SPCO 341 Courtroom Communication (3)**

Investigate the relationship between communication and the law and legal argumentation and persuasion within courtroom advocacy. Analyze communication within the legal profession.

**SPCO 343 Persuasion (3)**

Investigate major variables surrounding attitude change and human persuasion.

**SPCO 350 Communication in the Classroom (3)**

Prerequisite: SPCO 201 or consent of instructor. Investigate communication theory and research related specifically to the classroom setting. Course content will focus on the development of self-concept perception, verbal and non-verbal language and group dynamics.

**SPCO 352 Methods of Teaching Speech 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 404 Rhetorical Theory (3)**

Systematic review of the major contributions to rhetorical theorists for their probable impact on communication.

**SPCO 422 Directed Study (1-3)**

Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

**SPCO 431 Communication and Leadership (3)**

Examine theories of leadership, major leadership research findings and various leadership methods. Consider how the principles derived from leadership literature can be applied to small group and organizational settings.

**SPCO 444 Argumentation Theory (3)**

Investigate the nature of argumentation in personal and social relationships. Primary attention is paid to how people use reason-giving processes to resolve personal and social conflicts.

**SPCO 461 Seminar in Speech Communication (1-3)**

Investigate issues of current concern for SPCO professionals with subject varied according to faculty expertise. Repeatable, maximum of nine credits, under different subtitles.

**SPCO 491 Speech Communication Theory (3)**

Consent of instructor. Graduating seniors only. Summative course of the nature and function of human communication theory and research including an overview of the new traditions of theory and current perspectives in the discipline. Assessment of student practicum competency.

**SPCO 492 Undergraduate Internship (1-10)**

Supervised work experience in area of specialization. Submit a proposal to the coordinator of internships six weeks before registration. Maximum of six semester credit hours may be counted toward the major. Repeatable, maximum of ten credits.

**SPCO 502 Teaching College SPCO Courses (1)**

Required of all graduate teaching assistantships in SPCO. S/U graded. Repeatable, maximum of three credits.

**SPCO 504 Rhetorical Theory (3)**

Systematic review of the major contributions of rhetorical theorists for their probable impact on communication.

**SPCO 511 Instructional Communication (3)**

This graduate seminar for educators will focus on contemporary issues, theoretical perspectives and academic research in communication instruction.

**SPCO 512 Persuasion (3)**

Investigate the implications of contemporary research and theory in the area of persuasion and attitude change.

**SPCO 514 Interpersonal Communication (3)**

An overview of current theoretical perspectives on interpersonal communication and representative supportive research.

**SPCO 515 Group Communication (3)**

Examine theories of group process, major group process research findings and how the principles derived from speech communication literature can be applied to small groups.

**SPCO 517 Organizational Communication (3)**

Examine theories of organizing, research findings on organizational communication and how the principles derived from speech communication impact institutions.

**SPCO 524 Conflict Management (3)**

Focus on the processes involved in conflict, conflict analysis and communication responses to conflict.

**SPCO 531 Communication and Leadership (3)**

Examine theories of leadership, major leadership research findings and various leadership methods. Consider how the principles derived from leadership literature can be applied to small group and organizational settings.

**SPCO 541 Courtroom Communication (3)**

Investigate the relationship between communication and the law and legal argumentation and persuasion within courtroom advocacy. Analyze communication within the legal profession.

**SPCO 542 Seminar in Political Communication (3)**

Graduate students only. Analysis and criticism of political discourse using theories and methods from the discipline of speech communication.

**SPCO 544 Argumentation Theory (3)**

Investigate the nature of argumentation in personal and social relationships. Primary attention is paid to how people use reason-giving processes to resolve personal and social conflicts.

**SPCO 552 Methods of Teaching Speech Communication (3)**

Full admittance to PTEP required. Focus of the course is on curriculum and classroom organization, testing and evaluation, procedures and materials specific to secondary speech communication instruction.

**SPCO 553 Professional Speaking (3)**

Prerequisites: SPCO 100, SPCO 103. Theory and practice of advanced speech composition, presentational decisions and techniques in a variety of contexts.

**SPCO 561 Seminar in Speech Communication (1-3)**

Investigate issues of current concern, for SPCO professionals with subject varied according to faculty expertise. Repeatable, maximum of nine credits, under different subtitles.

**SPCO 592 Internship (1-3)**

Receive professional communicative experience. Submit a proposal to the Internship Coordinator six weeks before registration. Hours may not be credited to 30 basic hours in speech communication graduate program. Repeatable, maximum of six credits.

**SPCO 600 Graduate Study in Communication (3)**

Orientation to graduate study with emphasis on learning to conduct literature reviews using the major journals of the speech communication discipline. Introduction to research using quantitative, qualitative and rhetorical approaches.

**SPCO 601 Qualitative Methods in Communication Research (3)**

Orientation to the methods of qualitative research that are most frequently used in the speech communication discipline. Practical experience in data gathering and analysis procedures.

**SPCO 602 Quantitative Methods in Communication Research (3)**

Orientation to the methods of quantitative research that are most frequently used in the speech communication discipline. Practical experience in data gathering and analysis procedures.

**SPCO 603 Communication Theory (3)**

The study of current theories of human communication and the process of theory building.

**SPCO 605 Rhetorical Criticism (3)**

Systematic review of the major contributions of rhetorical criticism theorists for their probable impact on communication.

**SPCO 622 Directed Studies (1-3)**

Individualized investigation under the direct supervision of faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

**SPCO 699 Thesis (1-6)**

Optional for Master of Arts candidates on recommendation of major advisor. S/ U graded. Repeatable, no limitations.

**SRM - STATISTICS AND RESEARCH METHODS****SRM 502 Applied Statistics (4)**

Hypothesis formulation and testing; estimation and confidence limits; one- and two-sample tests; and statistical decision theory. Study inferences arising from distribution functions: t, F, chi-square, binomial, normal. Study applications and interpretation of single and multiple classification designs.

**SRM 508 Workshop (1-3)**

A variety of workshops on special topics within the discipline. Goals and objectives will emphasize the acquisition of general knowledge and skills in the discipline. Repeatable, under different subtitles.

**SRM 513 Professional Renewal (1-3)**

Update skills and knowledge of professionals in the discipline. Goals and objectives will be specifically directed at individual professional enhancement rather than the acquisition of general discipline knowledge or methodologies. S/U graded, unless section is approved (by the Graduate School) as letter graded. Repeatable, under different subtitles.

**SRM 520 Introduction to Statistical Computing (1)**

The course is designed to familiarize students with the use of statistical packages on both the mainframe and microcomputer platforms. Students will learn to organize, input, and analyze data.

**SRM 551 Mathematical Statistics with Applications I (4)**

Prerequisite: MATH 233 or Consent of instructor. Study of probability, random variables, distributions, moments, expected values and standard probability laws, probability bounds and point estimation.

**SRM 552 Mathematical Statistics with Applications II (4)**

Prerequisite: SRM 551. Continuation of SRM 551. Sampling distributions, estimation techniques, maximum likelihood, tests of hypothesis, confidence intervals, regression and chi-square tests.

**SRM 600 Introduction to Graduate Research (3)**

Principles of research, design and analysis. Read and critique published research. Required of all first year graduate students except in those departments with substitutes. Taught every semester.

**SRM 602 Statistical Methods I (3)**

Prerequisite: SRM 600. Brief review of descriptive statistics. Covers probability, inference and sampling, correlation, hypothesis testing one-way ANOVA and an introduction to computer statistics packages.

**SRM 603 Statistical Methods II (3)**

Prerequisite: SRM 602. Continuation of SRM 602. Review of one-way ANOVA. Covers multiple comparisons, factorial designs, nested and mixed models, repeated measures, analysis of covariance and use of computer statistics packages.

**SRM 606 Multiple Linear Regression Analysis (3)**

Prerequisite: SRM 502 or Consent of instructor. Takes the matrix approach to continuous and categorical variables, polynomial and selected non-linear models; formulation of ANOVA and ANCOVA designs and collinearity; regression methods; backward elimination, forward selection, stepwise and stagewise; and part-regression.

**SRM 607 Non-Parametric Statistics (3)**

Prerequisite: SRM 502 or Consent of instructor. Study non-parametric tests of research hypotheses relative to the data to which the test is applicable; the rationale underlying the test; examples of application of the test in behavioral research; and comparison of the test with its parametric equivalent.

**SRM 608 Experimental Design (3)**

Prerequisite: SRM 502 or SRM 603. Topics include factorial designs, nesting of factors, and crossed/nested designs, including repeated measurements. Blocking and analysis of covariance are introduced as methods for control of extraneous sources of variability. Analysis procedures presented include pre- and post-multiple comparison considerations, trend analysis, power and use of computer software in fixed, mixed and random models.

**SRM 609 Sampling Methods (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 502 or SRM 603. Additional multiple regression topics. Introduction to MANOVA designs, discriminant analysis, factor analysis, cluster analysis, and path analysis.

**SRM 611 Advanced Statistical Data Analysis (3)**

Prerequisite: SRM 610. Provides the advanced statistics student with the opportunity to deal with large data sets and problems and issues that arise when working with such sets such as missing data, "dirty" data, rounding errors, storage issues, and the like. Final report of analysis required.

**SRM 614 Linear Models (3)**

Prerequisite: MATH 525, SRM 502, SRM 551. Advanced topics in matrix algebra with applications to statistics serve as the basis for the development of the theory of linear models as a structure for handling problems in regression and correlation, analysis of variance, and experimental design.

**SRM 617 Biostatistics and Health Data Analysis (3)**

Prerequisite: SRM 600 or equivalent. This course enables students to develop the skills and knowledge necessary to manage and analyze health care and biomedical data. The students will gain an understanding of biostatistical methods and will apply this knowledge to the analysis of relevant case studies.

**SRM 619 Resampling Methods (3)**

Prerequisite: SRM 502 or Consent of instructor. Use of computer simulation techniques to investigate problems in probability and statistics. Topics include jackknife procedures, bootstrap procedures and randomization tests.

**SRM 622 Directed Studies (1-3)**

Consent of instructor. Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

**SRM 635 Categorical Data Analysis (3)**

Principles of Categorical Data Analysis. Overview of developments made during the past quarter century. Emphasis on loglinear and logit modeling techniques, which parallel many features of the general linear model in the continuous case. Taught alternate years.

**SRM 641 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 650 Research and Statistics Colloquium (1)**

Required of all masters and doctoral students. Students present the results of their own research and critique and discuss the presentations of other students and faculty. S/U graded. Repeatable, no limitations.

**SRM 670 Evaluation: Models and Designs (3)**

Prerequisite: SRM 600. Theories and methods of program evaluation, models of evaluation and the social context of evaluation. Nature and types of evaluation, planning, proposal writing and measurements.

**SRM 680 Introduction to Qualitative Research (3)**

Prerequisite: SRM 600 or equivalent. This course introduces qualitative research. Students will explore the foundations, methods and processes of qualitative research and will learn to evaluate published 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 38 hours of student field experience for each credit hour given. S/U graded. Repeatable, maximum of 10 credits.

**SRM 694 Practicum (1-9)**

Consent of instructor. Experiential learning in an on-campus setting, such as the Research Consulting Lab, 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.

**SRM 699 Thesis (1-6)**

Optional for Master of Science program in Applied Statistics and Research Methods. Empirical investigation under the direction of a graduate faculty member. Thesis must be approved by the faculty committee and submitted in appropriate style and format to the Graduate School. S/U graded. Repeatable, no limitations.

**SRM 700 Advanced Research Methods (3)**

Prerequisites: SRM 600 and either SRM 502 or SRM 602. Advanced research designs, concepts and methods. Required of all specialist and doctoral candidates.

**SRM 731 Multivariate Analysis (3)**

Prerequisite: SRM 551, SRM 614. Introduces multivariate data structures including geometrical properties and interpretations, the multivariate normal distribution, multivariate one- and two-sample tests on mean vectors and covariance matrices, one- and two-factor MANOVAs, and profile analysis.

**SRM 742 Seminar (3)**

Prerequisite: SRM 502 or consent of instructor. Study advanced topics in statistics, mathematics, research design and information processing.

**SRM 755 Supervised Practicum in College Teaching (1-6)**

Practice college teaching under supervision. S/U graded. Repeatable, no limitations.

**SRM 763 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 nine credits.

**SRM 770 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 780 Advanced Qualitative Research Methods (3)**

Prerequisite SRM 680. Students will conduct fieldwork using multiple data collection strategies, analyze data, interpret findings, and write a report. Includes an introduction to computerized qualitative data analysis.

**SRM 783 Qualitative Research Methodology Seminar (1)**

Prerequisite: SRM 780. The seminar will cover advanced topics in qualitative research methods and issues arising out of research conducted concurrently by the seminar participants.

**SRM 797 Doctoral Proposal Research (1-4)**

Required of all doctoral students. Doctoral students must earn 4 hours as partial fulfillment of requirements for the doctorate. Check with the Graduate School regarding appropriate procedures and formats. S/U graded. Repeatable, maximum of four credits.

**SRM 799 Doctoral Dissertation (1-12)**

Required of all doctoral candidates. Must earn 12 hours as partial fulfillment of requirements for the doctorate. Dissertation must be approved by and defended before the dissertation committee. S/U graded. Repeatable, no limitations.

**STAT - STATISTICS****STAT 150 Introduction to Statistical Analysis (3)**

Prerequisite: MATH 023 with a grade of "C" or better or a full year of high school modern second year algebra with a grade of "C" or better or consent of instructor. Study techniques used in organizing data, including frequency distributions, histograms, measures of central tendency, measures of dispersion, probability distributions, point estimation, interval estimation and testing hypotheses.

**STAT 250 Statistics for Health Sciences (3)**

Prerequisite: MATH 023 with a grade of "C" or better or a full year of high school modern second year algebra with a grade of "C" or better or consent of instructor. Receive an introduction to applied statistics, including such topics as histograms, central tendency, dispersion, normal distribution, hypothesis testing, chi-square and regression. Primarily for nursing and health science majors.

**STAT 251 Statistics for Business and Economics (3)**

Prerequisites: MATH 124. Learn the use of statistics in business activities through techniques of descriptive statistics, sampling distributions and statistical estimation. (F,S)

**STAT 406 Multiple Linear Regression (3)**

Prerequisite: MATH 350 with the grade of "C" or better. Topics in multiple linear regression, estimation of model parameters, inferences, diagnostics, model assumptions, ANOVA formulation.

**STAT 409 Sampling Techniques (3)**

Prerequisite: MATH 350 with the grade of "C" or better. Introduction to elementary sampling concepts. Includes random sampling, stratified sampling, cluster sampling and systematic sampling. Inferences and assumptions are presented for all sampling methods.

**STAT 422 Directed Studies (1-3)**

Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

**STAT 495 Topics in Applied Statistics (1-4)**

Consent of instructor. Topics selected from linear models, experimental designs, sampling, multivariate analysis, operations research methods or other areas in applied statistics form the focus of this course. Repeatable, under different subtitles.

**STEP - SECONDARY TEACHER EDUCATION PROGRAM****STEP 161 Observation and Analysis of Secondary Teaching I (2)**

Corequisite: EDF 366, ET 249. Provisional or full admittance to the Secondary PTEP required. Analysis of issues in secondary education: diversity, effective instructional strategies and techniques, professional resources, legal and ethical rights of students, teachers, schools and the responsibilities of teachers and schools. STEP 161 course activities, seminars and field experiences support Phase I course work. S/U graded.

**STEP 262 Observation and Analysis of Secondary Teaching II (2)**

Prerequisites: STEP 161, EDF 366, ET 249. Corequisites: EDSE 360, EPSY 349. Provisional or full admittance to the Secondary PTEP required. This course provides field experiences in school and classroom settings. STEP 262 course activities, seminars and field experiences support Phase II course work.

**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 subtitles.

**STEP 363 Clinical Experience: Secondary (2)**

Prerequisites: STEP 161, EDF 366, ET 249, STEP 262, EDSE 360, EPSY 349. Corequisites: EDRD 324, ET 349 and the appropriate content methods course(s). Junior or above standing. May be repeated in any semester for double majors. Full admittance to the Secondary PTEP required and consent of content area advisor. This course provides field experiences in secondary schools and classroom settings inclusive of teaching opportunities and seminars related to educational issues. STEP 363 course activities, seminars and field experiences support Phase III course work.

**STEP 464 Secondary Student Teaching (1-14)**

Prerequisites: Completion of Phases I-III in their entirety. Consent of Advisor. A 16 week experience in content area teaching in senior high were the student demonstrates effective teaching from a culmination of prior knowledge, skills and behaviors. S/U graded. Repeatable, under different subtitles.

**TED - TEACHER EDUCATION****TED 600 Professional Seminar I (1)**

This course is designed to provide students with information regarding program procedures and expectations, development of professional portfolios, and implementation of a teacher-researcher project.

**TED 601 Conceptions of Schooling (3)**

Examination and analysis of the nature and scope of American education, the common school tradition and what today's schools are for; becoming a citizen in a democratic society.

**TED 602 Teacher Leadership (3)**

Assist teachers in exploring their professional context (socially, politically and organizationally) and their role in enhancing, general schooling conditions, learning processes and outcomes.

**TED 603 Alternative Teaching and Assessment Strategies (3)**

The content of this course is intended to expand teacher's repertoires in the classroom by helping them develop facility with alternate assessment and instruction strategies.

**TED 604 Affirming Diversity: Implications for Educators and Schools (3)**

Broad range of diversity issues, critical analysis of current educational policies and practices to support and design curricula, instructional processes, and learning environments for diverse student population.

**TED 605 Professional Seminar II (2)**

Prerequisites: SRM 600, TED 600. This course is designed to be a capstone experience. Synthesize and integrate what has been learned in the content and pedagogy coursework with classroom teaching and other work related experiences.

## TESL - TEACHING ENGLISH AS A SECOND LANGUAGE

Note: For information on Elementary Education and Middle School Education Endorsement in English as a Second Language or the minor, see the information provided under the Department of Hispanic Studies.

**TESL 301 TESL Practicum I (2)**

Prerequisite: HISP 395, HISP 400. A beginning level field experience in Teaching English as a Second Language. S/U graded.

**TESL 302 TESL Practicum II (1-2)**

Prerequisite: HISP 395, HISP 400, TESL 301. An intermediate/advanced level field experience for students taking a TESL minor or concentration. S/U graded.

**TESL 400 Methods and Approaches of ESL/EFL (3)**

Methodology teach ESL/EFL. Prepare teachers to develop teaching ability, meet students' needs ESL/EFL educational settings. Impart theoretical knowledge, display array of activities pertinent to teaching situation, give general information of profession ESL/EFL.

## THEA - THEATRE ARTS

**THEA 100 Individual Performance in Theatre (2)**

Majors only or consent of instructor. Participation in Little Theatre of the Rockies productions. Students must participate in 90 hours. Repeatable, no limitations.

**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 and 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 Orientation to Technology (3)**

Required laboratory arranged. Majors and 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. Fall: open to Theatre major freshman and transfer only. Spring: open to anyone, but restricted to a total enrollment of 45.

**THEA 150 Actor's Lab (1)**

(Laboratory activity - 3 contact hours = 1 credit hour). A one semester hour credit will be given for participation as an actor in a student directed scene. The scene will be from the realistic period and is a required lab for all directors in THEA 240-Beginning Stage Directing. Repeatable, no limitations.

**THEA 160 Beginning Acting (3)**

The emphasis of the course is on the primary needs of acting: emotional recall and recreation, concentration, motivation, personality and character development, physical and vocal ingredients of character and believability. This course will be offered in Fall Semester for Majors and minors only, and in the Spring it will be open to all students.

**THEA 190 Stage Speech I (1)**

A laboratory course designed to help the student develop good speech for the stage through intelligent use and care of the speaking instrument and appreciation and control of the language of the playwright, the play and the character.

**THEA 191 Stage Speech II (1)**

Prerequisite: THEA 190 or consent of instructor. The final course in a two-course series dealing with the development of intelligent use and care of the speaking instrument. Primary emphasis is on Linklater and Lessac approaches.

**THEA 210 Drafting and Painting for the Theatre (3)**

Prerequisites: THEA 135, THEA 149 or equivalent. Majors and minors only. Required laboratory arranged. An introduction course to the basics of theatrical drafting and scenic painting. Several projects allow the student to explore the applications of this foundation class.

**THEA 220 Stage Costume (3)**

Prerequisites: THEA 149 or equivalent. Design Technology, Teacher Education students, or by instructor consent. Required laboratory arranged. Introduction to stage costume, approach to the play, survey of dress history, research, the designer's tools, rendering, sketching, fabrics, putting a show together.

**THEA 221 Costume History (3)**

Prerequisites: THEA 149, THEA 220 or consent of instructor. Sophomores or above. Costume from ancient to modern times with attention for theatre design. Evolution of garments, cultural influence. Western world dress with Asian influence and world cultures noted.

**THEA 222 Costume Technology I (3)**

Prerequisites: THEA 149, THEA 220 or equivalent. Required laboratory arranged. Sophomores or above. Introduction to technical skills and crafts used in costuming. Sewing, cutting from patterns, fabric modification, dyeing, painting, garment fitting and alterations are included.

**THEA 230 Stage Lighting Design for the Theatre (3)**

Prerequisites: THEA 135, THEA 149, THEA 210 or equivalent. Required laboratory arranged. An introduction to designing with light, practical applications and theatrical use. Course concentrates on the process from script analysis, concept and paperwork through actually hanging and lighting two projects.

**THEA 235 Stage Dialects (1)**

Prerequisites: THEA 190, THEA 191. Majors only. The purpose of this course is an in-depth study of the major or most often used stage dialects. The goal will be for each actor/actress to gain special dialect skills that will increase the power and effectiveness of their performances. Acting emphasis only.

**THEA 240 Beginning Stage Directing (3)**

Prerequisites: THEA 135, THEA 149 and THEA 160 or consent 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 245 Sound Design (3)**

Prerequisites: THEA 149 or consent of instructor. Required laboratory arranged. Prepares the student to design, set-up, operate and repair sound reinforcement and recording equipment with emphasis on theatre specific practices. Digital audio and live performance mixing is also covered.

**THEA 250 Stage Make Up I (1)**

Prerequisite: THEA 160. A basic course designed to acquaint the student with the principles of stage make-up.

**THEA 260 Scene Study (2)**

Prerequisite: THEA 160. Acting or directing emphasis only. A step-by-step process approach to scene study. Units will be covered connecting the actor with the discovery of purpose/obstacle/relationships/given circumstances/character/orchestration and text scoring.

**THEA 275 Stage Movement I (1)**

(2 contact hours per week) Two-part series of laboratory courses in the preparation of actor's skills in movement. Emphasis is movement analysis, body alignment and corrections.

**THEA 276 Stage Movement II (1)**

(2 contact hours per week) Prerequisite: THEA 275. Second in a two-part series of laboratory courses in the preparation of actor's skills in movement. Emphasis is movement analysis, body alignment and corrections.

**THEA 300 Advanced Individual Performance in Theatre (2)**

Prerequisites: THEA 100, THEA 149. Majors and minors only. Advanced level work in technical theatre in a given show assignment such as properties master, master carpenter, seamstress, master electrician, etc. This credit may not be used for design assignments. Repeatable, may be taken four times.

**THEA 308 Theatre Workshop (1-4)**

Receive information about current important ideas in many fields of knowledge from authorities nationally known in their fields of specialization. Repeatable, under different subtitles.

**THEA 310 Beginning Scene Design (3)**

(2 lecture, 1 laboratory) Prerequisite: THEA 210. A fundamental course in scene design. Emphasis is placed on the aesthetics and styles of stage design and the development of rendering skills and staging concepts.

**THEA 311 Scenic Painting for the Theatre (3)**

Prerequisites: THEA 135, THEA 149, THEA 210, or equivalent. Required laboratory arranged. Advanced work in scenic painting techniques including moldings, texture and foam carving. Advanced color mixing and hands on projects. Repeatable, may be taken two times.

**THEA 320 Stage Costume Design (3)**

Prerequisite: THEA 220 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 322 Costume Technology II (3)**

Prerequisites: THEA 149, THEA 220, THEA 222, or equivalent. Required laboratory arranged. Sophomores or above. Advanced technology skills for pattern drafting, draping, sewing and construction. Students work with current departmental theatre productions. Class develops the skills of the cutter/drafter as well as costume shop manager.

**THEA 324 Masterpieces in Theatrical Production (2)**

Prerequisite: THEA 135. THEA 330 recommended. A survey of important plays that have had major impact on the evolution of the modern theatre through thematic concerns, social reflection, revolutionary genre, and production styles.

**THEA 330 History of Theatre I (3)**

The development of American and European Theatre from its classical roots through the mid-17th Century. Emphasis on research.

**THEA 331 History of Theatre II (3)**

A continuation of THEA 330, focusing on American, European and Eastern Theatre. Emphasis on research.

**THEA 332 Advanced Lighting Design for the Theatre (3)**

Prerequisites: THEA 149, THEA 210, THEA 230 or equivalent. Required laboratory arranged. Advanced work in stage lighting design with an emphasis on the artistic applications of lighting in plays, operas, musicals and tour shows.

**THEA 335 Advanced Voice Production (1)**

Prerequisites: THEA 190, THEA 191. Majors only. The purpose of this course is an advanced study of the natural resources of the human voice and body as artistic resources for the performer. The course is designed to explore both the processes and products of vocal craft work for the actor. Acting emphasis only.

**THEA 340 Workshop in Directing I (3)**

(2 lecture; 2 laboratory) Prerequisite: THEA 240. Basic directing techniques as applied to period styles. Focus on research for the director and application of period styles in scene work.

**THEA 341 Workshop in Directing II (3)**

Prerequisite: THEA 240. Basic directing techniques as applied to modern styles. Focus on various anti-realistic styles and their application to modern eclectic Theatre. Practical application in scene work.

**THEA 349 Intermediate Stagecraft (3)**

Prerequisite: THEA 149 or equivalent. Required laboratory arranged. A hands-on survey of the construction techniques and practices used in scenery construction, properties construction and rigging as well as drafting working drawings, problem solving and budgeting.

**THEA 350 Summer Theatre (10)**

Acceptance by Theatre Arts staff required. Eight weeks of eight-hour daily rehearsals for summer productions. Repeatable, maximum of 40 credits.

**THEA 360 Advanced Acting Styles I (2)**

Prerequisites: THEA 160, THEA 260 or consent of instructor. Acting Emphasis only. Focus on modern drama from early realism through contemporary eclectic styles in this advanced acting laboratory. Repeatable, maximum of four credits.

**THEA 361 Advanced Acting Styles II (2)**

Prerequisites: THEA 160, THEA 260 or consent of instructor, and THEA 360. For acting emphasis only. Concentration on period styles including Greek, Elizabethan, Commedia dell'Arte, English Restoration and French Neo-classic in this advanced acting laboratory. Repeatable, maximum of four credits

**THEA 375 Stage Management for the Theatre (3)**

Prerequisites: THEA 149. A class to teach the student how to work as a stage manager in the theatre and what to expect from the position. Focus is on problem solving.

**THEA 380 Design fundamentals for Secondary Education (4)**

Prerequisite: THEA 149. Theatre Education only. This course will include the basics of drafting; scenic, lighting and costume design; and scenic painting with a focus on research and creative exercises.

**THEA 385 Methods of Teaching Drama (3)**

Corequisite: EDLS 363. PTEP prerequisite to student teaching. Learn teaching techniques, curriculum and classroom organization, testing and evaluation, procedures and materials and relationship of the subject area to the total 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 of eight credits.

**THEA 404 Summer Crew Work in Theatre (1)**

Backstage crew work on summer Little Theatre of the Rockies. If S/U grade is chosen, for a "S," a student must participate in a minimum of 30 hours for each hour of credit.

**THEA 410 Advanced Design and Technology (3)**

Laboratory required. Prerequisite: THEA 310. A survey of traditional and contemporary stage technology, including study of advanced techniques of scene design; model making and multimedia renderings; and problems in shifting the multiple set show. Repeatable, maximum of six credits.

**THEA 420 Advanced Costume Technical Design (3)**

(2 lecture, 1 laboratory) Prerequisites: THEA 149, THEA 320, THEA 330, THEA 331 or consent of instructor. Specialization on topics of design, patterns, materials and techniques of reproducing historical costume. Specific historical period determined by the instructor in consultation with the students in the course. Emphasis on research. Repeatable, maximum of 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 430 Lighting Seminar (3)**

Prerequisites: THEA 135, THEA 149, THEA 210, THEA 230, or equivalent. Required laboratory arranged. Advanced design with lighting, practical applications and theatrical use. Course continues from THEA 332 and concentrates on advanced lighting techniques, equipment, tour work and unique applications. Repeatable, may be taken two times.

**THEA 440 Directing the One-Act Play (1)**

Prerequisite: THEA 340 or THEA 341 or consent of the instructor. Produce a one-act play under instructor's supervision. Extensive promptbook and well-written self-analysis required.

**THEA 445 Advanced Sound Design (3)**

Prerequisites: THEA 149, THEA 245, or equivalent. Required laboratory arranged. Continued work on design, set-up, operate and repair of sound reinforcement and recording equipment with emphasis on the theatre specific practices. Digital audio and live performance mixing is also covered.

**THEA 449 Theatre Technical Seminar (3)**

Prerequisites: THEA 149, THEA 349. Majors only. Juniors or above. Required laboratory arranged. Advanced technical theatre class covering a wide range of topics including vacuum forming, hydraulics and pneumatics, budgeting, problem solving, special costume concerns, portfolios and resumes.

**THEA 450 Design and Technology Practicum (3)**

Prerequisites: THEA 100, THEA 149, THEA 300. Majors and minors only. Juniors or above. Consent of Advisor. Practicum focused on mainstage production work in students emphasis area: either design, technical direction or stage management. Typically done in the senior year. This project is assigned by advisor.

**THEA 460 History, Periods, Styles and Stage Decor (3)**

Prerequisites: THEA 210, THEA 220, THEA 310, THEA 320. Majors only. Juniors or above. An advanced class in the study of architecture, furniture, decoration, styles and costume details throughout history as they directly relate to theatrical applications and designs.

**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 480 Theatre Technical Director (3)**

Prerequisites: THEA 100, THEA 149, THEA 300. Consent of advisor. Majors and minors only. Practicum focused on mainstage production work in student emphasis area: either design, technical direction or stage management. Typically done in the senior year. This project is assigned by advisor. Repeatable, may be taken two times.

**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. Repeatable, no limitations.

**THEA 508 Workshop (1-3)**

A variety of workshops on special topics within the discipline. Goals and objectives will emphasize the acquisition of general knowledge and skills in the discipline. Repeatable, under different subtitles.

**THEA 513 Professional Renewal (1-3)**

Update skills and knowledge of professionals in the discipline. Goals and objectives will be specifically directed at individual professional enhancement rather than the acquisition of general discipline knowledge or methodologies. S/U or letter graded. Repeatable, under different subtitles.

**THEA 601 Graduate Practicum in Theatre (1-4)**

Qualified graduate, permission of instructor, advisor and department. This specialized, supervised field work course involves theory and methodology in practice. Copies of written evaluation must be filed with instructor and department. Repeatable, maximum of four credits.

**THEA 610 Seminar in Technical Theatre (3)**

Prerequisites: THEA 310, THEA 332 or THEA 420 or consent of instructor. A seminar to study specialized topics in scene design, stage lighting, theatre architecture, staging techniques or stage costuming. Emphasis is placed on research study. Repeatable, no limitations.

**THEA 622 Graduate Directed Research in Theatre (1-4)**

Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

**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. Repeatable, maximum of 30 credit.

**WS - WOMEN'S STUDIES PROGRAM****WS 101 Women in Contemporary Society (3)**

Cultural analysis of social institutions and their effects on the lives of women.

**WS 248 Introduction to Women's Studies (3)**

Prerequisite: WS 101. Historical analysis of women's movement as (r) evolution.

**WS 308 Women's Studies Workshop (1-3)**

A variety of workshops on special topics within the discipline. Goals and objectives will emphasize the acquisition of general knowledge and skills in the discipline. Repeatable, under different subtitles.

**WS 350 Feminist Theory (3)**

Prerequisite: WS 101 or equivalent. Feminist theoretical approaches as applied to current personal, social and political issues.

**WS 370 Women-Identified Theory (3)**

Prerequisite: WS 101 or equivalent. Critically analyze lesbian studies, literature and theory from a feminist perspective.

**WS 420 Representations of Women in Popular Culture (3)**

Prerequisite: WS 101 or equivalent. Examine how media and cultural representations of gender, race, class and sexuality are implicated in identity formation. Informed by critical theories, students discover how popular cultural representations of women, because they reflect traditional agendas, foreclose non-discursive identity options.

**WS 422 Directed Studies (1-3)**

Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

**WS 430 Gender Equity in Education (3)**

Prerequisite: WS 101 or equivalent. Review current research regarding gender issues within education and examine the political climate for women students and professionals within the educational system.

**WS 448 Women's Studies Seminar (3)**

Prerequisites: WS 101, WS 248, WS 350 and 10 semester credits in approved Women's Studies electives. Seniors or above. This course will provide the opportunity for students to pursue individual research projects with the intent to re-construct the representations of Woman.

**WS 460 Feminist Legal Studies (3)**

Prerequisite: WS 101 or equivalent. Examine legal issues of particular importance to women. Informed by critical legal theories, students examine laws regarding marriage and divorce, reproduction and contraception, employment, education, sexual conduct, prostitution, pornography, rape, family violence and the political participation of women. The usefulness of legal change for promoting social change regarding gender roles will be discussed.

**WS 492 Internship (2-10)**

Prerequisite: WS 101 or equivalent and six additional semester hours in approved women's studies courses required. Supervised field practice on research relating to women's concerns and issues. Paper analyzing experience required. Maximum of 3 semester credits count toward requirements for the Women's Studies Minor. Repeatable, maximum 10 credits.

**WS 508 Workshop (1-3)**

A variety of workshops on special topics within the discipline. Goals and objectives will emphasize the acquisition of general knowledge and skills in the discipline. Repeatable, under different subtitles.

**WS 513 Professional Renewal (1-3)**

Update skills and knowledge of professionals in the discipline. Goals and objectives will be specifically directed at individual professional enhancement rather than the acquisition of general discipline knowledge or methodologies. S/U or letter graded. Repeatable, under different subtitles.

**WS 622 Directed Studies (1-3)**

Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

**WS 692 Internship (2-10)**

Knowledge of Women's Studies techniques and concerns required. Supervised field practice on research relating to Women's Studies concerns and issues. Graduate-quality paper analyzing experience required. Repeatable, maximum 10 credits.

**ZOO - ZOOLOGY****ZOO 115 Human Biology (3)**

(2 lecture, 3 laboratory) The study of humans including evolution and genetics, basic anatomy and physiology and their place in the biological world. Credit not allowed for biological science majors.

**ZOO 245 Introduction to Human Anatomy Physiology (4)**

(3 lecture, 3 laboratory) Stress regulatory mechanisms that maintain normal body function and broad general biological principles as they apply to structure and function. Credit not given for both ZOO 245 and ZOO 350.

**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.

**ZOO 331 General Entomology (4)**

(3 lecture, 3 laboratory) Prerequisite: BIO 111. Learn the biology of the principal orders of insects by collecting and classifying specimens. Agents and vectors of disease are stressed. Insect collection is required, see instructor.

**ZOO 332 Invertebrate Zoology (3)**

(2 lecture, 3 laboratory) Prerequisite: BIO 111. Investigate invertebrate phyla through a phylogenetic approach, stressing form, function and evolutionary relationships. Study examples of available groups in the laboratory. Insects and parasites not stressed.

**ZOO 333 General Parasitology (4)**

(3 lecture, 3 laboratory) Prerequisite: BIO 111 or ZOO 115. Study the symbiotic relationships of parasitism as exemplified by typical parasites of humans, domesticated and wild animals, stressing life cycles, pathogenesis, systematics and host-parasite relationships.

**ZOO 334 Mammalogy (4)**

(3 lecture, 3 laboratory) Prerequisite: BIO 111. Study the functional biology, ecology and behavior of mammals. Laboratory stresses the identification and ecology of Colorado species. Field work required.

**ZOO 335 Survey of Fishes, Amphibians and Reptiles (4)**

(3 lecture, 3 laboratory) Prerequisite: BIO 111. Investigate the biology of the cold-blooded vertebrates including their evolution, ecology and behavior. Laboratory stresses the identification and biology of Colorado species.

**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.

**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.

**ZOO 350 Human Physiology (4)**

(3 lecture, 3 laboratory) Prerequisites: ZOO 341 or ZOO 345 and CHEM 131. Examine in detail the functions of the organ systems of the human body, especially those involved with the maintenance of normal function.

**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.

**ZOO 533 General Parasitology (4)**

(3 lecture, 3 laboratory) Prerequisite: BIO 111 or ZOO 115. Study the symbiotic relationships of parasitism as exemplified by typical parasites of humans, domesticated and wild animals, stressing life cycles, pathogenesis, systematics and host-parasite relationships.

**ZOO 534 Mammalogy (4)**

(3 lecture, 3 laboratory) Prerequisite: BIO 111. Study the functional biology, ecology and behaviors of mammals. Laboratory stresses the identification and ecology of Colorado species. Field work required.

**ZOO 535 Survey of Fishes, Amphibians and Reptiles (4)**

(3 lecture, 3 laboratory) Prerequisite: BIO 111. Investigation of the biology of the cold-blooded vertebrates including their evolution, ecology and behavior. Laboratory stresses the identification and biology of Colorado species.

**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; and CHEM 481. Examine the cardiovascular and pulmonary systems in depth, integrating the functions of the nervous and endocrine systems.

**ZOO 552 Mammalian Physiology II (4)**

(3 lecture, 3 laboratory) Prerequisites: ZOO 551 or ZOO 350 or equivalent; and CHEM 481. Consider in detail the digestive, muscular and excretory systems, particularly the integrative functions of these systems in maintenance of homeostasis.

**ZOO 560 Animal Ecology (4)**

(3 lecture, 3 laboratory) Prerequisite: BIO 460. Gain a comprehensive understanding of animal ecology. Animal population dynamics, behavioral ecology and quantitative methods for measurement and evaluation of animal systems.

**ZOO 595 Special Topics in Zoology (2)**

Study of any zoological topic at an advanced level. Repeatable, may be taken two times, under different subtitles.

**ZOO 622 Directed Studies (1-3)**

Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

**ZOO 636 Advanced Invertebrate Zoology (4)**

(3 lecture, 3 laboratory) Prerequisite: ZOO 332. Compare the classification, anatomy, physiology, morphogenesis and natural history of the invertebrates, exclusive of insects and most parasitic forms.



**ZOO 645 Comparative Vertebrate Adaptations (4)**

(3 lecture, 3 laboratory) Prerequisites: ZOO 345 and ZOO 350. Make a detailed study of selected aspects of vertebrate anatomy, stressing function and adaptive significance of organ systems. Deliver one seminar on specialized topic.

**ZOO 699 Thesis (1-6)**

Prerequisite: BIO 694. S/U graded. Repeatable, no limitations.



# ADMINISTRATION AND FACULTY, 2001-2002

## BOARD OF TRUSTEES

**Note:** The first figure in parentheses is the date of the first appointment; the second figure is the date of expiration of the present term.

- Dick Monfort, Greeley (2001-2005), Chair
- Kevin Smith, Denver (1999-2003), Vice Chair
- Gilbert Carbajal (2001-2005)
- Peter Coors, Golden (1999-2003)
- Marjorie Kadlub, Fort Collins (2001-2003)
- Michael Muftic, Denver (1999-2003)
- Richard Poole, Denver (1999-2003)
- Barry Rothaus, Faculty Trustee (2001-2002)
- Mark Davidson, Student Trustee (2001-2002)
- Kay Norton, Secretary
- Frances L. Schoneck, Treasurer

## GENERAL ADMINISTRATION



General Administration Offices are located in Carter Hall.

**Note:** The UNC administration is listed with highest degree following the name. Parentheses is the first year of employment at UNC followed by degrees conferred.

## President

### **Hank Brown, M.L.L., J.D.**

(1998), President — B.S., J.D., University of Colorado; M.L.L., George Washington University

## Assistant to the President

### **John B. Cooney, Ph.D.**

(1998), Assistant to the President — B.S., Sam Houston State University; M.S., Ph.D., Texas A& M University (G) (DR)

## Vice Presidents

### **Kay Norton, J.D.**

(1998), Vice President and University Counsel, B.A. — Wellesley College, J.D., University of Denver

### **Frances L. Schoneck, M.S., C.P.A., C.I.A.**

(1982), Vice President for Administration — B.S., University of Northern Colorado; M.S., Colorado State University, C.P.A., C.I.A.

### **Marlene I. Strathe, Ph.D.**

(1998), Provost and Vice President for Academic Affairs — B.S., M.S., Ph.D., Iowa State University (G) (DR)

## Assistant Vice Presidents

### **Vicki Wessman Downey, Ph.D.**

(1998), Associate Vice President for Academic Affairs — B.S.N., M.S., Ph.D., University of North Dakota (G) (DR)

### **Gary L. Hatch, M.B.A.**

(1997), Assistant Vice President for Information Technology — B.S., M.B.A., Utah State University.

### **Robert J. Hetzel, Ph.D.**

(1990) Assistant Vice President for Auxiliary Services — B.A., M.B.A., M.S., University of Wisconsin; Ph.D., University of Northern Colorado.

### **Michael E. Maestas, M.A.**

(1985), Assistant Vice President for the Office of Multicultural Affairs and Student Affairs — B.A., M.A., Adams State College

### **Michelle F. Quinn, M.A., C.P.A.**

(2001), Assistant Vice President of Finance — B.S., George Mason University; M.A., West Virginia University.

## Dean of Students

### **Jean Schober Morrell, Ph.D.**

(1974), Dean of Students — B.S., M.A., Bowling Green State University; M.A.T., Oakland University; Ph.D., University of Northern Colorado

## Executive Director of Enrollment Services

### **Rebecca Macon,**

(2001), Executive Director of Enrollment Services — B.S., Grace College; M.S., University of Southern California

## Internal Auditor

### **Juilie Lorton, B.A.**

(2001), Internal Auditor — B.A., Colorado State University

## COLLEGE ADMINISTRATION

### College of Arts and Sciences

### **Sandra M. Flake, Ph.D.**

(1997), Dean — B.A., College of Saint Catherine, Ph.D., University of Wisconsin, Milwaukee



Dean's Office – Candelaria Hall

### **Maria E. Lopez, Ph.D.**

(1972), Associate Dean — B.A., University of Northern Colorado; M.A., Ph.D., University of Iowa (G)

### **Richard G. Trahan, Ph.D.**

(1974), Associate Dean — B.S., M.S., San Jose State University; Ph.D., University of Wisconsin (G)

## Kenneth W. Monfort College of Business

### **Joe F. Alexander, D.B.A.**

(1990), Interim Dean — B.B.A., Harding University; M.B.A., D.B.A., Memphis State University (G) (DR)

### **Gerald Shadwick, B.S., J.D.**

(1994), Interim Associate Dean — B.S., Kansas State University; J.D., George Washington University



Dean's Office – Kepner Hall

## College of Education



Dean's Office – McKee Hall

### **Eugene P. Sheehan, Ph.D.**

(1987), Dean — B.A., University of Dublin; M.S., Queen's University of Belfast; M.S., University of Dublin; Ph.D., University of California, Santa Cruz (G) (DR)

### **Phillip M. Wishon, Ph.D.**

(1982), Assistant Dean — B.S., M.A., Ph.D., Ohio State University (G) (DR)

### **Kay A. Ferrell, Ph.D.**

(1992), Assistant Dean — B.A., George Washington University; M.A., Columbia University; Ph.D., University of Pittsburgh (G) (DR)

## Health and Human Sciences



Dean's Office – Gunter Hall

### **Vincent A. Scalia, Ed.D.**

(1977), Dean — B.S., St. Peter's College; M.S., University of Arizona; Ed.D., University of Northern Colorado (G) (DR)

### **Robbyn R. Wacker, Ph.D.**

(1990), Associate Dean — B.S., B.A., M.S., University of Northern Colorado; Ph.D., Iowa State University (G) (DR)

## College of Performing and Visual Arts

### **Kathleen Rountree, D.M.**

(2001), Dean — B.M., East Carolina University; M.M., Southern Illinois University-Edwardsville; D.M., The Florida State University



Dean's Office – Frasier Hall

## Graduate School (Located in Carter Hall)

### **Allen Huang, Ed.D.**

(1978), Associate Vice President for Research and Graduate Studies and Dean of the Graduate School — B.A., National Chengchi University; M.A., Eastern Kentucky University; Ed.D., University of Alabama (G) (DR)

### **Teresa M. McDevitt, Ph.D.**

(1985), Assistant to the Dean of the Graduate School — B.A., University of California; M.A., Ed.S., Ph.D., Stanford University (G) (DR)

### **William A. Barnard, Ph.D.**

(1972), Director, Sponsored Programs, Research and Graduate Studies — B.A., M.A., Western Washington State College; Ph.D., Colorado State University (G) (DR)

## University Libraries

### **Gary M. Pitkin, Ed.D.**

(1987), Dean — B.A., M.A., University of Wisconsin, Milwaukee; Ed.S., Appalachian State University; Ed.D., University of Northern Colorado



Dean's Office - Michener Library

# UNC FACULTY, 2001-2002

## A

### R. Steven Ackley, Ph.D.

(1992), Professor of Communication Disorders — B.A., Cornell College; M.Ed., Western Maryland College; Ph.D., University of Colorado (G) (DR)

### Sara R. Acosta, Ph.D.

(2000) Assistant Professor of Hispanic Studies — B.A., University of Puerto Rico; M.S., SUNY Brockport; M.S., Ph.D., University at Buffalo

### Osita G. Afoaku, Ph.D.

(1993), Associate Professor of Africana Studies — B.A., University of Ife, Nigeria; M.A., Ph.D., Washington State University (G)

### A. Eugene Aitken, Ph.D.

(1976), Professor of Music, Director of Jazz Studies — B.A., University of Washington; M.M., Ph.D., University of Oregon (G) (DR)

### Siaw Akwawua, Ph.D.

(2001), Lecturer in Geography — B.A., University of Ghana-West Africa; M.A., University of Windsor-Canada; Ph.D., University of Saskatchewan-Canada

### Diane L. Albertini, M.A.

(1992), Instructor of English — B.A., University of Wyoming; M.A., Colorado State University

### Mark B. Alcorn, Ph.D.

(1986), Associate Professor of Psychology — B.A., Occidental College; M.A., Ph.D., University of Southern California (G)

### Joe F. Alexander, D.B.A.

(1990), Professor of Marketing — B.B.A., Harding University; M.B.A., D.B.A., Memphis State University (G) (DR)

### Garth H. Allen, B.B.A, J.D.

(1973), Associate Professor of Finance — B.B.A., J.D., University of Iowa (G)

### Linda S. Allen, Ph.D.

(1992), Associate Professor of Speech Communication — B.A., Idaho State University; M.A., University of Wisconsin; Ph.D., University of Oregon (G)

### Dean E. Allison, Ph.D.

(1993), Associate Professor of Mathematical Sciences — B.S., M.A., Ph.D., University of Missouri (G) (DR)

### Vergie Amendola, M.M.

(1991), Professor of Music — B.A., University of Northern Colorado; M.M., Northwestern University (G)

### Mark A. Anderson, M.L.I.S.,

(1994), Associate Professor of Library Science — B.A., M.L.I.S., University of Iowa

### Michael D. Applegate, M.A.

(1990), Instructor of Journalism and Mass Communications — B.A., M.A., University of Northern Colorado

### David R. Aske, Ph.D.

(1997), Assistant Professor of Economics — B.S., Mankato State University; Ph.D., University of Nebraska

### Michelle Schicke Athanasiou, Ph.D.

(1996), Associate Professor of School Psychology — B.A., Southeast Missouri State University; M.A., University of Memphis; Ph.D., University of Nebraska-Lincoln (G) (DR)

## B

### Megan L. Babkes, Ed.D.

(2001), Assistant Professor of Kinesiology and Physical Education — B.A., University of Washington; M.S., University of Oregon; Ed.D., University of Northern Colorado

### Roiann M. Baird, M.L.S.

(1999), Assistant Professor of Library Science — B.S., North Dakota State University; M.L.S., Emporia State University

### Sandra C. Baird, Ed.D.

(1973), Professor of Nursing — B.S., M.S., University of Maryland; Ed.D., University of Northern Colorado (G) (DR)

### Clifford D. Baker, Ed.D.

(1974), Professor of Special Education — B.S., Central Missouri State University; M.S., St. Cloud State University; Ed.D., University of Northern Colorado (G)

### Tracy D. Baldo, Ph.D.

(1991), Professor of Counseling Psychology — B.S., M.S., Ph.D., Purdue University (G) (DR)

### Achilles N. Bardos, Ph.D.

(1990), Professor of School Psychology — B.S., Wright State University; M.A., Ball State University; Ph.D., Ohio State University (G) (DR)

### William A. Barnard, Ph.D.

(1972), Professor of Psychology — B.A., M.A., Western Washington State College; Ph.D., Colorado State University (G) (DR)

### Bruce G. Barnett, Ph.D.

(1990), Professor of Educational Leadership and Policy Studies — B.A., Arizona State University; M.A., Pepperdine University; Ph.D., University of California, Santa Barbara (G) (DR)

### H. Gray Barrier, M.M.

(1983), Professor of Music — B.M.E., East Carolina University; M.M., Northwestern University (G)

### Frederick J. Bartelheim, Ed.D.

(1997), Professor of Foundations of Education — B.S., M.A., M.Ed., University of Nevada, Reno; Ed.D., University of San Francisco (G)

### Theodore R. Bashore, Ph.D.

(1991), Professor of Psychology — B.S., University of California; M.A., Ph.D., University of Colorado (G) (DR)

### Diane Bassett, Ph.D.

(1991), Associate Professor of Special Education — B.S., University of Colorado, Boulder; M.A., University of Northern Colorado; Ph.D., University of New Mexico (G) (DR)

### Elizabeth R. Bate, Ph.D.

(1992), Associate Professor of Kinesiology and Physical Education — B.A., University of South Florida; M.Ed., University of Central Florida; Ph.D., Florida State University (G)

### Jeffrey W. Bauer, Ph.D.

(1990), Associate Professor of Educational Technology — B.A., University of Wyoming; M.B.A., California State University, San Bernardino; Ph.D., University of Wyoming (G) (DR)

### John M. Baumgartner, Ph.D.

(1993), Professor of Communication Disorders — B.S., M.S., University of Wisconsin, Stevens Point; Ph.D., Southern Illinois University (G)

### Robert M. Beavers, Ph.D.

(1999), Assistant Professor of Geography — B.S., M.A., Georgia State University; Ph.D., University of Georgia

### Kirsten Bell, Ph.D.

(2000), Lecturer of Anthropology — B.A., M.A., Ph.D., James Cook University of North Queensland

### Joseph R. Bell, M.S., J.D.

(2000), Assistant Professor of Management — B.A., Bloomsburg University; M.S., Michigan State University; J.D., Cooley Law School.

### Jonathan Bellman, D.M.A.

(1993), Associate Professor of Music — B.A., University of California, Santa Barbara; M.M., University of Illinois at Urbana-Champaign; D.M.A., Stanford University (G) (DR)

### Connie Bethards, M.A.

(2001), Assistant Professor of Visual Arts — B.S., M.A., Iowa State University

**George T. Betts, Ed.D.**

(1979), Professor of Special Education — B.S., Phillips University; M.A., Ed.D., University of Northern Colorado (G) (DR)

**Edward J. Bilsky, Ph.D.**

(1997), Assistant Professor of Zoology — B.S., M.S., Rensselaer Polytechnic Institute; Ph.D., University of Arizona (G) (DR)

**James A. Bitter, Ed.D.**

(1970), Professor of Human Rehabilitative Services — B.A., Marquette University; M.S., University of Wisconsin; Ed.D., University of Northern Colorado (G)

**Linda L. Black, Ed.D.**

(2000), Assistant Professor of Professional Psychology — B.A., B.S., University of Iowa; M.A., Lesley College; Ed.D., University of Northern Colorado

**Monte Black, M.F.A.**

(2000), Assistant Professor of Dance-Jazz — B.S., University of Wyoming; M.F.A., University of Illinois

**Lynne M. Blackburn, Ed.D.**

(1999), Assistant Professor of Elementary Education — B.A., Mount Union College; M.A., John Carroll University; Ed.D., University of Northern Colorado (GF)

**Brook Blair, Ph.D.**

(1998), Lecturer in Political Science — B.A., Colorado College; M.S., London School of Economics; Ph.D., University of Newcastle upon Tyne — United Kingdom

**Kathryn A. Blair, Ph.D.**

(1994), Professor of Nursing — B.S.N., Kent State University; M.S.N., University of Colorado; Ph.D., University of Missouri (G)

**Richard A. Blanke, Ph.D.**

(1979), Associate Professor of Philosophy — M.Ph., University of New York; M.A., Ph.D., City University of New York

**Lisa Blankenship, M.A.,**

(1989), Associate Professor of Library Science — B.S., Oklahoma State University; M.A., University of Denver

**April W. Block, Ph.D.**

(1999), Assistant Professor of Early Childhood Special Education — B.A., Asbury College; M.Ed., Loyola University; Ph.D., University of Denver

**William L. Blubaugh, Ph.D.**

(1987), Professor of Mathematics — B.S., M.Ed., Kent State University; Ph.D., University of Colorado (G) (DR)

**Gayle Johnson Bohrer, M.S.**

(2001), Lecturer of Nursing — B.S., University of North Dakota; M.S., University of Northern Colorado

**Diane Bolden-Taylor, M.M.**

(1993), Associate Professor of Music — B.M., Milliken University; M.M., Indiana University (G)

**John A. Boose, M.B.A.**

(1997), Tointon Distinguished Professor of Technology Management — B.S., U.S. Air Force Academy; M.S., University of Cincinnati; Executive M.B.A., Stanford University

**Donna J. Bottenberg, Ph.D.**

(1976), Professor of Communication Disorders — B.A., M.A., University of Northern Colorado; Ph.D., University of Colorado (G) (DR)

**Sandra K. Bowen, Ph.D.**

(1997), Assistant Professor of Special Education — B.S., M.A., Utah State University; Ph.D., University of Arizona (G)

**Katherine Bradshaw, Ph.D.**

(1999), Assistant Professor of Journalism and Mass Communications — B.S., M.S., Ohio University; Ph.D., Michigan State University

**Thomas A. Bredehoft, Ph.D.**

(1994), Associate Professor of English — B.A., Cornell University; M.A., Ph.D., Ohio State University (G)

**Robin Diane Brewer, Ed.D.**

(2000), Assistant Professor of Special Education — B.S., University of Oklahoma; Ed.D., M.A., University of Northern Colorado

**Kathryn E. Bright, Ph.D.**

(1991), Professor of Communication Disorders — B.A., Michigan State University; M.S., Florida State University; Ph.D., University of Arizona (G) (DR)

**Susan P. Bromley, Psy.D.**

(1985), Associate Professor of Psychology — B.A., Mt. Holyoke College; M.A., Case Western Reserve University; Psy.D., University of Denver (G)

**Cliff Brookhart, Ed.D.**

(2000), Assistant Professor of Educational Leadership — B.A., University of Northern Colorado; M.S., Michigan State University; Ed.D., University of Northern Colorado

**Marcia L. Broughton, Ph.D.**

(1970), Assistant Professor of Elementary Education and Reading — B.A., St. Olaf College; M.A., Washington State University; Ph.D., Colorado State University (G)

**Hank Brown, M.L.L., J.D.**

(1998), Professor of Political Science and Professor of Management and Accounting — B.S., J.D., University of Colorado; M.L.L., George Washington University

**Robert Brunswig, Ph.D.**

(1999), Professor of Anthropology — B.A., Kansas State University; M.A., University of Pennsylvania; Ph.D., University of Colorado (G)

**Robert J. Brustad, Ph.D.**

(1992), Professor of Kinesiology and Physical Education — B.A., University of California, San Diego; M.A., Ph.D., University of Oregon (G) (DR)

**Warren R. Buss, Ph.D.**

(1967), Professor of Botany — B.S., Brigham Young University; Ph.D., Iowa State University (G)

**Linda J. Button, Ed.D.**

(1999), Assistant Professor of Elementary Education — A.B., Colorado State College (UNC); M.A., Ed.D., University of Northern Colorado (G)

**C**

**Edward P. Caffarella, Ph.D.**

(1990), Professor of Educational Technology — B.S., Springfield College; M.Ed., University of Massachusetts; Ph.D., Michigan State University (G) (DR)

**Rosemary S. Caffarella, Ph.D.**

(1990), Professor of Educational Leadership and Policy Studies — B.A., Springfield College; M.A., Ed.S., Ph.D., Michigan State University (G) (DR)

**David Caldwell, Ph.D.**

(1983), Professor of German — B.A., University of Texas; M.A., Ph.D., Ohio State University (G)

**Genevieve Canales, Ph.D.**

(1995), Associate Professor of Hispanic Studies — B.S., Incarnate Word College; M.S., Ph.D., Washington State University (G)

**Cynthia Carlisle, Ed.D.**

(1972), Professor of Physical Education — B.A., University of Northern Iowa; M.E., Southwestern State College; Ed.D., University of Colorado (G) (DR)

**Marcia J. Carter, Re.D.**

(1999), Professor of Recreation — B.A., Hanover College; M.S., Indiana State University; Re.D., Indiana University (G)

**Antonio L. Carvajal, Ed.D.**

(1971), Professor of Special Education — B.S., Sul Ross State University; M.S., East Texas State University; Ed.D., University of Northern Colorado (G)

**J. Wey Chen, Ph.D.**

(1988), Professor of Mathematics and Applied Statistics — M.A., Eastern Michigan University; M.S., Ph.D., Texas A&M University (G) (DR)

**Jennifer A. Clarke, Ph.D.**

(1989), Associate Professor of Biological Sciences — B.A., Miami University; M.A., University of Montana; Ph.D., Washington State University (G) (DR)

**Alana D. Cline, Ph.D.**

(1999), Assistant Professor of Food, Nutrition and Dietetics — B.S., University of Houston; M.Ed., Incarnate Word College; Ph.D., Colorado State University

**John M. Clinebell, D.B.A.**

(1987), Professor of Finance — B.S., College of the Ozarks; M.B.A., University of Arkansas; D.B.A., Southern Illinois University (G) (DR)

**Sharon K. Clinebell, D.B.A.**

(1987), Professor of Management — B.S., College of the Ozarks; M.B.A., University of Arkansas; D.B.A., Southern Illinois University (G) (DR)

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Assistant Professor Emeritus of Physical Education — B.S., M.A.; Appointed 1961; Emeritus since 1989

**Margaret Lois Mulrone**

Professor Emeritus of Foreign Languages — B.A., M.A., Ph.D.; Appointed 1928; Emeritus since 1975

**Doris Myers**

Professor Emeritus of English — B.S.E., M.A., Ph.D.; Appointed 1967; Emeritus since 1995

**Fredric L. Myers**

Associate Professor Emeritus of Visual Arts — B.V.A., M.F.A.; Appointed 1968; Emeritus since 1994

**N**

**Grace Napier**

Professor Emeritus of Special Education — B.A., M.A., Ph.D.; Appointed 1966; Emeritus since 1986

**Dale A. Nebel**

Professor Emeritus of Elementary Education — B.A., M.A., Ed.D.; Appointed 1967; Emeritus since 1981

**Theodore Nelson**

Professor Emeritus of Psychology — B.S., M.A., Ph.D.; Appointed 1962; Emeritus since 1986

**Howard D. Ninemires**

Professor Emeritus of Education — B.A., M.A.; Appointed 1952; Emeritus since 1968

**Lloyd A. Norton**

Professor Emeritus of Theatre Arts — B.S., M.A.; Appointed 1963; Emeritus since 1995

**O**

**David O. Olson**

Professor Emeritus of Industrial Arts — B.S., M.A., Ed.D.; Appointed 1955; Emeritus since 1983

**Kenneth V. Olson**

Professor Emeritus of Science Education — B.A., M.A., Ph.D.; Appointed 1959; Emeritus since 1986

**Norman T. Oppelt**

Professor Emeritus of College Student Personnel Administration — B.S., M.A., Ph.D.; Appointed 1955; Emeritus since 1987

**Jeanne E. Ormrod**

Professor Emeritus of Educational Psychology — B.A., M.S., Ph.D.; Appointed 1976; Emeritus since 1997

**Richard K. Ormrod**

Professor Emeritus of Geography — B.S., M.A., Ph.D.; Appointed 1976; Emeritus since 1998

**Wendell A. Osorno**

Professor Emeritus of Counseling Psychology — B.A., M.A., Ph.D.; Appointed 1974; Emeritus since 2000

**Iwan Owechko**

Professor Emeritus of Russian — Ph.D.; Appointed 1969; Emeritus since 1984

**Jaye D. Owens**

Professor Emeritus of Special Education — B.A., M.A., Ed.D.; Appointed 1968; Emeritus since 1984

**P**

**William Parkos**

Professor Emeritus of Community Health — B.S., M.S., Ph.D.; Appointed 1970; Emeritus since 1998

**Arthur R. Partridge**

Professor Emeritus of Educational Administration — B.A., M.S., Ed.D.; Appointed 1959; Emeritus since 1989

**Rita Payton**

Professor Emeritus of Nursing — B.S., M.S.; Appointed 1965; Emeritus since 1984

**Edward Peeples**

Professor Emeritus of Biological Sciences — B.S., Ph.D.; Appointed 1973; Emeritus since 1993

**Eleanor M. Peiffer**

Associate Professor Emeritus of Home Economics/Vocational Teacher Education — B.S., M.Ed., Ed.D.; Appointed 1972; Emeritus since 1981

**Ronald K. Plakke**

Professor Emeritus of Zoology — B.A., Ph.D.; Appointed 1966; Emeritus since 1995

**William D. Popejoy**

Professor Emeritus of Mathematics and Applied Statistics — B.S., M.A., Ed.D.; Appointed 1959; Emeritus since 1988

**Stephen T. Powers**

Professor Emeritus of History — B.S., M.A., Ph.D.; Appointed 1966; Emeritus since 1999

**Judith Praul**

Professor of Counseling Psychology — B.A., M.A., Ed.D.; Appointed 1967; Emeritus since 1998

**Walter Princic**

Associate Professor Emeritus of English — B.A., M.A., Ph.D.; Appointed 1961; Emeritus since 1995

**R**

**Elizabeth J. Rave**

Professor Emeritus of School Psychology — B.S., M.A., Ed.D.; Appointed 1967; Emeritus since 1991

**Alberta Eloise Reitze**

Associate Professor Emeritus of Education — B.A., M.A.; Appointed 1950; Emeritus since 1966

**Norman H. Resnick**

Associate Professor Emeritus of Special Education — B.A., M.A., Ph.D.; Appointed 1971; Emeritus since 1991

**Arthur R. Reynolds**

Professor Emeritus of History — B.A., M.A., Ph.D.; Appointed 1949; Emeritus since 1980; Dean Emeritus of the Graduate School, Appointed 1965; Emeritus since 1980

**Mary R. Rhoads**

Professor Emeritus of Music — B.S., M.M., Ph.D.; Appointed 1971; Emeritus since 1984

**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 1960; Emeritus since 1973

**David H. Roat**

Professor Emeritus of Foundations of Education — B.A., M.A., Ph.D.; Appointed 1968; Emeritus since 1996

**Francis X. Roberts**

Professor Emeritus of Library Science — M.Ed., M.S.L.S., Ph.D.; Appointed 1987; Emeritus since 1997

**Grace A. Robins**

Professor Emeritus of Business — B.S., M.E.; Appointed 1970; Emeritus since 1980

**Bobby H. Rollins**

Assistant Professor Emeritus of Physical Education — B.S., M.A.; Appointed 1967; Emeritus since 1993

**John A. Rosales**

Professor Emeritus of Education — B.A., M.A., Ed.D.; Appointed 1971; Emeritus since 1983

**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., Ed.D.; Appointed 1970; Emeritus since 1983

**S****Gretchen Saam**

Associate Professor Emeritus of Business — B.A., M.A., M.B.A.; Appointed 1972; Emeritus since 1981

**George H. Sage**

Professor Emeritus of Kinesiology and Sociology — B.A., M.A., Ed.D.; Appointed 1963; Emeritus since 1992

**Lynn A. Sandstedt**

Professor Emeritus of Spanish — B.A., M.A., Ph.D.; Appointed 1972; Emeritus since 1993

**Norman Savig**

Associate Professor Emeritus of Library Science — B.A., M.A., M.S.; Appointed 1968; Emeritus since 1998

**Gordon H. Sawatzky,**

Associate Professor Emeritus of Nursing — B.A., M.N., M.S.; Appointed 1965; Emeritus since 1985

**Anne W. Schenkman**

Professor Emeritus of Counseling Psychology — B.A., M.A., Ed.D.; Appointed 1967; Emeritus since 1988

**Walter A. Schenkman**

Professor Emeritus of Music — B.A., M.M., D.M.; 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

**Donald L. Schmidt**

Professor Emeritus of Mathematics and Applied Statistics — B.A., M.S., Ph.D.; Appointed 1966; Emeritus since 1988

**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 1971; Emeritus since 1989

**K. Lee Shropshire**

Professor Emeritus of Geology — B.A., Ph.D.; Appointed 1965; Emeritus since 1998

**Suzanne S. Schulze**

Professor Emeritus of Library Science — B.A., M.P.A., M.L.S.; Appointed 1972; Emeritus since 1989

**Herbert C. Schumacher**

Professor Emeritus of Visual Arts — B.F.A., M.F.A., Ed.D.; Appointed 1963; Emeritus since 1988

**Daniel A. Seager**

Associate Professor Emeritus of Library Science — B.A., M.A.; Appointed 1956; Emeritus since 1984

**Donald E. Seager**

Professor Emeritus of Educational Media — B.E., M.A., Ed.D.; Appointed 1966; Emeritus since 1983

**Donald T. Searls**

Professor Emeritus of Mathematics and Applied Statistics — B.S., M.S., Ph.D.; Appointed 1983; Emeritus since 1996

**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.A., Ed.D.; Appointed 1962; Emeritus since 1984

**Joseph L. Shoemaker**

Professor Emeritus of Science — B.A., M.A., Ed.D.; Appointed 1952; Emeritus since 1983

**Robert O. Singer**

Professor Emeritus of Education — B.A., M.A., Ed.D.; Appointed 1966; Emeritus since 1985

**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

**Susan E. Spooner**

Professor Emeritus of College Student Personnel Administration — B.S., M.S., Ph.D.; Appointed 1983; Emeritus since 2000

**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 1985

**Connie K. Stelljes**

Professor Emeritus of Spanish in the Laboratory School — B.S., M.A., Ph.D.; Appointed 1967; Emeritus since 1984

**Mort Stern**

Professor Emeritus of Journalism and Mass Communications — B.A., M.S., Ph.D.; Appointed 1985; Emeritus since 1990

**Walter H. Stewart**

Professor Emeritus of Journalism and Mass Communications — B.A., M.A., Ph.D.; Appointed 1968; Emeritus since 1984

**James A. Stoffler**

Professor Emeritus of Education — B.S., M.A., Ed.D.; Appointed 1961; Emeritus since 1984

**Douglas L. Stutler**

Professor Emeritus of Counseling Psychology — B.A., M.A., Ph.D.; Appointed 1964; Emeritus since 1996

**John Swaim**

Professor Emeritus of Elementary Education and Reading — B.S.E., M.S., Ed.D.; Appointed 1969; Emeritus since 1995

**T****Gerald E. Tanner**

Associate Professor Emeritus of College Student Personnel Administration — B.A., M.A., Ph.D.; Appointed 1959; Emeritus since 1996

**George Tate**

Professor Emeritus of Counseling Psychology — B.A., M.A., M. Div., Th.D.; Appointed 1974; Emeritus since 1988

**JoAnn Taylor**

Professor Emeritus of Home Economics and Women's Studies — B.S., M.A., Ed.D.; Appointed 1965; Emeritus since 1983

### **Steve Teglovic**

Associate Professor Emeritus of Management Information Systems — B.S., M.B.A., Ph.D.; Appointed 1968; Emeritus since 1998

### **Bert O. Thomas**

Professor Emeritus of Zoology — B.S., M.A., Ph.D.; Appointed 1959; Emeritus since 1986

### **Gordon E. Tomasi**

Professor Emeritus of Chemistry — B.A., M.A., Ph.D.; Appointed 1962; Emeritus since 1995

### **Orvel L. Trainer**

Professor Emeritus of Economics — B.A., M.A., Ph.D.; Appointed 1960; Emeritus since 1985

### **Leslie W. Trowbridge**

Professor Emeritus of Science Education — B.S., M.S., Ph.D.; Appointed 1962; Emeritus since 1983

### **Dean Turner**

Professor Emeritus of Foundations of Education — B.A., M.Ed., Ph.D.; Appointed 1966; Emeritus since 1995

### **Robert Turner**

Professor Emeritus of Visual Arts — B.S., M.S., Ed.D.; Appointed 1973; Emeritus since 1998

### **Dean W. Tuttle**

Professor Emeritus of Special Education — B.S., M.A., Ph.D.; Appointed 1971; Emeritus since 1991

## **U**

### **R. Elaine Uhrig**

Associate Professor Emeritus of Special Education — B.A., M.A., Ed.D.; Appointed 1970; Emeritus since 1988

## **V**

### **Nancy Van Anne**

Professor Emeritus of Physical Education — B.A., M.A., Ph.D.; Appointed 1955; Emeritus since 1985

### **Norbert Van Dinter**

Professor Emeritus of Recreation — B.S., M.S., Ed.D.; Appointed 1967; Emeritus since 1998

## **W**

### **Doris O. Walters**

Associate Professor Emeritus of Home Economics — B.S., M.Ed.; Appointed 1970; Emeritus since 1979

### **Dennis E. Warnemunde**

Associate Professor Emeritus of Speech Communication — B.A., M.A., Ph.D.; Appointed 1966; Emeritus since 1997

### **Thomas E. Warner**

Professor Emeritus of Educational Field Experiences — B.S., M.Ed., Ph.D.; Appointed 1970; Emeritus since 1984

### **Mel W. Weishahn**

Professor Emeritus of Special Education — B.A., M.A., Ed.D.; Appointed 1963; Emeritus since 1990

### **I. David Welch**

Professor Emeritus of Counseling Psychology — B.A., M.A., Ed.D.; Appointed 1970; Emeritus since 1998

### **William H. Weltner**

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

### **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

### **Richard Wolfe**

Professor Emeritus of Rehabilitation Counseling — B.S., M.S., Ph.D.; Appointed 1965; Emeritus since 1998

### **Welby B. Wolfe**

Professor Emeritus of Drama — B.A., M.A., Ed.D.; Appointed 1946; Emeritus since 1973

### **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

## **Z**

### **Leslie Day Zeleny**

Professor Emeritus of Sociology — B.S., M.A., Ph.D.; Appointed 1946; Emeritus since 1963s

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