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# GRADUATE 2017-2018

## **Greeley, Colorado**

## PRINT VERSION

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### ABOUT THE UNIVERSITY

The University of Northern Colorado commits to the success of its students by providing a solid liberal arts foundation, relevant professional coursework and real-world experiences in an environment where faculty and staff value personal attention as a key to learning.

At UNC, there are over 100 undergraduate and 100-plus graduate programs of study spread among six colleges: Humanities and Social Sciences, Business, Education and Behavioral Sciences, Natural and Health Sciences, Performing and Visual Arts, and University College. With more than 2,000 courses available, university advisors help students build an education that will make them competitive in the global job market.

There are approximately 12,000 students from all 50 states and 49 countries who attend classes on our beautiful 260-acre campus. The student population is 62 percent female, 38 percent male and 19 percent minorities.

We offer first-class facilities and a wealth of resources for the university community to access. Our libraries include James A. Michener Library, home to the author's literary legacy, and Skinner Music Library, one of a handful of music libraries in the nation dedicated exclusively to research materials, media and supportive information required by the nation's most rigorous music schools.

Students can get engaged in more than 150 student organizations on campus, including leadership, professional, social, cultural and honorary groups. They can choose to join one of 10 fraternities and nine sororities or participate in service or experiential learning projects.

Located in Greeley, the university is just an hour's drive north of Denver. The greater Greeley area's population of nearly 100,000 enjoys a variety of activities - shopping, athletics, local festivals, nightlife, a symphony orchestra, theater and much more.

With its rich 126-year history, dedicated faculty, active students and NCAA Division I athletic teams, the University of Northern Colorado is a place where students can get a high-quality education, create endless opportunities and truly find their niche.

### Welcome from President Kay Norton

*I invite you to read through the University of Northern Colorado's Academic Catalog and discover the wealth of programs you have to choose from.*

[Click here to purchase a bound version of this catalog.](#)

*As you do, keep in mind that the requirements and program options are not the core of our university. Its people are. Our 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 University of Northern Colorado education. You'll find faculty who 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 the University of Northern Colorado and throughout the rest of your life. We invite you to join our community and allow us to assist you with this exciting journey.*

### University of Northern Colorado Affirmative Action/Equal Opportunity Policy

Human Resource Services is responsible for implementation of affirmative action, programs and coordination of Title VI and VII of the Civil Rights act of 1964, Title IX of the Education Amendments of 1973, the Vietnam Era Veteran's Readjustment Act of 1974, and Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990. For more information about these provisions or about issues of equity or fairness, or claims of discrimination contact the AA/EEO/Title IX officer, Marshall Parks, Director, Human Resource Services, University of Northern Colorado, Carter Hall 2002, Greeley, CO 80639, or call 970-351-2718.

### Disclaimer

The content of this document is provided for the information of the student. It is accurate at the time of printing but is subject to change from time to time as deemed appropriate by the University President or Board of Trustees in order to fulfill the University role and mission or to accommodate circumstances beyond their control. Any such changes may be implemented without prior notice, without obligation and, unless specified otherwise, are effective when made. The Catalog posted at <http://catalog.unco.edu> may reflect current information that was not available at the time of this publication.

The calendar is a projection of the course of events for the 2017-2018 academic year and represents the best judgment of the administration and staff. It is subject to change due to forces beyond the control of University employees or as deemed necessary by the University staff in order to fulfill educational objectives.

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

## Calendar

Please reference the 3-year calendar at <http://www.unco.edu/registrar/pdf/calendar-3yr.pdf> for detailed information.

Dates are subject to change.

## Mission Statement of the University of Northern Colorado

The University of Northern Colorado shall be a comprehensive baccalaureate and specialized graduate research university with selective admission standards. The University shall offer a comprehensive array of baccalaureate programs and master's and doctoral degrees, primarily in the field of education. The University of Northern Colorado has statewide authority to offer graduate programs for the preparation of education personnel.

## University of Northern Colorado Points of Pride

- UNC is a recipient of the prestigious Christa McAuliffe Award for Excellence in Teacher Preparation from the American Association of State Colleges and Universities.
- Our Monfort College of Business is the first and only business school to receive the Malcolm Baldrige National Quality Award from the Office of the President of the United States.
- We are designated by the Colorado Legislature as the primary institution for undergraduate and graduate teacher education in the state of Colorado.
- DownBeat Magazine has rated UNC's University Orchestra the top university orchestra in the United States repeatedly for more than 10 years.
- Our graduating nursing students regularly score in the top 10 percent on the national licensing exam for registered nurses.
- Our James A. Michener Library is home to the bulk of the UNC alumnus and Pulitzer Prize-winning author's writing and publishing legacy.
- One-third of the Colorado Teacher of the Year award winners are University of Northern Colorado alumni.
- According to a 2007 study, spending by the university, our employees and our students pumps nearly \$350 million into the Colorado economy.
- We prepare more public school music, theater and art teachers than any college or university in the region.
- The Jazz Studies program has won more than 100 DownBeat Magazine awards in the last 30 years.
- For seven successive years, graduating business students have scored in the top 10 percent on nationwide standardized exit exams.
- The university's Rocky Mountain Cancer Rehabilitation Institute is the only comprehensive

cancer rehabilitation facility of its kind, providing individualized prescriptive exercise and dietary intervention in the recovery of cancer treatment-related symptoms.

- UNC has 19 NCAA Division I sports primarily in the Big Sky Athletic Conference.

## University of Northern Colorado Traditions

Traditions at the University of Northern Colorado reflect our rich 125-year history.

### Cranford Cornerstone

Much celebration surrounded the laying of the cornerstone of the first building constructed at the new State Normal School in Greeley in 1890. Later named Cranford Hall after the businessman who donated most of the land for the school, the building eventually fell victim to the ravages of time and a fire. Cranford Hall was demolished in 1972, but its cornerstone was salvaged and can still be seen near the west entrance to Carter Hall.

### Gunter Hall

When Gunter Hall was renovated in 1996, architects were directed to retain as many of the 1928 building's features as possible, including the center court of the gym floor, original building murals and the famous Gunter bells, which had been replaced three times prior to the renovation. Although the bells' rings are now electronically generated, they still proudly mark the passing of time across the UNC campus.

### Northern Vision

"Northern Vision," the 12-foot-high, 2,000-pound bronze sculpture of a bear on the north lawn of the University Center, has watched intently over campus since only 2004.

Created and donated by local sculptors at the behest of some persuasive UNC alumni, the eye-catching piece of art faces southeast toward the UC - the campus's student hub - symbolizing the university's focus on its students.

## Accreditation and Affiliation

Since 1916, the University has been fully accredited by the Higher Learning Commission (HLC). Various academic programs currently have special accreditation by the following:

- Accreditation Council for Education in Nutrition and Dietetics
- American Chemical Society
- American Psychological Association
- Association to Advance Collegiate Schools of Business International
- College Reading and Learning Association

- Colorado Department of Education
- Colorado State Board of Nursing
- CAATE: Commission on Accreditation of Athletic Training Education
- Commission on Collegiate Interpreter Education
- Commission on Collegiate Nursing Education
- Commission on English Language Program Accreditation
- Council for Accreditation of Counseling and Related Educational Programs
- Council for the Accreditation of Educator Preparation (formerly National Council for Accreditation of Teacher Education)
- Council on Academic Accreditation in Audiology and Speech-Language Pathology
- Council on Education for Public Health
- Council on Rehabilitation Education
- International Association of Counseling Services
- National Association of Schools of Art & Design
- National Association of Schools of Music
- National Association of Schools of Theatre
- National Association of School Psychologists

#### **Affiliations**

UNC holds membership to the American Association of Colleges and Universities, American Association of Colleges for Teacher Education, American Association of State Colleges and Universities, Council for Higher Education Accreditation, Council of Academic Deans from Research Education Institutions, Council of Graduate Schools in the United States, Higher Education Consortium for Special Education, Hispanic Association of Colleges and Universities, Teacher Education Council of State Colleges and Universities, University Council for Educational Administration, Western Association of Graduate Schools, and other educational organizations.

## GRADUATE SCHOOL AND INTERNATIONAL ADMISSIONS - THE UNIVERSITY OF NORTHERN COLORADO

Graduate School at the University of Northern Colorado UNC is a specialized graduate research institution, which offers master's, doctoral, and specialist in education degree programs. Numerous professional licensure, certificate and or endorsement programs of study are available to individuals pursuing their professional career in schools and communities on our main campus, online or through our extended studies centers.

Please review our graduate programs, courses, and Graduate School policies and procedures. UNC offers graduate students a unique experience in graduate education; we look forward to supporting your advanced education.

### The Graduate School and International Admissions

**Location:** Carter Hall 2007

**Telephone:** 970.351.2831

#### **Associate Provost and Dean of the Graduate School and International Admissions:**

Linda L. Black, Ed.D.

#### **Introduction**

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, in 1954 the Educational Specialist, in 1975 the Doctor of Arts, and in 1984 the Doctor of Psychology was added. The Doctor of Audiology, was added in 2003, and the Doctor of Nursing Education was added in 2004. In 2013, UNC celebrated a century of graduate education.

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 the bylaws 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.

Graduate students must display evidence of superior academic aptitude, achievement, and motivation. Moreover, graduate students demonstrate competence in their discipline through a variety of measures: written and oral exams, directed studies, internships, research projects, thesis, capstones, and or dissertations. These measures are 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 graduate students 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 Catalog contains the policies and procedures consistent with policies of the Board of Trustees and University Regulations. These policies and procedures are informed by the Graduate Council and govern the Graduate School, graduate programs, graduate faculty and graduate students.

#### **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. It sets minimum standards for admission to the Graduate School at UNC. The council is comprised of representatives from the graduate faculty drawn from all colleges who are elected to serve three-year terms.

#### **Graduate Faculty**

Graduate faculty are appointed by the University President, or his or her designee after being recommended by the academic unit, the academic dean, the Graduate Council, and the Graduate Dean.

At the time of appointment, graduate faculty are authorized to teach graduate courses, act as program advisors for graduate students, serve as members or faculty representatives, doctoral committees, and serve on other university committees pertaining to graduate education at UNC. Only graduate faculty who have received the doctoral research endorsement (DRE) are authorized to serve as research advisors on doctoral students' research committees. Faculty who have retired and are currently serving as a research advisor on a doctoral committee can continue to serve as research advisor. They must apply for Emeritus Graduate Faculty (EGF).

Upon approval by the school or department, the academic dean, and the dean of the Graduate School selected individuals may be appointed as graduate lecturer faculty for a four-year period. These faculty may teach specific courses that are approved and or perform other designated graduate responsibilities. Graduate credit can be 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 can be 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.

## Academic Recognition

### **Graduate Dean's Citation for Excellence**

The Graduate Dean's Citation for Excellence is awarded each semester to students nominated by faculty members in recognition of superior achievement in their graduate studies. Each school/department may recommend graduate students completing their programs during the fall or spring term provided they meet these minimum criteria:

- a cumulative graduate grade point average of at least 3.75, and documented evidence of superior accomplishment while a graduate student at UNC.

Students graduating in the summer may be nominated in either the spring or fall term of the year they graduate.

The nomination is to 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, and a student resume or vita.

Awardees are reviewed by the Executive Committee of the Graduate Council. Their recommendations for awards are forwarded to the Graduate Dean for final selection. The total number of awards will not exceed 3% of the graduating class.

### **Graduate Dean's Citation for Outstanding Thesis, Capstone and Dissertation**

The Graduate Dean's Citation for Outstanding Thesis, Capstone and Dissertation may have six awards each semester: two in each category. Faculty members nominate a thesis, capstone or dissertation by submitting a letter of nomination that specifies contributions of the study to the discipline.

## GENERAL INFORMATION

### Application to International Admission and the Intensive English Program

#### Graduate International Admissions

All applications must be submitted 90 calendar days before the semester start date. Supporting materials and related credentials must be received by the Graduate School/International Admissions no later than 60 calendar days before the semester that the student wishes to enroll (see [www.unco.edu/international-admissions](http://www.unco.edu/international-admissions) for deadlines). International applicants must take the following steps to be considered for admission:

1. Complete the appropriate International Application for Admission form.
2. Pay the non-refundable application fee.
3. Submit official transcripts, mark sheets, diplomas, graduation and degree certificates in a sealed envelope for each college or university attended. If they are not in English, submit a notarized English translation with each document. Official US transcripts can either be mailed directly from the Registrar's office in a sealed envelope or submitted electronically through a secure digital program.
4. International students who are not native speakers of English are required to provide evidence of English language proficiency by submitting official minimum scores of one of the following:
  - a. TOEFL iBT: 80 - with cut scores no lower than: Listening (18), Reading (20), Speaking (18), and Writing (20)
  - b. Please refer to [www.unco.edu/grad/international](http://www.unco.edu/grad/international) for information about requesting a waiver of English proficiency score requirement.
  - c. Students who do not provide sufficient English proficiency documentation will be admitted provisionally to UNC and will complete an English assessed and may be required to participate in the Intensive English program (IEP). (See <http://www.unco.edu/cie/iep.html> for further information.) Academic programs on campus may have higher or additional English proficiency requirements including screening or testing for English proficiency. The applicant is responsible for determining whether the school has additional language requirements.
5. Supplemental materials may be required by some graduate programs. Official Graduate Record Examination (GRE) scores are required for all doctoral programs and many masters programs. Check with your program area for further requirements. GRE scores must be sent directly to UNC (UNC School code is 4074). The score must be no more than five years old. Your program may also require letters of recommendations, statement of goals, resume, audition, interviews or other materials; please check with the program for further information.
6. Submit financial documents verifying funding to support the cost of attending UNC for one academic year. See

[www.unco.edu/grad/international](http://www.unco.edu/grad/international) for estimated cost and acceptable documentation.

7. Photo quality copies of the bio page of your passport and your student visa (if you have one).

#### Provisional Admission — English Language

International applicants whose academic record is sound but whose English language proficiency fails to meet the UNC minimum admission standard may be granted a provisional admission to UNC. However, as the provision for admission, they must first study Intensive English to demonstrate their proficiency. Based on their TOEFL, IELTS or PTE score at the time of admission, and their score on UNC's Academic English Assessment, they will either start with English full-time, or they will qualify to take part-time English and part-time courses toward their degree. Students in the Intensive English Program register as full-time students at UNC but may not be released from provisional admission status until successful completion of the Intensive English Program.

#### Intensive English Program — International

##### Admission Criteria

Applicants must have completed high school or the equivalent to be considered for the Intensive English Program at the University of Northern Colorado. Both resident and international applicants may apply. All applicants need to submit a completed UNC Intensive English Program application, official copies of their most recent transcripts with English translations, and the \$60 application fee. Official transcripts must be submitted in an envelope sealed by the issuing institution. International students must also submit the bio page of their passport and financial documents. Submit documents to the Graduate School & International Admissions Office.

##### Program Structure and Length

The Intensive English Program at the University of Northern Colorado offers 5 8-week sessions throughout the year in accordance with UNC's academic calendar: Fall 1 and Fall 2 sessions coincide with UNC's Fall Semester, Spring 1 and Spring 2 sessions coincide with Spring semester, and the 8-week Summer session coincides with the 8-week academic session. Applicants may choose to begin in any of the 5 sessions. The number of sessions students need to successfully complete the program is based on their initial proficiency and placement assessment.

For more information about the Intensive English Program, visit the website at <http://www.unco.edu/cie/iep.html>

#### Admissions

The Graduate School evaluates applicants' files to determine whether their academic record meets or does not meet the graduate admissions standards. Evaluated applicant files are designated as 'meeting', 'not meeting' or 'partially meeting' Graduate School standards and forwarded to the program for further consideration. Program faculty review applicant files and forward a recommended admission decision directly to the Graduate School.

## Regular Admission

Regular admission refers to applicants who meet all Graduate School and program admissions standards and is recommended by the program for admission.

## Conditional Admission

Conditional admission refers to applicants admitted pending the receipt of admission requirements specified by the Graduate School (i.e. transcripts showing degree conferred). 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.

## Provisional Admission

Provisional admission refers to applicants admitted pending the completion of certain requirements stipulated by the program which must be met before granting regular admission. A student has one YEAR to meet all requirements. 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 YEAR of the student's program.

## Denied Admission

Denied admission refers to applicants who do not meet the Graduate School, program admission requirements, or both.

## 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 course work during that one year, the student will be required to submit a new application with the appropriate processing fee and documents to satisfy the new admission requirements.

## Master's Degree, Specific Requirements

### Master's degrees (M.A., M.A.cc., M.A.T., M.B.A., M.B.S., M.M., M.P.H., M.S., P.S.M.)

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/or thesis writing.

### Master's Degree Program Admission

Each applicant to a master's degree program must:

1. possess a baccalaureate degree from a regionally accredited college or university
2. have a grade point average of 3.00 or better [on a 4.00 point scale] on the most recent 60 semester hours

Master's degree applicants must take the following steps to be considered for admissions:

1. Complete the online applications and pay the non-refundable application fee.
2. Request one official transcript from every accredited college or university attended or from which you earned credit, except UNC. Official transcripts from each college are required, even if courses taken at one institution are listed on another school's transcript. This includes concurrent enrollment courses taken while in high school through an accredited college. You do not need to provide study abroad transcripts. Official transcripts may be sent via mail in an unopened sealed envelope or through an electronically secure digital program directly from the issuing institution. Mailed transcript should be sent to UNC Graduate School & International admissions, 501 20th Street, Campus Box 135, Greeley, CO 80639. Electronic transcripts should be sent to [grad.applicationmaterials@unco.edu](mailto:grad.applicationmaterials@unco.edu). We do not accept email, scanned or PDF transcripts directly from the student.
3. Your program may require other items such as letters of recommendations, GRE scores; please check with the program.

If a program recommends an applicant for admission who does not meet the Graduate School standards, they must provide specific provisions and 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 for applicants with a GPA below the 3.00 will be reviewed by the Graduate Dean or his/her designee.

## Double Major

Only one degree will be awarded (e.g. M.A., M.A.cc., M.A.T., M.B.A., M.B.S., M.M., M.P.H., M.S., P.S.M.) and reflected on the transcript, but both majors will be noted. The student must specify, therefore, which degree is to be used for degree granting purposes. Students pursuing 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.

If a student is interested in obtaining two master's degrees, he/she must complete the first degree program before applying to the other. Students may be advised that it is 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 is strongly recommended.

## Specialist Degrees, Specific Requirements

**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 programs may cut across school lines but are not offered in all discipline areas.

A student entering a specialist degree program who possesses a master's degree must earn a minimum of 30 semester hours

of graduate credit. A student entering a specialist degree program who possesses only a baccalaureate degree must earn a minimum of 60 semester hours of graduate credit. Schools or departments may have requirements that exceed the minimum standards established by the university.

### Specialist Admission

Specialist degree program applicants must possess a baccalaureate degree from a regionally 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. 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 by the program 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 for applicants with a GPA below 3.00 will be reviewed by the Graduate Dean and his/her designee.

Specialist degree applicants must take the following steps to be considered for admissions:

1. Complete the online applications and pay the non-refundable application fee.
2. Request one official transcript from every accredited college or university attended or from which you earned credit, except UNC. Official transcripts from each college are required, even if courses taken at one institutions are listed on another schools transcript. This includes concurrent enrollment courses taken while in high school through an accredited college. You do not need to provide study abroad transcripts. Official transcripts may be sent via mail in an unopened sealed envelope or through an electronically secure digital program directly from the issuing institution. Mailed transcript should be sent to UNC Graduate School & International admissions, 501 20th Street, Campus Box 135, Greeley, CO 80639. Electronic transcripts should be sent to [grad.applicationmaterials@unco.edu](mailto:grad.applicationmaterials@unco.edu). We do not accept email, scanned or PDF transcripts directly from the student.
3. Your program may require other items such as letters of recommendations, GRE scores; please check with the program.

### Doctoral Degrees, Specific Requirements

**Doctor of Audiology degrees (Au.D.)** are awarded for completion of the professional practitioner program designed for entry level activity as an audiologist. Audiologists are professional practitioners responsible for the prevention, diagnosis, treatment and management of hearing disorders in children and adults.

**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, and individual studies in effective teaching. 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. A wide range of topics is permitted for this document, and the study may develop a presentation that is unique to the discipline.

**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 Nursing Practice degrees (D.N.P.)** are awarded for completion of the expert clinicians programs designed to prepare candidates for advanced practice roles in healthcare. This doctoral program prepares graduates for practice in virtually any area within the healthcare industry. These highly skilled practitioners will be the leaders in healthcare delivery and care management.

**Post-Doctoral Programs** of research and advanced study are available in selected areas to persons holding the earned Doctor of Arts, Doctor of Education, or Doctor of Philosophy degree. Work at the post-doctoral level may be taken in areas such as educational leadership and policy studies, 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.

### Doctoral Admission

Each applicant for the doctoral degree must:

- Possess a baccalaureate degree or master's degree from a regionally 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.
- Submit GRE scores that are less than five years old.

Doctoral applicants meet the Graduate School minimum criteria for admission if they have:

1. GPA of at least 3.0 on a 4.0 scale on their master's degree or in the most recently 60 semester of their bachelor degree
2. GRE scores of at least 146 on the verbal, and 140 on the quantitative with a combined score of at least 297 and an analytical writing score of at least 3.5.

Doctoral degree applicants must take the following steps to be considered for admissions:

1. Complete the online applications and pay the non-refundable application fee.
2. Request one official transcript from every accredited college or university attended or from which you earned credit, except UNC. Official transcripts from each college are required, even if courses taken at one institutions are listed on another schools transcript. This includes concurrent enrollment courses taken while in high school through an accredited college. You do not need to provide study abroad transcripts. Official transcripts may be sent via mail in an unopened sealed envelope or through an electronically secure digital program directly from the issuing institution. Mailed transcript should be send to UNC Graduate School & International admissions, 501 20th Street, Campus Box 135, Greeley, CO 80639. Electronic transcripts should be sent to [grad.applicationmaterials@unco.edu](mailto:grad.applicationmaterials@unco.edu). We do not accept email , scanned or PDF transcripts directly from the student.
3. Your program may require other items such as letters of recommendations, GRE scores; please check with the program.

If a program recommends an applicant for admission who does not meet the Graduate School standards, they must provide specific provisions and 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 for applicants with a GPA below the 3.00 will be reviewed by the Graduate Dean or his/her designee.

For doctoral applicants who do not meet the Graduate School standard, a rationale must be provided by the school or department 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 of applicants with a GPA below 3.0 will be reviewed by the Graduate Dean and his/her designee.

The doctoral programs at UNC 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 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 school or department 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.

### 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 program and approved as a program modification for this degree program through the curriculum approval process. Students should contact the Graduate School for details.

### Graduate Certificate, Licensure and Endorsement Admission

Each Applicant must:

1. posses a baccalaureate degree from a regionally accredited college or university
2. have a grade point average of 3.00 or better (on a 4.0 point scale) on the most recent 60 semesters hours

Applicants pursuing a graduate certificate, licensure, or endorsement must take the following steps to be considered for admission:

1. Complete the online application and pay the non-refundable application fee.
2. Request one official transcript from every accredited college or university attended or from which you earned credit, except UNC. Official transcripts from each college are required, even if courses taken at one institution are listed on another school's transcript. This includes concurrent enrollment courses taken while in high school through an accredited college. You do not need to provide study abroad transcripts. Official transcripts may be sent via mail in an unopened sealed envelope or through an electronically secure digital program directly from the issuing institution. Mailed transcripts should be sent to UNC Graduate School & International Admissions, 501 20th Street, Campus Box 135, Greeley, CO 80639. Electronic transcripts should be sent to [grad.applicationmaterials@unco.edu](mailto:grad.applicationmaterials@unco.edu). We do not accept emailed, scanned, or PDF transcripts directly from the student.
3. Your program may require other items such as letters of recommendation, GRE scores; please check with the program.

### Registration

#### Audit

When students audit a course, there is no need to complete assignments or exams, but students are expected to attend class. If students don't attend class they may be removed from the roster. If students successfully complete the class, they will be given a grade of "NC" (no credit). **Tuition and fees are charged for audited courses and the course is not eligible for the COF stipend.** Current students wanting to register for an audit course must contact the Office of the Registrar to change their registration status to an audit. Students may not change the status for any course, including audit courses, after

the add deadline for a given term. For visiting students, please contact the Office of the Registrar at 970-351-2231.

If you are age 65 or older and wish to audit a course, you may do so with **no tuition charge (course fees may apply)**.

Registration for an audit may occur beginning the first Monday following the last day of pre-registration for UNC students. Registration is subject to space availability. If you have any questions or need additional information, please contact the Office of the Registrar at 970-351-2231.

### Classes for Personal Interest

Non-degree seeking students must submit a Student Information Form online. Students cannot have been previously denied admission by the Admissions Office.

### Continuous Registration for Graduate Students

#### Doctoral Students

All doctoral students are required to register continuously from the time they first enroll in their graduate degree program until the semester or term in which they graduate. Doctoral Students must be enrolled for at least 1 credit hour each academic semester (fall and spring) to be in compliance to this policy. Those doctoral students not in compliance with the continuous registration policy will automatically be assessed the \$150 continuous registration fee each semester. Doctoral students holding an academic-year graduate assistantship must enroll in a minimum of 3 credit hours (fall and spring); those holding a fiscal-year assistantship must enroll in a minimum 3 credit hours (fall, spring and summer) to be in compliance with the terms of their assistantship agreements and this policy. Graduate assistants are not eligible for the \$150 continuous registration fee.

All doctoral students must enroll in at least 1 credit hour during the semester (fall, spring or summer) they take scheduled examinations (i.e., oral comprehensive examination or dissertation/capstone defense) and/or intend to graduate unless they have already completed all required credits for their degree (including 797 and 799 credits). Doctoral students engaged in the above referenced activities but who have not completed all required credits and have not enrolled in at least 1 credit will automatically be assessed the \$150 continuous registration fee for that semester; these students will not have the results of their examinations recorded and will not be allowed to graduate.

#### Master's and Specialist Students

All master's and specialist students must register for at least 1 semester hour during the semester when they graduate (including the summer term) unless they have already completed all required credits for their degree prior to the semester when they graduate. Students who have already completed all required credits will be automatically assessed the \$150 continuation fee for the semester when they graduate. Master's students holding an academic-year graduate assistantship must enroll in a minimum of 3 credit hours (fall and spring); those holding a fiscal-year assistantship must enroll in a minimum of 3 credit hours (fall, spring and summer) to be in compliance with the terms of their assistantship agreements and this policy. Graduate assistants are not eligible for the \$150 continuous registration fee.

### All Graduate Students

Transfer of credit from other institutions will **not** be considered in lieu of continuous registration. Satisfying the continuous registration requirement and maintaining status as a graduate student will allow students to utilize various University facilities or faculty time. Students should be aware that paying the \$150 continuous registration fee will not meet enrollment requirements for international students or for students receiving financial assistance (including loans, grants, and assistantships). Paying the \$150 continuous registration fee only helps students meet the Graduate School's program continuation policy if they are not otherwise enrolled for credits.

### Failure to Continuously Register for Graduate Students

Students who fail to register continuously (i.e., enroll for at least 1 credit fall and spring terms) for one calendar year (three consecutive semesters, fall, spring, summer) will receive a letter of warning from the Graduate School at the beginning of the fourth consecutive semester of non-enrollment. At this time the student will be classified as inactive. Inactive students may be required to re-apply to the Graduate School within the fourth semester of non-enrollment, remit the application fee, be re-accepted by their program and the Graduate Dean, if they wish to resume their studies. Acceptance is not guaranteed. Additional coursework and examinations may be required for students who are reactivated.

At the close of four consecutive semesters of non-enrollment the student's file is closed and may not be reactivated. Students who wish to return after four consecutive semesters of non-enrollment must file a new application for consideration with the University; acceptance is not guaranteed. **Note: paying the \$150 continuous registration fee does not fulfill the requirement to enroll for at least one credit within the one year time frame.**

### Directed Studies

Directed Studies are available in most disciplines. These are identified within this publication by course number 622. The Directed Study course provides a vehicle to allow a qualified student to receive University credit for an individualized investigation under the direct supervision of a UNC faculty member. For more information, refer to the UNC Catalog or contact the Office of the Registrar, (970) 351-2231.

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. 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.

The 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. The following policies apply for registration in Directed Studies courses:

1. An individual Directed Study course may be for no more than 4 semester hours of credit per academic semester. Students enrolled in more than one Directed Study course may take no more than six credits in any semester. A study

may be further limited to the maximum number of credits listed in this catalog.

2. The student should apply through the program 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 school director/department chair of the major program. The Directed Study form must be submitted to the Office of the Registrar at the time of enrollment and requires the signatures of the student, the supervising faculty member and the school director/department chair. A rationale for course credit form should be completed and filed in the academic program office. Forms are available only through the school/department in which the study is supervised.
4. A maximum of nine semester hours, individually or in combination, of courses numbered 508, 513 or 622 may be counted toward a graduate degree.

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 should consult with either the Graduate School or the dean of the college in which the Directed Study is to be undertaken for the appropriate policy.

Students receiving graduate 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 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 office with the final grade assignment.

### **Graduate Exchange Program with CU/CSU/School of Mines**

The state has authorized graduate students to take one course per term at another state-supported institution without charge. Participating institutions include Colorado State University, University of Colorado and Colorado School of Mines.

#### **Registration Criteria:**

- Students must be full time (9 credits) at UNC and in a Graduate degree program.
- Continuing Education, on-line courses and distance delivered courses are not eligible as exchange agreement courses and are not considered as part of the full-time enrollment status criteria.
- The exchange class cannot be offered at UNC or scheduled in such a way that the student can enroll in the class at UNC.
- Registration information and applications can be obtained at the UNC Office of the Registrar, Carter Hall 3002.
- Both a representative of the Graduate School and the student's advisor need to sign the form giving approval for

the course. This form must be completed and submitted before the registration period for the class begins.

Once the exchange has been approved, the Office of the Registrar will send the form to the "host" institution. Registration processes at host institutions vary so please check with the host institution's Office of the Registrar for more information on how to register. **Students are responsible for registering for the course.**

A student's grade is sent back to UNC by the host institution on the Exchange Agreement form and then recorded on the UNC transcript as non-residency transfer work. Students should remind the instructor to submit the Exchange Form with the grade to the host Office of the Registrar after the course is completed.

### **Non-Scheduled Courses**

Course that were approved through the institutional curriculum approval process and reside in the academic catalog may be offered as non-scheduled courses.

Non-scheduled courses are offered in one of the following situations. Either the course is not being offered during a particular term and the student needs the course to graduate or the course is offered at a time the student cannot attend and the student needs the course to graduate.

Students registering for a non-scheduled course(s) must complete and submit, to the Office of the Registrar, a Non-Scheduled Course form for each course by the appropriate semester add deadlines. The Non-Scheduled Course form requires the signatures of the student, the supervising faculty member and the school director/department chair.

### **Orientation**

An orientation for new graduate students is held prior to fall semester and provides information about important services, issues, and policies for graduate students period. For information about the orientation, please call the Graduate School and International Admissions Office at (970)351-2831, after July 1.

### **Registration Procedures**

A student must be registered to attend class. The Schedule of Classes can be found by accessing URSA "Look Up Classes" or [www.unco.edu/sched](http://www.unco.edu/sched).

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

- Check Registration Status on the Student Tab/Registration Tools in URSA
- Payment of student account

### **Returning UNC Students**

Students who have not attended UNC within the last 12 months will need to update their student information before they can register. Returning students must submit a Student Information Form online.

Schedule Changes (Adds/Drops)

Schedule changes may be handled through Web Registration <http://www.unco.edu/registrar/registration/> or at the Office of the Registrar. After the deadlines posted on the Office of the Registrar website, students may not enroll in additional full term courses or drop full term courses in which they are currently registered.

Students may add courses using **URSA** through the 5th day of the semester for full semester courses. After the 5th day of the semester all adds require the signature of the instructor and must be processed at the Office of the Registrar on or before the drop deadline to be considered. Special Term and Short course add deadlines are available online at <http://www.unco.edu/registrar/current-students/course-add-drop.aspx>.

- Days 6-10: Students may also access the Course Late Add (Day 6-10) form on the Office of the Registrar website and fax it to 970-351-1870 or submit it to the Office of the Registrar. The add request form will only be available on the Office of the Registrar website during days 6-10.
- Only in unusual circumstances can a student add a course after day 10. Student's must complete a Petition to Late Add a Course form and either fax or submit to the Office of the Registrar.

A course late add will only be approved when there were extenuating circumstances beyond the students control that kept the student from adhering to the published deadlines. Students lack of knowledge of the published deadlines does not warrant an appeal.

In order to submit an appeal:

- Students must have been attending on or before the drop deadline to be considered
- Students must include a written statement describing the circumstances that kept the student from adhering to the deadline. Petitions submitted with a reason will be denied.
- All required signatures must be obtained.
- If the student has financial aid, the student is responsible to contact financial aid to understand how this will affect their aid.

In order to use the COF stipend, students must be registered for a course before the course census date (add deadline). There may, however, be legitimate administrative reasons that may allow COR eligibility. UNC will adhere to the Colorado Department of Higher Education College Opportunity Fund guidelines.

Students may drop courses using **URSA** through the 10th day of the semester for full semester courses. Tuition and fees are adjusted if applicable. Special Term and Short Course drop deadlines are available online at <http://www.unco.edu/registrar/current-students/course-add-drop.aspx> or through the Student Tab in **URSA** by clicking on the "Your Course Drop/Withdrawal Deadlines" link.

The number of credits for which a student is registered at the time of the add/drop deadlines 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).

## Summer Account Balances

Students who do not pay past due summer balances will be dropped from the subsequent Fall semester course schedule. Students will be notified via the Bearmail when courses will be dropped. If a student's courses are dropped and the past due summer balance is subsequently paid, the student is responsible for registering for courses that were dropped on a space available basis.

## Two-Class-Hour Drop Option

A faculty member may drop a student from a class during the Drop period if the student has not attended the first two-50 minute sessions. 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 on the Office of the Registrar website: [www.registrar.unco.edu](http://www.registrar.unco.edu).

## UNC and AIMS Community College Cooperative Registration Agreement

Graduate or undergraduate students enrolled for **12 credits** and paying full-time tuition to UNC or Aims Community College are eligible to take one undergraduate class (maximum 5 credits) at the other school during the corresponding term without additional tuition charges. Interim term is not included.

**The free course at the host school must not be offered at your home school during that same term you are taking the class.**

Please refer to the Transferology Site to determine which courses will transfer between Aims and UNC. Equivalent course titles between institutions are listed on the course equivalency guide available at the UNC Admissions Office or Aims Admissions Office. Remember:

- Students must meet prerequisite requirements and must pay any course fees other than tuition.
- Continuing Education courses do not count in the 12 credit full-time requirement.
- Continuing Education courses cannot be taken as the free class.
- Aims students register for UNC courses at the UNC Office of the Registrar Carter Hall 3002. Students will be allowed to register the Monday following the last day of pre-registration for UNC students.
- UNC students register for Aims course via normal procedures outlined in the Aims Schedule of Classes; however, in place of payment, the UNC student completes a certifying form at the Aims Cashier's Office.
- At the end of the term, students found to be ineligible will be billed for and must pay tuition charges to the host school.
- Once the course has been completed, please have an official transcript sent to your home institution in order to receive transfer credit.



## Unclassified Graduate and Visiting Students

Graduate students admitted to another university may take graduate level classes at UNC to transfer back to their respective home institution. Unclassified graduate status refers to a student who has at least a Bachelor's degree and has either applied to the Graduate School or wanting to take graduate classes but not pursue a degree. To register for either status, students must submit a Student Information Form online.

### 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 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.

Withdrawal deadlines are available online at <http://www.unco.edu/registrar/calendars/> or through the Student Tab in URSA by clicking on the "Your Course Drop/Withdrawal Deadlines" link.

Students may withdraw from individual classes in person or on the web. 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 on the Registrar's Website. The withdrawal deadline for an individual short-term class occurs when the class had 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 Office of the Registrar through the 12th week of the term.

### Withdrawal from Program

A student who has been admitted to a Graduate program and decides not to attend or who attends and decides to leave the program between semesters must notify the Graduate School in writing in order to have their file closed. Once notified by the student, the Graduate School will notify the Office of the Registrar, which will drop any registration for subsequent semesters and notify the student via the student's Bearmail.

A student who decides to leave a Graduate program during a semester must initiate the withdrawal process in the Office of the Registrar and notify the Graduate School in writing in order to have their file closed.

## Student Resources

### Financial Aid

#### Financial Aid

The Office of Financial Aid administers and distributes aid in the form of grants, scholarship, employment and loans to help students (families) meet college costs (tuition, fees, books, room, board and transportation). For more information, visit the office webpage at <http://www.unco.edu/financial-aid/>. The office administers federal, state, institutional and private sources of aid.

#### Applying for Financial Aid

Most financial aid is considered need-based while others are based on merit (academics, talent or performance). To qualify for need-based programs, the student must demonstrate financial need. Need is defined as the difference between the

cost of attendance and what the family (both student and parents/spouse where applicable) can reasonably afford to pay toward that cost. The cost of attendance is created by the college and consists of anticipated costs a full-time student will reasonable experience for traditional school year. The family is considered to be the first source in meeting those educational costs. To determine the families share, the family's income and assets are reviewed to calculate what is called the expected family contribution (EFC). UNC uses the Free Application for Federal Student Aid (FAFSA) to initiate this process. With completion of the FAFSA, UNC will consider a student to have applied for all federal, state and institutional need based aid programs. Scholarships can require both need and merit evaluation (see Apply for Scholarships for how to apply for UNC).

The FAFSA form is available on-line at [www.fafsa.gov](http://www.fafsa.gov). To receive the maximum amount of funding, the application must be completed by March 1 prior to each award year. An application processed after March 1 is considered late and the applicant will have limited funding opportunities.

### Apply for Scholarships

Students must be admitted to UNC by March 1 to be considered for most scholarships. Even though eligibility for some UNC scholarships is based on information obtained from the admission application, students are strongly encouraged to complete the UNC Universal Scholarship Application each year before the March 1 deadline. The application can be filled out online through Ursa. A listing of all scholarships available through UNC is located at <http://www.unco.edu/financial-aid/>.

A comprehensive list of local and national scholarships is available at most local libraries or web searches. Students are encouraged to use a free and reputable search site for scholarship listings on the internet. Research your choices and use caution. Contact the aid office if you have concerns.

Scholarships funds do not have to be repaid and as stated earlier, are awarded on the basis of academics, talent and/or performance. Other criteria often exist for individual scholarships and are set by the donor.

### Award

Financial aid is awarded on the basis of need and may include a package of grants, scholarship, employment and loans. Most 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 funding for books, tuition, fees, housing and utility deposits as well as other expenses associated with the beginning of the year. Financial aid funds are usually available at the beginning of each semester as a credit to charges on the student's bill. A refund will be deposited in the student's checking account if the aid exceeds all institutional charges. Financial aid awards are typically offered for an academic year (Fall/Spring).

Summer Session financial aid may be available. Please consult the OFA website in March of each year to determine appropriate steps to take. A FAFSA is required for each Academic Year. The student's academic progress as well as financial need determine the continuance of funding.

**Grant Funds**

Grant funds are awarded on the basis of financial need. The core grant fund available at UNC is the Colorado Graduate Grant. This grant is funded by the Colorado General Assembly. Grant funds do not require repayment unless a student fails to complete the term of enrollment.

**Graduate Assistants, Teaching Assistants, Graduate Research Assistant**

Graduate Assistantships are available through the individual academic and administrative departments. Awards are can be comprised of a monthly stipend and/or a tuition scholarship; based proportionally in exchange for a work assignment. These tax qualifying awards are disseminated according to individual program budgets. For more information students should contact their program.

**Student Employment**

UNC offers a number of employment opportunities. Federal and State Work-Study programs provide on- and off-campus jobs to students demonstrating financial need. Colorado No-Need Work Study is available on a limited basis to undergraduate Colorado residents. Students must contact the office to evaluate consideration for this type of assistance. Students who do not qualify for Work Study programs can find part-time hourly positions both at the university and off-campus. Aid received as part of a work program does not have to be repaid.

**Educational Loans**

UNC participates in the following programs: Federal Perkins Loans, Federal Direct Subsidized and Unsubsidized Stafford Loans, Federal Direct Parent Loans for Undergraduate Students (PLUS) and the Graduate PLUS loan. Eligibility for all loans is determined by completion of the Free Application for Federal Student Aid (FAFSA). Federal Perkins Loans and Federal Direct Subsidized Stafford Loans are based upon need. Federal Unsubsidized Stafford Loans PLUS loans are not based on need. PLUS Loans require approved credit by the US Department of Education.

Loan funds plus applicable interest must be repaid, usually after graduation. Each loan should be evaluated carefully and the terms and conditions regarding interest and repayment understood. Some loans have cancellation and deferment provisions. After being awarded a loan, students must accept the loan(s) on Ursa. Students and/or Parents will also need to complete a Master Promissory Note and counseling on the Federal Direct Loan website.

**Satisfactory Academic Progress Standards**

The Office of Financial Aid is responsible under federal regulations for establishing and monitoring minimum acceptable progress for the continuation of financial aid. The standard of satisfactory progress must include a student's total academic history at UNC plus transfer credits. In order to be eligible to receive financial aid, the student must be making satisfactory progress toward a degree program, regardless of whether he/she has previously received financial assistance. For a more detailed explanation of these policies, the Standards of Satisfactory Academic Progress is available in the Financial Aid office and on our website.

**Refund and Repayment**

Tuition adjustments resulting from a complete withdrawal (official or unofficial) from the University may affect the financial aid the student has received. Any student withdrawing 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 "Return of Title IV Fund Policy" on the website at <http://www.unco.edu/financial-aid/>. Credit balances are generally returned to financial aid accounts. Students can refer to <http://www.unco.edu/acctservices/bursar/accred.htm> for more explanation.

**Housing and Residential Education****Who are we**

The Department of Housing & Residential Education provides housing for more than 3,078 undergraduate and graduate students in traditional residence halls and apartments.

**At the core of what we do**

We offer services and programs that assist students in their 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 Residence Hall Association. Numerous employment opportunities are also available to students with work study within the residence halls.

**Residence hall facilities**

Residence halls and apartments are located on Central and West Campus. The Central Campus residence halls are located within a beautiful tree-lined area and include Belford, Bond, Brown, Dickeson, Gordon, Hansen-Willis, Lujón, Sabin, Snyder, Wiebking and Wilson halls. These halls house between 28 and 280 students. West Campus residence halls are located west of the University Center and house between 330 and 542 students per hall. These buildings include Harrison, Lawrenson, Turner, North and South halls.

**Living on campus is part of the learning experience**

Many students enjoy the opportunity to live on theme floors. Interest-Based Communities include: First Generation, Global Village, Outdoor Pursuits, Leadership, Pet Friendly, Spectrum, Transfer Community, and Women's Community. The Academic-Based Communities include: Biology, Criminal Justice, Cumbres, Elementary Education, Honors, Monfort College of Business, Performing & Visual Arts, Pre-Nursing, and Sustainability. These floors offer programs, activities and experiences centered around the respective theme.

**Services**

All residence halls have a designated front desk with a staffed 24-hour 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 sides of campus and provide air-conditioned dining as well as the convenience of "Gourmet To Go" and "Bear On The Run" take-out meals. Laundry facilities, study lounges, game rooms and television lobbies are also available for student use.

## Accommodations

Residence halls and apartments on both sides of campus are available for students with disabilities and include numerous accommodations and helpful features. Housing & Residential Education works with the Disability Support Services Office to assist students with individual needs. Please contact Housing & Residential Education as early as possible to ensure timely planning and preparation of a room or apartment.

### Apartment Life at Arlington Park Apartments

Arlington Park Apartments are located 1 block east of West Campus and provide housing to students. Arlington Park Apartments offers 3 different housing options:

- 2 bedroom/1 bathroom lofts,
- 4 bedroom/2 bathroom apartments or
- 2 bedroom/2 bathroom apartments.

Each apartment contains a full kitchen with stove, refrigerator with ice maker, garbage disposal, dishwasher and microwave. In the 4 bedroom & 2 bedroom/2 bath units, there is a private washer & dryer within each unit. The 2 bedroom/1 bedroom apartments have free washer & dryer access located within the building. Each bedroom is private with individual locks. All apartments are furnished with a bed, dresser, desk with a desk chair, couch, love seat, a coffee table, end table, and breakfast bar with bar stools. All utilities are included. Additional amenities include a fitness center, game room with large screen TV and free WIFI in the courtyards and community room.

Visit the Housing and Residential Education web site for detailed descriptions of buildings on campus, floor plans and answers to commonly asked questions at [www.unco.edu/housing](http://www.unco.edu/housing).

### 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. Housing and Residential Education and Dining Services will follow the University rate schedule with the first 10 days being charged at a daily rate up to the 25% withdrawal charge. For more information contact the Office of the Registrar 970.351.2231 or at their website <http://www.unco.edu/registrar/registration/>

*100% of non-refundable fees will be assessed. Some federally-funded aid programs mandate a different withdrawal/cancellation computation. See <http://www.unco.edu/registrar/> each term for exact dates.*

## Dining Services

UNC Dining Services provides a variety of meals in several dining settings for students, faculty, staff, and guests. Holmes Dining Hall and Tobey-Kendel Dining Room provide an “all you care to eat” menu seven days a week with take-out meal options available. Students can choose from a hot to-go meal called a “Bear On The Run” or they can choose a “Gourmet To Go” when they would like a to-go meal they can eat at another time. Meal plans are also accepted at the UC Food Court and Bears Bistro.

The DASH food line is available at both Holmes Dining Hall and Tobey-Kendel Dining Room and can accommodate

students with specific dietary needs or food allergies. The DASH allows customers to consistently find healthy items that follow specific nutritional guidelines. A Registered Dietitian is on staff to assist with any specific dietary needs. UNC students living off-campus can purchase either a Bear Plan or an On-Campus Meal Plan. Students can use Dining Dollars to purchase food and beverage items at any of our campus retail operations. The locations that accept Dining Dollars include campus locations of Subway®, Einstein Bros.® Bagels, Munchy Mart, and Bears Bistro, as well as three Coffee Corner locations in Kepner Hall, Michener Library, and Turner Hall and select vending machines across campus. Dining Services also provides catering for special occasions, concessions for sporting events and campus activities, and vending throughout campus. For more information, contact the Dining Services Office at (970) 351-2652 or visit [www.unco.edu/dining](http://www.unco.edu/dining).

### Semester Bear Plan

Students who purchase Bear Plans can use their UNC Card to access Holmes Dining Hall, Tobey-Kendel Dining Room, the UC Food Court, and Bears Bistro. Cash and credit cards are accepted in all dining rooms and campus retail operations. Use Dining Dollars in any retail dining location, including select vending machines across campus.

UNC Dining Services offers Bear Plans to residents of Lawrenson Hall, Arlington Park Apartments, as well as off-campus students.

For meal plans and pricing, please visit <http://www.unco.edu/dining/mealplans/index.html>.

For daily menus, please call the Food Line at (970) 351-3663.

For weekly menus and hours of operation, please visit [www.unco.edu/dining](http://www.unco.edu/dining).

Contact Dining Services at (970) 351-2652 if you have further questions.

## Rates

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

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

*\*For current tuition and pricing, visit [www.unco.edu/costs](http://www.unco.edu/costs).*

### Undergraduate Student Definitions

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

## Student Fees

General University, student and health service fees are committed to support essential student activities and programs, the health service record requirements and the Student Representative Council. Every student must pay these fees each semester, whether or not he/she makes use of the privileges and activities underwritten by the fees.

*\*For current tuition and pricing, visit [www.unco.edu/costs](http://www.unco.edu/costs).*

### 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 are assessed for employment opportunity assistance services, transcripts, etc. Refer to [www.unco.edu/costs](http://www.unco.edu/costs) for more information.

## Payment

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

The University of Northern Colorado uses a secure electronic billing (e-billing) system. The student will receive notification of an available electronic bill (e-bill) via an e-mail sent to his or her university-assigned e-mail (BearMail) address. E-bill notifications will be sent only to the student unless the student has added an authorized payer to his or her student account and the authorized payer has submitted a valid e-mail address for receipt of e-bill notifications. Payment is due on or before the **Payment Due Date** shown on the electronic bill. Failure by a student or an authorized payer to check e-bill availability will not constitute valid grounds for waiving late-payment penalties or registration, grade, diploma or transcript holds.

Payments from Financial Aid will be automatically posted to the student's UNC bill. Any excess funds will be deposited to the student's checking 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 with MasterCard, Visa, Discover or check (ACH) through the Web. Visit our website: [www.unco.edu/acctservices/bursar/accrec.htm](http://www.unco.edu/acctservices/bursar/accrec.htm).

**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 the student's 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.**

**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 Drop period, if a student drops all classes, he/she will incur a minimum charge of 10 percent (10%) of tuition and fees. When applicable, the student 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 the student drops individual classes as a part of the schedule adjustment process.

**Fees for Class Withdrawals.** Withdrawal from an individual class is permitted until the midpoint of the course. Students can withdraw from individual classes via the Web through URSA or in person. The student must initiate the process of withdrawing from ALL classes in the Office of the Registrar. 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 and Drop periods if the individual credit hours change from part-time to full-time or vice versa. After the Drop deadline, no changes in tuition and fees will occur unless the student totally withdraws from all classes. In this instance, the student is assessed a percentage of the tuition and fee costs based on the number of credits registered for and the date at the time of withdrawal.

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

***NOTE: 100% of non-refundable fees will be assessed. These fees include course fees and online fees, 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 cash advances, 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 and Drop periods with no additional fees. 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's Office.

## Tuition and Fees: Non-Resident, Resident

Tuition and Fees are calculated on the total cumulative hours that a student is enrolled in each academic term.

Graduate students may estimate the cost of their degree at <https://apps.unco.edu/tuitioncalc/>

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.

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.

*\*For current tuition and pricing, visit [www.unco.edu/costs](http://www.unco.edu/costs).*

### **Tuition Classification: Out-of-State and In-State**

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 the start of an academic term 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 where he/she expects to return when he/she 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 he/she is 22 years of age or if he/she 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 admission. If at a later date, the student thinks the classification is no longer correct, he/she must petition for a change in tuition classification.

Petitions can be submitted to the Tuition Classification Specialist in the Office of the Registrar (Carter 3002) no later than two weeks prior to the first day of classes for the given school term in which the student desires a change in classification. Under exceptional circumstances, petitions may be accepted up to the first day of the semester.

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 no later than 10 days after the denial has been sent to the student. The decision rendered by the Tuition Classification Appeals Committee is the final University determination.

Petitioning for in-state tuition classification requires the student to complete a detailed form available in the Office of the Registrar (Carter 3002) or on the Office of the Registrar website at [www.unco.edu/registrar/residency/](http://www.unco.edu/registrar/residency/). This form and other relevant information will be reviewed and a decision rendered in accordance with the state law and authorized procedures.

Armed Forces personnel and their dependents should contact the Tuition Classification Specialist for information regarding qualification for the lower in-state tuition rate.

### **Western Regional Graduate Program (WRGP)**

The Western Interstate Commission for Higher Education (WICHE) is a group of 16 member states and territories that work collaboratively to expand educational access and excellence for all citizens of the West. The Western Regional Graduate Program is comprised of fourteen western states: Alaska, Arizona, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, North Dakota, Oregon, South Dakota, Utah, Washington and Wyoming who have identified specific graduate programs across the west to which residents may attend at resident tuition rates. If you are a resident of one of the states listed above, and the program you wish to attend is a part of WGRP, you are eligible to participate. For more information, please go to the Graduate School Website <http://www.unco.edu/grad/funding/wrgp.html>

### **Alumni Relations**

<http://www.unco.edu/alumni/>

The University of Northern Colorado Alumni Association (UNCAA) serves UNC alumni and current students to engage them with their *alma mater*. The UNCAA sponsors programs, services, and communications that promote the lifelong relationships shared between UNC and the more than 135,000 graduates and students. Current students are encouraged to become members of the UNC Student Alumni Association, which is dedicated to connecting students and alumni, preparing graduates for life after graduation, and encouraging school spirit and Bear Pride across campus.

Membership in the Association is automatic upon graduation; there are no membership fees. Members are eligible to take advantage of special events, promotions and discounts exclusively available to UNC alumni. New graduates are encouraged to participate in the work of the Young Alumni Council which provides alumni who have graduated in the last 10 years a variety of events and activities geared toward meeting the specific needs of this group.

Whether alumni plan on staying close in Colorado or venturing around the globe after graduation, the UNCAA is never far away. We stay connected to our alumni in a variety of ways and create meaningful relationships that last. Remember, *Once a Bear, Always a Bear!*

### **Bookstore**

[www.unco.edu/uc](http://www.unco.edu/uc)

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

### **Office of Bursar**

[www.unco.edu/acctservices/bursar/accrec.htm](http://www.unco.edu/acctservices/bursar/accrec.htm)

Accounts Receivable, Loans Receivable, Collections and the Cashier's Office prepares student billings; disburses 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.

## **Campus Recreation**

[www.unco.edu/campus-recreation/](http://www.unco.edu/campus-recreation/)

The Campus Recreation Center is a multi-purpose facility designed to serve the recreational and fitness needs of the students and employees at the University of Northern Colorado. The Department of Campus Recreation strives to provide activities and services for persons of all ability levels and varied interests, as well as create a supportive environment to ensure every participant has a positive and successful experience. Several activity spaces are available including a weight room for strength training and conditioning, three multi-purpose gymnasiums with hardwood floors (featuring a total of six basketball courts), an indoor 1/10 mile jogging track, two racquetball courts, an indoor climbing wall, two group fitness rooms, locker rooms, swimming pool and meeting spaces. As part of the student fee package, students who are members of the Campus Recreation Center only need to bring their student ID to gain access to the facility.

The Fitness and Wellness program provides integrated programs, resources, and services to promote healthy lifestyles, create opportunities for positive behavior modification and enhance student academic success. Approximately 35 Group Fitness classes are offered per week, in over 20 different class formats, including kickboxing, yoga, cycling, aquafit, Zumba™, and step. Personal Training services provide one-on-one instruction incorporating cardiovascular, strength and body composition assessments, goal setting and health education with challenging workouts designed for the specific needs of each participant. Wellness Education programs and services include nutrition counseling, workshops and special events.

Intramural sports offer participants the opportunity to play organized sports in a recreational but competitive atmosphere, learn new sports skills, and have fun with fellow friends and students. Each year, the Intramural Sports program offers a wide variety of team sports, team and individual tournaments, and special events. Men's, women's, and coed divisions are offered in all sports.

Club Sports provide opportunities to participate in competitive and recreational sports, and also learn valuable life skills in organization, communication and leadership. Club Sports have been established to promote and develop the interests and skills of their members in a particular sport or recreational activity.

The Outdoor Pursuits program provides opportunities for outdoor education and leadership experiences through trips and workshops. Trips include skiing and snowboarding, white water rafting, camping, hiking and more. Outdoor gear can also be checked out for free at the Outdoor Pursuits Gear Shop, located in Harrison Hall.

The Blue Cruiser bike program is a free service that offers students an affordable and environmentally sustainable form of transportation. This program strives to provide an alternative to driving and promote Bear Pride on campus. Campus Recreation has a fleet of 100 cruiser bicycles, designed unique to UNC. All bikes come with a helmet and lock, as well as the option to use a front-mounted basket.

Campus Recreation has a variety of special events, activities and programs throughout the year for all ability levels. Programs include RecFest, Climbing for Cans, Video Game Nights, Movie Nights (in pool and wall), and more. Visit our website for more information about programs and events.

## **Career Services**

This office helps students and alumni choose their academic majors and careers, obtain internships and full-time professional jobs and apply to graduate schools. The services include testing, career counseling, career planning classes and workshops, resume critiques, practice interviews, internship and job fairs, on-campus interviews, career and job search resources. The office is located on the second floor of the University Center.

For more information, access the Career Services website at [www.unco.edu/careers](http://www.unco.edu/careers), email [career\\_services@unco.edu](mailto:career_services@unco.edu) or call (970) 351-2121.

## **The Center for International Education**

[www.unco.edu/center-international-education/](http://www.unco.edu/center-international-education/)

One of the major goals of the Center for International Education is to enhance the intellectual and cultural development of the university community by providing our visiting scholars and students the best opportunities for educational advancement. The academic support services provided by the Center are orientation activities and seminars including:

- Immigration document processing and counseling
- Intensive English Language programs
- International student and scholar advising
- Cross cultural activities

## **Office of Community and Civic Engagement**

<http://www.unco.edu/community-civic-engagement/index.aspx>

The Office of Community and Civic Engagement at the University of Northern Colorado promotes and supports academic engagement with the university and community, facilitates connections amongst faculty, students, staff and community members, and encourages partnerships that are mutually beneficial to promote community and civic health.

The Office of Engagement recognizes and nurtures community engaged teaching and learning that affords students opportunities to apply content and disciplinary knowledge outside the classroom, thus enhancing their learning experience while also impacting our communities. Courses that include community engaged learning (CEL) opportunities are recognized with a CEL designation. Please note this is an emergent process and courses are continually being updated with this designation.

## Community Engaged Learning (CEL)

Community engaged learning is defined as learning that integrates academic content into students' engagement with the community in and out of the classroom. Community refers broadly to include public, private, non-profit, educational entities, governmental agencies, businesses, and other organizations external to UNC. For more information: [cce@unco.edu](mailto:cce@unco.edu)

## Office of Dean of Students

This office seeks to enhance and recognize student learning and personal responsibility through:

- Resolving student issues which may include consultation with faculty and staff;
- Serving as an information and referral center for the campus community;
- Coordinating a student recognition and awards program for academic and leadership achievement; and
- Holding students accountable who have exhibited conduct incompatible with the academic mission of the University.

To contact this office, call (970) 351-2796 or visit <http://www.unco.edu/dean-of-students/index.aspx>.

### *Student Bill of Rights*

The General Assembly implemented the Student Bill of Rights (C.R.S. 23-1-125) to assure that students enrolled in public institutions of higher education have the following rights:

1. A quality general education experience that develops competencies in reading, writing, mathematics, technology and critical thinking through an integrated arts and science experience.
2. Students should be able to complete their associate of arts and associate of science degree programs in no more than sixty credit hours or their baccalaureate programs in no more than one hundred twenty credit hours unless there are additional degree requirements recognized by the commission;
3. A student can sign a two-year or four-year graduation agreement that formalizes a plan for that student to obtain a degree in two or four years, unless there are additional degree requirements recognized by the commission;
4. Students have a right to clear and concise information concerning which courses must be completed successfully to complete their degrees;
5. Students have a right to know which courses are transferable among the state public two-year and four-year institutions of higher education;
6. Students, upon successful completion of core general education courses should have those courses satisfy the core course requirements of all Colorado public institutions of higher education;
7. Students have a right to know if courses from one or more public higher education institutions satisfy the students' graduation requirements;
8. A student's credit for the completion of the core requirements and core courses shall not expire for ten

years from the date of initial enrollment and shall be transferable.

### *Student Conduct Code*

Please see the Student Code of Conduct located on the Dean of Students website here: <http://www.unco.edu/dean-of-students/offices-resources/student-rights-responsibilities/>

## Disability Support Services (DSS)

[www.unco.edu/disability-support-services/](http://www.unco.edu/disability-support-services/)

The DSS office provides disability accommodations for students with documented disabilities to ensure equal opportunity and equal access to information, programs, and services. Services may include accommodations such as testing assistance, use of a volunteer note-taker, ASL interpreters, textbooks in alternative format, and assistive technology.

Students must submit disability documentation to DSS and meet with a DSS staff member to discuss eligibility and to determine appropriate accommodation. Call (970) 351-2289 or e-mail [ann.murphy@unco.edu](mailto:ann.murphy@unco.edu).

## Extended Campus

<http://extended.unco.edu/>

Extended Campus provides support services for academic colleges offering off-campus degree, certificate and licensure programs in Colorado. Extended Campus offers career and professional development courses in Greeley and throughout the state as credit, non-credit for Continuing Education Units (CEU's). Contract courses are offered in collaboration with school districts and other sponsoring agencies. Independent study credit courses, offered by faculty in many programs, provide a flexible opportunity for students on and off campus to earn credit.

## Information Management and Technology

<http://www.unco.edu/information-management-technology/>

Information Management & Technology provides a variety of services designed to assist students in the pursuit of their academic careers. Computer labs, open to all students, are strategically located throughout the campus with the flagship facility, the Computer Commons, located in the University Center and offering extended hours of availability. Information Management & Technology provides printing services in public computing labs and other public locations for use in support of the University's mission. Access to campus computing resources and the Internet is provided through direct connections in the residence halls via a high speed data network called ResNet. The University also offers wireless internet connectivity in all academic buildings, the University Center, and Carter Hall. For additional information please access the Information Management & Technology Website at <http://www.unco.edu/information-management-technology/>.

Information Management & Technology also manages and operates Bear Logic, the campus technology store - where students, faculty and staff may obtain software and purchase computer supplies and equipment. For complete information about any of the services provided by Information

Management & Technology or for help with technical problems call the Technical Support Center at (970) 351-4357 (351-HELP) or 1-800-545-2331.

### **Student Life**

The Office of Student Life 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.

### **Charter student clubs and organizations**

Students may become involved in one of the 130 student groups which include academic societies, international, social, and political clubs and honorary organizations.

### **Community Connections**

Students volunteer for community service activities such as Best Buddies, Spring Break Service Trips (a national program for service projects), Habitat for Humanity, and other Weld County service agency programs.

### **Drug, Alcohol & Tobacco Education Program**

This nationally recognized program educates the campus community about alcohol, tobacco 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, tobacco or other drug problems to campus and community resources.

### **Gay, Lesbian, Bisexual, Transgender Resource Office**

This 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 nine officers, four voting representatives from the colleges and Residence Hall Association, three non-voting members, and representatives from PASC, SPEEC, GSA 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.

### **Graduate Student Association (GSA)**

The Graduate Student Association is an organization that allows graduate students and faculty from all disciplines to interact and achieve higher standards of thinking and research excellence. The GSA provides students with the information they need to obtain research tools, be reimbursed for research expenses, and present their research in a professional manner.

### **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 leadership experience in all aspects of program and event management while having fun and meeting new people.

## **Student Cultural Services**

Student Cultural Services provides quality support services delivered in a personal and caring manner to promote the retention and academic success of all students (undergraduate, transfer, non-degree and graduate).

**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.

**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.

**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.

**Student Legal Services** provides UNC students three free legal consultations each academic year.

**Women's Resource Center** honors gender as a central identity, and engages critical women's and gender issues, while challenging systems of inequity and advocating for change at the University of Northern Colorado.

**GLBTA Resource Office** supports the access and involvement of students who identify as Queer and/or Trans\* through quality education, advocacy, and programming in order to foster an inclusive and affirming community at University of Northern Colorado.

**Disability Support Services** develops a partnership with students, faculty and staff to assist in creating an accessible university community, where students with disabilities have an equal opportunity to fully participate in all aspects of the educational environment

## **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 Assault Survivors Advocacy Program (ASAP)**

Provides sexual assault prevention education as well as comprehensive advocacy services to student survivors of sexual assault. This includes emotional support, information, referral, and advocacy through the medical, legal, judicial and administrative systems.



**The UNC Counseling Center**

Provides psychological and psychiatric services to UNC students. In addition to individual, couples and group counseling, the Center provides consultation to faculty, staff and parents who are concerned about students. The UNC Counseling Center also presents campus-wide educational programs and workshops such as test anxiety reduction, coping with change, time management and a wide variety of other mental health topics focused on the prevention of distress and difficulties and the development of positive life coping skills. The UNC Counseling Center is located in Cassidy Hall and can be contacted at (970) 351-2496.

**The Student Health Center**

Provides primary health care services by physicians and nurse practitioners to UNC students. No appointments are needed for most care. The Center is located on the first floor of Cassidy Hall. The Health Center is able to do insurance billing for most insurance plans.

**The Women's Resource Center**

Provides educational programs, speakers, performers, resources and opportunities for students interested in women's initiatives and women's leadership. The Center is located in Scott-Willcoxon Hall. The Scott-Willcoxon Hall also houses the Stryker Institute for Leadership Development.

**The University Center**

[www.unco.edu/uc](http://www.unco.edu/uc)

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

The UC houses the Office of Student Engagement and Dean of Students, Center for International Education, Career Services, and is the home for Student Activities.

A variety of vendors serve the campus community on the UC lower level including several food retailers (Einstein Brothers Bagels, Subway, Food Court, Bears Italian Bistro), the University Bookstore, UNC Convenience Store, Bear Logic, Wells Fargo Customer Service Center, James Campus Salon, and vending areas.

The Information Desk at the UC provides campus and community information, sells tickets to all on-campus events for Intercollegiate Athletics, Performing and Visual Arts, Student Activities, Club Sports, Clubs and Organizations and other departments, sells stamps, provides free copying and faxing, and sells parking permits.

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

Lounges, meeting rooms, grand ballrooms, 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 Office**

The office is located on the main level of the University Center adjacent to the Center for International Education and the Wells Fargo Customer Service Center is located on the lower level.

**The UNC Card**

This 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 and rooms. Students may also use the UNC Card as an ATM/debit card when linking it to the free Wells Fargo Checking Account. The account then permits direct deposit of financial aid and student payroll to the free account. For alternative bank options, stop by the card office.

**University Libraries****University Libraries**

The University Libraries consist of the James A. Michener Library and the Howard M. Skinner Music Library, which house tangible collections and provide access to a wide range of online resources. 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, maps, software programs, videos, and microforms. Opportunities to borrow materials are available to all Colorado citizens. Services provided include bibliographic instruction in a state-of-the-art classroom, interlibrary loan, circulation, electronic reserves, and research assistance.

The Howard M. Skinner Music Library, named for Howard M. Skinner, former Dean of the College of Performing and Visual Arts, includes a bibliographic instruction classroom, a group study room, study alcoves and carrels. The tangible collection includes comprehensive holdings of scores, recordings, periodicals, and monographs.

Access to the University Libraries tangible materials and online resources is provided from the Libraries home page. The Libraries offers access to over 60,000 electronic journals, over 117,000 ebooks, and over 190 databases.

Prospector, a shared online catalog that provides access to the collections of more than 40 participating libraries in Colorado and Wyoming, is also available from the Libraries home page. Materials from the collections of the participating libraries can be requested directly through Prospector. The Libraries interlibrary loan service obtains library material for UNC students, faculty, and staff from libraries within the state and nation as well as foreign countries.

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 access to materials dealing with the history of the university.

**University Police Department (UNCPD)**

The 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 preventive police patrols, 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. For more information you may visit our website at [www.unco.edu/police](http://www.unco.edu/police)

In compliance with the Clery Act, the most recent University of Northern Colorado Annual Campus Security and Fire Safety Report is available online at [www.unco.edu/police](http://www.unco.edu/police) and a paper copy can be requested by calling 970-351-2245. This report contains crime statistics and policy statements related to safety, conduct processes and Title IX investigations.

## Policies and Procedures

### Academic Appeals

Graduate students may appeal any academic decision that they consider arbitrary or capricious, or contrary to University policy. The procedures for appealing an academic decision can be found at

[http://www.unco.edu/registrar/pdf/academic\\_appealprocess.pdf](http://www.unco.edu/registrar/pdf/academic_appealprocess.pdf)

For other types of academic decisions students wish to appeal, including course grades and program termination, students should contact the Graduate School to initiate the appeal process by calling (970)351-1808.

### Attendance

Regular attendance in all classes is assumed. 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.

Students involved in University-sponsored activities may need to be excused from a class, lab, or studio meeting. In all instances it is the student's responsibility to present a written request for permission for the absence from the instructor. The student must also discuss how the absence will affect his/her ability to meet the course requirements. Students should do this as early in the semester as possible. While instructors should seek to the greatest extent possible, consistent with course requirements, to make reasonable accommodations for a student involved in University-sponsored activities, students should recognize that not every course can accommodate absences, and neither the absence (nor the notification of an absence) relieves them from meeting the course requirements.

In recognition of the diversity of the student body, the University provides that a student may request an excused absence from class for participation in religious observances. In such instances, it is the student's responsibility to request, in writing, that the instructor permit the absence. The student must also discuss how the absence will affect the student's ability to meet the course requirements. A student should make any such requests before the course drop deadline for the semester.

Attendance during the first two class sessions 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. Once notified by the instructor, the Office of the Registrar will contact the student to confirm non-attendance. The student will be issued a drop by the instructor from the course if prior to the drop deadline for the given term or issued a grade of UW if after the drop deadline for a given course. Not all instructors will exercise this option; therefore, a student should not assume that non-attendance will automatically drop him or her from class.

### Authorized University Credits

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 Dean, no graduate credit is granted for any course taught by a teaching assistant who is pursuing an advanced degree at this institution, or a faculty member who has not been approved for Graduate Faculty or Graduate Lecturer status.

### Colorado Reciprocal Course Agreement

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 appear on the UNC transcript. Doctoral students may count the work toward their residency requirement.

Those students interested in this opportunity may obtain the guidelines and the proper form in the Office of the Registrar. Forms must be completed and approved before the term during which a student proposes to take a course.

### Complaints

The complaint process allows students to seek resolution for what they believe to be improper or unfair treatment from faculty and/or staff. Complaints about other students are addressed in the Student Code of Conduct. Disagreement with an administrative decision, or the outcome of that decision, is not a complaint unless it alleges improper or unfair treatment:

#### A different process is used for:

- ADA Discrimination Grievance
- Academic Appeals
- Student Conduct Appeals
- Graduate School Appeals
- Title VII-Discrimination
- Title IX-Sexual Misconduct/Gender Discrimination

## Continuous Registration for Graduate Students

### Doctoral Students

All doctoral students are required to register continuously from the time they first enroll in their graduate degree program until the semester or term in which they graduate. Doctoral Students must be enrolled for at least 1 credit hour each academic semester (fall and spring) to be in compliance to this policy. Those doctoral students not in compliance with the continuous registration policy will automatically be assessed the \$150 continuous registration fee each semester. Doctoral students holding an academic-year graduate assistantship must enroll in a minimum of 3 credit hours (Fall and Spring); those holding a fiscal-year assistantship must enroll in a minimum 3 credit hours (Fall, Spring and Summer) to be in compliance with the terms of their assistantship agreements and this policy. Graduate assistants are not eligible for the \$150 continuous registration fee.

All doctoral students must enroll in at least 1 credit hour during the semester (Fall, Spring or Summer) they take scheduled examinations (i.e., oral comprehensive examination or dissertation/capstone defense) and/or intend to graduate unless they have already completed all required credits for their degree (including 797 and 799 credits). Doctoral students engaged in the above referenced activities but who have not completed all required credits and have not enrolled in at least 1 credit will automatically be assessed the \$150 continuous registration fee for that semester; these students will not have the results of their examinations recorded and will not be allowed to graduate.

### Master's and Specialist Students

All master's and specialist students must register for at least 1 semester hour during the semester when they graduate (including the Summer term) unless they have already completed all required credits for their degree prior to the semester when they graduate. Students who have already completed all required credits will be automatically assessed the \$150 continuous registration fee for the semester when they graduate.

Master's students holding an academic-year graduate assistantship must enroll in a minimum of 3 credit hours (Fall and Spring); those holding a fiscal-year assistantship must enroll in a minimum of 3 credit hours (Fall, Spring and Summer) to be in compliance with the terms of their assistantship agreements and this policy. Graduate assistants are not eligible for the \$150 continuous registration fee.

### All Graduate Students

Transfer of credit from other institutions will **not** be considered in lieu of continuous registration. Satisfying the continuous registration requirement and maintaining status as a graduate student will allow students to utilize various University facilities or faculty time. Students should be aware that paying the \$150 continuous registration fee will not meet enrollment requirements for international students or for students receiving financial assistance (including loans, grants, and assistantships). Paying the \$150 continuous registration fee only helps students meet the Graduate School's program continuation policy if they are not otherwise enrolled for credits.

## Failure to Continuously Register for Graduate Students

Students who fail to register continuously (i.e., enroll for at least 1 credit fall and spring terms) for one calendar year (three consecutive semesters, fall, spring, summer) will receive a letter of warning from the Graduate School at the beginning of the fourth consecutive semester of non-enrollment. At this time the student will be classified as inactive. Inactive students may be required to re-apply to the Graduate School within the fourth semester of non-enrollment, remit the application fee, be re-accepted by their program and the Graduate Dean, if they wish to resume their studies. Acceptance is not guaranteed. Additional coursework and examinations may be required for students who are reactivated.

At the close of four consecutive semesters of non-enrollment the student's file is closed and may not be reactivated. Students who wish to return after 4 consecutive semesters of non-enrollment must file a new application for consideration with the University; acceptance is not guaranteed. **Note: paying the \$150 continuous registration fee does not fulfill the requirement to enroll for at least 1 credit within the one year time frame.**

## Courses

### Course Credit

#### Definition of a Credit Hour

Credit Hour as required by the U.S. Department of Education (34 C.F.R. § 600.2)

An amount of work represented in intended learning outcomes and verified by evidence of student achievement that is an institutionally established equivalency that reasonably approximates not less than:

1. One hour of classroom or direct faculty instruction and a **minimum** of two hours of out-of-class student work each week for approximately fifteen weeks for one semester or the equivalent amount of work over a different amount of time; OR
2. At least an equivalent amount of work for other academic activities as established by the institution, including laboratory work, internships, practica, studio work, and other academic work leading to the award of credit hours.

#### Base Contact Hour

The faculty Base Contact Hour represents a standard measurement of consumption of faculty resources by students. It consists of the number of scheduled minutes of instructional activity involving direct contact of faculty with students in a given term utilizing a particular method of instruction. The standard measurement for a faculty Base Contact Hour is:

- **Semester system term** One Base Contact Hour = a minimum of 750 minutes. This translates to a MINIMUM of fifteen 50-minute hours per semester.

The base contact time will vary based on type of course. The required contact time is represented in the schedule of classes. Some UNC courses may be repeated for credit; they are specifically noted in the course description section of this *Catalog* with the maximum amount of credit allowed for each course.

For repeated courses, grades of “F,” “U,” “NC,” “NG,” “NR,” “IP,” “UW,” “W,” and “I” that have not been completed within the allotted time, the credit hours are not included in earned credits.

Students may audit a course for “no credit” but must pay the same tuition and fees as those taking the course for credit. Students auditing a course must enroll through the Registrar’s Office before the add deadline. Students need not complete assignments or exams, but are expected to attend classes when auditing a course.

If you are age 65 or older and wish to audit a course, you may do so with **no tuition charge (course fees may apply)**.

Registration may occur beginning the first Monday following the last day of pre-registration for UNC students. Registration is subject to space availability. If you have any questions or need additional information, please contact the Office of the Registrar at 970-351-2231.

### *Course Designations*

#### **Subject**

Each course is assigned a subject code that identifies the discipline, field or program offering the course. For example, course numbers in Audiology and Speech-Language Sciences are preceded by ASLS; course numbers in Mathematics are preceded by MATH; and courses in Visual Arts are preceded by ART.

#### **Numbers**

Four 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 - 001-099 are not counted in cumulative credits, total credits toward graduation, GPA, nor for financial aid purposes.
- Lower division - 100-199 range are 1st-year (freshmen) courses and 200-299 are 2nd-year (sophomore) courses.
- Upper division - 300-399 are 3rd-year (junior) courses and 400-499 are 4th-year (senior) courses.
- Graduate level - 500-699 are Master’s courses and those numbered 700 or higher are Doctoral/Specialist courses.
  - Juniors and seniors with a cumulative GPA of 3.00 or higher are permitted to take 500-level courses.
  - Undergraduates may be permitted to take courses with numbers 600-699 if they have applied to and have been accepted into a Master’s level program at UNC. 600-699 courses may not be counted towards and undergraduate degree.
  - Undergraduates and master's students (unless they are enrolled in a master's enroute program) are not permitted to take courses with numbers 700-799.

Note: Applicability of coursework to a higher degree as an undergraduate, master's or specialist student: please refer to specific details on the petition to count toward the next highest degree  
<http://www.unco.edu/grad/forms/pdfs/PetitiontoCountWorkTowardHigherDegree.pdf>

Undergraduate students may not count courses numbered 600-799 toward undergraduate degree programs.

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.

Courses at the university are sequentially numbered. Courses numbered 100-499 are for undergraduate credit. Courses numbered 500-599 may count as undergraduate or graduate credit. If a course numbered 500-599 is not counting toward the correct level, the student may contact the Office of the Registrar to request that it be changed. A course numbered 500-599 counting as undergraduate credit cannot be counted toward a graduate degree; a course numbered 500-599 counting as graduate credit cannot be counted toward an undergraduate degree. Undergraduate students seeking to apply 500-599 courses to their graduate degree must contact the Graduate School. Courses numbered 600-799 are for graduate credit only.

Occasionally, courses that do not appear in the Catalog may appear in the Schedule of Classes([www.unco.edu/sched/](http://www.unco.edu/sched/)). These course number 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 Liberal Arts Core requirements.

### *Course Drop/Withdrawal Appeal during Current Semester*

The course drop and withdrawal deadlines are strictly enforced. Any request for an exception to these deadlines must be submitted using the Registration Appeal Form. This appeal applies only to current semester registrations and must be filed in the Office of the Registrar prior to the end of the current semester.

- Course drop/withdrawal appeals will only be considered when there were extenuating circumstances beyond the student's control that kept the student from adhering to the normal deadlines. These extenuating circumstances could include medical conditions, death or illness in the family, unanticipated financial problems or University errors.
- Factors not accepted for a course drop/withdrawal appeal include, but are not limited to, such things as poor academic performance in a class, time management related situations or lack of adherence to/awareness of University policy and deadlines.
- If the student received financial aid, the student must have the appeal form signed by Financial Aid prior to submitting to the Office of the Registrar. Please visit <http://www.unco.edu/financial-aid/applying-for-aid/graduate-student.aspx> for more information.
- Submission of the student's request does not guarantee any type of refund.
- All petitions must be in writing and signed by the student, legal guardian, power of attorney, or executor (in case of death). Documentation may be required if the petition is from someone other than the student.
- The student should include a written statement describing the circumstances and reasons for the appeal and any required documentation.

### Course Load

Course load limitations for graduate students apply to any combination of all courses taken on-campus, off-campus, or on-line while an individual is enrolled as a graduate student in a graduate degree program, a non-degree certification program, or any combination thereof.

### Full Time/Half Time/Less than Half Time/Overload Enrollment

Fall, Spring, and Summer: Full-time enrollment is considered 9 or more credit hours for graduate students. Half time enrollment is 5-8 credit hours. Less than half time enrollment is 4 credit hours or less.

An overload is more than 17 credit hours for Fall and Spring terms and 12 credit hours for the Summer term. Overload limitations apply to work completed in both on-campus and off-campus programs. The signed Graduate Credit Overload Permit (<http://www.unco.edu/registrar/pdf/reg-overload-ug.pdf>) must be submitted to the Office of the Registrar, 3002 Carter Hall or faxed to 970-351-1870.

The Interim term has a 4 credit hour limit; no overload will be permitted.

A graduate student with a GPA lower than 3.0 may not petition for an overload.

### Course Repeat Policy

Although 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 toward the cumulative grade point average. A non-repeatable course may be repeated but will be counted in total credits toward graduation only one time.

### Coursework Counted in Next Higher Degree

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. Students will be accountable for the final examination in the courses taken for the next higher degree.

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. [www.unco.edu/grad/forms/index.html](http://www.unco.edu/grad/forms/index.html)

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.

### Credit by Course Number

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.

Courses at the university are sequentially numbered. Courses numbered 100-499 are for undergraduate credit, and courses numbered are for graduate credit.

### 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 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.

### Multiple Numbered Courses

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 Liberal Arts Core 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.

The following guidelines will be utilized 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 nongraduate 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.
- Nongraduate 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 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 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.

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.

#### *Unclassified Course Credit*

A maximum of 9 semester hours of course work taken while in an unclassified status may be used toward a graduate degree program (no more than one semester of full time enrollment). 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.

The Graduate School may place holds on the registration of students who have taken the maximum hours and have not been admitted. Course registration will be suspended 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 the completion of 9 semester hours.

#### *Variable Topic Courses*

A maximum of 9 semester hours, individually or in combination, of courses numbered 508, 513, or 622 may be counted toward a graduate degree except

- **Master’s:** 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.

### **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. See <http://www.unco.edu/registrar/ferpa.aspx> for "eligible student" definition.

1. The right to inspect and review information contained in the student's educational records.

Students should submit to the Office of the Registrar 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. A school official is a person employed by the University of Northern Colorado in an administrative, supervisory, academic, research, or support staff position (including law enforcement unit personnel and health staff); a person serving on the board of trustees; or a student serving on an official committee, such as a disciplinary or grievance committee. A school official also may include a volunteer or contractor outside of the University of Northern Colorado who performs an institutional service or function for which the school would otherwise use its own employees and who is under the direct control of the school with respect to the use and maintenance of PII from education records, such as an attorney, auditor, or collection agent or a student volunteering to assist another school official in performing his or her tasks.

A school official has a legitimate educational interest in information contained in a student's education records if the information is necessary for that official to perform a task within the scope of his/her responsibilities that relates to the student or to the management and administration of education at the University of Northern Colorado. The information is to be used within the context of official University business and not for purposes extraneous to the official's areas of responsibility or to the University.

Legitimate educational interests would include teaching, research, public service, and such directly supportive activities as academic advising, general counseling, therapeutic counseling, discipline, vocational counseling and job placement, financial assistance and advisement, medical services, safety, raising endowment in support of student scholarships, and academic programs and academic assistance activities.

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 Office of the Registrar.

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, birth date, telephone number(s), dates of attendance, classification, and enrollment status.
- Category II: The most recent institution attended, major field of study, honors, awards and publications, 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).

Currently enrolled students may prohibit general disclosure of this Directory Information by notifying the Office of the Registrar in writing within 10 calendar days after the first scheduled class-day of each fall term. The University will honor the request until the student notifies the Office of the Registrar in writing of intent to allow release of Directory Information. The student should carefully consider the consequences of any decision to withhold 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 Office of the Registrar.

### 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.

Faculty should alert students to changes in final examination times or locations before the testing date. With the approval of the school director or department chair, 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. The final exam schedule is available at <http://www.unco.edu/registrar/>.

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 school director.

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 the health insurance requirement and verification of enrollment for health insurance purposes is 9 credit hours. 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 is 9 credit hours or more. Enrollment in 5 to 8 credit hours are classified as half-time. Less than half-time or part-time is 4 credit hours or less.

### Grade Point Average

The University operates on a 4.00 grade point system. Under "Grading" in this section of the catalog, the "Standard Grading" table contains the grade point value of individual grades.

To compute a grade point average, first remove all basic skills courses (course numbers 001-099) and all courses that carry the grades: S, U, W, UW, NR, I, NC, and grades with a period or asterisk(s). Multiply the credit hours for each remaining course by the grade point value of the grade. Total the credit hours and grade points. Divide the grade points by the credit hours. Grade point averages are calculated to 3 decimal points and displayed as two decimal points rounded on academic transcripts and degree evaluations.

If a course is repeated, all grades earned are used in determining the GPA. Grade received at other institutions are not included in the UNC GPA.

**GPA Example:**

Grade	Credit	Points	GPA
A = 4.000	3	12.000	
B- = 2.667	5	13.335	
C+ = 2.334	3	7.002	
I = N/A	N/A	N/A	
<b>Total</b>	<b>11</b>	<b>32.337</b>	<b>= 2.939 GPA</b>

**Grading**

Standard Grading	Quality Points
A = superior	4.000
A- = A minus	3.667
B+ = B plus	3.334
B = above average	3.000
B- = B minus	2.667
C+ = C plus	2.334
C = average	2.000
C- = C minus	1.667
D+ = D plus	1.334
D = poor, passing	1.000
D- = D minus, passing	0.667
F = failure	0.000
S = satisfactory - credit granted	++
U = unsatisfactory - no credit	+
I = incomplete	+
UW = unauthorized withdrawal	+
W = approved withdrawal	+
NC = no credit (audit)	+
NR = no report	+
NG = no grade	+
CR = credit granted	++
Grade* = basic skills, fresh-start, and grade forgiveness	+
Grade** = fresh-start prior to March 1993	++
Grade(.) = basic skills	+

<sup>+</sup>Credits not used to compute grade point average (GPA) and not counted toward graduation.

<sup>++</sup>Credits not used to compute GPA but counted toward graduation. "S" is a UNC assigned course grade. "CR" is non-UNC assigned course grade.

**Notes**

A "CR" indicates credit awarded for AP, IB, CLEP, Military, and/or for courses from other institutions assigning a grade of "CR".

A "\*" indicates basic skills, fresh-start, and grade forgiveness on a student's records. Credits not used to compute grade point average (GPA) and not counted toward graduation.

A "\*\*\*" indicates fresh-start prior to March 1993. Credits not used to compute GPA but counted toward graduation.

A "." indicates basic skills coursework. Credits not used to compute grade point average (GPA) and not counted toward graduation.

A "NC" indicates no credit and is assigned for audited courses.

A "NG" indicates a no graded course and is only used for ISE 100/101 and NSE 100 course designations.

A "NR" is used for theses, dissertations, and other courses that have been granted approval for "NR" grading at the *graduate* level. The "NR" is assigned when the coursework requires longer than a semester to complete. The "NR" will be replaced by the appropriate grade when the work is completed. Once "NR" grades have rolled to an unsatisfactory, grade changes will not be permitted.

A "W" indicates an approved withdrawal from the course and is assigned only when the student has completed the official withdrawal processes. Credits not used to compute grade point average (GPA) and not counted toward graduation.

A "UW" indicates an unauthorized withdrawal and is assigned **only** when the student has **never** attended the class for which he/she enrolled. Credits not used to compute grade point average (GPA) and not counted toward graduation.

A "F", or "W", or "U" grade requires the submission of a last date of a student's "academic-related activity". "UW" grades are only submitted when the student never attended the class. As outlined by the U.S. Department of Education (34 C.F.R. 668.22), the submission of the "Last Date of Attendance" is necessary to ensure that any student receiving a failing grade actually attended the class and, therefore, is eligible for any federal financial aid they may have received.

As defined by the U.S. Department of Education, an "academically-related activity" includes, but is not limited to—

- Physically attending the class
- Submitting an academic assignment
- Taking an exam, and interactive tutorial, or computer-assisted instruction
- Attending a study group that is assigned by the institution
- Participating in an online discussion about academic matters
- Initiating contact with a faculty member to ask a question about the academic subject studies in the course



"Academic attendance" and "attendance at an academic-related activity" do not include activities where a student may be present, but not academically engaged, such as:

- Living in institutional housing
- Participating in the institution's meal plan
- Logging into an online class without active participation; or
- Participating in academic counseling or advisement (34 C.F.R. 668.22)(I)(7)(i)(A)

UNC is required to determine "academic attendance" or "attendance at an academically-related activity" for all students. (34 C.F.R. 668-22(I)(7)(ii). (Also, see Withdrawal from the University)

### **Incomplete Grading**

At the discretion of the instructor, a temporary grade of Incomplete - "I" may be given to a student who demonstrates that he/she could not complete the requirements of the course due to circumstances beyond the student's control and not reasonably foreseeable. A student must be passing a course at the time that an Incomplete is requested unless the instructor determines that there are extenuating circumstances to assign an Incomplete to a student who is not passing the course. Credits not used to compute grade point average (GPA) and not counted toward graduation.

### **Students completing an Incomplete grade should not register for the course a second time.**

The instructor must submit to the department chair or school director, a written notice of the specific coursework to be completed before the final grade is determined as well as reasons for the Incomplete grade; a copy is kept in the school/department and one is provided to the student.

To change an Incomplete grade, the instructor must submit the grade change request form to the Office of the Registrar. Grade change requests submitted after the six week period of the subsequent term the student originally enrolled in the course must be approved and signed by the instructor, the school director/department chair and the Dean of the College (or designee). Forms are available within URSA, under the Faculty tab. No grade change request forms delivered by students will be accepted. Additional information is available at <http://www.unco.edu/registrar/>.

If the course requirements are not completed and the grade change form received in the Office of the Registrar after a maximum of one year, the grade will be recorded on the academic record as a failing or unsatisfactory grade. Once the incomplete grade(s) have rolled to unsatisfactory/failing, a grade change(s) will not be permitted.

**For year-long independent study courses**, if the course requirements are not completed and the grade change form received in the Office of the Registrar after a maximum of one year from the term in which the ***Incomplete*** grade was assigned, the grade will be recorded on the academic record as a failing or unsatisfactory grade. Once the incomplete grade(s) have rolled to unsatisfactory/failing, a grade change(s) will not be permitted.

Degrees will not be conferred upon students with outstanding "I" grades.

### **Minimum Grade Requirement**

Courses for which "C-", "D+", "D", "D-", "F", "U", "W", "NR", or "I" grades are awarded will not count in graduate degree programs and will not satisfy program deficiency requirements.

### **Grade Forgiveness**

Graduate students are not eligible for grade forgiveness.

**The course syllabus contains important information regarding course requirements and the grading system utilized. It is the responsibility of the students to read the syllabus and consult the instructor if they have questions.**

### **Grade Submission and Corrections**

Faculty must submit grades via the Web to the Office of the Registrar by 5 pm of the third working day after the end of finals week of the semester in which the course was offered. Grade changes or corrections must be submitted within the first six weeks of the following term, and must be signed by the instructor and the department chair/school director. Changes to grades for classes taken in the fall semester are due within the first six weeks of the spring semester; changes to grades for classes taken in the spring are due the first six weeks of the summer; changes to the grades for classes taken in the summer are due the first six weeks of the fall semester. Grade change requests submitted after the six week period must be approved and signed by the instructor, the school director/department chair and the Dean of the College (or designee). Grade change forms are available in URSA, under the Faculty tab. No grade change forms delivered by students will be accepted. No grade changes will be accepted for courses that have been applied to an awarded degree and/or certificate/licensure program.

### **Immunization Regulation**

<http://www.unco.edu/student-health-center/>

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 on-campus students who are admitted to UNC must submit a Certificate of Immunization form. Students must submit a completed Certificate of Immunization form to Student Health Services 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.

It is a UNC requirement for all incoming international students from countries where TB is endemic to undergo TB screening at the start of their first semester at UNC. Proof of a TB screening test must be submitted to Student Health Services by the 10th day of classes of their first semester at UNC. Students who fail to comply with this requirement will have a hold placed on their registration. Students should contact the Center for International Education (CIE) office at (970) 351-2396 for additional information about this requirement.

The meningitis vaccine is not currently required, however it is highly recommended. Colorado state law does require that you provide the University with acknowledgement that you have received information regarding meningitis. This is accomplished as part of the online housing contract. Please discuss with a health care professional. Students interested in getting the meningitis vaccine should contact the Student Health Center at (970) 351-2412 to make an appointment.

### Insurance Requirement for All Students

<http://www.unco.edu/student-health-insurance-program/>

UNC's Board of Trustees requires that all undergraduate students registered for at least 9 credits or more and all degree seeking graduate students registered for at least 6 credit hours have health insurance. International students who are registered for at least 9 or more (6 or more for graduate students) credit hours must also have health insurance.

Undergraduate students enrolled for 9 or more credit hours and degree seeking graduate students enrolled for 6 or more credit hours will automatically be enrolled in the UNC Student Health Insurance Plan. If the student wishes to waive the UNC plan, they will need to complete an online waiver form and provide the requested information to show coverage with comparable insurance coverage by the 10th day of classes.

Students who have an URSA account may log into <https://ursa.unco.edu>, click on the Financial tab and locate the link to the "UNC Student Health Insurance Plan Online Waiver System" (SHIP). Students who have been admitted, but do not have an URSA account, will need to access the URSA home page at <https://ursa.unco.edu>, and create a student account from the link titled "NEW STUDENTS START HERE". Once your account has been established, follow the steps above to access the online waiver.

If you participate in a Health Care Sharing Ministry Program approved by the Federal Health and Human Services division, contact the Student Health Insurance office at (970) 351-1915 for further instructions on waiving the UNC sponsored insurance plan.

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.

Students enrolled in the student insurance may purchase coverage for their spouse and children. Intercollegiate athletes may also purchase the student insurance along with a sports rider to cover intercollegiate injuries. Please contact the insurance office at (970) 351-1915 for additional information.

Undergraduate students enrolled for less than 9 hours and graduate students enrolled for less than 6 hours of classes are

not eligible to participate in the UNC SHIP. They may, however, contact Academic Health Plans at (888) 308-7320 for assistance in finding individual coverage.

### Name Change

#### Name Change

Application for admission to the University requires students to use their legal name. The legal name must be the name that is recorded with the Social Security Administration. The same is true for a student to change his/her name; the University will require proof of that legal name by evidence of the social security card. The legal name is imperative at both the state and federal level reporting (i.e. financial aid, College Opportunity Fund, employment.)

#### Preferred Name

A first name by which an individual wishes to be identified that is other than the individual's legal name is a "preferred name". UNC will provide a process for any student to include a preferred first name in UNC's information systems. While UNC will work toward primary use of the preferred name, students should be aware that the **use of the legal name will continue to be necessary in multiple communications and processed due to UNC business or legal requirements and/or system limitations.**

UNC reserves the right to deny a request to include a preferred name in its information systems if the request is fraudulent, carries connotations offensive to good taste and decency, or violates the Board Policy Manual, University Regulations and/or Student Code of Conduct. Issues relating to such matters may be referred to the Dean of Students Office for consideration and resolution.

UNC will investigate reports of misuse and abuse of the preferred name process/policy statement. Depending on the circumstances, those involved in such investigations may include Human Resources, Dean of Students, Provost, University Counsel, and/or appropriate law enforcement agencies.

The university also reserves the right to remove preferred names that are deemed misrepresentative and suspend the individual's privilege to update their preferred name.

### Preferred Name/Graduation Ceremonies

For graduation ceremonies and commencement program publication, the Office of the Registrar will use a student's legal name. If a student chooses to use a preferred first name in place of a legal first name at the graduation ceremony and in the commencement program (not transcripts or diplomas) they must submit an Individual Data Change Request Form and select the appropriate box to override legal first name and use the preferred first name at the ceremony. Students **with** a preferred first name on file with the Office of the Registrar and who wish to use their preferred first name for graduation ceremonies and commencement program publication, must submit an Individual Data Change Request Form by the respective graduation application deadline. Graduation application deadlines are located here:

## Graduation Deadlines

Students **without** a preferred first name on file with the Office of the Registrar and who wish to use their preferred first name for graduation ceremonies and commencement program publication, must submit an Individual Data Change Request Form by the respective graduation application deadline. Graduation application deadlines are located here:

## Graduation Deadlines

### A student's legal name will be published on diplomas and official transcripts.

For more information on preferred first name please visit the Preferred Name FAQ.

*This policy statement may be modified or rescinded at the discretion of UNC.*

## 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 mission of UNC Parking Services is to manage an efficient and self-supporting system of parking lots for the campus. We will design and maintain our lots to enhance safety and an orderly traffic flow. We will enforce Parking Rules and Regulations so that our patrons receive the best service possible. Students, faculty or staff who wish to park on campus can purchase a parking permit from Parking Services (Gray Hall) or go online at [www.unco.edu/parking](http://www.unco.edu/parking). Visitors and short-term guests can purchase Visitor's Permits at Parking Services or Daily Permits from one of the many dispenser units located across campus. UNC's parking lots are enforced all year, as per the signage at the entrance to each lot. No tax revenue, student fees or tuition funds are received or used for parking facilities.

## Plagiarism

The following is UNC's 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 or 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, often by listing author(s) and year of the cited source. 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 acknowledgement may be unacceptable. However, students should be aware that most professors require certain forms of acknowledgement and some may evaluate a project on the basis of form.

## Posthumous Degrees

(1) The request to award a posthumous degree may be initiated by the decedent's family, major department/school, or college, as well as by the Dean of Students.

(2) The Dean of Students, in consultation with the Registrar and, when appropriate, the Dean of the Graduate School and/or the decedent's department/school or college, shall determine whether the following two conditions have been met:

(a) The student would have been eligible to graduate at the end of the semester or term, assuming satisfactory completion of enrolled course work and any additional degree requirements. Academic performance during the semester or term, however, will not be scrutinized or evaluated.

(b) At the time of death, there were no outstanding criminal charges or violations of the Student Code of Conduct against the student, nor did the student die in the commission of a criminal act or violation of the Student Code of Conduct.

(c) If the parties named in the first sentence of (2) above determine that there are extenuating circumstances, then the student shall be considered eligible for a posthumous degree.

(3) Upon determination that the student is eligible for a posthumous degree, the Dean of Students shall contact the decedent's family to determine whether the family approves of the posthumous degree award.

(4) Upon approval from the family, the Dean of Students shall communicate approval to the Registrar, who will withdraw the student from all registered course work, order the appropriate diploma, and arrange for the decedent's listing in the commencement program. If by this point it is no longer possible for the Registrar to execute these tasks in time for the forthcoming commencement, the posthumous degree shall be awarded at the next commencement.

(5) The Registrar shall send notice of the posthumous degree award to the President, the Provost, and the decedent's major department/school and college.

(6) The President shall write a letter to the decedent's family announcing the posthumous degree award and the date of the commencement ceremony at which the degree will be granted.

## 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. Courses are offered online during the vacation break starting after fall courses have ended and finishing prior to spring courses starting. A full slate of courses 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

Official transcript requests are made through the Office of the Registrar. There is a fee for each transcript ordered. Appropriate request procedures and fee payment options are outlined at <http://www.unco.edu/registrar/>.

### Transfer Credit

A student who wishes to transfer credit from another university must obtain and complete a *Transfer of Credit* form at [www.unco.edu/grad/forms/pdfs/TransferOfCredit.pdf](http://www.unco.edu/grad/forms/pdfs/TransferOfCredit.pdf) 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 and be approved by the Graduate School.

- Transfer work is not used in the calculation of the graduate grade point average.
- 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 school and must be "A", "A-", "B+", "B" or "B-" work.
- Transfer credit cannot be used to meet any residency requirement.
- Transfer credit cannot be used to make up "C-", "D+", "D", "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", "A-", "B+", "B" 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).

The University of Northern Colorado only accepts credit from institutions of higher education holding full regional accreditation from one of the following agencies:

- Middle States Association of Colleges and Schools
- New England Association of Schools and Colleges

- The Higher Learning Commission (HLC) of the North Central Association of Colleges and Schools
- Northwest Commission on Colleges and Schools
- Southern Association of Colleges and Schools
- Western Association of Schools and Colleges

To find out if your previous college or university is regionally accredited by one of these agencies, visit <https://ope.ed.gov/accreditation/>

### Student Complaints

If a disagreement regarding the transferability of credits for coursework or a degree occurs between a student and the institution, the Colorado Department of Higher Education will facilitate an expeditious review and resolution of the matter. Complaints can be filed at <http://higher.ed.colorado.gov/Academics/Complaints/default.html>. The Colorado Commission on Higher Education shall have final authority in resolving transfer disputes.

### Tuition Appeal

A tuition appeal is necessary when a student is requesting an adjustment to the tuition and fees that were charged as a result of a University withdrawal.

- Tuition appeals will only be considered when there were extenuating circumstances that were beyond the student's control that necessitated a University withdrawal. These circumstances could include medical conditions, death or illness in the family, unanticipated financial problems, or university errors.
- Factors not accepted for a tuition appeal include, but are not limited to, such things as poor academic performance in a class, time management related situations, or lack of adherence to/awareness of University policy or deadlines.
- All petitions must be in writing and signed by the student, legal guardian, power of attorney, or executor (in case of death). Documentation may be required if the petition is from someone other than the student.
- The student should include a written statement describing the circumstances and reasons for the appeal and any required documentation.
- Upon receipt of the tuition appeal, an appeals committee will convene to determine whether or not to approve the request. A member of the appeals committee will contact the student via the student's Bear Mail with the decision. The committee's decision is final.

### Withdrawal from the University

<http://www.unco.edu/registrar/>

A notice of intent to withdraw requires a student to contact an office designated by an institution as the point where the official withdrawal process begins, as defined by U.S. Department of Education (34 CFR 668.22).

At the University of Northern Colorado, official notification of intent to withdraw occurs when a student notifies the Office of the Registrar of his or her intent to withdraw (via telephone, in person, or through written notification).

The date a student notifies the Office of the Registrar of his or her intent to withdraw will be used as the official withdrawal date from UNC. Please note that if a student sends a letter to the Office of the Registrar to provide notification of intent to withdraw, the official withdrawal date is the date that the letter is received by the UNC Registrar.

Current withdrawal deadline dates can be found on the Office of the Registrar website at <http://www.unco.edu/registrar/current-students/course-add-drop.aspx#fndtn-CourseWithdrawal3-d14e256>.

In some instances UNC may use a student's last documented date of attendance or academic engagement in an academically related activity in one or more courses as the official withdrawal date if the date of attendance or academic engagement occurred after the official notification described above.

Students who wish to completely withdraw from all courses in the current semester, whether planning to return to UNC or not, must contact the Office of the Registrar at 970-351-2231 to begin this process.

Requesting information about withdrawal, such as the potential consequences of withdrawal, does not constitute an official notification of intent to withdraw from the University of Northern Colorado.

Withdrawals must be completed by the complete schedule withdrawal deadline of the semester; withdrawals after the deadline will not be permitted. See the Short Course calendar for courses that do not meet for the entire semester.

If a student withdraws from UNC due to major extenuating circumstances, or an incident of such trauma and major proportions that the student could not have reasonably been expected to possess the capabilities necessary to complete the academic period satisfactorily or complete the University withdrawal process described above, UNC will determine the withdrawal date that most accurately reflects when a student ceased academic attendance or academic engagement (See Grading Language, Academic Attendance). In such cases, students must file the appropriate appeal form located on the Office of the Registrar website at <http://www.unco.edu/registrar/current-students/course-add-drop.aspx#fndtn-CourseWithdrawal3-d14e256>.

In some instances, a second party (e.g., Dean of Students personnel, Counselor, etc.) may provide notification of student's intent to withdraw to the Office of the Registrar when circumstances prevent the student from following the standard withdrawal process.

In cases where a student is dismissed administratively (e.g., expelled), UNC will use the date that the institution terminates the student's enrollment as the official withdrawal date.

A student with financial aid should contact the Office of Financial Aid at 970-351-2502 prior to withdrawing to determine the effect of the withdrawal on financial aid. The website of the Office of Financial Aid may be found at <http://www.unco.edu/ofa/aid/maintaining/index.asp>.

The Office of Financial Aid will use the official withdrawal date documented by the Office of the Registrar for the purpose of calculating the return of Title IV funds.

Students will receive a grade of "W" on the transcript for each course that has not been completed. The grade of "W" does

not impact the student's GPA. Grades for courses that have been completed during the current semester will remain on the transcript.

### **Financial Aid Recipients**

The Office of Financial Aid will use the official withdrawal date documented by the Office of the Registrar for the purpose of calculating the Return of Title IV funds. Students who fail to attend classes may have to repay part or all of Title IV funding received.

Students who withdraw from school prior to completing 60% of a term may be required to repay a portion of the federal financial aid received for that term. Federal aid includes Federal Stafford Loan, Federal Perkins Loan, Federal PLUS Loan, Federal Pell Grant, and Federal Supplemental Education Opportunity Grant. Students may also become ineligible for future aid — see "Standards of Satisfactory Academic Progress".

Students who receive all "F" or "UW" grades will be classified as an "Unauthorized Withdrawal" and the Office of Financial Aid will use the official last date of attendance documented by the Office of the Registrar, if available, for the purpose of calculating the Return of the Title IV funds. Students planning to leave school, must follow the formal withdrawal procedures with the Office of the Registrar and understand the financial obligations.

For more information on how your withdrawal will impact financial aid, please visit <http://www.unco.edu/financial-aid/applying-for-aid/current-student.aspx>.

### **Housing and Residential Education and Dining Services**

The Housing and Residential Education and Dining Services Departments will follow the University rate schedule with the first ten days being charged at the daily rate up to the 25% withdrawal charge.

### *Non-Attendee Retroactive Withdrawal Appeal*

A non-attendee retroactive withdrawal appeal is permitted if the student registered for courses at UNC, never attended the institution, and did not notify the institution to be removed from courses.

The Registrar will determine, in consultation with faculty members, the Dean of Students and others as appropriate, if the retroactive withdrawal should be granted. If the student's appeal is submitted more than 90 days after the end of the course(s), University Leadership approval will be required in addition to the Registrar.

If granted, the courses will remain on the student's transcript with a grade of "UW", which does not impact the student's GPA, and tuition and fees will be adjusted if applicable. Certain charges related to the student's registration such as student insurance, fines, permits and/or emergency cash advances will be charged at 100%.

If the petition is denied, the student will be charged 100% of tuition and fees, as well as certain charges related to the student's registration such as student insurance, fines, permits, and/or emergency cash advances.

All petitions must be in writing and signed by the student, legal guardian, power of attorney, or executor (in case of death). Documentation may be required if the petition is from someone other than the student.

The student should include a written statement describing the circumstances and reasons for the appeal and any required documentation.

### *Retroactive Withdrawal Appeal*

A retroactive withdrawal appeal may be necessary when a student experienced extenuating circumstances, or an incident of such trauma and major proportions, that a student could not have reasonably been expected to possess the normal capabilities necessary to complete the academic period satisfactorily or complete a University withdrawal.

If granted, the courses will remain on the student's transcript with a grade of "W", which does not impact the student's GPA, and tuition and fees will be adjusted if applicable. Certain charges related to the student's registration such as student insurance, fines, permits and/or emergency cash advances will be charged at 100%.

If the petition is denied, the student will be charged 100% of tuition and fees, as well as certain charges related to the student's registration such as student insurance, fines, permits, and/or emergency cash advances.

Factors not accepted for a retroactive withdrawal appeal could include, but are not limited to, such things as poor academic performance in a class, time management related situations, or lack of adherence to/awareness of University policy or deadlines. Partial course withdrawals will not be considered, only complete schedule withdrawals.

The Registrar will determine, in consultation with faculty members, the Dean of Students and others as appropriate, if the retroactive withdrawal should be granted. If an appeal is submitted more than 90 days after the end of the course(s), University Leadership approval will be required in addition to the Registrar.

All petitions must be in writing and signed by the student, legal guardian, power of attorney, or executor (in case of death). Documentation may be required if the petition is from someone other than the student.

A student should include a written statement describing the circumstances and reasons for the appeal and any required documentation.

# PROGRAM REQUIREMENTS

## Program Information

### Advising

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 be aware of and understand the expectations and requirements of their academic programs (e.g., degree requirements, deadlines, program and University policy). Program advisors are responsible for assisting students with questions regarding their academic programs and professional guidance. These responsibilities include explaining Graduate School policies and procedures, expectations for comprehensive examinations, theses, capstone, or dissertation, and internships, as guided by program, department, school, university and Graduate School as well as professional conferences and publications. Any 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. It is the responsibility of the school/department to notify the Graduate School of the advisor assignment and any change in advisor assignment.

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.

### Application for a Change of Major

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

The student must complete a *Request for Change of Major* form and submit it to the Graduate School [www.unco.edu/grad/forms/pdfs/ChangeMajor.pdf](http://www.unco.edu/grad/forms/pdfs/ChangeMajor.pdf). The Graduate School will forward the request to the new program along with access to the student's electronic application file. After the Graduate School receives the new department's or program's decision indicating approval or denial of the student's change of major request, the Graduate School will notify the student of the decision.

**NOTE:** *A change of emphasis is equivalent to a change of major.*

### Comprehensive Examinations

Also see specific degree requirements. Records of written comprehensive examinations are maintained in the program area for a period of 12 calendar months. These examinations are confidential and available only to the student who completed an exam and program or 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. Program faculty may use past comprehensive examination responses as models for instructional purposes as long as all student identifications are removed by faculty.

### Graduation Requirements

Graduation requirements are checked in accordance with the UNC Graduate Catalog and Degree Works. The student must specify the Catalog under which he/she wishes to be evaluated and must meet all requirements in that 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 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 partial requirements in one version of the Catalog and other requirements in another version of the Catalog.

To graduate in any given semester, all graduation requirements must be completed (with relevant documentation submitted to the Office of the Registrar and Graduate School, as necessary) by the Wednesday prior to the date that diplomas are released for the semester.

Degrees are not awarded during the Interim term; students who complete their graduation requirements in an Interim term are considered graduates of the subsequent Spring semester.

### Letter of Completion

Usually, an official transcript is proof of completion of a degree. If a student needs proof of the degree prior to the availability of official transcripts with degree indicated, he/she may contact the Graduate School in writing, for a letter of completion. A letter of completion can be issued only after all the degree requirements have been officially verified as complete, including posting of grades for the current semester by the Registrar.

### Petition for Exception

Graduate students may petition to be excepted from certain procedures, rules, policies, and requirements within the purview of the Graduate School. Students discuss the need for the Petition with their academic advisor prior to submitting the request to the Graduate School. The petition must include the specific policy or guideline from which the student desires to be excepted, a clear rationale for the exception, and a description of how the exception, if granted, 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, the student must document the specific academic and degree requirements to be completed and proposed timeline for completion. Similarly, students submitting a petition to be readmitted to their degree program following termination due to failure to continuously enroll for more than one year, must indicate the degree requirements to be completed and a specific timeline for completion. Signatures of the program advisor and school director or department chair are required on this form prior to submitting the request to the Graduate School. Faculty signatures indicate approval of and support for the request. Petitions submitted without the required signatures will be returned to the student. The *Graduate Student Petition for Exception* form is available in school offices or on the Graduate School website <http://www.unco.edu/grad/forms/pdfs/Graduate%20Student%20Petition%20for%20Exception.pdf>.

### Program Termination

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

- The major school/department recommends that the student's program be terminated based on an overall evaluation of the student
- The graduate student has not maintained 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 which the 9th hour is earned are used in the calculation of the grade average;
- The student fails the retake of the written comprehensive examination or its approved equivalent

as reported to the Graduate School by the student's program;

- The student fails the retake of the oral comprehensive examination as reported to the Graduate School by the student's program; fails to meet the "may pass" conditions documented stipulated after the dissertation defense;
- The student fails to meet the "may pass" conditions stipulated after the dissertation defense or oral comprehensive exam; or
- The student submits an unsatisfactory thesis or dissertation as determined by the student's program and the Graduate School.

### Readmission Subsequent to Program Termination

A student whose degree program has been terminated may be considered for admission 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.

### Research Involving Human Subjects

#### Institutional Review Board (IRB)

Before any research involving human subjects can be conducted under the auspices of the university, an Institutional Review Board (IRB) review is required. Data from human subjects are not to be collected until *written approval is received* by the student from the University's Institutional 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 the student is enrolled at UNC.

Researchers are advised to obtain and submit an IRB application early in their research process to allow time for a thorough review. Information about UNC's IRB's process and the link to IRBNet (the web-based IRB application portal) can be found on the Office of Sponsored Programs website: <http://www.unco.edu/research/research-integrity-and-compliance/institutional-review-board/>.



## 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.**

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, and 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 *Procedures for Research Involving Human Participant* <http://www.unco.edu/osp/doc/irb/Procedures.pdf>, may not be recommended for special liability insurance coverage.

For moderate to high risk procedures, the IRB committee will strongly recommend that student's purchase liability insurance either through a professional association or an alternative source. <http://www.unco.edu/research/research-integrity-and-compliance/institutional-review-board/>

## Master's Degree Requirements

### 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 at least 3.00 in the major being dropped. Once a student has taken the comprehensive examination for one of the majors, neither major can be dropped.

## Courses and Credit Hours

The university 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. Programs may have requirements that exceed the minimum standards established by the university.

A maximum of three semester credits of 513 (Professional Renewal) may be counted toward the master's degree.

### Transfer Credit

#### Master's Degree Policy

Students must complete a minimum of 24 credits through the University of Northern Colorado as part of their master's degree. Thus, students can transfer up to six (6) qualifying credits (e.g. credits earned within the last five years, with a grade of "B" or better) from an accredited institution, that offers graduate degrees, into a 30 credit hour degree program. If the program requirements exceed the minimum 30 credits, students are allowed to transfer additional credits as determined by the school or program faculty. Students are encouraged to check school policies regarding transfer of credit.

These policies allow programs that exceed the 30 credit minimum for a master's to establish school transfer limits and guidelines that exceed minimum requirements. 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.

## Program Requirements

### Thesis Committee

Masters students' thesis committee is comprised of at least two members from the student's school/department who hold current Graduate Lecturer, Graduate Faculty or Graduate Faculty with the Doctoral Research Endorsement status.

### Master's Thesis in Lieu of Comps

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 is required. If the thesis is in lieu of the written comprehensive examination, school/department procedures for determining eligibility are used prior to conducting the thesis research. Thesis committee members must sign the final document indicating successful completion of the thesis.

If the master's thesis is required in addition to the comprehensive examination, 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.

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.

#### **Written Comprehensive Examinations**

Each master's degree student must pass a written comprehensive examination or otherwise show competency in the discipline by successfully completing a 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.

School/department faculty are 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 school/department-specified course requirements
- maintained a GPA of at least 3.0 in their program
- received approval from the program advisor.

#### **Application**

The student will apply in the academic school/department 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.

Students should not wait until they have been notified of comprehensive examination results before applying for graduation. If the student plans to graduate at the end of the semester in which he/she takes the comprehensive examination or completes the approved equivalent, the student must apply for graduation within the published deadlines.

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.

#### **Results**

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. If the student plans to graduate, submitting the comprehensive exam result must be done on or before the published deadline to submit the results of the written comprehensive examination for that semester.

A retake may not be scheduled during the same semester during which 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.

Results must be reported to the Graduate School within one semester or be retaken.

#### **Filing the Thesis**

All students must follow the program and Graduate School guidelines for writing the master's thesis, found on our website at [http://www.unco.edu/grad/new\\_current/resources/index.html](http://www.unco.edu/grad/new_current/resources/index.html).

After committee members sign off on the thesis, an electronic copy of the thesis and four (4) original signature pages should be submitted to the Graduate School for an editorial review and dean's approval at least 4 weeks, (28 calendar days) prior to the requested graduation date. The Graduate School shall give the student all changes and corrections that must be made before the student turns in the final thesis. The Graduate School will confer the student's degree once we have received the final version and the specific forms for binding and billing, mailing and publication (optional). More detail about the final submission procedures can be found on the Graduate School website ([http://www.unco.edu/grad/new\\_current/resources/index.html](http://www.unco.edu/grad/new_current/resources/index.html))

#### *Plan of Study*

The program listed in the UNC Graduate Catalog will serve as the plan of study for master's programs.

The Course Adjustment Form

<http://www.unco.edu/grad/forms/pdfs/CourseAdjustmentForm.pdf>, for requesting changes or substitutions to the student's degree requirements 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 Degree Works audit.

#### *Research Requirements*

**Master's research policy** . Student's must complete at least one course in research methodology designated as appropriate to the discipline and approved by the Graduate Council. Courses numbered XXX 622 (Directed Studies) shall not be used as a substitute for the research course.

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 in the form of a "Graduate Student Petition for Exception". 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.

#### *Graduate Application*

It is recommended that all master's students apply for graduation [www.unco.edu/grad/forms/pdfs/MastersAndSpecialistGraduationApplication.pdf](http://www.unco.edu/grad/forms/pdfs/MastersAndSpecialistGraduationApplication.pdf) no later than the end of the semester preceding the semester during which a student plans to graduate. The schedule of deadlines for the Graduate School can be found at

[www.unco.edu/grad/forms/deadlines.html](http://www.unco.edu/grad/forms/deadlines.html). The student has the responsibility for determining that the application has been filed with the Graduate School. The Graduate School will not process 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.

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. All Graduate students must complete a *Diploma Request Card* at [www.unco.edu/grad/forms/gradCard.asp](http://www.unco.edu/grad/forms/gradCard.asp). The diploma will be mailed to the address provided by the student on the *Diploma Request Card*. Failure to provide a current 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.

#### *Time Limit*

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, program time limits are adjusted to reflect approval of transfer credit or unclassified hours. Student must complete the degree within five calendar years beginning with the earliest work counted in the program (which would include transfer credit and unclassified hours).

## Specialist Degree Requirements

### **Courses and Credit Hours**

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. Programs may have requirements that exceed the minimum standards established by the university.

#### *Plan of Study*

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.

- The plan must be formalized on a *Plan of Study* form created by the program faculty. The completed form, including the signature of the program advisor, 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*, the Dean of the Graduate School or his/her designee shall review and approve or disapprove the plan. If approved, the *Plan of Study* form will be filed in the student's Degree Works audit. 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 advisor and the Dean of the Graduate School or his/her designee.

*Written requests; course adjustment form*

*<http://www.unco.edu/grad/forms/pdfs/CourseAdjustmentForm.pdf>, for changes or substitutions to the student's 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 on their Degree Works audit.*

#### *Transfer Credit*

**Specialist Degree Policy.** Students must complete a minimum of 24 credits through the University of Northern Colorado as part of their post-master's specialist degree. Thus, students can transfer up to six (6) credits from another accredited institution that offers graduate degrees, into a 30 credit hour specialist degree program. If the program requirements exceed the minimum 30 credits, students are allowed to transfer additional credits as determined by the school/department 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 school policies regarding transfer of credit.

These policies allow programs that exceed the 30 credit minimum for a specialist to establish school transfer limits and guidelines that exceed minimum requirements. 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.

#### *Comprehensive Examinations*

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 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 GPA of at least 3.0 in their program
- received approval from the program advisor

#### *Research Requirements*

##### **Specialist research policy**

Students must complete at least one course in research methodology designated as appropriate to the discipline and approved by the Graduate Council. Courses numbered XXX 622 (Directed Studies) shall not be used as a substitute for the research course.

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 in the form of a "Graduate Student Petition for Exception". 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. In such cases, students must replace the waived credits with another course.

#### *Supervising Committee*

A two-person specialist supervising committee, recommended by the program, 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.

#### *Graduation Application*

It is recommended that all specialist students apply for graduation <http://www.unco.edu/grad/forms/pdfs/MastersAndSpecialistGraduationApplication.pdf> no later than the end of the semester preceding the semester during which a student plans to graduate. The schedule of deadlines for the Graduate School can be found at [www.unco.edu/grad/forms/deadlines.html](http://www.unco.edu/grad/forms/deadlines.html). The student has the responsibility for determining that the application has been filed with the Graduate School. The Graduate School will not process 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.

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. All Graduate students must complete a Diploma Request Card at [www.unco.edu/grad/forms/gradCard.asp](http://www.unco.edu/grad/forms/gradCard.asp). The diploma will be mailed to the address provided by the student on the Diploma Request Card. Failure to provide a current 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.

#### *Time Limit*

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, program time limits are adjusted to reflect approval of transfer credit or unclassified hours. Student must complete the degree within six calendar years beginning with the earliest work counted in the program (which would include transfer credit and unclassified hours).

## **Doctoral Degree Requirements**

### **Doctoral Minor**

Doctoral minors consist of a minimum of 15 semester hours of course work in a discipline different from the doctoral program. Any school/department with at least one approved graduate degree program (master's, specialist, or doctorate) is eligible to offer doctoral minor(s). Proposals for doctoral minors are submitted through the university curriculum approval process. Upon approval, the doctoral minor will be listed in the university catalog.

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. Doctoral students who have been approved by the school/department to pursue a doctoral minor will include the requirements for completion of the minor in their doctoral plan of study.

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. Student 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

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.

### Courses and Credit Hours

#### *Credit Hours*

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 enroute to 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 and program advisor. Schools may have requirements that exceed the minimums established by the University.

#### *Transfer Credit*

Doctoral students must complete a minimum of 40 semester hours through UNC 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 their advisor, from another accredited institution that grants doctoral degrees. Doctoral students without a master's degree must complete 64 of the 94 required credits at UNC for a doctoral degree. The plan of study will indicate transfer credits to be included in a student's program. Students are encouraged to check school or department policies regarding transfer of credit.

These policies allow programs that exceed the 64 credit minimum for a doctoral degree to establish school transfer limits and guidelines that exceed 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.

#### *Doctoral Committee*

Each doctoral student must have an Advisor and a doctoral committee appointed *before* the written comprehensive exam is taken. The appointment of the Doctoral Committee shall occur prior to the scheduled comprehensive examination.

At minimum, a doctoral committee must consist of:

1. A Research Advisor must be from within the program/discipline area and must hold a current Doctoral Research Endorsement [DRE] status. Faculty wishing to continue to serve as Research Advisor after retirement must hold a current Emeritus Graduate Faculty (EGR) status;
2. one additional faculty Committee Member from within the program/discipline area;
3. one additional faculty Committee Member from within a related discipline or area of inquiry;
4. a Faculty Representative (needs to be outside the program discipline)

Doctoral capstone committees require a minimum of three committee members to include a research advisor and two committee members.

All committee members must hold a current Graduate Faculty (GF) status. The doctoral committee is subject to the approval of the program advisor and the Graduate School.

The student and all members of the Doctoral Committee will receive confirmation of the approved committee assignments. Unless the student or Research Advisor 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 written comprehensive examination throughout the dissertation research stages of the program.

The Graduate School reviews and confirms the membership of student's doctoral committee each time a *Request to Schedule of the Doctoral Examination* (oral comps and dissertation defense) is submitted and when upon submission of the student's dissertation proposal.

The student should nominate a faculty representative from outside the program discipline to serve on the committee. In approving the appointment, the Graduate Dean charges that person with upholding the standards and expectations of the Graduate Faculty. 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 oral examination, proposal hearing, and final capstone or dissertation defense. The faculty representative must hold Graduate Faculty status. The faculty representative is expected to actively contribute conceptual, theoretical, methodological and/or academic expertise from an alternative disciplinary perspective and provide an impartial evaluation of the student's academic work.

No faculty member will be appointed to a doctoral committee without his/her consent. University faculty who have not been appointed Graduate Faculty, Doctoral Research or Emeritus Graduate Faculty status by the Graduate Council shall not be appointed as members of doctoral committees. An Honorary member is not required, but is allowed when an off campus faculty member with research expertise related to the study is requested. The Honorary committee member is a full voting member with all the rights and responsibilities of other members of the committee and must be present at the student's doctoral oral examination, dissertation proposal and dissertation defense. An Honorary committee member must apply for and receive Graduate Faculty Equivalence status.

Any change of membership or role (faculty rep, co-research advisor, committee member) requires a change of committee membership form to the Graduate School <http://www.unco.edu/grad/forms/pdfs/ChangeCommittee.pdf>. Changes to the membership of a doctoral committee should be rare and made only after the student and the research advisor have consulted. Students who wish to replace a committee member are urged to communicate the desire and rationale for the change directly to the specific faculty member in person. If a committee member or faculty representative is unable to be present during an oral examination, proposal hearing or dissertation or capstone defense, the program area shall appoint an eligible member of the graduate faculty to replace the original committee member. The Graduate School must be notified of the replacement before the oral exam, proposal hearing or final defense. If a replacement cannot be appointed prior to the examination, proposal or defense, the exam must be rescheduled for a future date. The concerns and recommendations of all committee members, including the faculty representative, are crucial to the dissertation approval process.

#### *Faculty Committee Load Policy*

An individual graduate faculty member may serve on ten active doctoral research committees at any one time and may serve as the research or co-research advisor on 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, school director or department 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 school/department to other students and to programs offered by the school/department.
- The school director or department chair approves the additional student. Approval indicates that the director has reviewed the current load of the faculty member and does not feel the additional load will adversely affect the responsibility of the school/department to other students and to programs offered by the school/department.
- The Graduate Dean has approved the exception(s).

An individual school/department may elect to impose more stringent limitations on its faculty with respect to the number of committees on which they may serve. "Active doctoral student" is defined as one who is currently enrolled.

#### *Plan of Study*

Student's program advisor, appointed and approved by the major school/department, shall supervise the planning of a student's doctoral degree program. In conjunction with the appointed advisor, each doctoral student must prepare a long-range plan of study that clearly specifies core requirements, elective, transfer, double-numbered coursework, and if applicable, research tools and doctoral minor.

The plan must be formalized, including signatures of the advisor or the appointed faculty (if required by the school/department). For a suggested *Plan of Study* format see <http://www.unco.edu/grad/forms/pdfs/PlanOfStudy.pdf>. The Plan of Study 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 included on the student's Degree Works audit. If approved, the Plan of Study will be the basis for the graduation check. Any deviation from the plan of student must be approved by the program advisor and the Dean of the Graduate School or his/her designee.

Changes to the Plan of Study must be approved by the advisor and submitted in writing to the Graduate School on the course adjustment form found at <http://www.unco.edu/grad/forms/pdfs/CourseAdjustmentForm.pdf>. Students should take the responsibility to make sure any deviations from the Plan of Study are documented on their Degree Works audit.

#### *Comprehensive Examinations: Written*

All examinations and the defense of the dissertation must be scheduled with the approval of all committee members. They may not be performed on weekends or when the University offices are closed for holidays.

Each doctoral student must pass a written comprehensive examination that is designed, administered, and evaluated by the graduate faculty of the major school/department and by other qualified individuals as specified by the research 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 be UNC credit;
- maintained a grade point average of at least 3.00 in his/her graduate degree program;
- a doctoral committee appointed by the Graduate School;
- obtained approval from the research advisor to take the exam.

The major school/department is responsible for scheduling the date, time, and place of the written comprehensive examination(s). Each student must check the school/department requirements at the beginning of his/her program of study. Written comprehensive examinations may not be performed on weekends or when University offices are closed for the holidays.

For comprehensive examinations that are timed, once an exam session begins, it is considered a take of the examination. If the student leaves the examination session and does not return or does not complete the exam during the allotted time frame, the examination will be considered taken and the exam will be evaluated accordingly. For take-home examinations that are not strictly timed, the school/department should determine a starting time/date and ending time/date during which the student must complete the exam.

Once the examination has been evaluated, the program advisor must submit a signed report form to the Graduate School indicating a pass or failure of the examination by

the deadline established for that semester by the Graduate School.

The results of the written comprehensive examinations must be reported to the Graduate School no later than the semester following the examination or defense or the Graduate School may require a repeat of the examination.

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.

#### *Electronic Attendance Policy*

Doctoral students' oral comprehensive, proposal and final dissertation/capstone defense examinations require the attendance of the student, all committee members, including the faculty representative, external and honorary members. Attendance, for the purpose of this policy, is defined as either a physical/in-person presence on campus or an electronic presence (e.g. telephone/conference call, video conferencing [Skype®, Facetime®] or other online meeting platform.

- Electronic attendance by the student or committee members assume the technology is viable and works continuously throughout the examination of the student.
- Should the technology fail or be disrupted in any committee meeting (orals, proposal, or final dissertation/capstone defense) in excess of 15 minutes the Research Advisor and/or Faculty Rep must contact the Graduate School and reschedule the examination for later date and are not subject to the two-week period required for public announcement of the examination. If the examination continues with failed technology for more than 15 minutes, the results will not be accepted by the Graduate School and the student will need to reschedule and will be subject to the two-week period for public announcement.
- No more than two persons, either two committee members or the student and committee member

#### *Online and In-country programs*

With the consent of their program, doctoral students, in programs delivered online or *in country*, are permitted to attend their oral comprehensive examination and dissertation/capstone proposal hearing electronically provided the doctoral research committee has, in advance of the hearing, received all necessary and relevant documents, visuals and or materials. Doctoral students, in online programs must attend the final dissertation defense, in person, on the main campus to allow attendance by members of the academic community. Doctoral students whose programs are delivered *in country* will defend their dissertation/capstone at a location determined by the doctoral program and Dean of the Graduate School.

*Main campus programs:* Consistent with the delivery method of their programs doctoral students enrolled in main campus programs must attend their oral comprehensives, proposal hearing and final dissertation/capstone defense, in person, on the main campus. In rare cases, doctoral students, with the support of their research advisor, may petition the Graduate School to be exempted from this policy to be permitted to attend *either* the oral comprehensive examination or the proposal hearing electronically. Doctoral students enrolled in main campus programs must attend their final dissertation defense in person, no exceptions.

#### *Committee Members*

All members of doctoral research committees (research and co-research advisors, program representatives, members from related disciplines, and external and honorary members) must be present at doctoral students' oral comprehensive examinations, dissertation proposal defense and final dissertation/capstone defense. No more than two of the committee members may, attend the oral comprehensive examination and proposal defense via electronic means. Committee members must plan ahead and discuss the desire to attend electronically with the doctoral student and the student's Research Advisor. The Research Advisor and doctoral student work together in advance of the examination or defense to secure the needed technology and space (room, conferencing number, etc.). The student will indicate and the Research Advisor will confirm committee members' electronic attendance on The Request to Schedule a Doctoral Examination form submitted to the Graduate School in advance of the examination. In the event of unforeseen circumstance or a weather related emergency, two of the four committee members may attend oral comprehensive examinations or proposal hearings electronically.

#### *Comprehensive Examinations: Oral*

After passing the written comprehensive examination, every doctoral student must take and pass an oral comprehensive examination. The research advisor serves as chairperson of the oral comprehensive examination committee, directs the student to arrange the date, time and place of the oral examination with *all committee members*. After all arrangements are made, the student or program advisor will notify the Graduate School by forwarding a signed and completed *Request to Schedule a Doctoral Examination* form at least two weeks prior to the date of the examination.

In order for the Graduate School to approve a request for the student to take the examination, the following conditions must be met:

- The committee members and faculty representative must be the same as those approved by the Graduate School.

- The written comprehensive examination results must have been received and recorded by the Graduate School prior to requesting to schedule the oral comprehensive examination.
- Annual progress review from program on file in the Graduate School for each year prior to student's scheduling their oral exam.
- The Request to Schedule a Doctoral Examination must be turned in to the Graduate School at least two weeks (14 calendar days) before the requested date of the examination to allow the Graduate School to publicize the examination.

The student is responsible for confirming the date and time of the examination with all of his/her committee members. The Graduate School will approve and publicize the examination date, time and place in UNC Today, the Graduate School calendar or in any other appropriate university publication and forward a *Results of the Oral Comprehensive Exam* form to the student's Research Advisor.

Any examination which is not scheduled in advance through the Graduate School will not be recognized as valid and must be rescheduled.

All committee members and the faculty representative must be present at the examination or a substitute assigned according to the guidelines for Doctoral Committees. The student's performances on the examination will be evaluated as:

1. pass;
2. may pass when conditions are met (specific conditions and a timeline for completion must be recorded on the *Results of the Oral Comprehensive Examination* form before turning in to the Graduate School); or,
3. fail, with the option of "retake permitted" or "retake not permitted" which should be specified on the *Results of the Oral Comprehensive Examination* form before submitting it to the Graduate School. A decision not to permit a retake will result in the student's termination from the degree program. If the student does not pass during the first attempt of the oral comprehensive examination, and a retake is permitted by the committee, the retake may not be scheduled during the same semester that the original examination was completed. Only one retake is allowed. Failure of the examination retake will result in termination of the student's degree program.

At least three-fourths of the committee members must agree on the final evaluation.



All members of the UNC 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 student's research advisor.

The results of the oral comprehensive examinations must be reported to the Graduate School no later than the semester following the examination or defense or the Graduate School may require a repeat of the examination.

### *Progress Review*

Schools/departments are to evaluate and provide an annual program progress report for each doctoral student until the student passes the oral comprehensive examination.

Doctoral student advisors will be responsible for obtaining the following information for each assigned advisee:

- Student's self-evaluations of his/her 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 school/department 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 is required on the progress report.

The progress report will include a clear recommendation to the school director/department chair of the Graduate Program Committee (GPC) 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 Graduate Program Committee (GPC), in writing, of the conditions and specific changes required to satisfy the conditions. If the school/department does not have a GPC, the report will be submitted directly to the school director or department chair.

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 school/department faculty members and that led to the recommendation for program discontinuation. These concerns should be noted in the student's annual progress review.
- The student must be given an opportunity to meet with and address the observed behavior or incident with the school/departments Graduate Program Committee (GPC) or with the student's doctoral committee for school/departments with no graduate program committee. Following the meeting, the GPC or doctoral committee must either reassert the concerns or withdraw the concerns in writing to the department chair or school director.

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 school/department 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 GPC or student doctoral committee to the school director or department chair no later than April 15 of each year and copied to the student. A department chair or school director may agree or disagree with the GPC's or doctoral committee recommendation. If in agreement with the recommendation, the director or chair 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 GPC or doctoral committee will be informed in writing of the approval. If in disagreement with the GPC's or doctoral committee's recommendation, the school director or department chair will invite the student's program advisor and the GPC chair or doctoral committee members to discuss the disagreement. After the meeting, the GPC 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.

**or**

Modify and submit the recommendation to include conditions agreed to by the school director/department chair and GPC 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/school director and GPC or doctoral

committee with explanation any additional documentation and signed acknowledgement from the department chair/school director and GPC chair or doctoral committee members. The advisor and GPC members or doctoral committee members may submit additional comments or documentation to support the GPC 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 Dissertation and Capstone*

A dissertation or capstone proposal and final dissertation or capstone should be developed pertaining to a significant topic in the candidate's major. A dissertation or capstone is required of all doctoral students. For students in programs requiring a dissertation (i.e., D.A., Ed.D., Ph.D) minimum credit for the dissertation proposal (797) is 4 semester hours, and for the final dissertation (799) is 12 semester hours. No more than 4 hours of proposal (797) and 12 hours of dissertation (799) semester hours may be applied to the minimum credit requirements of a student's program. Students in programs requiring a doctoral capstone (i.e., Au.D. or D.N.P.) are not required to register for 797 or 799.

#### **Dissertation or Capstone Proposal**

The dissertation proposal or capstone proposal must be presented to the student's doctoral committee for approval prior to engaging in final data collection. In addition, the approved dissertation proposal must be filed electronically with the Graduate School. Students must have an approved IRB application or an approved IACUC (Institutional Animal Care and Use Committee) application if using human participants or animal subjects, respectively, prior to data collection. All 797 (proposal) and 799 (dissertation) hours will result in a grade of "NR" until the final product of each has been approved by the Graduate School. Once the dissertation proposal and final dissertation have been approved by the doctoral committee and the Graduate School, the Graduate School will authorize the Registrar to change all prior grades to "S". Student pursuing the Au.D or D.N.P are not required to file their approved capstone proposals with the Graduate School.

The dissertation or capstone proposal is crucial in the dissertation process and should culminate with a formal and public dissertation or capstone proposal hearing. The proposal shall be presented to the student's entire committee in a timely manner as specified by the committee (typically at least two weeks prior to the proposal hearing). Students coordinate with their research advisor and doctoral committee to schedule the date, time and location of the proposal hearing which is not schedule with the Graduate School. The full committee, including the faculty representative (for dissertation committees), must be present at the proposal hearing.

After the proposal hearing, 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.

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.

Approval of the dissertation or capstone proposal establishes the expectations for the final dissertation or capstone and assures agreement among the committee with the student's methods and research strategy prior to proceeding to the final stages of the dissertation or capstone (including securing IRB or IACUC approval prior to data collection). The proposal hearing also allows the committee to introduce required changes or additions to a student's proposed project while changes are still possible. Scheduling the proposal hearing is done with the program office according to the major school or departmental policies.

#### **Filing Dissertation Proposal**

An electronic copy of the approved proposal, signed signature page IRB or IACUC approval (if applicable) and signed Verification of Research Subject or Participant Compliance form shall be submitted to the Graduate School. Students are also responsible for maintaining their own copy of the entire proposal in a secure location until the time of their graduation.

Doctoral students should be prepared to submit a paper copy at any time if requested to do so by the Graduate School or by a member of their committee.

#### **Doctoral Candidacy**

Doctoral students advance to candidacy upon passing the written and oral comprehensive examinations and filing an approved dissertation proposal, and submitting all the required paperwork for the dissertation proposal to the Graduate School. Upon meeting all requirements for the doctoral candidacy, the Office of the Registrar is authorized to change all prior grades for 797 hours to "S".

The Graduate School will consider the dissertation proposal as accepted unless the Graduate School Dean objects to the proposal. If the Dean objects, the proposal will be sent to the student and research advisor with specific written request for revisions.

### *Dissertation and Doctoral Defense*

The student will complete the research and write the dissertation or capstone in close collaboration with his/her research advisor(s). All students must follow the school/department and Graduate School guidelines for writing the doctoral dissertation or capstone project. The *Graduate School Dissertation, Thesis, and Capstone Format Manual* can be found at <http://www.unco.edu/grad>. Student should discuss discipline specific formatting rules with their doctoral committee advisor.

- Upon completion of the dissertation or capstone project, the research advisor should direct the student to arrange the date, time and place of the defense of the dissertation or capstone with **all committee members**. After all arrangements are made, the student or research advisor will notify the Graduate School by forwarding a signed and completed *Request to Schedule a Doctoral Examination* form found at [www.unco.edu/grad/forms/pdfs/ScheduleDocExam.pdf](http://www.unco.edu/grad/forms/pdfs/ScheduleDocExam.pdf).

In order for the Graduate School to approve a request for the student to defend the dissertation or capstone, the following conditions must be met:

- The committee members and faculty representative (for dissertation committees) must be the same as those approved by the Graduate School.
- The student's plan of study, written and oral comprehensive examination results must have been received and recorded by the Graduate School.
- The student must have been admitted into candidacy at least one semester prior to requesting to defend the dissertation.
- The Request to Schedule a Doctoral examination must be turned in to the Graduate School at least two weeks (14 calendar days) before the requested date of the defense to allow for the dissertation or capstone defense to be publicized. The defense may not be scheduled for weekends or when University offices are closed for holidays as the defense is considered a public hearing.
- The defense of the dissertation or capstone must be scheduled at least five weeks (35 calendar days) prior to the anticipated graduation date. If it is not, the student may not graduate until the following semester.

The student is responsible for confirming the date and time of the examination with all of the committee members. The Graduate School will approve and publicize the examination date, time and place in the UNC Today or in any other appropriate university publication two weeks prior to the scheduled date. The Graduate School forwards a results form to the student's Research Advisor as approval of the defense.

Any examination which is not scheduled in advance through the Graduate School will not be recognized as valid and must be retaken.

Prior to the defense date, the research advisor should discuss the nature and purpose of the dissertation or capstone defense with the student. Generally, the student is instructed to prepare a brief presentation of the study from the purpose to the results and discussion.

All committee members including the faculty representative (for dissertation committees) must be present through the entire defense or a substitute assigned according to the guidelines for Doctoral Committee. 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. The committee is free to ask any questions pertaining to the dissertation or capstone. The student is expected to understand and demonstrate expertise on all aspects of the study including the data analyses and theoretical or practical implications and should avoid being unaware of the procedure or logic followed in the data analyses. It is recommended that the student bring 6 copies of the signature pages for the dissertation or capstone to the defense in the event that the committee evaluates the performance as a pass so that committee members can then sign the results form and the signature pages. The dissertation committee will evaluate the student's performance at the defense as well as the written dissertation or capstone as a "pass", "may pass with conditions", or "failed" on the results form.

- **Pass:** If the student passes the defense, the research advisor shall obtain the signatures of the research committee members on the results form (which the research advisor will bring to the defense), and submit the form to the Graduate School. The student shall proceed to make any corrections to the dissertation or capstone that are required by the research committee and submit the corrected dissertation or capstone to the committee members (if required) for their review and signatures. The student must provide 6 necessary copies of the signature page for the bound copies and the Graduate School records. Original signatures are required on every signature page.
- **May Pass:** If the research committee requires the student to meet stated conditions, the research advisor shall list the conditions on the results form along with a timeline for completion, obtain the signatures of the committee members on the results form, and submit the form to the Graduate School. The list of conditions must include a statement regarding the number of additional defense meetings (if applicable) and the amount of additional time allowed by the research committee. 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 results form shall be retained by the Graduate School until either conditions are met, or the committee deems the student has not met the conditions. After the student submits the corrected dissertation or capstone to the committee, or otherwise attempts to meet the required conditions, the research advisor shall obtain the original results form from the Graduate School. If the student does not meet the stated conditions, the Graduate School shall then notify the student that the degree program is terminated.

- **Failed:** If a student fails the defense, the research advisor shall obtain the signatures of the research committee members on the results form and submit the form to the Graduate School. The Graduate School shall then notify the student that the student's degree program is terminated.

The results of dissertation and capstone defenses must be reported to the Graduate School no later than the semester following the defense or the Graduate School may require the student to repeat the defense.

#### **Dissertation and Capstone Filing**

After completing any necessary revisions and obtaining approval of the dissertation or capstone by the student's research committee, students must submit the following to the Graduate School for an editorial review and final approval by the Dean of the Graduate School.

- an electronic copy of the final dissertation in either MS Word or pdf
- Verification of Research Subject or Participant Compliance form  
<http://www.unco.edu/grad/forms/pdfs/VerificationofResearchSubjectCompliance.pdf>
- the IRB or IACUC approval (if applicable) and at least six (6) original signed signatures pages

The student will then be asked to make revisions and/or submit the required copies of the final dissertation or capstone to the Dean of the Graduate School for signature. The dissertation or capstone is not approved until signed by the Dean of the Graduate School.

If the dissertation or capstone 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 or capstone, the Graduate School will require each doctoral student to complete specific forms relating to the dissertation or capstone and will bill the students' UNC account for binding, mailing, microfilming, and digital archiving and dissemination of the dissertation or capstone. Final submission procedures and necessary forms can be found on the Graduate School website (<http://www.unco.edu/grad/>). The dissertation or capstone will be electronically stored and the dissertation

abstract will be published in ProQuest Information and Learning (formally Dissertation Abstracts).

The four (4) required paper copies shall be dispensed as follows:

- one copy of the dissertation or capstone shall be filed in the university archive,
- one at the library circulation,
- one copy for the student's research advisor,
- one copy will be sent to the student.

If a student has co-research advisors, a fifth copy must be submitted to the Graduate School. See the Dissertation, Thesis, and Capstone Format Manual on the Graduate School Website for additional paper and printing requirements.

#### **Dissertation Objection**

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). Should the committee member file an objection, the Dean of the Graduate School will appoint a review committee to assess the specific objection(s). If the review committee rules that the objection(s) does/do 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/are valid, the student must take appropriate steps to modify the dissertation in order to gain the approval of the original dissertation committee.

#### *Research Requirements*

##### **Research Core**

Doctoral students must complete a research 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. Courses numbered XXX 622 (Directed Studies) shall not be used to substitute for courses in the research core.

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.

##### **Research Tools**

All Ph.D. students must demonstrate competency in two acceptable research tools. A research tool is defined as exhibiting advanced knowledge and/or demonstrating a 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. Schools/departments will determine acceptable research tools such as languages, applied statistics, mathematical statistics, research methods, and computer languages/applications.

**Collateral Field**

With the approval of the major school/department and the Dean of the Graduate School 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 hours 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 his/her 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 school/department and must be approved by the Dean of the Graduate School.

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 school/department.

**Graduation Check**

Upon a student's admission to doctoral candidacy, the Graduate School will conduct a preliminary graduation check. 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 by completing an Application for Graduation at [www.unco.edu/grad/forms/pdfs/DocApplicationForGraduation.pdf](http://www.unco.edu/grad/forms/pdfs/DocApplicationForGraduation.pdf).

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. All Graduate students must complete a *Diploma Request Card* at [www.unco.edu/grad/forms/gradCard.asp](http://www.unco.edu/grad/forms/gradCard.asp). The diploma will be mailed to the address provided by the student on the *Diploma Request Card*. Failure to provide a current 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.

**Hooding.** The candidate's research advisor(s) shall hood the candidate at the graduation ceremony.

**Time Limit**

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.

## GRADUATE PROGRAMS

### Master's Degrees

#### ACCOUNTING M.ACC.

##### Kenneth W. Monfort College of Business

##### Degree Requirements — 30 Credits

See "Accounting M.Acc. (MAcc Degree)" (p. 218).

All MAcc program students will have to complete a written comprehensive exam or equivalent in the semester they plan to graduate. The MAcc degree requires that students complete the following courses and 30 credit hours.

#### DEGREE REQUIREMENTS

##### Required Major Credits — 21 hours

BAAC 521	Contemporary Issues in Financial Reporting Topics	3
BAAC 524	Professional Accounting Research, Communications, and Ethics	3
BAAC 525	Contemporary Issues in Auditing Topics	3
BAAC 528	Contemporary Issues in Accounting Information Systems	3
BAAC 529	Contemporary Issues in Tax	3
MBA 632	Business Law	3
MBA 670	Advanced Financial Management	3

##### Required Accounting Elective - must take nine credit hours of the following courses:

BAAC 523	Cost and Managerial Accounting II	3
BAAC 527	Governmental and Institutional Accounting	3
BAAC 549	Income Tax II	3
BAAC 592	Internship in Accounting	3
BAAC 595	Special Topics in Accounting	1-3
BAAC 622	Independent Research Directed Studies	1-3

### APPLIED STATISTICS AND RESEARCH METHODS M.S.

#### College of Education and Behavioral Sciences

##### Degree Requirements — 30-35 Credits

See "Applied Statistics and Research Methods M.S." (p. 195).

#### DEGREE REQUIREMENTS

##### Required Major Credits — 11 hours

SRM 502	Applied Statistics	3
SRM 520	Introduction to Statistical Computing	1
SRM 531	Research and Statistical Consulting I	1
SRM 600	Introduction to Graduate Research	3
SRM 697	Master's Project	3

#### SELECT ONE CONCENTRATION AREA — 19-24 HOURS

##### 1. Applied Statistics Concentration — 24 hours

SRM 551	Mathematical Statistics with Applications I	4
SRM 552	Mathematical Statistics with Applications II	4
SRM 608	Experimental Design	3
SRM 610	Statistical Methods III	3
SRM 625	Applied Multiple Regression Analysis	3
SRM 635	Categorical Data Analysis	3
	Elective Credits (minimum)	4

##### 2. Research Methods Concentration — 19 hours

PSY 674	Measurement I: Educational Testing	3
SRM 670	Evaluation: Models and Designs	3
SRM 680	Introduction to Qualitative Research	3
	Elective credits (minimum)	7

##### Choose 3 credits from:

SRM 625	Applied Multiple Regression Analysis	3
SRM 660	Mixed Methods Research	3
SRM 685	Educational Ethnography	3
SRM 686	Qualitative Case Study Research	3
SRM 687	Narrative Inquiry	3

Students may substitute SRM 521 or SRM 522 for SRM 520 and students who select Applied Statistics concentration may substitute SRM 606 for SRM 625. Students enrolled in summers-only or evenings-only programs may substitute SRM 602 and SRM 603 for SRM 502 and SRM 520. Electives must be approved by advisor prior to enrollment.

## ART AND DESIGN M.A.

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### College of Performing and Visual Arts

#### Degree Requirements — 30 Credits

The Art & Design M.A. offers two delivery options, On-Campus and Low Residency.

See “Art & Design M.A.” (p. 237).

#### DEGREE REQUIREMENTS

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##### Required Major Credits — 12-14 hours

ART 600	Research Methods in Art	3
ART 649	Current Issues in Art	3

##### On-Campus Option:

ART 699	Thesis	1-6
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ART 699: Take 6 hours

##### Low Residency Option:

ART 601	Introduction to Arts Based Inquiry in Graduate Studies	2
ART 696	Action Research in Art Education I	3
ART 697	Action Research in Art Education II	3

##### Art Electives — 16-18 hours

#### For students enrolled in the Low Residency option

This is a two-year program. The Art Education Faculty for the School of Art & Design will serve as advisors for students and will develop with each of them a course of study for the degree program. Low Residency students will design, conduct and complete Action Research Projects in lieu of a comprehensive exam required by the graduate school. The Art Education Faculty will review and provide feedback for the Action research Projects and Reports. If students fail to obtain approval for the Action Research Reports, they may resubmit a revised final report in the following fall, spring or summer semester.

#### For students enrolled in the On-Campus option

Each student will be assigned an academic advisor and graduate committee by the Coordinator of Graduate Studies for the school. The academic advisor will serve as the chair of the graduate committee. 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 Coordinator of Graduate Studies. 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.

It is recommended that students have a graduate committee review each semester. The student will submit a written report of the graduate review to the academic advisor and the Coordinator of Graduate Studies. The student assumes responsibility for scheduling graduate reviews. Two 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 School of Art & Design.

In conjunction with the required written thesis, an exhibition of work is an option for graduate students who meet all of the following conditions:

- have a studio concentration and complete a minimum of 9 hours in a specific program area;
- complete work for the exhibition while registered for courses as an on-campus student;
- have works for an exhibition approved by the academic advisor and committee;
- prior to the exhibition, complete the written thesis with the approval of their academic advisor and committee

All decisions concerning a combined art exhibition and written thesis requirement will be made by the student's graduate committee.

**NOTE:** Upon completion of the program, the student will be required to demonstrate competence in the designated area of concentration in accordance with approved school standards. The student's committee must approve the candidate for graduation.

## BIOLOGICAL SCIENCES M.S. — NON-THESIS EMPHASIS

### College of Natural and Health Sciences

#### Degree Requirements — 30 Credits

See “Biological Sciences M.S. (p. 220)”.

#### DEGREE REQUIREMENTS

##### Research Core — 5 hours

BIO 594	Foundations of Biological Research	2
BIO 691	Seminar in Biological Sciences	1
BIO 697	Graduate Research	1-6

BIO 691: Two required hours

BIO 697: One required hour

##### Content Elective Credits — 25 hours

BIO 512	TA Development Seminar	1
BIO 521	Advanced Genetics	3
BIO 524	Genomics	3
BIO 525	Molecular Genetics	3
BIO 526	Population Genetics	3
BIO 527	Bioinformatics	3
BIO 528	Developmental Biology	3
BIO 529	Developmental Biology Lab	1
BIO 530	Plant Systematics	4
BIO 533	General Parasitology	4
BIO 534	Mammalogy	4
BIO 535	Survey of Fishes, Amphibians and Reptiles	4
BIO 537	Morphogenesis of Algae and Fungi	4
BIO 538	Ornithology	4
BIO 540	Anatomy and Morphogenesis of Plants	4
BIO 541	Advanced Human Anatomy	3
BIO 542	Molecular and Cellular Laboratory	2
BIO 544	Comparative Vertebrate Adaptations	4
BIO 545	Pathogenic Microbiology	3
BIO 546	Pathogenic Microbiology Laboratory	1
BIO 547	Immunology and Disease	4
BIO 548	Virology	3
BIO 549	Virology Laboratory	1
BIO 550	Cell Physiology	3
BIO 552	Mammalian Physiology I	3
BIO 553	Mammalian Physiology II	3
BIO 554	General Plant Physiology	4
BIO 555	Reproductive and Biology	3
BIO 556	Current Topics in Biomedical Research	2
BIO 557	Mammalian Physiology I Laboratory	1

BIO 558	Mammalian Physiology II Laboratory	1
BIO 559	Plant Reproductive Growth and Development	3
BIO 560	Behavioral Ecology	3
BIO 561	Plant Ecology	3
BIO 562	Conservation Biology	3
BIO 563	Animal Communication	3
BIO 564	Plant Ecology Lab	1
BIO 565	Current Topics in Ecology and Evolutionary Research	2
BIO 566	Animal Physiological Ecology	3
BIO 567	Animal Physiological Ecology Laboratory	1
BIO 568	Disturbance Ecology	3
BIO 569	Conceptual Issues in Evolution	2
BIO 570	Coevolution in Ecological Systems	3
BIO 572	Species and Speciation	3
BIO 576	Pharmacology	3
BIO 580	Mammalian Endocrinology	3
BIO 581	Neurobiology	3
BIO 582	Cancer Biology	3
BIO 591	Biology Roundtable	1
BIO 622	Directed Studie	1-4
CHEM 581	General Biochemistry I	4
CHEM 582	General Biochemistry II	4
CHEM 587	Toxicology	3
GEOG 507	Geographic Information Science	3
GEOG 540	Biogeography	3

BIO 591: Limit 2 hours

BIO 622: Limit 3 hours

NOTE: A student can count a maximum of 8 credits from the following list of double-numbered courses: BIO 530, BIO 533, BIO 534, BIO 535, BIO 537, BIO 538, BIO 540, BIO 554, BIO 562, BIO 566, BIO 567, BIO 576

#### Non-Thesis Emphasis

Students also must pass a written comprehensive exam on topics learned in their graduate coursework, administered by their advisor. This final proof of graduate-level proficiency needs to be completed before the deadline assigned by the Graduate School. To received credit for BIO 697 (p. 264), students must successfully complete the requirements of a research experience with a biology advisor.



## BIOLOGICAL SCIENCES M.S. — THESIS EMPHASIS

### College of Natural and Health Sciences

#### Degree Requirements — 30 Credits

See “Biological Sciences M.S.” (p. 220).

#### DEGREE REQUIREMENTS

##### Research Core — 4 hours

BIO 594	Foundations of Biological Research	2
BIO 691	Seminar in Biological Sciences	1

BIO 691: Two required hours

##### Content Elective Credits — 15-17 hours

BIO 512	TA Development Seminar	1
BIO 521	Advanced Genetics	3
BIO 524	Genomics	3
BIO 525	Molecular Genetics	3
BIO 526	Population Genetics	3
BIO 527	Bioinformatics	3
BIO 528	Developmental Biology	3
BIO 529	Developmental Biology Lab	1
BIO 530	Plant Systematics	4
BIO 533	General Parasitology	4
BIO 534	Mammalogy	4
BIO 535	Survey of Fishes, Amphibians and Reptiles	4
BIO 537	Morphogenesis of Algae and Fungi	4
BIO 538	Ornithology	4
BIO 540	Anatomy and Morphogenesis of Plants	4
BIO 541	Advanced Human Anatomy	3
BIO 542	Molecular and Cellular Laboratory	2
BIO 544	Comparative Vertebrate Adaptations	4
BIO 545	Pathogenic Microbiology	3
BIO 546	Pathogenic Microbiology Laboratory	1
BIO 547	Immunology and Disease	4
BIO 548	Virology	3
BIO 549	Virology Laboratory	1
BIO 550	Cell Physiology	3
BIO 552	Mammalian Physiology I	3
BIO 553	Mammalian Physiology II	3
BIO 554	General Plant Physiology	4
BIO 555	Reproductive and Biology	3
BIO 556	Current Topics in Biomedical Research	2
BIO 557	Mammalian Physiology I Laboratory	1
BIO 558	Mammalian Physiology II Laboratory	1

BIO 559	Plant Reproductive Growth and Development	3
BIO 560	Behavioral Ecology	3
BIO 561	Plant Ecology	3
BIO 562	Conservation Biology	3
BIO 563	Animal Communication	3
BIO 564	Plant Ecology Lab	1
BIO 565	Current Topics in Ecology and Evolutionary Research	2
BIO 566	Animal Physiological Ecology	3
BIO 567	Animal Physiological Ecology Laboratory	1
BIO 568	Disturbance Ecology	3
BIO 569	Conceptual Issues in Evolution	2
BIO 570	Coevolution in Ecological Systems	3
BIO 572	Species and Speciation	3
BIO 576	Pharmacology	3
BIO 580	Mammalian Endocrinology	3
BIO 581	Neurobiology	3
BIO 582	Cancer Biology	3
CHEM 581	General Biochemistry I	4
CHEM 582	General Biochemistry II	4
CHEM 587	Toxicology	3
GEOG 507	Geographic Information Science	3
GEOG 540	Biogeography	3

NOTE: A student can count a maximum of 8 credits from the following list of double-numbered courses: BIO 530, BIO 533, BIO 534, BIO 535, BIO 537, BIO 538, BIO 540, BIO 554, BIO 562, BIO 566, BIO 567, BIO 576

##### Enrichment and Non-Scheduled Electives — 3-5 hours

BIO 501	Current Issues in Biology	1-6
BIO 508	Workshop	1-3
BIO 513	Professional Renewal	1-3
BIO 585	Topics in Field Biology	1-10
BIO 591	Biology Roundtable	1
BIO 592	Internship in Biological Sciences	1-3
BIO 595	Special Topics in Biology	1-6
BIO 622	Directed Studies	1-4
SCED 513	Professional Renewal	1-12

BIO 591: Limit 2 hours

BIO 508, BIO 513, BIO 622, and SCED 513: See “Variable Topic Courses” (p. 30).

**NOTES:** Students must complete a minimum of 50 semester hours in biological science of combined undergraduate and graduate courses.

##### Thesis Emphasis — 6 hours

**BIO 699 Thesis (1-6)** Research Elective, Take 6 hours

**BIOMEDICAL SCIENCE M.B.S.**

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**College of Natural and Health Sciences****Degree Requirements — 30 Credits**

See “Biomedical Science M.B.S.” (p. 221).

**DEGREE REQUIREMENTS**

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**Required Major Credits — 15 hours**

BIO 502	Biomedicine and Careers	1
BIO 525	Molecular Genetics	3
BIO 550	Cell Physiology	3
BIO 552	Mammalian Physiology I	3
BIO 553	Mammalian Physiology II	3
BIO 596	Foundations of Clinical Research	2

**Exit Examination:** Students will be required to pass a comprehensive examination covering material from core courses in order to graduate from the program.

**Elective Credits — Must have at least 15 credits from the list below**

Other 500 level courses with a BIO prefix or a course in Biochemistry may be substituted with prior approval.

BIO 528	Developmental Biology	3
BIO 541	Advanced Human Anatomy	3
BIO 542	Molecular and Cellular Laboratory	2
BIO 545	Pathogenic Microbiology	3
BIO 547	Immunology and Disease	4
BIO 548	Virology	3
BIO 555	Reproductive and Biology	3
BIO 576	Pharmacology	3
BIO 580	<u>Mammalian Endocrinology</u>	3
BIO 581	Neurobiology	3
BIO 582	Cancer Biology	3

**BUSINESS ADMINISTRATION M.B.A.****Kenneth W. Monfort College of Business****Degree Requirements — 36 Credits****DEGREE REQUIREMENTS****Foundation Courses**

Students who do not have an undergraduate degree in business will be required to take the Foundation Courses listed below unless they can document that they have the required knowledge provided in the courses.

MBA 510	Financial & Managerial Accounting Concepts	2
MBA 550	Foundations of Economic Analysis	2
MBA 565	Business Statistics	2
MBA 570	Fundamentals of Business Finance	2

**Required Core — 27 Credit Hours**

MBA 610	Managerial Accounting	3
MBA 625	Information Technology Strategies for Managers	3
MBA 632	Business Law	3
MBA 650	Economics of Managerial Decisions	3
MBA 654	Leadership and Organizational Behavior	3
MBA 656	Strategic Management	3
MBA 660	Marketing Management	3
MBA 665	Business Quantitative Methods	3
MBA 670	Advanced Financial Management	3

**Areas of Specializations — 9 Credit Hours\*****Healthcare Administration**

MBA 671	Current Issues in Healthcare Policy & Management	2
MBA 672	Managing Healthcare Organizations	2
MBA 673	Managing Healthcare Quality and Compliance	2
MBA 674	Healthcare Managerial Accounting & Reimbursement	3

**Human Resources Management**

MBA 681	Talent Management	2
MBA 682	Training and Organization Development	2
MBA 683	Compensation, Rewards, and Performance Management	2
MBA 684	Managing Organizational Change	2
MBA 685	Strategic Human Resources Management	1

**MBA Thesis Option**

SRM 600	Introduction to Graduate Research	3
MBA 699	Thesis	1-6

MBA 699: Take 6 credits total.

*\*Students who do not wish to specialize in the above elective tracks must complete a written petition to substitute a maximum of nine credit hours of graduate level non-core MBA courses from any UNC graduate program, subject to the approval of the Graduate Coordinator/Committee. Transfer of credits from other institutions follow the MCB graduate program transfer policy.*

## CHEMISTRY M.S. — EDUCATION EMPHASIS

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### College of Natural and Health Sciences

#### Degree Requirements — 30 Credits

See “Chemistry M.S.” (p. 222).

#### DEGREE REQUIREMENTS

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##### Research Credits — 9 hours

CHEM 600	Seminar in Chemistry and either	1
CHEM 695	Thesis Proposal	1
CHEM 699	Thesis	1-6
	or	
CHEM 693	Chemical Research	1-9

NOTE: All students must take CHEM 600 two separate times for a total of 2 hours. Students completing a thesis must also take 1 hour of CHEM 695 and 6 hours of CHEM 699. Students completing the non-thesis option must take 7 hours of CHEM 693 instead of CHEM 695 and CHEM 699.

##### Chemistry Elective Credits — 6-15 hours

CHEM 522	Advanced Analytical Chemistry	3
CHEM 523	Chemical Spectroscopy	3
CHEM 533	Organic Synthesis and Stereochemistry	3
CHEM 534	Theory and Mechanisms of Organic Reactions	3
CHEM 543	Organometallic Chemistry	3
CHEM 560	Environmental Chemistry	2
CHEM 581	General Biochemistry I	4
CHEM 582	General Biochemistry II	4
CHEM 587	Toxicology	3
CHEM 590	Advanced Topics in Chemistry	3
CHEM 693	Chemical Research	1-9

##### Pedagogy Credits — 6-15 hours

CHEM 682	Problems in Teaching Chemistry	3
SCED 694	Science Education Research	3

##### Pedagogy/Research Methods Electives

In conjunction with their advisor, candidates can select appropriate graduate level courses in supporting areas such as:

Statistics and Research Methods (SRM)

Psychology (PSY)

Educational Technology (ET)

Science Education (SCED)

All students must successfully complete a comprehensive examination in chemical education. Students completing a thesis must successfully defend the thesis.

**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.”

CHEMISTRY M.S. — EDUCATION  
EMPHASIS NON-THESIS OPTION

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**College of Natural and Health Sciences**

**Degree Requirements - 30 credits**

See "Chemistry MS (p. 222) "

**DEGREE REQUIREMENTS**

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**Required Courses - 7 hours**

CHEM 682	Problems in Teaching Chemistry	3
PSY 540	Theories and Principles of Learning	3
CHEM 600	Seminar in Chemistry	1
	or	
CHEM 622	Directed Studies	1- 3

*NOTE: Take CHEM 600 or CHEM 622. Students should consult their advisor to choose the appropriate option.*

**Chemistry Electives - 12 hours maximum**

In consultation with their advisor, candidates can select up to 12 hours of chemistry elective coursework.

CHEM 522	Advanced Analytical Chemistry	3
CHEM 523	Chemical Spectroscopy	3
CHEM 525	Forensic Chemistry	4
CHEM 533	Organic Synthesis and Stereochemistry	3
CHEM 534	Theory and Mechanisms of Organic Reactions	3
CHEM 543	Organometallic Chemistry	3
CHEM 560	Environmental Chemistry	2
CHEM 581	General Biochemistry I	4
CHEM 582	General Biochemistry II	4
CHEM 587	Toxicology	3
CHEM 590	Advanced Topics in Chemistry	3
CHEM 622	Directed Studies	1- 3

**Pedagogy Electives - 11 hours minimum**

In consultation with their advisor, candidates can select at least 11 hours of appropriate graduate-level courses in supporting areas such as Psychology, Educational Technology, Science Education, Education Foundations, Early Childhood Education, Elementary Education, Applied Psychology and Counselor Education, and Statistics and Research Methods.

*Note: In addition to course requirements, all students must successfully complete a comprehensive examination in chemical education that includes the ACS General Chemistry I and II standardized examinations with a grade of 80% or higher.*

**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 two week period preceding the beginning of the Fall 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."

## CHEMISTRY M.S. — RESEARCH EMPHASIS

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### College of Natural and Health Sciences

#### Degree Requirements — 30 Credits

See “Chemistry M.S.” (p. 222).

#### DEGREE REQUIREMENTS

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##### Research Credits — 12 hours

CHEM 600	Seminar in Chemistry	1
CHEM 693	Chemical Research	1-9
CHEM 695	Thesis Proposal	1
CHEM 699	Thesis	1-6

**NOTE:** Students must take CHEM 600 two separate times for a total of 2 hours. Students must also take 3 hours of CHEM 693 and complete a total of 6 hours of CHEM 699.

##### Chemistry Electives — 12 hours minimum

CHEM 522	Advanced Analytical Chemistry	3
CHEM 523	Chemical Spectroscopy	3
CHEM 525	Forensic Chemistry	4
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 560	Environmental Chemistry	2
CHEM 581	General Biochemistry I	4
CHEM 582	General Biochemistry II	4
CHEM 587	Toxicology	3
CHEM 590	Advanced Topics in Chemistry	3
CHEM 622	Directed Studies	1-3
CHEM 693	Chemical Research	1-9

##### General Electives — 0-6 hours

Electives, with the approval of the major advisor, to complete 30 credit hours are required for this program.

*Note:* In addition to course requirements, all students must successfully complete the defense of the thesis and must successfully complete a comprehensive examination in a major area of chemistry (analytical, biological, inorganic, organic or physical chemistry).

**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.”

## CHEMISTRY M.S. — RESEARCH EMPHASIS NON-THESIS OPTION

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### College of Natural and Health Sciences

#### Degree Requirements - 30 Credits

See "Chemistry MS (p. 222)"

#### DEGREE REQUIREMENTS

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##### Research Credits - 1 hours minimum

CHEM 600	Seminar in Chemistry	1
	or	
CHEM 622	Directed Studies	1-3

*Note: Students should consult with their advisor to determine the appropriate option. For CHEM 622, a maximum of 1 credit hour can apply to the Research Credits category.*

##### Chemistry Electives - 18 hours minimum

CHEM 522	Advanced Analytical Chemistry	3
CHEM 523	Chemical Spectroscopy	3
CHEM 525	Forensic Chemistry	4
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 560	Environmental Chemistry	2
CHEM 581	General Biochemistry I	4
CHEM 582	General Biochemistry II	4
CHEM 587	Toxicology	3
CHEM 622	Directed Studies	1-3

*Note: Based on consultation with their advisor, students may take CHEM 622 as a Chemistry Elective course. A maximum of 3 credit hours of CHEM 622 can apply to the Chemistry Electives category.*

##### Supporting Elective - 11 hours maximum

No more than 11 credits can be taken in ancillary departments such as Biology, Criminal Justice, Earth Science, and Statistics and Research Methods. Students should consult their advisor to select appropriate coursework for their particular degree plan.

*Note: In addition to course requirements, all students must successfully complete a comprehensive examination in a major area of chemistry (analytical, biological, inorganic, organic, or physical chemistry).*

**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 two weeks

preceding the beginning of the Fall 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".

## CLINICAL MENTAL HEALTH COUNSELING M.A.

### College of Education and Behavioral Sciences

#### Degree Requirements — 60-72 Credits

See "Clinical Mental Health Counseling M.A." (p. 195).

This program is accredited by the Council for Accreditation of Counseling and Related Educational Programs.

#### Program Objectives

See "Clinical and School Counseling Requirements" (p. 194).

#### DEGREE REQUIREMENTS

##### Required Major Credits — 60 hours

APCE 558	Diagnosis and Treatment Planning	3
APCE 603	Understanding Children, Adolescents, and Their Systems	3
APCE 605	Group Laboratory Experience	1
APCE 607	Theories of Counseling	3
APCE 612	Practicum in Individual Counseling	5
APCE 616	Career Theory, Counseling and Assessment	3
APCE 619	Practicum II in Individual Counseling	3
APCE 623	Understanding and Counseling Diverse Populations	3
APCE 624	Assessment and Treatment of Substance Abuse	3
APCE 650	Orientation to Clinical Counseling	3
APCE 657	Legal and Ethical Aspects of Counseling and Psychology	3
APCE 660	Psychological Consultation: Theory and Practice	3
APCE 661	Psychological Trauma and Intervention for Individuals, Families and Communities	3
APCE 662	Group Dynamics and Facilitation	3
APCE 665	Family Systems	3
APCE 673	Appraisal and Assessment in Counseling	3
APCE 692	Internship in Clinical Counseling	1-9
PSY 530	Life Span Developmental Psychology	3
SRM 600	Introduction to Graduate Research	3

APCE 692: Take 6 hours

##### Recommended Electives

APCE 508	Workshop	1-3
APCE 609	Foundations of Play Therapy	3
APCE 617	Play Therapy: Theory and Practicum	3
APCE 668	Sexuality Counseling	3

## COMMUNICATION M.A.

College of Humanities and Social Sciences

#### Degree Requirements — 33 Credits

See "Communication M.A." (p. 212).

#### DEGREE REQUIREMENTS

##### Required Major Core Credits — 18 hours

COMM 600	Graduate Study in Communication	3
COMM 601	Qualitative Methods in Communication Research	3
COMM 602	Quantitative Methods in Communication Research	3
COMM 605	Rhetorical Criticism	3

##### Select one of the following courses:

COMM 504	Rhetorical Theory	3
COMM 603	Communication Theory	3

##### Select one of the following courses:

COMM 514	Interpersonal Communication	3
COMM 515	Group Communication	3
COMM 610	Communication & Technology	3

##### Required Elective Credits

500 and/or 600 level coursework

**NOTES:** Select any electives with COMM 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 45 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.

A maximum of 12 semester hours, individually or in combination, of courses numbered 561 or 622 may be counted toward the master's degree.



## CRIMINOLOGY AND CRIMINAL JUSTICE M.A.

### College of Humanities and Social Sciences

#### Degree Requirements — 30 Credits

See “Department of Criminology and Criminal Justice” (p. 213).

#### DEGREE REQUIREMENTS

##### Required Major Core Credits — 21 hours

CRJ 510	Administration of Criminal Justice	3
CRJ 550	Leadership and Management in Criminal Justice	3
CRJ 560	Seminar in Criminological Theory	3
CRJ 570	Seminar in Diversity in Criminal Justice	3
CRJ 580	Research Methods in Criminal Justice	3
CRJ 582	Applied Analysis for Criminal Justice	3
CRJ 610	Planning and Evaluation in Criminal Justice	3

##### Elective Credits — 9 hours

Select one of the elective options from the list below:

**Thesis Option:** Complete 6 hours of CRJ 699 (Thesis), and 3 hours of 500-level or above CRJ-prefix courses or advisor-approved courses from other departments. Students must have at least a 3.5 GPA in their graduate program in order to be approved for this option.

**Capstone Project Option:** Complete 3 hours of CRJ 697 (Capstone Project), and 6 hours of 500-level or above CRJ-prefix courses or advisor-approved courses from other departments. At least 3 hours must be CRJ-prefix credits. Students who choose this option will complete an applied project in consultation with an agency.

**Comprehensive Examination Option:** Complete 9 hours of 500-level or above CRJ-prefix courses or advisor-approved courses from other departments. At least 3 hours must be CRJ-prefix credits. Students who choose this option must take the written comprehensive examination in the semester in which they graduate and must be registered for UNC credit that semester.

All coursework for the program must be completed with a grade of "B-" or better.

## DANCE EDUCATION M.A.

### College of Performing and Visual Arts

#### Degree Requirements — 33-36 Credits

The program will be delivered through both on line learning and on campus classes. The on line learning would take place during the fall and spring semesters, while the students would be on campus during the summers for face-to-face intensive classes. The summer classes would include three classes taught over a three week time period.

#### DEGREE REQUIREMENTS

##### Required Courses 33-36 Credits

DNCE 550	Dance History - Tribal Cultures to Current Times	3
DNCE 560	Dance Movement Skills & Pedagogical Approaches	3
DNCE 565	Interdisciplinary Teaching and Advocacy in Dance	3
DNCE 570	Doing, Teaching & Appreciating Choreography & Creative Dance I	3
DNCE 575	Dance Lesson, Curriculum and Assessment Design	3
DNCE 600	Movement and Dance - Framing a Research Question	3
DNCE 690	Thesis I	3
DNCE 693	Popular Dance Forms	3
DNCE 695	Doing, Teaching and Appreciating Choreography II	3
DNCE 697	Dance Production Techniques	3
DNCE 699	Thesis II	3-6

The Coordinator of the M.A. in Dance Education degree program will assign each student an academic advisor and a graduate committee in accordance with Graduate School policy. The academic advisor will serve as the chair of the graduate committee.

It is recommended that students have a graduate committee review each semester. The student will discuss the graduate review with the academic advisor and the Coordinator of the M.A. in Dance Education Program. The student will assume responsibility for scheduling graduate reviews. Two unsuccessful graduate reviews will be considered grounds for termination of the student's involvement in the program. In conjunction with DNCE 690 and DNCE 699, the student will prepare and submit a written thesis proposal. Prior to beginning work on the thesis, the thesis proposal must be approved by all members of the student's graduate committee.

A written research thesis is required of all Master of Arts degree candidates in the School of Theatre Arts and Dance.

Upon completion of the program, the student will be required to demonstrate competence in the designated area of concentration in accordance with approved school standards. The student's committee must approve the candidate for graduation.

## DANCE EDUCATION M.A. - LICENSURE: DANCE (GRADES K-12)

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### College of Performing and Visual Arts

#### Degree Requirements — 57-60 Credits

The program will be delivered through both on line learning and on campus classes. The on line learning would take place during the fall and spring semesters, while the students would be on campus during the summers for face-to-face intensive classes. The summer classes would include three classes taught over a three week time period.

#### DEGREE REQUIREMENTS

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##### Required Courses 33-36 Credits

DNCE 550	Dance History - Tribal Cultures to Current Times	3
DNCE 560	Dance Movement Skills & Pedagogical Approaches	3
DNCE 565	Interdisciplinary Teaching and Advocacy in Dance	3
DNCE 570	Doing, Teaching & Appreciating Choreography & Creative Dance I	3
DNCE 575	Dance Lesson, Curriculum and Assessment Design	3
DNCE 600	Movement and Dance - Framing a Research Question	3
DNCE 690	Thesis I	3
DNCE 693	Popular Dance Forms	3
DNCE 695	Doing, Teaching and Appreciating Choreography II	3
DNCE 697	Dance Production Techniques	3
DNCE 699	Thesis II	3-6

##### Required Common PTEP - 24 credit hours

EDF 500	Conceptions of Schooling	3
EDFE 125	Application for Graduate Licensure Admission to PTEP	
EDFE 130	Application for Student Teaching	
EDFE 554	Secondary Practicum	3
EDFE 555	Supervised Student Teaching	1-9
EDRD 523	Reading and Writing in the Content Areas	3
EDSE 509	Strategies for Students with Exceptionalities	3
PSY 500	Educational Psychology for Teachers	3

*Note: EDFE 555 : Take 9 credit hours.*

- Candidates may not take extra course with Student Teaching without prior approval from the Program Coordinator and the STE Director.
- All PTEP Field Experiences and methods courses need to be successfully completed prior to Student Teaching.

- Student Teaching outside the supervision of UNC Faculty may or may not be approved.
- Teacher Candidates will not be placed in a school where they were once students or where they have a close relative attending and/or working.

The Coordinator of the M.A. in Dance Education degree program will assign each student an academic advisor and a graduate committee in accordance with Graduate School policy. The academic advisor will serve as the chair of the graduate committee.

It is recommended that students have a graduate committee review each semester. The student will discuss the graduate review with the academic advisor and the Coordinator of the M.A. in Dance Education Program. The student will assume responsibility for scheduling graduate reviews. Two unsuccessful graduate reviews will be considered grounds for termination of the student's involvement in the program. In conjunction with DNCE 690 and DNCE 699, the student will prepare and submit a written thesis proposal. Prior to beginning work on the thesis, the thesis proposal must be approved by all members of the student's graduate committee.

A written research thesis is required of all Master of Arts degree candidates in the School of Theatre Arts and Dance.

Upon completion of the program, the student will be required to demonstrate competence in the designated area of concentration in accordance with approved school standards. The student's committee must approve the candidate for graduation.

## DIETETICS M.S.

### College of Natural and Health Sciences

#### Degree Requirements — 35 Credits

See "Dietetics M.S." (p. 225)

#### DEGREE REQUIREMENTS

##### Required Major Credits - 26 hours

FND 530	Nutrition Assessment and Intervention Methods	3
FND 551	Nutritional Biochemistry and Metabolism - Macronutrients	3
FND 553	Nutritional Biochemistry and Metabolism - Micronutrients	3
FND 570	Nutrition Counseling Methods	3
FND 610	Nutrition Communication	3
FND 620	Current Topics in Nutrition and Dietetics	3
FND 652	Public Health Nutrition	3
FND 686	Dietetics Capstone	5

##### Select one of the following courses:

RCS 610	Interpretation and Evaluation of Behavioral Research	3
SRM 600	Introduction to Graduate Research	3

##### Elective Credits (in consultation with advisor) - 6 hours

CH 509	Behavior Change Theories	3
CH 525	Contemporary Issues in School Health	3
CH 530	Strategies for Community Health Promotion	3
CH 533	Physical Activity Interventions in the Community	3
CH 535	Effective Community Health Engagement	3
CH 610	Program Planning and Evaluation	3
CH 620	Epidemiology	3
CH 635	Policy, Advocacy, Leadership & Management in Community Health	3
FND 520	Maternal and Child Nutrition	3
FND 555	Nutrition for Fitness and Athletic Performance	3
MBA 671	Current Issues in Healthcare Policy & Management	2
MBA 672	Managing Healthcare Organizations	2
MBA 673	Managing Healthcare Quality and Compliance	2
MBA 674	Healthcare Managerial Accounting & Reimbursement	3
PSY 530	Life Span Developmental Psychology	3
PSY 540	Theories and Principles of Learning	3

Additional electives may be selected with advisor approval before taking the course.

**NOTES:**

The Master of Science in Dietetics is available for applicants who are currently an active Registered Dietitian Nutritionist through the Commission of Dietetic Registration. Students are required to complete a five credit capstone course during the last semester of the program.

## DIETETICS M.S. WITH DIETETIC INTERNSHIP

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### College of Natural and Health Sciences

#### Degree Requirements — 55 Credits

See "Dietetics M.S. with Dietetic Internship"

#### DEGREE REQUIREMENTS

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##### Required Major Credits - 26 hours

FND 530	Nutrition Assessment and Intervention Methods	3
FND 551	Nutritional Biochemistry and Metabolism - Macronutrients	3
FND 553	Nutritional Biochemistry and Metabolism - Micronutrients	3
FND 570	Nutrition Counseling Methods	3
FND 610	Nutrition Communication	3
FND 620	Current Topics in Nutrition and Dietetics	3
FND 652	Public Health Nutrition	3
FND 686	Dietetics Capstone	5

##### Select one of the following courses:

RCS 610	Interpretation and Evaluation of Behavioral Research	3
SRM 600	Introduction to Graduate Research	3

##### Elective Credits (in consultation with advisor) - 6 hours

CH 509	Behavior Change Theories	3
CH 525	Contemporary Issues in School Health	3
CH 530	Strategies for Community Health Promotion	3
CH 533	Physical Activity Interventions in the Community	3
CH 535	Effective Community Health Engagement	3
CH 610	Program Planning and Evaluation	3
CH 620	Epidemiology	3
CH 635	Policy, Advocacy, Leadership & Management in Community Health	3
FND 520	Maternal and Child Nutrition	3
FND 555	Nutrition for Fitness and Athletic Performance	3
MBA 671	Current Issues in Healthcare Policy & Management	2
MBA 672	Managing Healthcare Organizations	2
MBA 673	Managing Healthcare Quality and Compliance	2
MBA 674	Healthcare Managerial Accounting & Reimbursement	3
PSY 530	Life Span Developmental Psychology	3

PSY 540	Theories and Principles of Learning	3
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*Additional electives may be selected with advisor approval before taking the course.*

**Supervised Practice Practicum - 20 hours**

FND 592	Dietetics Supervised Practice	1-10
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*FND 592: Take 20 hours*

**Notes:**

The Master of Science in Dietetics with Dietetic Internship is accredited by the Accreditation Council for Education in Nutrition and Dietetics (ACEND) of the Academy of Nutrition and Dietetics, 120 South Riverside Plaza, Suite 2000, Chicago, IL 60606 (331-889-0040, ext. 5400). With successful completion of the Dietetics M.S. with Dietetic Internship, the graduate is eligible to take the registration exam to become a Registered Dietitian Nutritionist.

Students are required to complete a five credit capstone course during the last semester of the program.

Potential applicants are required to submit an application to Dietetic Internship Centralized Application Services (DICAS) and register with the D & D Digital Matching site in addition to submitting an application to the Graduate School at the University of Northern Colorado. Admission to the Graduate School does not guarantee admission into the Dietetics graduate program.

## EARTH SCIENCES M.A.

### College of Natural and Health Sciences

#### Degree Requirements — 30 Credits

See “Earth Sciences M.A.” (p. 223).

#### DEGREE REQUIREMENTS

##### Thesis Option Required Emphasis Credits — 12-16 hours

ESCI 599	Seminar in Earth Sciences	1
ESCI 600	Introduction to Earth Science Research	2
ESCI 695	Special Topics in Earth Sciences	2
ESCI 699	Thesis	1-6

*ESCI 599: Minimum of 2 credits*

*ESCI 699: Take 6-10 credits*

##### Thesis Option Elective Credits — 14-18 hours

Select courses from the Elective Credits listed below.

##### Non-Thesis Option Required Emphasis Credits — 8-12 hours

ESCI 599	Seminar in Earth Sciences	1
ESCI 600	Introduction to Earth Science Research	2
ESCI 695	Special Topics in Earth Sciences	2
ESCI 697	Graduate Research	1-6

*ESCI 697: Take 2-6 credits*

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

Select courses from the Elective Credits listed below.

##### Thesis or Non-Thesis Elective Credits

Substitutions must be approved by the graduate committee.

AST 622	Directed Studies	1-4
ESCI 575	Earth Systems Science Education	1-6
ESCI 584	Earth Sciences Field Experiences	1-15
GEOL 510	Groundwater Geology	3
GEOL 515	Ore Geology	3
GEOL 521	Igneous and Metamorphic Petrology	4
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 590	Rocky Mountain Geology Seminar	2
GEOL 622	Directed Studies	1-4
MET 502	Synoptic Meteorology	4
MET 536	Biometeorology	3
MET 551	Climatology	3
MET 595	Special Topics in Meteorology	1-4

MET 622	Directed Studies	1-3 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

AST 622, GEOL 622, MET 622, and OCN 622: See "Variable Topic Courses" (p. 30).

**NOTES:** *ESCI 599, a one semester hour course, must be taken every semester the student is in residence at UNC.*

Written and oral comprehensive examinations are required.

A 3.0 GPA in the courses taken as part of this major is required for graduation. A "C" or higher is required for all courses taken as part of the program.

## EDUCATION M.A.T. — CURRICULUM STUDIES EMPHASIS

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### College of Education and Behavioral Sciences

#### Degree Requirements — 30 Credit Hours

One full year of full-time classroom teaching experience or equivalent required to graduate

See "Education M.A.T." (p. 209).

#### DEGREE REQUIREMENTS

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##### Required Major Credits — 21 credit hours

EDF 610	Teacher Research	3
EDF 619	Pluralism in Education	3
EDF 640	Psychological Foundations of Education	3
EDF 662	Foundations of Curriculum Development and Instructional Practice	3
EDF 664	Instruction and Assessment	3
EDF 685	Philosophical Foundations of Education	3
SRM 600	Introduction to Graduate Research	3

##### Elective Credits — 9 hours

The elective credits are selected in consultation with the candidate's program advisor to ensure appropriateness to the degree. Elective credits may be taken at either the 500 or 600 levels.

EDUCATION M.A.T. -ELEMENTARY  
EDUCATION WITH LICENSURE  
EMPHASIS- ELEMENTARY EDUCATION  
ENDORSEMENT (GRADES K-6)

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**College of Education and Behavioral Sciences**

**Degree Requirements — 46 Credit Hours**

In accordance with the Graduate School Policies, candidates in this program must maintain a cumulative 3.0 G.P.A.

See “Education M.A.T.” (p. 209).

**DEGREE REQUIREMENTS**

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**Required Credits — 46 hours**

EDEL 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	1-3
EDEL 544	Elementary Student Teaching and Capstone Seminar	8
EDEL 550	Effective Instruction in Elementary School Social Studies	3
EDEL 555	Effective Instruction in Elementary School Reading, Writing and Communicating	3
EDEL 602	Elementary School Practicum	2
EDEL 612	Elementary School Curriculum	3
EDF 500	Conceptions of Schooling	3
EDRD 515	Content Literacy for Diverse Learners	3
EDSE 430	Exceptional Student in the Elementary Classroom	2
ET 501	Introduction to Applications of Educational Technology in PK-12 Education	3
PSY 500	Educational Psychology for Teachers	3
SCED 570	Teaching Science in the Elementary School	3
SRM 600	Introduction to Graduate Research	3

EDEL 525: Take 3 hours

EDEL 544 (8) (Student Teaching) must be completed in grade K-6 in an elementary school setting and be taken in conjunction with EDEL 303 (1) in order for students to be full-time graduate students with 9 credit hours.

- Candidates must **pass** the Praxis or Place test prior to Student Teaching.

- Candidates may not take extra courses with Student Teaching without prior approval from the Program Coordinator and the STE Director.
- All PTEP Field Experiences and methods courses need to be successfully completed prior to Student Teaching.
- Student Teaching outside the supervision of UNC Faculty may or may not be approved.
- Teacher Candidates will not be placed in a school where they were once students or where they have a close relative attending and/or working.
- Teacher education and educator preparation licensure programs do not accept Professional Teacher Education Program (PTEP) or field based courses that are more than ten years old. PLEASE NOTE: Teacher Candidates have the right to petition this policy at the discretion of the program coordinator.

## EDUCATION M.A.T. — ENGLISH EDUCATION EMPHASIS

### College of Education and Behavioral Sciences

#### Degree Requirements — 30 Credit Hours

One full year of full-time classroom teaching experience or equivalent required to graduate

See “Education M.A.T.” (p. 209).

#### DEGREE REQUIREMENTS

##### Required Major Credits — 30 credits

##### Education core — 12 hours

EDF 619	Pluralism in Education	3
EDF 664	Instruction and Assessment	3
EDF 685	Philosophical Foundations of Education	3
SRM 600	Introduction to Graduate Research	3

##### English core — 15 hours

ENG 600	Introduction to Graduate Study	3
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##### British Literature (3): Select one

ENG 623	Old English	3
ENG 624	Middle English	3
ENG 625	Studies in the Renaissance	3
ENG 626	Studies in the Restoration and Eighteenth Century	3
ENG 627	British Romantic Literature	3
ENG 628	Studies in the Victorian Period	3
ENG 629	20th Century British Literature	3

##### American Literature (3): Select one

ENG 630	American Literature to the Civil War	3
ENG 631	Studies in American Literature Civil War to WW1	3
ENG 632	American Literature WW1 to Present	3

##### Advance Composition (3): Select one

EED 541	Methods for Teaching Composition in Secondary School	3
ENG 640	History and Theory of Rhetoric	3
ENG 641	Studies in Composition Research and Pedagogy	3

##### Theory or Language (3): Select one

ENG 633	Studies in Linguistics	3
ENG 638	Literary Criticism and Theory	3
ENG 642	Film Theory and Analysis	3

##### Elective Credits — 3 hours

The elective credits are selected in consultation with the candidate’s program advisor to ensure appropriateness to the degree. Elective credits may be taken at either the 500 or 600 levels and have ENG prefix.

## EDUCATION M.A.T. — CULTURALLY AND LINGUISTICALLY DIVERSE EDUCATION EMPHASIS

### College of Education and Behavioral Sciences

#### Degree Requirements — 30 Credit Hours

The Master of Arts in Teaching - Culturally & Linguistically Diverse (MAT-CLD) Education program prepares teachers to serve the growing number of emergent bilingual learners in their classrooms. The MAT-CLD endorsement program consists of 30 semester hours. Requirements for the program include admission to the Graduate School and teaching licensure or enrollment in a teacher preparation program. Evidence of second language learning experience needs to be demonstrated for completion of this program.

See “Education M.A.T.” (p. 209).

#### DEGREE REQUIREMENTS

##### Required Course — 3 credit hours

SRM 600	Introduction to Graduate Research	3
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##### Required Major Credits — 27 credit hours

Choose 27 credit hours from the courses below:

EDF 610	Teacher Research	3
ECLD 592	Second Language Acquisition Theory	3
ECLD 593	Language, School and Society	3
ECLD 594	Foundations of Language and Linguistics for ESL/Bilingual Educators	3
ECLD 602	Teaching Culturally & Linguistically Diverse Learners	3
ECLD 603	Methods and Assessment in Culturally & Linguistically Diverse Education	3
ECLD 604	Field Experience in Culturally & Linguistically Diverse Education	3
ECLD 605	Seminar in Multilingual Teaching and Learning I	3
ECLD 606	Culturally and Linguistically Diverse Learners in the U. S. Educational System	3
EDRD 523	Reading and Writing in the Content Areas	3



**EDUCATIONAL LEADERSHIP M.A.****College of Education and Behavioral Sciences****Degree Requirements — 30 Credits**

See “Educational Leadership M.A.” (p. 199).

**DEGREE REQUIREMENTS****Required Courses — 15 hours**

ELPS 601	Leadership Development Through Inquiry	3
ELPS 603	Shaping Organizations: Management and Leadership in Education	3
ELPS 604	Understanding People: Professional Development and Educational Leadership	3
ELPS 605	External Environments: Social, Political, and Economic Influences in Educational Leadership	3
SRM 600	Introduction to Graduate Research	3

**CHOOSE ONE CONCENTRATION AREA BELOW — 9 HOURS****1. P-12 Education (9 hours)**

ELPS 654	Instructional Leadership and Supervision	3
ELPS 660	Law and the Administrator	3
ELPS 670	The Principalship: Leadership at the School Site Level	3

**2. Individually Designed Concentration (9 hours)**

ELPS or HESA Prefix Courses		9
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**Electives — 6 hours**

Additional electives appropriate for concentration area to total a minimum of 30 semester hours for program completion.

**NOTE:** Satisfactory performance on a concluding activity approved by division faculty, in accordance with Graduate School policy, must be demonstrated.

**EDUCATIONAL LEADERSHIP AND SPECIAL EDUCATION ADMINISTRATION M.A. — WITH DUAL LICENSURE AS A PRINCIPAL AND SPECIAL EDUCATION DIRECTOR****College of Education and Behavioral Sciences****Degree Requirements — 39 Credits**

See “Educational Leadership and Special Education Administration M.A. (p. 199) under Educational Leadership and Policy Studies, or under the School of Special Education (p. 207).

**DEGREE REQUIREMENTS****Research — 3 hours**

SRM 600	Introduction to Graduate Research	3
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**Educational Leadership Courses — 21 hours**

ELPS 601	Leadership Development Through Inquiry	3
ELPS 603	Shaping Organizations: Management and Leadership in Education	3
ELPS 604	Understanding People: Professional Development and Educational Leadership	3
ELPS 650	School Finance and Budgeting	3
ELPS 654	Instructional Leadership and Supervision	3
ELPS 660	Law and the Administrator	3
ELPS 670	The Principalship: Leadership at the School Site Level	3

**Field-based Learning — 6 hours**

ELPS 606	Internship in Educational Leadership	1-9
EDSE 697	Externship in Special Education: Administration	1-12

ELPS 606: take 3 credits

EDSE 697: take 3 credits

**Special Education Administration Courses — 9 hours**

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

**NOTE:** Satisfactory performance on a concluding activity demonstrating attainment of program outcomes and approved by faculty, in accordance with Graduate School policy, must be demonstrated.

## EDUCATIONAL PSYCHOLOGY M.A.

### College of Education and Behavioral Sciences

#### Degree Requirements — 30 Credits

Students take the common set of required credits listed below and select additional elective credits in consultation with their advisor.

See “Educational Psychology M.A.” (p. 203).

#### DEGREE REQUIREMENTS

##### Theoretical Foundations — 9 hours

PSY 530	Life Span Developmental Psychology	3
PSY 540	Theories and Principles of Learning	3
PSY 590	Seminar in History and Systems	3

##### Research Methods — 6 hours

PSY 600	Graduate Research Methodology	3
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##### One of the following:

SRM 602	Statistical Methods I	3
SRM 680	Introduction to Qualitative Research	3

##### Professional Foundations — 9 hours

PSY 575	Educational Assessment	3
PSY 661	Trends and Issues in Educational Psychology	3
PSY 674	Measurement I: Educational Testing	3

##### Elective Credits — 6 hours

**NOTES:** Students choose electives in consultation with their advisor. Options include, but are not limited to courses in Education, Psychology, Educational Technology, Statistics and Research Methods, Professional or School Psychology, Special Education, or Educational Leadership. Courses numbered 508 or 513 are not acceptable for credit in graduate programs.

PSY 699 (p. 326) is a highly recommended elective for students intending subsequently to enter a doctoral program. Student competencies are examined by comprehensive examination during fall, spring or summer semesters.

#### Accelerated (4 + 1) Psychology B.A. and Educational Psychology M.A.

Motivated and high-achieving students may seek to complete the requirements for the B.A. in Psychology and M.A. in Educational Psychology in five years. To obtain both degrees, students must complete all the requirements for the B.A. described in the Undergraduate Catalog and all of the requirements for the M.A. described in the Graduate Catalog. Completing the requirements for both degrees in the accelerated Master's program is made

possible by taking 9 credits of graduate course work in the junior and senior years (paid for at the undergraduate tuition rate). Students remain eligible for financial aid as an undergraduate; any Graduate School aid is not available until students are admitted as a Graduate student.

Students interested in transferring into an accelerated Master's Program must:

- have a cumulative GPA of at least 3.0 to take graduate-level courses as a junior or senior.
- Meet with the program's advisor in their junior year, apply (following the same procedure and meeting the same requirements as other M.A. applicants). Full admission is dependent on completing the B.A. requirements in the senior year while maintaining a minimum 3.0 GPA.
- Students and faculty identify the graduate courses the students should take. The program application will be signed and forwarded to the Graduate School with signatures of the program advisor indicating the approval of graduate course transfer.

## EDUCATIONAL PSYCHOLOGY M.A. — TEACHING APPLICATIONS EMPHASIS

### College of Education and Behavioral Sciences

#### Degree Requirements — 30 Credits

Students take the common set of required credits listed below and select additional elective credits in consultation with their advisor.

See “Educational Psychology M.A.” (p. 203).

#### DEGREE REQUIREMENTS

##### Required Major Credits — 30 credit hours

PSY 500	Educational Psychology for Teachers	3
PSY 530	Life Span Developmental Psychology	3
PSY 540	Theories and Principles of Learning	3
PSY 575	Educational Assessment	3
PSY 600	Graduate Research Methodology	3
PSY 640	Cultural Issues in Education Psychology	3
PSY 644	Motivation in Education	3
PSY 681	Cognition and Instruction I	3
PSY 697	Master's Project in Psychology	3-6

##### Elective Credits — 3 hours

This program is offered according to a cohort model in which all students take the courses in the same sequence. All students will register for the same elective course that is offered during the specified semester. The required comprehensive examination will be satisfied by successful completion of the MA Project, as set forth in program guidelines.

## ENGLISH M.A.

### College of Humanities and Social Sciences

#### Degree Requirements — 33 Credits

See “English M.A.” (p. 213).

#### DEGREE REQUIREMENTS

##### Required Major Credits — 15 hours

ENG 600	Introduction to Graduate Study	3
ENG 638	Literary Criticism and Theory	3

##### Choose one course in British Literature before 1800:

ENG 623	Old English	3
ENG 624	Middle English	3
ENG 625	Studies in the Renaissance	3
ENG 626	Studies in the Restoration and Eighteenth Century	3

##### Choose one course in British Literature after 1800:

ENG 627	British Romantic Literature	3
ENG 628	Studies in the Victorian Period	3
ENG 629	20th Century British Literature	3

##### Choose one course in American Literature:

ENG 630	American Literature to the Civil War	3
ENG 631	Studies in American Literature Civil War to WWI	3
ENG 632	American Literature WWI to Present	3

##### Required Elective Credits — 18 hours

##### A minimum of four courses must be selected from ENG 500-level and 600-level offerings (12 hours)

In order to prepare for the comprehensive examinations or for the backgrounds section of the Project presentation, students should complete elective courses that will offer them maximum breadth of content in their studies, reaching across time periods, continents, and genres. Depending on their career plans, students may also take elective courses in Education with approval from their advisor. Students should work closely with their advisor to select appropriate elective courses.

##### Select one of the following options:

1. **Comprehensive Exam.** Students pursuing this track will pass a written comprehensive exam, covering five areas of concentration, during their final semester of study.

2. **Master's Project.** The Master's Project consists of a research paper of 30-50 pages, appropriate for journal submission. Students must make a public presentation of the project before an audience of students and faculty. The master's project may be written under ENG 697 for 3 elective credits.
3. **Creative Project** (with faculty consent). The Creative Project is a creative work of similar length to the Master's Project and can consist of a collection of poems, short stories, or chapters of a novel. Students must make a public presentation of the project before an audience of students and faculty. The creative project may be written under ENG 697 for 3 elective credits.

## ENVIRONMENTAL GEOSCIENCES P.S.M. (PROFESSIONAL SCIENCE MASTER'S)

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### College of Natural and Health Sciences

#### Degree Requirements — 30 Credits

See "Environmental Geosciences, P.S.M. (Professional Science Master's) (p. 223)".

The Environmental Geosciences Professional Science Master's is a degree program certified by the Council of Graduate Schools; it operates under guidelines of the P.S.M. National Office. Those guidelines specify that at least half of the credits must be in science content; in addition, Professional Skills courses and a Professional Internship must be completed as specified below.

#### DEGREE REQUIREMENTS

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##### Required Credits — 7 hours

ESCI 599	Seminar in Earth Sciences	1
ESCI 600	Introduction to Earth Science Research	2
ESCI 692	Earth Science Internship	1-15

ESCI 599: must be taken twice for a total of 2 credits

ESCI 692: Take 3 credits

##### Required Earth Sciences Content Courses — 13-14 credits

13-14 credits of graduate-level earth sciences content from prefixes ESCI, GEOL, MET, or OCN at least 6 credits of which must be selected from:

ESCI 605	Global Change	3
GEOL 510	Groundwater Geology	3
GEOL 515	Ore Geology	3
GEOL 583	Soils	3
GEOL 586	Petroleum and Energy	3
MET 552	Paleoclimatology	3

##### Required STEM Content Courses — 3-4 credits

Choose one the following:

GEOG 507	Geographic Information Science	3
MATH 550	Applied Probability and Statistics	3
SRM 502	Applied Statistics	3

##### Required Professional Skills Courses — 6 credits

##### Graduate Communications Course (3 credits)

Choose one of the following:

COMM 512	Persuasion	3
COMM 514	Interpersonal Communication	3
COMM 515	Group Communication	3
COMM 517	Organizational Communication	3
COMM 531	Communication and Leadership	3
COMM 541	Courtroom Communication	3
COMM 542	Seminar in Political Communication	3

COMM 553	Professional Speaking	3
COMM 610	Communication & Technology	3

**Other Professional Skills Course (3 credits)**

Choose one of the following:

ART 569	Web Style Design	3
BAAC 527	Governmental and Institutional Accounting	3
BAMG 554	Managing and Developing People	3
CH 550	Environmental Health	3
ELPS 601	Leadership Development Through Inquiry	3
ELPS 662	Design and Delivery of Professional Development	3
ENST 515	Sustainable Solutions to Environmental Problems	3
ET 601	Managing People, Projects, and Technology Systems	3
INTR 560	Ethics in Leadership	3
SES 500	Wilderness First Responder/CPR	3
SOC 530	Organizational Analysis	3
SPAN 503	Spanish Conversation	3

**NOTES:**

1. ESCI 599, a one-credit hour course, must be taken twice for a total of two credits.
2. ESCI 600 should be taken the first Fall semester of attendance.
3. A 3.0 GPA in the courses taken as part of this major is required for graduation. A "C" or higher is required for all courses taken as part of the program.
4. 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.

## FOREIGN LANGUAGES M.A. — SPANISH TEACHING EMPHASIS

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**College of Humanities and Social Sciences****Degree Requirements — 30 Credits**

See "Foreign Languages M.A." (p. 215).

By following the prescribed sequence of courses, students may complete the M.A. in three continuous summers on the Greeley campus. The three year cycle includes curriculum rotation featuring Spain, Latin America, and Mexico/Hispanic United States. Students may complete their M.A. in two years by combining academic year courses with two summer sessions at the Greeley campus. All candidates for the M.A. must attend at least one summer session.

**DEGREE REQUIREMENTS****Required Major Credits — 30 hours**

FL 531	Teaching of Foreign Languages	2
SPAN 600	Introduction to Graduate Study and Research Methods	3

FL 531: Take minimum of 4 credit hours

**Civilization — at least 6 hours:**

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	1-6

**Literature — at least 9 hours:**

SPAN 555	Literature for Children and Adolescents	3
SPAN 570	Readings in United States Hispanic Literature	1-6
SPAN 571	Readings in Spanish Literature	1-3
SPAN 572	Readings in Latin American Literature	1-3
SPAN 575	Masterpieces of 20th and 21st Century Latin America	2
SPAN 576	Mexican Literature	1-3

**Language— at least 6 hours:**

SPAN 505	Spanish Phonetics and Dialects	3
SPAN 506	Translation	2-3
SPAN 510	Advanced Placement Program-Spanish	1-3
SPAN 560	Spanish Civilization and Culture	2
SPAN 580	Grammar Topics	1-6
SPAN 581	Advanced Spanish Grammar	2
SPAN 583	Oral and Written Discourse	2

**NOTES:** All master's candidates must successfully complete written and oral comprehensive examinations. No thesis is required.

For students opting for summer study at the University of Salamanca, Spain, 9 hours of transfer credit may be accepted.

A maximum of 9 hours of Academic Year courses (SPAN 502, SPAN 521, SPAN 531, SPAN 550, SPAN 551) may be accepted with permission of the graduate faculty in lieu of 9 hours of required SPAN courses in the above list.

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 are required to complete 27 hours of coursework within the Hispanic Studies program in Spanish and pedagogy. SPAN 600 Introduction to Graduate Study and Research Methods (3) is also required.

See "Variable Topic Courses" (p. 30).

## FOUNDATIONS OF PROFESSIONAL PSYCHOLOGY M.A.

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### DEGREE REQUIREMENTS - 30 CREDITS

This program is part of a master's en route to a Ph.D. To pursue this degree students must be admitted to the Ph.D. program in School Psychology. This degree is not intended as a standalone program. Students who complete this program and are deemed to be making good progress are automatically admitted to continue with the Ph.D. program in School Psychology.

#### Required Credits - 30 hours

APCE 625	Applied Developmental Science	3
APCE 628	Concepts and Principles of Applied Behavior Analysis	3
APCE 670	Principles of Psychometrics and Assessment	3
APCE 682	Biological Bases of Behavior	3
APCE 707	Seminar in Personality and Counseling Theories	3
APCE 758	Advanced Psychopathology	3
PSY 540	Theories and Principles of Learning	3
PSY 590	Seminar in History and Systems	3
PSY 664	Advanced Social Psychology	3

#### Select one of the following:

SRM 600	Introduction to Graduate Research	3
SRM 602	Statistical Methods I	3

Successful completion of a written comprehensive exam is required to complete the Master's in Foundations of Professional Psychology program.

**GERONTOLOGY M.A.****College of Natural and Health Sciences****Degree Requirements — 33 Credits**

See “Gerontology M.A.” (p. 226).

**DEGREE REQUIREMENTS****Required Major Credits — 24 hours**

GERO 560	Community Resources for Older Adults	3
GERO 565	Management Concepts for Aging Services	3
GERO 625	Psychosocial Aspects of Aging	3
GERO 630	Intervention Strategies with Older Adults	3
GERO 635	Social Policies of Aging	3
GERO 640	Health Aspects of Gerontology	3
GERO 665	Research Application and Grant Development	3
SRM 600	Introduction to Graduate Research or	3
RCS 610	Interpretation and Evaluation of Behavioral Research	3

**Program Electives — 9 hours**

GERO 655	Program Planning and Evaluation in Gerontology or	3
CH 610	Program Planning and Evaluation	3
GERO 692	Graduate Internship in Gerontology or	1-12
GERO 694	Practicum in Gerontology	1-3
RCS 630	Human Services Counseling Theories and Techniques	3
RCS 694	Supervised Counseling in Human Services	6
GERO 699	Thesis or	1-6
	Other advisor approved electives (any 500 or 600 level)	3-9

GERO 692: Must take at least 9 credits if choosing this elective

RCS 694: Prerequisite RCS 630

GERO 699: With supervisor approval; must take 6 credits total

Completion and defense of a detailed portfolio that addresses all areas of the master’s program matrix of competencies satisfies the completion of the comprehensive exam.

**GRADUATE INTERDISCIPLINARY DEGREE PROGRAM M.A. – SCIENCE EDUCATION EMPHASIS****College of Natural and Health Sciences****Degree Requirements — 30 Credits**

See “Graduate Interdisciplinary Degree Program M.A.” (p. 235).

**DEGREE REQUIREMENTS****Required Courses — 15 hours**

ECLD 602	Teaching Culturally & Linguistically Diverse Learners	3
PSY 681	Cognition and Instruction I	3
SCED 530	Laboratory, Field, and Studio Safety	1
SCED 578	K-12 Science Inquiry	3
SCED 678	Science Education Seminar	1-2
SCED 695	Action Research in Science Education I	1
SCED 696	Action Research in Science Education II	1
SCED 697	Action Research in Science Education III	1

SCED 678: Take 2 credits

EDSE 509 or PSY 640 may be substituted for ECLD 602 with approval from your advisor.

PSY 500 or PSY 540 may be substituted for PSY 681 with approval from your advisor.

**Choose one of the following - 3 hours**

SCED 600	Science Education Research for K-12 Teachers	3
SRM 600	Introduction to Graduate Research	3

**Science Pedagogical Content Electives - 12 Hours**

Choose 12 hours from the following courses, with courses from at least three different content areas:

**Physics**

SCED 521	Physics in Modern Medicine	3
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**Chemistry**

SCED 531	Teaching Chemistry for the Future	3
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**Biological Sciences**

SCED 561	Using Controversial Biological Topics to Teach Nature of Science	3
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**Earth and Environmental Sciences**

SCED 551	History and Theory of Environmental Education	3
SCED 553	Program Design and Planning in Environmental Education	3
SCED 581	Earth Systems: WATER	3
SCED 605	Global Change	3

Note: SCED 551 and SCED 553 are only offered face-to-face at the Walking Mountain Science Center in Avon, Colorado.

**NOTES:** The goal of this program is to enhance the science and pedagogical knowledge of professional science teachers in the K-12 environment.

For the research experience, students will complete a series of Action Research courses and are required to form an advisory committee with a minimum of three qualified faculty. These courses require research on a current problem in K-12 science education relevant to students' teaching situations. The student will develop goals, review relevant literature and plan and complete an action research project.

A research paper will also be developed with the assistance of the student's advisor and committee.

**Comprehensive Exam:** Students are required to provide an oral presentation of the research to the student's advisor and committee.

## HIGHER EDUCATION AND STUDENT AFFAIRS LEADERSHIP M.A.

### College of Education and Behavioral Sciences

#### Degree Requirements — 39 Credits

See "Higher Education and Student Affairs Leadership M.A." (p. 201).

#### DEGREE REQUIREMENTS

##### Required Courses — 30 hours

HESA 601	Introduction to Higher Education & Student Affairs	3
HESA 611	Organization and Administration	3
HESA 612	Higher Education Assessment and Evaluation	3
HESA 650	College Student Development: Foundational Theory	3
HESA 655	Multiculturalism in Higher Education and Student Affairs	3
HESA 671	Introduction to Leadership in Higher Education and Student Affairs Leadership	3
HESA 675	Field Experience in Student Affairs	1-3
HESA 680	Law and Higher Education	3
HESA 683	Finance and Resource Management in Higher Education	3
SRM 600	Introduction to Graduate Research	3

HESA 675: minimum of 3 credits to meet program requirements

##### Elective Courses — 9 hours

MA students are required to take 9 credit hours of HESAL coursework at the 600 and/or 700 level. Students should select these courses in consultation with their advisor.

Generally students will select from the following courses:

HESA 651	Philosophical, Historical and Cultural Foundations of Student Affairs in Higher Education	3
HESA 652	Enrollment Management Services	3
HESA 658	Helping Skills for Practitioners	3
HESA 660	Women in Higher Education and Student Affairs	3
HESA 665	International Higher Education and Student Affairs	3
HESA 668	College Students: Culture, Characteristics, Campus Life	3
HESA 669	Culturally Responsive Aspects of Transformative Learning	3
HESA 670	Internship in Higher Education and Student Affairs Leadership	6
HESA 685	Human Resources in Higher Education	3
HESA 690	Public Policy in Higher Education	3



HESA 695	Current Issues in Higher Education and Student Affairs Leadership	3
HESA 696	Special Topics in Higher Education and Student Affairs Leadership	1-4

Satisfactory performance on a concluding activity approved by division faculty, in accordance with Graduate School policy, must be demonstrated. All coursework for the program must be completed with a grade of "B-" or better.

## HISTORY M.A.

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### College of Humanities and Social Sciences

#### Degree Requirements — 30 Credits

See "History M.A." (p. 214).

#### DEGREE REQUIREMENTS

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##### Required Courses — 9 hours

HIST 590	Writing Seminar	3
HIST 600	Historiography	3

HIST 590: Take 6 credits

##### Elective Courses — 21 hours

Elective courses may be taken from any HIST 500-level and 600-level courses.

#### Final Project

All students are responsible for completing two pieces of writing of the length and quality of journal articles. Students will write the essays under the guidance of history faculty while taking two semesters of HIST 590, the departmental Writing Seminar (one essay undertaken during each class). The two essays serve as the final projects for the M.A. Fulfillment of this requirement is dependent on attaining a grade of at least a B (B- is not acceptable) on the papers themselves, regardless of the grade earned for the course overall. Students who do not earn at least a B on either of these papers must take HIST 590 a third time; they may count the previous HIST 590 as an elective.

In order to complete the master's degree, students will also take 21 credits (7 classes) of electives covering any region or period of history. Please see "Variable Topics Courses (p. 30)."

**LITERACY M.A.****College of Education and Behavioral Sciences****Degree Requirements — 33 Credits**

See "Literacy M.A. (p. 210)".

**DEGREE REQUIREMENTS****Required Major Credits – 33 hours**

EDRD 611	Language, Literacy and Cognitive Development	3
EDRD 612	Reading in the Elementary Schools	3
EDRD 614	Literature for Children, Adolescents and Young Adults	3
EDRD 617	Evaluation and Improvements of Literacy Teaching and Learning	4
EDRD 620	Reading in the Middle and Secondary Schools	3
EDRD 642	Teaching the Writing Process in Schools	3
EDRD 645	Reading Research	3
EDRD 670	Directing a School-Wide Reading/Literacy Program	3
EDRD 692	Clinical Practicum in Literacy Coaching	4
EDRD 693	Capstone Reading Seminar	1
SRM 600	Introduction to Graduate Research	3

**MARRIAGE, COUPLES, AND FAMILY COUNSELING/THERAPY M.A.****College of Education and Behavioral Sciences****Degree Requirements — 66-75 Credits**

See "Marriage, Couples, and Family Counseling/Therapy M.A. (p. 195)"

This program is accredited by the Council for Accreditation of Counseling and Related Educational Programs.

**Program Objectives**

See "Clinical and School Counseling Requirements" (p. 194).

**DEGREE REQUIREMENTS****Required Major Core Credits — 66 hours**

APCE 558	Diagnosis and Treatment Planning	3
APCE 603	Understanding Children, Adolescents, and Their Systems	3
APCE 605	Group Laboratory Experience	1
APCE 607	Theories of Counseling	3
APCE 612	Practicum in Individual Counseling	5
APCE 616	Career Theory, Counseling and Assessment	3
APCE 623	Understanding and Counseling Diverse Populations	3
APCE 624	Assessment and Treatment of Substance Abuse	3
APCE 650	Orientation to Clinical Counseling	3
APCE 657	Legal and Ethical Aspects of Counseling and Psychology	3
APCE 660	Psychological Consultation: Theory and Practice	3
APCE 661	Psychological Trauma and Intervention for Individuals, Families and Communities	3
APCE 662	Group Dynamics and Facilitation	3
APCE 665	Family Systems	3
APCE 668	Sexuality Counseling	3
APCE 669	Advanced Methods: Couples and Family Therapy	3
APCE 673	Appraisal and Assessment in Counseling	3
APCE 691	Internship in Clinical Counseling: Couples and Family Therapy	1-9
APCE 694	Practicum in Couples and Family Therapy	4
APCE 695	Seminar: Contemporary Issues in Couples and Family Therapy	3
PSY 530	Life Span Developmental Psychology	3
SRM 600	Introduction to Graduate Research	3

APCE 691: Take 2 hours

**Recommended Electives**

APCE 508	Workshop	1-3
APCE 609	Foundations of Play Therapy	3
APCE 617	Play Therapy: Theory and Practicum	3

**MATHEMATICS M.A. — LIBERAL ARTS EMPHASIS**

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This program is intended for students who do not already possess a Master's degree and wish to continue into the Ph.D. program in Educational Mathematics. It is not intended as a stand alone program. Students who complete this program and are deemed to be making good progress are automatically admitted to continue with the Ph.D. program.

**College of Natural and Health Sciences**

**Degree Requirements — 30 Credits**

See "Mathematics M.A." (p. 228).

Applicants to this program must submit the same application materials required for the Ph.D. program in Educational Mathematics: a CV (curriculum vitae); at least three letters of recommendation with the UNC cover sheet; current general GRE scores (the subject exam is not required); and an essay of approximately 500 words about their personal educational goals and specific interest in the University of Northern Colorado's Educational Mathematics Ph.D. program.

**DEGREE REQUIREMENTS**

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**Required Emphasis Credits — 18 hours**

MATH 525	Linear Algebra I	3
MATH 531	Basic Analysis I	3
MATH 532	Basic Analysis II	3
MATH 540	Introduction to Topology	3
MATH 560	Introductory Complex Variables	3
MED 610	Survey of Research in Mathematics Education	3

NOTE: MED 610 satisfies the Graduate School requirements for Introduction to Graduate Studies.

**Required Elective Credits — 12 hours**

Electives must be graduate level (500 or above) MATH, MED, or SRM courses, and must be approved by the student's advisor. At most 3 of the required elective credits can be from Math 599 or MED 599.

**Comprehensive Examinations**

A student may select any of the following options to satisfy the comprehensive examination requirement. At least two faculty members will be involved in judging whether or not the selected option has been completed satisfactorily.

- Option 1. Completion of an Action Research Project involving the selection of a problem related to the student's teaching, review of relevant literature, plan, analysis and discussion. A copy of this project must be filed with the School; in addition, the student must make a presentation of the project. Students who

choose this option will normally take MED 599 or MATH 599 to support their work on the project.

- Option 2. Completion of a Master's Research Project involving the selection of a problem, review of relevant literature, plan, analysis and discussion. A copy of this project must be filed with the School; in addition, the student must make a presentation of the project. This project may be associated with a course the student is taking, as long as it is an independent research project of high enough quality and approved in advance by the graduate program coordinator.
- Option 3. A written comprehensive examination over at least 2 of the required courses agreed upon in advance with the graduate program coordinator. Up to two hours of oral examination will be given upon successful completion of the written examination.

## MATHEMATICS M.A. — TEACHING EMPHASIS

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### College of Natural and Health Sciences

#### Degree Requirements — 30 Credits

See "Mathematics M.A." (p. 228).

Students must submit an essay of approximately 500 words addressing their interest in the Master of Arts in Mathematics degree program and their educational goals.

#### DEGREE REQUIREMENTS

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##### Required Emphasis Credits — 9 hours

MATH 534	Continuous Mathematics	3
MATH 543	Modern Geometry	3
MED 600	Introduction to Research in Mathematics Education	3

**NOTE:** MED 600 satisfies the Graduate School requirements for Introduction to Graduate Studies

##### Elective Credits — 21 hours

At least twelve semester hours must be selected from group A and at least six semester hours must be selected from group B.

##### Group A (12 hours)

MATH 520	Functions and Equations	3
MATH 528	Discrete Mathematics	3
MATH 529	Mathematical Problem Solving	3
MATH 537	Mathematical Modeling	3
MATH 550	Applied Probability and Statistics	3
MATH 591	Abstract Algebra and Number Theory	3
MATH 599	Mathematics Action Research Project Seminar	3

##### Group B (6 hours)

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 555	Teaching Secondary Math for Understanding	3
MED 560	Culture in the Math Classroom	3
MED 565	Quantitative Reasoning in Secondary Mathematics	3
MED 595	Teaching Advanced Topics in Secondary School Mathematics	2
MED 599	Action Research Project Seminar	1-3
MED 673	Teaching and Learning Mathematics on the Elementary Level	3

MED 674	Teaching and Learning Mathematics on the Secondary Level	3
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*MED 599 and MATH 599: Only one of these may be counted in the program, and only 3 total credits of either can be counted in the program.*

Additional electives may be chosen from courses offered by the school or other schools with the approval of the student's advisor.

### Comprehensive Examinations

A student may select either one of the following options to satisfy the 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 the three required courses and over one other course from Group B above (student's choice). Up to two hours of oral examination will be given upon successful completion of the written examination.
- *Option 2.* Completion of the Action Research Project involving the selection of a problem, review of relevant literature, plan, data analysis and discussion. A copy of this project must be filed with the School; in addition, the student must make a two hour presentation of the project. Students who choose this option are encouraged to take MED 599 or MATH 599 to support their work on the project.

## MULTILINGUAL EDUCATION M.A. - TEACHING ENGLISH TO SPEAKERS OF OTHER LANGUAGES (TESOL)

### College of Education and Behavioral Sciences

#### Degree Requirements - 31 credits

See "Multilingual Education M.A. - Teaching English to Speakers of Other Languages (TESOL) (p. 210)"

#### DEGREE REQUIREMENTS

##### Required Credits - 25 credits

ECLD 590	Communication and Technologies for Multilingual Education	3
ECLD 592	Second Language Acquisition Theory	3
ECLD 589	Language, Linguistics, and Education	3
ECLD 594	Foundations of Language and Linguistics for ESL/Bilingual Educators	3
SRM 600	Introduction to Graduate Research	3
ECLD 604	Field Experience in Culturally & Linguistically Diverse Education	3
ECLD 605	Seminar in Multilingual Teaching and Learning I	3
ECLD 610	Practices in ESL/EFL Instruction and Assessment	3

##### Elective Credits - 6 credits

##### Elective One - Choose One

EDRD 523	Reading and Writing in the Content Areas	3
ECLD 591	Multilingualism and Multilingual Education: Theories and Practices	3

##### Elective Two - Choose One

EDRD 523	Reading and Writing in the Content Areas	3
ECLD 593	Language, School and Society	3
ECLD 596	Effective Instruction in Culturally and Linguistically Diverse Education	3
ECLD 602	Teaching Culturally & Linguistically Diverse Learners	3
ECLD 607	Seminar in Multilingual Teaching and Learning II	3
EDSE 679	Interventions for Students with Cultural and Linguistic Differences	3

Candidates must successfully pass a comprehensive exam at the end of the master degree program.

## MULTILINGUAL EDUCATION M.A. WORLD LANGUAGE LICENSURE PROGRAM

### College of Education & Behavioral Sciences

#### Degree Requirements - 33 credits

See "Multilingual Education MA World Language  
Licensure Program (p. 210)"

#### DEGREE REQUIREMENTS

Candidates must successfully pass a comprehensive exam at the end of the master's degree program.

Candidates will also, prior to student teaching, provide proof of evidence of meeting the State requirement for professional competency in the content area through one of the following options:

1. A degree in the target world language; or
2. Passing score of state recognized test: Praxis, NES, or Place depending on the specific target language; or
3. 24 semester hours of college level coursework that meet the minimum requirement in each of the areas as required by the State.

#### Required Courses- 33 Credits

EDF 500	Conceptions of Schooling	3
EDSE 679	Interventions for Students with Cultural and Linguistic Differences	3
ECLD 592	Second Language Acquisition Theory	3
ECLD 594	Foundations of Language and Linguistics for ESL/Bilingual Educators	3
EDRD 523	Reading and Writing in the Content Areas	3
EDFE 501	Practicum	1-4
FL 541	Methods of Teaching World Languages	3
EDFE 555	Supervised Student Teaching	1-9
SRM 600	Introduction to Graduate Research	3
ECLD 605	Seminar in Multilingual Teaching and Learning I	3
	Comprehensive Exam	

## MUSIC M.M. — COLLABORATIVE PIANO EMPHASIS

### College of Performing and Visual Arts

#### Degree Requirements — 30-31 Credits

See "Music M.M." (p. 239).

In addition to the Music, M.M. requirements above, proficiency in diction and translation of two standard foreign languages (selected from French, German and Italian) will be examined upon entry. Candidates with deficiencies will meet with their major advisor and other appropriate faculty to determine the best way to remedy those deficiencies.

#### DEGREE REQUIREMENTS

##### Required Emphasis Credits — 24 hours

##### Studies in Major Area

MUS 540	Techniques of Vocal Coaching for Pianists	2
MUS 541	Chamber Music Literature for Keyboard	2
MUS 600	Introduction to Musical Scholarship	2
MUS 694	Master's Recital	2
MUS 665	Individual Instruction in Collaborative Piano Ensemble by advisement	2

MUS 665: Take 8 hours

##### Other studies in Music

Music History, Music Theory 6

Courses will be selected by advisement based upon candidates' needs identified through advisory examination.

##### Elective Emphasis Credits — 6-7 hours

Electives will be selected by advisement based upon candidate's need identified through examination.

MUS 507	History of Instruments and Instrumental Practices	3
MUS 510	Vocal Pedagogy	2
MUS 536	German Art Song	2
MUS 538	French/Italian Art Song	2
MUS 539	British/American Art Song	2
MUS 559	Opera History and Literature	2
MUS 630	Small Ensembles and Chamber Music	1
MUS 671	Individual Instruction in Piano	2

**MUSIC M.M. — CONDUCTING EMPHASIS****College of Performing and Visual Arts****Degree Requirements — 30-31 Credits**

See "Music M.M." (p. 239).

**DEGREE REQUIREMENTS****Required Emphasis Credits — 26 hours**

MUS 511	Wind Band Literature and Techniques	2
MUS 512	Symphonic Repertoire	2
MUS 550	Score Reading and Analysis	1
MUS 551	Individual Instruction in Conducting	1
MUS 558	Choral Literature and Techniques	2
MUS 600	Introduction to Musical Scholarship	2
MUS 693	Practicum in Music	1-4
	Individual Instruction in Major Instrument or Voice	4
	Major Performing Organization	2

MUS 551: Take 4 hours

**Music History and Theory — 6 hours**

Courses will be selected by advisement based upon candidates' needs identified through advisory examination.

**Elective Emphasis Credits — 4-5 hours**

MUS 564	Problems in Teaching Voice	2
MUS 580	String Techniques for the Conductor	2
MUS 650	Seminar: Choral Music	2
MUS 653	Vocal Literature and Styles	3
MUS 657	Instrumental Literature and Styles	3
MUS 658	Brass Pedagogy	3
MUS 661	Percussion Pedagogy	2
MUS 662	Woodwind Pedagogy	2
MUS 685	Performance in Opera Theatre	1-12

A recorded public recital and correlative paper are required. The performance will be conducted by the candidate and evaluated by the major advisor and relevant faculty. It is the student's responsibility to file a printed program and audio recording of the performance with the School of Music Office and the Music Library.

**MUSIC M.M. — INSTRUMENTAL PERFORMANCE EMPHASIS****College of Performing and Visual Arts****Degree Requirements — 30-31 Credits**

See "Music M.M." (p. 239).

**DEGREE REQUIREMENTS****Required Emphasis Credits — 22-23 hours****Studies in the Major Area (14 hours)**

MUS 600	Introduction to Musical Scholarship	2
MUS 694	Master's Recital	2
	Individual Instruction	8
	Major Performing Organization	2

String, Woodwind, Brass, and Percussion performers will participate in a major ensemble each semester in residence.

Keyboard majors will enroll in ensemble by advisement.

**Other Studies in Music (8-9 hours)**

	Music History, Music Theory	6
	Pedagogy	2-3

**NOTES:** Other Studies in Music will be selected by advisement based upon candidate's needs identified through advisory examination.

In addition to the Music, M.M. requirements above, brass, woodwind, string, and percussion majors will take a written examination on instrumental techniques in their instrument area.

**Elective Credits — 8 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. 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.*

A correlative paper may be required in conjunction with the recital at the discretion of the individual school.

Performance emphases are available in flute, oboe, clarinet, bassoon, saxophone, horn, trumpet, tenor trombone, bass trombone, euphonium, tuba, percussion, violin, viola, violoncello, string bass, harp, keyboard, voice, and guitar.

## MUSIC M.M. — JAZZ STUDIES EMPHASIS

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### College of Performing and Visual Arts

#### Degree Requirements — 32 Credits

See “Music M.M.” (p. 239).

#### DEGREE REQUIREMENTS

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##### Required Emphasis Credits — 29 hours

MUS 542	Jazz Pedagogy	2
MUS 544	Seminar in Jazz History	3
MUS 547	Advanced Arranging	2
MUS 585	Advanced Jazz Improvisation	2
	or	
MUS 555	Seminar in Jazz Composition	2
MUS 600	Introduction to Musical Scholarship	2
MUS 625	Jazz Ensembles	1
	or	
MUS 624	Vocal Jazz Ensembles	1
MUS 636	Individual Instruction in Jazz	2
	or	
MUS 637	Individual Instruction in Jazz Composition	2
MUS 694	Master's Recital	2

MUS 624: Take 2 hours

MUS 625: Take 2 hours

MUS 636 or MUS 637: Take 8 hours

##### Other Studies in Music

	Music History, Music Theory	6
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*Other Studies in Music* will be selected by advisement based upon candidates needs identified through advisory examination.

##### Elective Emphasis Credits — 3 hours

Electives will be selected by advisement based upon candidate's needs identified through examination.

**NOTES:** *Master of Music candidates in jazz studies must present a public recital. This recital should be recorded and a printed program and CD recording should be filed with the School of Music Office and the Music Library. A correlative paper will be required in conjunction with the recital.*

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 9 credit hours or more per semester.

Jazz Studies specializations are available in saxophone, trumpet, trombone, guitar, piano, bass, and drums.

Master of Music candidates will take a written comprehensive examination at a time approved by the major advisor.

This is a highly selective degree program. Admission is by audition for the applied jazz faculty and is dependent on studio availability.



## MUSIC M.M. — MUSIC EDUCATION EMPHASIS

### College of Performing and Visual Arts

#### Degree Requirements — 30-36 Credits

See “Music M.M.” (p. 239).

#### DEGREE REQUIREMENTS

##### Required Emphasis Credits — 12 hours

##### Studies in the Major Area (9 hours)

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 (3 hours)

Selected from the following content areas such as: Psychology of Music Teaching and Learning, Multicultural Education, Educational Psychology, Educational Foundations or Special Education (3).

##### Credits in Music Studies — 10-16 hours

To be selected in consultation with program advisor (10-16).

##### Elective Credits in Music and other areas — 8 hours

Courses should be based upon the candidate's specialized teaching area and professional goals.

Thesis option:

MUS 699: Take 6 credits.

*Notes: Candidates will be asked to take an advisory examination on topics related to music education.*

The School of Music will consider examinations, scholarly papers and musical performance in all areas of study to assess student progress throughout the program.

Each master's degree student must pass a written comprehensive examination or otherwise show competency in the discipline by successfully completing a 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.

## MUSIC M.M. — MUSIC HISTORY AND LITERATURE EMPHASIS

### College of Performing and Visual Arts

#### Degree Requirements — 30 Credits

See “Music M.M.” (p. 239).

#### DEGREE REQUIREMENTS

##### Required Emphasis Credits — 27 hours

MUS 600	Introduction to Musical Scholarship	2
MUS 649	Music History Pedagogy	3
MUS 699	Thesis	1-6
	Music History	9
	Music Theory Courses	3
	Major Performing Organization and/or Individual Instruction	4

##### Elective Credits — 3 hours

Electives will be selected by advisement, based upon candidate's needs identified through examination.

*NOTES: 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.

## MUSIC M.M. — MUSIC COMPOSITION EMPHASIS

### College of Performing and Visual Arts

#### Degree Requirements — 33 Credits

See "Music M.M." (p. 239).

#### DEGREE REQUIREMENTS

##### Required Emphasis Credits — 33 hours

MUS 509	Electronic Music	3
MUS 600	Introduction to Musical Scholarship	2
MUS 603	Analytical Studies in Music	3
MUS 677	Individual Instruction in Composition	2
MUS 699	Thesis	1- 6
	Music Performing Organization and/or Individual Performance	2
	Music History	6

MUS 677: Take 8 credits

MUS 699: Thesis: Take 6 credits (or original composition)

##### Select one of the following courses: (3 hours)

MUS 651	Seminar in Music History: Debussy to 1945	3
MUS 652	Seminar in Music History: 1945 to the Present	3

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 advisory examinations indicate that these courses will significantly increase the strength of Master of Music candidates 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.

Master of Music candidates will present a recital of their compositions written as part of their degree program.

In addition to the Music, M.M. requirements above, Theory and Composition candidates must submit examples of works composed, supported if possible by recordings.

This emphasis requires that the student has completed a Bachelor's degree in music.

## MUSIC M.M. - MUSIC THEORY EMPHASIS

### College of Performing and Visual Arts

#### Degree Requirements - 30 hours

See "Music M.M. (p. 239)"

#### DEGREE REQUIREMENTS

##### Required Emphasis Credits - 27 hours

MUS 504	Music Theory Pedagogy	3
MUS 595	Music Theory Seminar	3
MUS 600	Introduction to Musical Scholarship	2
MUS 603	Analytical Studies in Music	3
MUS 604	Schenkerian Analysis	3
MUS 699	Thesis	1- 6
	Music History Course	3
	Music Performing Organization and/or Individual Performance	4

MUS 595 (p. 314) Seminar in Music Theory may be repeated for credit as long as the content differs.

MUS 699 (p. 318) Take 6 credits

##### Elective Credits - 3 hours

Electives will be selected by advisement, based upon candidate's needs identified through examination. Additional courses in music theory, history, or language are recommended.

**NOTES:** Students who are able to demonstrate competency in any required course may substitute an elective chosen in consultation with the advisor.

## MUSIC M.M. — VOCAL PERFORMANCE EMPHASIS

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### College of Performing and Visual Arts

#### Degree Requirements — 36 Credits

See “Music M.M.” (p. 239)

In addition to the Music, MM requirements above, prospective Vocal Performance students must perform an entrance audition that represents their language ability. Students are required to prepare four contrasting selections in four different languages. One selection must be in English, one must be an aria, one must be an art song, and one must have been composed after 1950.

#### DEGREE REQUIREMENTS

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##### Required Emphasis Credits 36 hours

##### Take all of the following (16 hours)

MUS 559	Opera History and Literature	2
MUS 600	Introduction to Musical Scholarship	2
MUS 694	Master's Recital	2
	Individual Instruction	8
	Major Performing Organization	2

##### Select one of the following courses (2 hours)

MUS 510	Vocal Pedagogy	2
MUS 564	Problems in Teaching Voice	2

##### Select two of the following courses (4 hours)

MUS 536	German Art Song	2
MUS 538	French/Italian Art Song	2
MUS 539	British/American Art Song	2

##### Select two credits from the following (2 hours)

MUS 534	Acting for Singers	2
MUS 685	Performance in Opera Theatre	1-12
MUS 686	Scene Studies in Opera	1-3

##### Other Studies in Music (6 hours)

	Music History, Music Theory	6
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Other Studies in Music will be selected by advisement based upon candidate's needs identified through advisory examination.

##### Elective Credits — 6 hours

To be chosen from the following courses:

MUS 536	German Art Song	2
MUS 538	French/Italian Art Song	2
MUS 539	British/American Art Song	2
MUS 560	Opera Directing Seminar	1-3
MUS 561	Vocal Coaching for Singers	1
MUS 564	Problems in Teaching Voice	2
MUS 605	English Diction	1
MUS 606	German Diction	1
MUS 607	French Diction	1

MUS 608	Italian Diction	1
MUS 628	UNC Early Music Ensemble	1
MUS 656	UNC European Summer Opera Program	1-6
MUS 666	Chamber Choir	1
MUS 680	Mixed Concert Choir	1
MUS 681	Women's Glee Club	1
MUS 684	Men's Glee Club	1
MUS 685	Performance in Opera Theatre	1-12
MUS 686	Scene Studies in Opera	1-3

Note: In order to graduate, Master of Music students in the area of Vocal Performance must demonstrate diction mastery (spoken and International Phonetic Alphabet) in German, French, Italian, and English.

Master of Music candidates in voice must present a public recital. It is the student's responsibility to file a printed program and recording of the performance 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 area.

**NURSING M.S. — ADULT  
GERONTOLOGY ACUTE CARE NURSE  
PRACTITIONER (AGACNP) EMPHASIS**

**College of Natural and Health Sciences**

**Degree Requirements — 53 Credits**

See “Nursing M.S. (p. 229)”.

**Prerequisites:** Undergraduate Research, Undergraduate Physical Assessment Course

**DEGREE REQUIREMENTS**

**Required Major Core Credits — 12 hours**

NURS 507	Policy, Leadership and Nursing Issues	3
NURS 601	Theoretical Foundations for Advanced Nursing	3
NURS 606	Research and Evidence-based Practice in Nursing	3
NURS 608	Advanced Health Care Concepts	3

**NP Emphasis — 16 hours**

NURS 612	Advanced Pharmacology	4
NURS 613	Advanced Health Assessment	4
NURS 614	Advanced Pathophysiology	3
NURS 624	Health Promotion and Disease Prevention in Advanced Practice of Nursing	3
NURS 690	Advanced Professional Role	2

**AGACNP Emphasis — 25 hours**

NURS 609	Foundations in Public Health for Advanced Practice Nurses	3
NURS 651	Adult Gerontology Acute Care I	3
NURS 652	Adult Gerontology Acute Care II	3
NURS 653	Adult Gerontology Acute Care III	3
NURS 682	AGACNP Practicum I	3
NURS 683	AGACNP Practicum II	2
NURS 684	AGACNP Acute Care Skills	1
NURS 686	AGACNP Practicum III	3
NURS 693	AGACNP Synthesis Practicum	4

Successful completion of a comprehensive exam is required to complete the Master of Science program. Completion of a master's thesis is an option: NURS 699 Master's Thesis (6).

**NURSING M.S. — ADVANCED NURSE  
GENERALIST EMPHASIS**

**College of Natural and Health Sciences**

**Degree Requirements — 36 Credits**

See “Nursing M.S. (p. 229)”.

**Prerequisites:** Baccalaureate Degree in Nursing

**DEGREE REQUIREMENTS**

**Required Major Core Credits — 9 hours**

NURS 507	Policy, Leadership and Nursing Issues	3
NURS 601	Theoretical Foundations for Advanced Nursing	3
NURS 606	Research and Evidence-based Practice in Nursing	3

**Advanced Nurse Generalist Emphasis — 27 hours**

NURS 616	Measurement of Clinical Outcomes for Advanced Nursing Practice	3
NURS 621	Management of Clinical Outcomes	4
NURS 626	Management of Care Environment	4
NURS 631	Teaching Strategies for Practice and Academic Settings	3
NURS 646	Integrative Clinical Concepts	4
NURS 668	Population Centered Health Care	3

**Choose one of the following options (6 hours):**

NURS 699	Thesis	1-6
Or, complete both:		
NURS 632	Clinical Instruction and Precepting in Nursing	3
NURS 661	Planning and Evaluating Education in Practice and Academic Settings	3
or		
NURS 687	Advanced Role Practicum and Capstone	1-6

NURS 687 (p. 321): Take 6 credits total

NURS 699: (p. 321) Take 6 credits total

## NURSING M.S. — CLINICAL NURSE LEADER (CNL) EMPHASIS

### College of Natural and Health Sciences

#### Degree Requirements — 42 Credits

See “Nursing M.S.” (p. 229).

**Prerequisites:** Baccalaureate Degree In Nursing

#### DEGREE REQUIREMENTS

##### Required Major Core Credits — 12 hours

NURS 504	Quality and Safety in Health Care Systems	3
NURS 507	Policy, Leadership and Nursing Issues	3
NURS 601	Theoretical Foundations for Advanced Nursing	3
NURS 606	Research and Evidence-based Practice in Nursing	3

##### CNL Emphasis — 30 hours

NURS 610	Health Assessment	3
NURS 612	Advanced Pharmacology	4
NURS 614	Advanced Pathophysiology	3
NURS 616	Measurement of Clinical Outcomes for Advanced Nursing Practice	3
NURS 620	Clinical Nurse Leader: Managing Clinical Outcome	3
NURS 625	Clinical Nurse Leader: Managing the Care Environment	3
NURS 635	Clinical Nurse Leader: Developing Leadership Roles	4
NURS 681	Advanced Role Practicum for Clinical Nurse Leaders	1- 7

NURS 681: Take 7 hours

Successful completion of a comprehensive exam is required to complete the Master of Science program.

Completion of a master's thesis is an option: NURS 699 Master's Thesis (6).

## NURSING M.S. — FAMILY NURSE PRACTITIONER (FNP) EMPHASIS

### College of Natural and Health Sciences

#### Degree Requirements — 51 Credits

See “Nursing M.S.” (p. 229).

**Prerequisites:** Undergraduate Research, Undergraduate Physical Assessment Course

#### DEGREE REQUIREMENTS

##### Required Major Core Credits — 12 hours

NURS 507	Policy, Leadership and Nursing Issues	3
NURS 601	Theoretical Foundations for Advanced Nursing	3
NURS 606	Research and Evidence-based Practice in Nursing	3
NURS 608	Advanced Health Care Concepts	3

##### NP Emphasis - 16 hours

NURS 612	Advanced Pharmacology	4
NURS 613	Advanced Health Assessment	4
NURS 614	Advanced Pathophysiology	3
NURS 624	Health Promotion and Disease Prevention in Advanced Practice of Nursing	3
NURS 690	Advanced Professional Role	2

##### FNP Emphasis — 23 hours

NURS 654	Acute Care of Adults	3
NURS 656	Care of Chronic Illness in Adults	3
NURS 674	Care of Women and Pediatric Populations	3
NURS 675	FNP Clinical I	2
NURS 676	FNP Advanced Clinical Topics	2
NURS 677	FNP Clinical II	4
NURS 689	FNP Clinical Synthesis	6

Successful completion of a comprehensive exam is required to complete the Master of Science program.

Completion of a master's thesis is an option: NURS 699 Master's Thesis (6).

## PHYSICAL EDUCATION AND PHYSICAL ACTIVITY LEADERSHIP M.A.T.

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### College of Natural and Health Sciences

#### Degree Requirements — 30 hours

##### Course Requirements

SES 603	Professional Development Seminar	3
SES 604	Teacher and Coach Action Research	3
SES 612	Assessment in Sport Pedagogy	3
SES 614	Analysis of Teaching in Physical Education	3
SES 643	Instructional Strategies for K-12 Physical Education	3
SES 646	Comprehensive School Physical Activity Programming	3
SES 647	School Physical Activity Policy, Advocacy, and Leadership	3
SES 648	Theories of Health Behavior	3
SES 649	School-Based Nutrition & Wellness	3
SES 680	Perspectives in Sport Pedagogy	3

*Portfolio.* In lieu of a comprehensive exam or thesis, all students must develop and present a portfolio that displays successful incorporation of the theoretical and foundational aspects of effective teaching. Public exhibition of the portfolio before an audience of faculty and students is required.

## PUBLIC HEALTH M.P.H. - COMMUNITY HEALTH EDUCATION EMPHASIS

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### College of Natural and Health Sciences

#### Degree Requirements — 42 Credits

See “Public Health M.P.H. (p. 225)”.

#### DEGREE REQUIREMENTS

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##### Required Major Credits — 33 hours

CH 509	Behavior Change Theories	3
CH 520	Foundations in Public Health	2
CH 530	Strategies for Community Health Promotion	3
CH 535	Effective Community Health Engagement	3
CH 550	Environmental Health	3
CH 610	Program Planning and Evaluation	3
CH 612	Statistical Applications in Public Health	3
CH 620	Epidemiology	3
CH 635	Policy, Advocacy, Leadership & Management in Community Health	3
CH 686	MPH Masters Project	2
CH 693	MPH Practicum	2

CH 520: This course is offered through CSPH as PUBH 6600.

##### Select one of the following courses:

CH 615	Methods in Public Health Research and Evaluation	3
SRM 600	Introduction to Graduate Research	3

##### Required Elective Credits — 9 hours

There are numerous elective courses available through UNC's Community Health Program, as well as through the Colorado School of Public Health. The elective suggestions provided below are for students who may want to focus their education in a specialization area. All elective credits are selected with consent of advisor.

##### Electives for Specialization Area of Coordinated School Health:

CH 525	Contemporary Issues in School Health	3
EDF 500	Conceptions of Schooling	3

##### Electives for Specialization Area of Gerontology may be selected from:

GERO 560	Community Resources for Older Adults	3
GERO 625	Psychosocial Aspects of Aging	3
GERO 635	Social Policies of Aging	3
GERO 640	Health Aspects of Gerontology	3

Students must complete 150 practicum field hours and successfully complete a capstone experience (formal report

and public presentation) which incorporates core competencies with the practicum experience. Students may also pursue a thesis option in lieu of 6 elective hours upon consultation and approval by their faculty advisor. Completion and presentation of a capstone project satisfies the completion of the comprehensive exam.

**REHABILITATION COUNSELING M.A.****College of Natural and Health Sciences****Degree Requirements — 60 Credits**

See “Rehabilitation Counseling M.A.” (p. 227).

**DEGREE REQUIREMENTS****Required Major Credits — 48 hours**

PSY 530	Life Span Developmental Psychology	3
RCS 580	Rehabilitation Principles and Case Management	3
RCS 581	Vocational Evaluation and Assessment of People with Disabilities	3
RCS 585	Occupational Information and Job Placement	3
RCS 604	Family, Cultural and Psychological Aspects of Disability	3
RCS 605	Medical Aspects of Disability	3
RCS 610	Interpretation and Evaluation of Behavioral Research	3
RCS 630	Human Services Counseling Theories and Techniques	3
RCS 631	Group Processes in Rehabilitation	3
RCS 692	Clinical Internship in Rehabilitation	1-18
RCS 694	Supervised Counseling in Human Services	6

RCS 692: Take 15 credits

RCS 692: Must be completed in an approved rehabilitation counseling setting.

**Elective Credits — 12 hours**

APCE 624	Assessment and Treatment of Substance Abuse	3
EDSE 541	Introduction to Visual Impairments and Deaf-Blindness	3
EDSE 546	Principles of Orientation and Mobility	3
EDSE 548	Medical and Educational Implications of Visual Impairments	3
GERO 665	Research Application and Grant Development	3
RCS 650	Human Resources System	3

**NOTES:** To complete requirements for rehabilitation counseling, 12 semester hours of electives, approved by the faculty advisor, must be taken.

The required major courses are offered online, during the evenings, and in a weekend workshop format in order to accommodate the academic needs of adult learners

Passing the Certified Rehabilitation Counselor (CRC) national examination is required for successful completion of the Master of Arts degree in Rehabilitation Counseling.

The master's program is fully accredited by the Council on Rehabilitation Education (CORE) and qualifies students to obtain the Certified Rehabilitation Counselor (CRC) designation.



**SCHOOL COUNSELING M.A.****College of Education and Behavioral Sciences****Degree Requirements — 63-75 Credits**

This program is accredited by the Council for Accreditation of Counseling and Related Educational Programs.

See “School Counseling M.A.” (p. 195).

**DEGREE REQUIREMENTS****Required Major Credits — 63 hours**

APCE 558	Diagnosis and Treatment Planning	3
APCE 602	Foundations of School Counseling	3
APCE 603	Understanding Children, Adolescents, and Their Systems	3
APCE 605	Group Laboratory Experience	1
APCE 606	Theories and Practices in Group Guidance	3
APCE 607	Theories of Counseling	3
APCE 608	Organization, Administration and Evaluation of School Counseling Programs	3
APCE 612	Practicum in Individual Counseling	5
APCE 614	Internship in School Counseling and Guidance	1-9
APCE 616	Career Theory, Counseling and Assessment	3
APCE 619	Practicum II in Individual Counseling	3
APCE 623	Understanding and Counseling Diverse Populations	3
APCE 624	Assessment and Treatment of Substance Abuse	3
APCE 657	Legal and Ethical Aspects of Counseling and Psychology	3
APCE 660	Psychological Consultation: Theory and Practice	3
APCE 661	Psychological Trauma and Intervention for Individuals, Families and Communities	3
APCE 665	Family Systems	3
APCE 673	Appraisal and Assessment in Counseling	3
PSY 530	Life Span Developmental Psychology	3
SRM 600	Introduction to Graduate Research	3

APCE 614: Take 6 hours.

**Recommended Electives**

APCE 508	Workshop	1-3
APCE 609	Foundations of Play Therapy	3
APCE 617	Play Therapy: Theory and Practicum	3

APCE 668 Sexuality Counseling 3

Students wishing to obtain Colorado licensure in this area are required to pass proficiency examination(s). Students should contact the Teaching/Special Services Licensing Office for information.

**SCHOOL LIBRARY EDUCATION M.A.****College of Education and Behavioral Sciences****Degree Requirements — 32 Credits**

See “School Library Education M.A.” (p. 198).

**DEGREE REQUIREMENTS****Required Major Credits — 32 hours**

EDRD 614	Literature for Children, Adolescents and Young Adults	3
EDRD 620	Reading in the Middle and Secondary Schools	3
ET 502	Instructional Design	3
ET 503	Instructional Materials Design I	3
ET 504	Instructional Materials Design II	3
ET 533	Information Literacy & Reference	3
ET 535	School Library Administration and Leadership	3
ET 538	Selection, Evaluation and Utilization of Library Materials and Cataloging	3
ET 604	Computer Graphics and Visual Literacy	3
ET 694	K-12 School Library Internship	1
ET 696	Secondary School Library Internship	1
SRM 600	Introduction to Graduate Research	3

**NOTE:** For licensure purposes, the Colorado Department of Education requires students to complete two field experience in an elementary and/or either middle or secondary school library.

Students need to have completed the preparatory coursework prior to taking the comprehensive examination. In addition, the student’s advisor signature is required on the **Permission form to take Written Comprehensive Examination**, which verified that the student is cleared to take the comprehensive examination. Successful completion of the written comprehensive exam is required to complete the Master of Arts program.

Students wishing to obtain Colorado licensure in this area are required to pass the required state proficiency examination. Endorsements are granted by the Colorado Department of Education upon the recommendation of the UNC Licensure Officer. Students should contact the School of Teacher Education in McKee 216 for licensure information. All coursework completed will be accessed by the UNC Licensure Officer prior to licensure acceptance.

**SOCIOLOGY M.A. — APPLIED EMPHASIS****College of Humanities and Social Sciences****Degree Requirements — 30 Credits**

See “Sociology M.A. (p. 215)”

The master’s program in Sociology emphasizes the application of sociological theory and research methods to various social problems experienced by groups, communities, organizations, schools, and governmental bodies. The applied emphasis program culminates in a professional research report based on the research internship experience.

**DEGREE REQUIREMENTS****Required Sociology Credits — 18 credits**

SOC 552	Applied Social Theory	3
SOC 590	Proseminar	
SOC 595	Special Topics in Inequality	3
SOC 660	Applied Social Research	3
SOC 691	Research Internship	1-9

SOC 691: Take 6 credits

Take one of the following (both preferred):

SOC 562	Social Statistics	3
SOC 563	Qualitative Methods	3

**Elective Credits — 12 credits**

Elective credits may be any 500 or 600 level courses in Sociology.

**Professional Research Report:**

The professional research report is completed in conjunction with six SOC 691 Research Internship credit hours to be taken in 3-credit increments. In consultation with their advisor, students work with their internship site supervisor to plan and conduct a research project which culminates in a professional research report.

**SOCIOLOGY M.A. — THESIS EMPHASIS****College of Humanities and Social Sciences****Degree Requirements — 30 Credits**

See “Sociology M.A. (p. 215)”

The master’s program in Sociology emphasizes the application of sociological theory and research methods to various social problems experienced by groups, communities, organizations, schools, and governmental bodies. The thesis emphasis program culminates in a thesis research project.

**DEGREE REQUIREMENTS****Required Sociology Credits — 18 credits**

SOC 552	Applied Social Theory	3
SOC 590	Proseminar	
SOC 595	Special Topics in Inequality	3
SOC 660	Applied Social Research	3
SOC 699	Thesis	1-6

SOC 699: Take 6 credits

Take one of the following (both preferred):

SOC 562	Social Statistics	3
SOC 563	Qualitative Methods	3

**Elective Credits — 12 credits**

Elective credits may be any 500 or 600 level courses in Sociology.

**Thesis**

The thesis requires six SOC 699 credit hours to be taken in 3-credit increments. Completion of the thesis requires oral defenses of the proposal and the final draft before a faculty committee. Students who are interested in conducting a thesis project must consult their advisor and apply for this option to the Sociology graduate faculty during their second semester of study.

**SPECIAL EDUCATION M.A. — DEAF AND HARD OF HEARING EMPHASIS****College of Education and Behavioral Sciences****Degree Requirements — 49-55 Credits**

See “Special Education M.A.”.

**NOTE:** Students admitted to one of the Master of Arts degree programs in Special Education without teacher licensure are obliged to complete additional (separate) Professional Teacher Education Program (PTEP) admission and course requirements.

**DEGREE REQUIREMENTS****Required Professional Teacher Education Program Courses for Initial Teacher Licensure Graduate****Students — 12 credit hours**

EDF 500	Conceptions of Schooling	3
EDFE 125	Application for Graduate Licensure Admission to PTEP	
EDRD 611	Language, Literacy and Cognitive Development	3
EDSE 507	Field-Based Experience	3
PSY 500	Educational Psychology for Teachers	3

**Required Major Core Credits — 3 hours**

SRM 600	Introduction to Graduate Research	3
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**Required Prerequisites — 7 hours**

ASLS 266	Normal Speech and Language Development	3
ASLS 370	Basic Audiology	4

Ability to communicate, with advanced proficiency in American Sign Language and/or a sign system.

**Required Emphasis Credits — 39 hours**

EDSE 510	Foundations of Special Education	3
EDSE 511	Learning Environments and Cultural Considerations	3
EDSE 512	Assessment, IEP Development and Instructional Planning	3
EDSE 550	Foundations of Deaf Education	3
EDSE 651	Collaboration: Deaf/Hard of Hearing	3
EDSE 652	Auditory Skill Development: Deaf/Hard of Hearing	3
EDSE 653	Speech: Deaf/Hard of Hearing	3
EDSE 654	Language: Deaf/Hard of Hearing	3
EDSE 655	Literacy: Deaf/Hard of Hearing	3
EDSE 656	Curriculum and Instruction: Deaf/Hard of Hearing	3
EDSE 657	Practicum: Deaf/Hard of Hearing, 6-12	3-6

NOTES:

- Students are required to complete a sign language proficiency test which will be administered before each student's practicum placement.
- Teacher education and educator preparation licensure programs do not accept Professional Teacher Education Program (PTEP) or field based courses that are more than ten years old. PLEASE NOTE: Teacher Candidates have the right to petition this policy at the discretion of the program coordinator.

## SPECIAL EDUCATION M.A. — EARLY CHILDHOOD SPECIAL EDUCATION EMPHASIS

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### College of Education and Behavioral Sciences

#### Degree Requirements — 36-48 Credits

See “Special Education M.A.” (p. 205).

**NOTE:** Students admitted to one of the Master of Arts degree programs in Special Education without teacher licensure are obliged to complete additional (separate) Professional Teacher Education Program (PTEP) admission and course requirements.

#### DEGREE REQUIREMENTS

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##### Required Professional Teacher Education Program Courses for Initial Teacher Licensure Graduate Students — 12 credit hours

EDF 500	Conceptions of Schooling	3
EDFE 125	Application for Graduate Licensure Admission to PTEP	
EDRD 611	Language, Literacy and Cognitive Development	3
EDSE 130	Student Teaching Application	
EDSE 507	Field-Based Experience	3
PSY 500	Educational Psychology for Teachers	3

##### Required Major Core Credits — 3 hours

SRM 600	Introduction to Graduate Research	3
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##### Required Emphasis Credits — 33 hours

EDSE 510	Foundations of Special Education	3
EDSE 511	Learning Environments and Cultural Considerations	3
EDSE 512	Assessment, IEP Development and Instructional Planning	3
EDSE 530	Family/Professional Partnerships	3
EDSE 531	Assessment and Planning in Early Childhood Special Education	3
EDSE 532	Typical and Atypical Early Child Development: Application to Early Childhood Special Education	3
EDSE 533	Curriculum and Instruction in Early Childhood Special Education	3
EDSE 534	Research, Policy, and Advocacy in Early Childhood Special Education	3
EDSE 537	Practicum in EC/ESCE: Infants and Toddlers	2
EDSE 538	Practicum in EC/ECSE: 3-5 years	2
EDSE 539	Practicum in EC/ECSE: 5-8 years	2
EDSE 616	Scientifically Based Literacy Interventions	3

Teacher education and educator preparation licensure programs do not accept Professional Teacher Education

Program (PTEP) or field based courses that are more than ten years old. PLEASE NOTE: Teacher Candidates have the right to petition this policy at the discretion of the program coordinator.

## SPECIAL EDUCATION M.A. — GENERALIST EMPHASIS

### College of Education and Behavioral Sciences

#### Degree Requirements — 33-45 Credits

See “Special Education M.A.” (p. 205).

**NOTE:** Students admitted to one of the Master of Arts degree programs in Special Education without teacher licensure are obliged to complete additional (separate) Professional Teacher Education Program (PTEP) admission and course requirements.

#### DEGREE REQUIREMENTS

##### Required Professional Teacher Education Program Courses for Initial Teacher Licensure Graduate

##### Students — 12 credit hours

EDF 500	Conceptions of Schooling	3
EDFE 125	Application for Graduate Licensure Admission to PTEP	
EDRD 611	Language, Literacy and Cognitive Development	3
EDSE 130	Student Teaching Application	
EDSE 507	Field-Based Experience	3
PSY 500	Educational Psychology for Teachers	3

##### Required Major Core Credits — 3 hours

SRM 600	Introduction to Graduate Research	3
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##### Required Emphasis Credits — 30 hours

EDSE 510	Foundations of Special Education	3
EDSE 511	Learning Environments and Cultural Considerations	3
EDSE 512	Assessment, IEP Development and Instructional Planning	3
EDSE 613	Applied Assessment	3
EDSE 614	Behavioral Interventions	3
EDSE 616	Scientific Based Literacy Interventions	3
EDSE 617	Mathematics and Content Area Learning for Students with Disabilities	3
EDSE 618	Educating Students with Significant Support Needs	3
EDSE 619	Secondary Services	3
EDSE 693	Practicum in Special Education	3-12

EDSE 693: Take 3 hours

Teacher education and educator preparation licensure programs do not accept Professional Teacher Education Program (PTEP) or field based courses that are more than ten years old. PLEASE NOTE: Teacher Candidates have the right to petition this policy at the discretion of the program coordinator.

## SPECIAL EDUCATION M.A. — GIFTED AND TALENTED EDUCATION EMPHASIS

### College of Education and Behavioral Sciences

#### Degree Requirements — 36 Credits

See “Special Education M.A.” (p. 205).

**NOTE:** 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.

#### DEGREE REQUIREMENTS

##### Required Major Core Credits — 3 hours

SRM 600	Introduction to Graduate Research	3
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##### Emphasis Requirements — 33 hours

EDSE 682	Foundations in Gifted Education	3
EDSE 683	The Gifted Learner: Nature and Needs	3
EDSE 684	Assessment and Identification in Gifted Education	3
EDSE 685	Curriculum & Instructional Practice in Gifted Education	3
EDSE 686	Emotional and Social Development of the Gifted and Talented	3
EDSE 687	Program Strategies and Services for the Gifted and Talented	3
EDSE 688	Communication and Leadership in Gifted Education	3
EDSE 689	Creativity in Gifted Education	3
EDSE 690	Highest Levels of Learning for the Gifted and Talented	3
EDSE 691	Practicum in Teaching the Gifted and Talented	1-12

EDSE 691: Take 6 hours

The student must possess a current teaching license, 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.

**SPECIAL EDUCATION M.A. —  
INTERVENTION SPECIALIST: ACADEMIC  
COACHING AND LEADERSHIP  
EMPHASIS**

**College of Education and Behavioral Sciences**

**Degree Requirements — 34 - 42 credit hours**

See “Special Education M.A.” (p. 205).

**DEGREE REQUIREMENTS**

**Required Major Core Credits — 3 credit hours**

SRM 600	Introduction to Graduate Research	3
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**Required Emphasis Credits — 31-39 credit hours**

EDSE 670	Legal and Policy Foundations of Special Education	3
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EDSE 672	Leadership in the School Community	3
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EDSE 673	Research and Reflective Practice	3
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EDSE 675	Issues in Special Education Assessment	3
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EDSE 676	Assessment and Interventions for Students with Challenging Behaviors	3
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EDSE 677	Transition to Adulthood for Youth with Exceptionalities	3
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EDSE 678	Strategies for Students with Autism/Significant Needs	3
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EDSE 679	Interventions for Students with Cultural and Linguistic Differences	3
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EDSE 696	Practicum in Instructional Coaching	1-9
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EED 610	Interventions in Literacy	3
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MED 645	Interventions in Mathematics	3
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Total Credit hours 31-39

**SPECIAL EDUCATION M.A. —  
INTERVENTION SPECIALIST: APPLIED  
BEHAVIOR ANALYSIS EMPHASIS**

**College of Education and Behavioral Sciences**

**Degree Requirements — 31 Credits**

See “Special Education M.A.” (p. 205).

**Note:** The coursework can be completed in two years and all coursework is offered completely online. The program prepares students to sit for the examination to become a Board Certified Behavior Analyst (BCBA). Students who are interested in taking the BCBA exam must have at least a master's degree and supervision from another person who is a BCBA by the time they sit for the exam.

**DEGREE REQUIREMENTS**

**Required Major Core Credits — 3 hours**

SRM 600	Introduction to Graduate Research	3
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**Required Emphasis Credits — 28 hours**

APCE 628	Concepts and Principles of Applied Behavior Analysis	3
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APCE 629	Measurement and Experimental Design in Applied Behavior Analysis	3
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APCE 631	Applied Behavior Analysis II	3
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EDSE 630	Applied Behavior Analysis I	3
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EDSE 632	Ethics in Applied Behavior Analysis	3
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EDSE 633	Applications of Applied Behavior Analysis	4
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EDSE 670	Legal and Policy Foundations of Special Education	3
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EDSE 672	Leadership in the School Community	3
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EDSE 673	Research and Reflective Practice	3
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## SPECIAL EDUCATION M.A. — VISUAL IMPAIRMENT EMPHASIS

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### College of Education and Behavioral Sciences

#### Degree Requirements — 45-57 Credits

See “Special Education M.A.” (p. 205).

**NOTE:** Students admitted to one of the Master of Arts degree programs in Special Education without teacher licensure are obliged to complete additional (separate) Professional Teacher Education Program (PTEP) admission and course requirements.

#### DEGREE REQUIREMENTS

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##### Required Professional Teacher Education Program Courses for Initial Teacher Licensure Graduate

##### Students — 12 credit hours

EDF 500	Conceptions of Schooling	3
EDFE 125	Application for Graduate Licensure Admission to PTEP	
EDRD 611	Language, Literacy and Cognitive Development	3
EDSE 130	Student Teaching Application	
EDSE 507	Field-Based Experience	3
PSY 500	Educational Psychology for Teachers	3

##### Required Major Core Credits — 3 hours

SRM 600	Introduction to Graduate Research	3
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##### Required Emphasis Credits — 42 hours

EDSE 510	Foundations of Special Education	3
EDSE 511	Learning Environments and Cultural Considerations	3
EDSE 512	Assessment, IEP Development and Instructional Planning	3
EDSE 541	Introduction to Visual Impairments and Deaf-Blindness	3
EDSE 543	Braille Codes and Formats	3
EDSE 546	Principles of Orientation and Mobility	3
EDSE 548	Medical and Educational Implications of Visual Impairments	3
EDSE 549	Assessment of Students with Visual Impairments	3
EDSE 640	Methods of Teaching Students with Visual Impairment	3
EDSE 642	Advanced Seminar in Education of Students with Visual Impairments	3
EDSE 644	Practicum in Education of Students with Visual Impairments K-12, 6-12	6-12
EDSE 645	Advanced Braille Codes and Formats	3

See "Orientation and Mobility (O&M) Endorsement (p. 183)"

Teacher education and educator preparation licensure programs do not accept Professional Teacher Education Program (PTEP) or field based courses that are more than ten years old. PLEASE NOTE: Teacher Candidates have the right to petition this policy at the discretion of the program coordinator.



## SPEECH-LANGUAGE PATHOLOGY M.A. - ONLINE PROGRAM

### College of Natural and Health Sciences

#### Degree Requirements — 63-75 Credits

See “Audiology and Speech-Language Sciences” (p. 223).

#### DEGREE REQUIREMENTS

##### Select one of the following research courses (3 hours)

RCS 610	Interpretation and Evaluation of Behavioral Research	3
SRM 600	Introduction to Graduate Research	3

##### Complete the following courses (33 hours)

ASLS 516	Professional Issues in SLP	2
ASLS 555	Neuroanatomy and Neurophysiology of Communication	3
ASLS 563	Voice and Resonance Disorders	3
ASLS 571	Speech and Hearing Science	1-3
ASLS 655	Acquired Disorders of Language & Cognition	3
ASLS 656	Feeding and Swallowing Disorders: Lifespan	2
ASLS 657	Motor Speech Disorders: Lifespan	2
ASLS 658	Assistive Technology for Communication Disorders	2
ASLS 661	Articulation and Phonological Disorders in Children	3
ASLS 664	Fluency Disorders	3
ASLS 682	Language Disorders in Early Childhood and Preschool	3
ASLS 684	Disorders of Language & Literacy: School-Age and Adolescent	3

ASLS 571: Take 3 hours of lecture and 1 hour of laboratory

##### Research Courses (4 hours)

ASLS 515	Foundations of Research and Writing	1
ASLS 615	Research in Audiology and Speech-Language Pathology	1-4
ASLS 686	Capstone in Speech-Language Pathology	2

ASLS 615: Take 1 hour

##### Clinical Practicum — 14-19 hours

ASLS 474	Clinical Practicum in Audiology	1
ASLS 567	Diagnostic Procedures: Introduction	1-2
ASLS 568	Diagnostic Procedures: Intermediate	1-2
ASLS 569	Advanced Diagnostic Procedures	1-2
ASLS 583	Clinical Practicum: Introduction	1-2

ASLS 585	Clinical Practicum in Speech-Language Pathology: Intermediate	1-2
ASLS 586	Clinical Practicum in Speech-Language Pathology: Intermediate/Advanced	2
ASLS 588	Clinical Practicum in Speech-Language Pathology: Advanced	2

ASLS 567: Take 2 hours

ASLS 568: Take 2 hours

ASLS 569: Take 2 hours

ASLS 583: Take 2 hours

ASLS 585: Take 2 hours

The primary purpose of clinical practica is to help students become competent in the assessment and treatment of various communication disorders. For this reason, students are required to be continuously enrolled in practicum courses during their graduate work. Clinic clock hours obtained through practicum courses will be used to help students meet the American Speech-Language-Hearing Association (ASHA) clock-hour requirements in certain clinical categories. In some cases, students may have completed clinical hours during their undergraduate work. If so, they may petition through the Clinic Coordinator to not enroll in certain practicum (ASLS 474). Additionally, in some cases students may need additional clinical clock hours and experience as determined by the Clinic Coordinator. In such instances, they may repeat ASLS 585, ASLS 567, ASLS 568, and/or ASLS 569. See the program handbook for more information.

##### Internships — 9-18 hours

Must be arranged by internship coordinator.

ASLS 592	Internship in Public Schools	2-15
ASLS 692	Internship in Medical Settings	2-16

All SLP graduate students must satisfy requirements in public school student teaching and medical internships. The online program is designed to be completed while students are currently employed in a public school setting that provides on-site mentorship with an ASHA certified supervisor. The public school internship requirement is generally satisfied when students complete their employment/practicum. In the rare occasion a student has not met the public school requirements through their program, they will be required to complete both a public school student teaching and a medical internship. The Graduate Coordinator in conjunction with the Clinic Coordinator must approve the student's internship plan. Please see the program handbook for more information. Students, who complete this program and who pass the Praxis and clinical fellowship, are eligible for the Certificate of Clinical Competence in Speech-Language Pathology from the American Speech-Language-Hearing Association (ASHA) and for licensure from the Colorado

Department of Education. Eight weeks of internship in public schools are required to be eligible 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.

Satisfactory performance on culminating activity/activities approved by program faculty, in accordance with Graduate School policy, satisfies the completion of the comprehensive exam and is required to complete the M.A. Program.

## SPEECH-LANGUAGE PATHOLOGY M.A. - RESIDENTAL PROGRAM

### College of Natural and Health Sciences

#### Degree Requirements — 61-75 Credits

See “Audiology and Speech-Language Sciences” (p. 223).

#### DEGREE REQUIREMENTS

##### Select one of the following research courses (3 hours)

RCS 610	Interpretation and Evaluation of Behavioral Research	3
SRM 600	Introduction to Graduate Research	3

##### Complete the following courses (33 hours)

ASLS 516	Professional Issues in SLP	2
ASLS 555	Neuroanatomy and Neurophysiology of Communication	3
ASLS 563	Voice and Resonance Disorders	3
ASLS 571	Speech and Hearing Science	1-3
ASLS 655	Acquired Disorders of Language & Cognition	3
ASLS 656	Feeding and Swallowing Disorders: Lifespan	2
ASLS 657	Motor Speech Disorders: Lifespan	2
ASLS 661	Articulation and Phonological Disorders in Children	3
ASLS 664	Fluency Disorders	3
ASLS 682	Language Disorders in Early Childhood and Preschool	3
ASLS 684	Disorders of Language & Literacy: School-Age and Adolescent	3
ASLS 658	Assistive Technology for Communication Disorders	2

ASLS 571: Take 3 hours of lecture and 1 hour of laboratory

##### Research Courses (3 hours)

ASLS 615	Research in Audiology and Speech-Language Pathology	1-4
ASLS 686	Capstone in Speech-Language Pathology	2

ASLS 615: Take 1 hour

##### Clinical Practicum — 10-15 hours

ASLS 474	Clinical Practicum in Audiology	1
ASLS 567	Diagnostic Procedures: Introduction	1-2
ASLS 568	Diagnostic Procedures: Intermediate	1-2
ASLS 569	Advanced Diagnostic Procedures	1-2
ASLS 580	Practicum in Rehabilitative Audiology	1-2
ASLS 583	Clinical Practicum: Introduction	1-2

ASLS 585	Clinical Practicum in Speech-Language Pathology: Intermediate	1-2
ASLS 586	Clinical Practicum in Speech-Language Pathology: Intermediate/Advanced	2
ASLS 588	Clinical Practicum in Speech-Language Pathology: Advanced	2

ASLS 567: Take 1 hour

ASLS 568: Take 1 hour

ASLS 569: Take 1 hour

ASLS 583: Take 1 hour

ASLS 585: Take 2 hours

The primary purpose of clinical practica is to help students become competent in the assessment and treatment of various communication disorders. For this reason, students are required to be continuously enrolled in practicum courses during their graduate work. Clinic clock hours obtained through practicum courses will be used to help students meet the American Speech-Language-Hearing Association (ASHA) clock-hour requirements in certain clinical categories. In some cases, students may have completed clinical hours during their undergraduate work. If so, they may petition through the Clinic Coordinator to not enroll in certain practicum (ASLS 580 and/or ASLS 474). Additionally, in some cases students may need additional clinical clock hours and experience as determined by the Clinic Coordinator. In such instances, they may repeat ASLS 585, ASLS 567, ASLS 568, and/or ASLS 569. See the program handbook for more information.

##### Internships — 12-24 hours

Students must take both internships.

Must be arranged by internship coordinator.

ASLS 592	Internship in Public Schools	2-15
ASLS 692	Internship in Medical Settings	2-16

ASLS 592: Take a minimum of 6 hours.

ASLS 692: Take a minimum of 6 hours.

##### Thesis Option (Elective Credit Hours - 9)

Students who elect to complete a thesis may be exempted from one of the internships with the consent of their academic advisor. In addition to the requirements above, they must complete the following:

ASLS 699	Thesis: Communication Disorders	1-6
SRM 602	Statistical Methods I or Other statistics course approved by advisor	3

Students, who complete this program and who pass the Praxis exam and clinical fellowship, are eligible for the Certificate of Clinical Competence in Speech-Language

Pathology from the American Speech-Language-Hearing Association (ASHA) and for licensure from the Colorado Department of Education. Eight weeks of internship in public schools are required to be eligible 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.

Satisfactory performance on culminating activity/activities approved by program faculty, in accordance with Graduate School policy, satisfies the completion of the comprehensive exam and is required to complete the M.A. Program.

## SPORT AND EXERCISE SCIENCE M.S. — BIOMECHANICS EMPHASIS

### College of Natural and Health Sciences

#### Degree Requirements — 33 Credits

See “Sport and Exercise Science M.S. (p. 233)”.

#### DEGREE REQUIREMENTS

##### Required Credits (18 hours)

SES 602	Introduction to Research in Sport and Exercise Science	3
SES 618	Biomechanics of Locomotion	3
SES 619	Advanced Biomechanics	3
SES 625	Laboratory Techniques in Exercise Science Research	3
SES 620	Neuromuscular Structure and Function	3
SRM 602	Statistical Methods I	3

SES 625: Laboratory Techniques in Biomechanics

##### Select two of the following courses (6 hours):

SES 550	Neural Aspects of Kinesiology	3
SES 624	Advanced Developmental Kinesiology	3
SES 626	Metabolism	3
SES 627	Muscle Physiology	3
SES 665	Advanced Sociological Kinesiology	3

##### Elective Credits (3-9 hours)

In consultation with a program advisor, students should choose elective credits and to satisfy the Thesis option or the Non-Thesis option. Courses not taken to meet the above requirement and courses taken from the list below of recommended elective can be used to meet the elective requirements. Other elective credits must have the approval of the program advisor.

##### The following courses are recommended to be used as electives

SES 622	Directed Studies	1-4
SES 632	Cardiovascular Physiology	3
SES 635	Exercise and Sports Psychology	3
SES 636	Motivation	3
SES 692	Graduate Internship in Sport and Exercise Science	1-6
FND 555	Nutrition for Fitness and Athletic Performance	3
SRM 603	Statistical Methods II	3

##### Thesis Option

##### SES 699 Thesis (6 Credits)

The thesis option may be included as elective hours within a student's program. The thesis option requires the completion of a research study, including problems

development with data collections and appropriate analysis. The thesis will be completed in a format consistent with UNC Graduate School guidelines. Students must request approval from their advisor to complete the Thesis and the Student's advisory and at least one additional UNC faculty member will comprise the thesis committee.

##### Non-Thesis Option

This option is dependent on each student. Students selecting this option may complete the National Strength and Conditioning Association's Strength and Conditioning Specialist certification and complete a graduate internship. *Certifications should be completed during the last semester of course work AND prior to the Graduate School's deadline for results of written comprehensive examination (see deadlines on Graduate Schools website).* Other options are available, but all options must be discussed and *APPROVED* but the program advisor.

## SPORT AND EXERCISE SCIENCE M.S. — EXERCISE PHYSIOLOGY EMPHASIS

### College of Natural and Health Sciences

#### Degree Requirements — 33 Credits

See “Sport and Exercise Science M.S. (p. 233)”.

#### DEGREE REQUIREMENTS

##### Required Credits (21 hours)

SES 505	Ex Program Cancer Patient or	3
SES 510	Electrocardiography	3
SES 602	Introduction to Research in Sport and Exercise Science	3
SES 625	Laboratory Techniques in Exercise Science Research	3
SES 626	Metabolism	3
SES 627	Muscle Physiology	3
SES 632	Cardiovascular Physiology	3
SRM 602	Statistical Methods I	3

SES 625: Laboratory Techniques in Exercise Physiology

##### Elective Credits (6-12 hours)

Elective credits must have the approval of the program advisor and must satisfy the Thesis option or the non-Thesis option. Courses used as a part of the emphasis requirements may not also be used as electives.

##### The following courses are recommended electives:

SES 505	Ex Program Cancer Patient	3
SES 510	Electrocardiography	3
SES 550	Neural Aspects of Kinesiology	3
SES 619	Advanced Biomechanics	3
SES 620	Neuromuscular Structure and Function	3
SES 692	Graduate Internship in Sport and Exercise Science	1-6
BIO 547	Immunology and Disease	4
BIO 550	Cell Physiology	3
BIO 552	Mammalian Physiology I	3
BIO 553	Mammalian Physiology II	3
BIO 556	Current Topics in Biomedical Research	2
BIO 576	Pharmacology	3
BIO 582	Cancer Biology	3
CHEM 581	General Biochemistry I	4
CHEM 582	General Biochemistry II	4
FND 555	Nutrition for Fitness and Athletic Performance	3

##### Thesis Option

##### SES 699 - Thesis (6 Credits)

The thesis option may be included as elective hours within a student's program. The thesis option requires the completion of a research study, including problems

development with data collections and appropriate analysis. The thesis will be completed in a format consistent with UNC Graduate School guidelines. Students must request approval from their advisor to complete the Thesis and the Student's advisory and at least one additional UNC faculty member will comprise the thesis committee.

##### Non-Thesis Option

This option is dependent on each student. Students selecting this option may complete the National Strength and Conditioning Association's Strength and Conditioning Specialist certification and complete a graduate internship. *Certifications should be completed during the last semester of course work AND prior to the Graduate School's deadline for results of written comprehensive examination (see deadlines on Graduate Schools website).* The specified certification must be one of the following:  
 \* American College of Sports Medicine's Health Fitness Specialist  
 \* American College of Sports Medicine's Clinical Exercise Specialist  
 \* American College of Sports Medicine's Registered Clinical Exercise Physiologist  
 \* American College of Sports Medicine's Cancer Exercise Trainer  
 \* National Strength and Conditioning Association's Strength and Conditioning Specialist Certification

**SPORT AND EXERCISE SCIENCE M.S. —  
SOCIAL PSYCHOLOGY OF SPORT AND  
PHYSICAL ACTIVITY EMPHASIS**

**College of Natural and Health Sciences**

**Degree Requirements — 33 Credits**

See “Sport and Exercise Science M.S.” (p. 233).

**DEGREE REQUIREMENTS**

**Required Credits (21 hours)**

SES 602	Introduction to Research in Sport and Exercise Science	3
SES 624	Advanced Developmental Kinesiology	3
SES 625	Laboratory Techniques in Exercise Science Research	3
SES 636	Motivation	3
SES 635	Exercise and Sports Psychology	3
SES 665	Advanced Sociological Kinesiology	3
SRM 602	Statistical Methods I	3
SES 625:	Laboratory Techniques in Social Psychology of Sport and Physical Activity	

**Select one of the following courses (3 credits)**

SES 619	Advanced Biomechanics	3
SES 620	Neuromuscular Structure and Function	3
SES 626	Metabolism	3

**Elective Credits (3-9 hours)**

Elective credits must have the approval of the program advisor and must satisfy the Thesis option or the Non-Thesis option.

**The following courses are recommended electives:**

GERO 625	Psychosocial Aspects of Aging	3
PSY 550	Cognitive Development	3
PSY 627	Psychometrics	3
PSY 664	Advanced Social Psychology	3
SES 680	Perspectives in Sport Pedagogy	3
SOC 532	Social Psychology of Group Dynamics	3
SRM 680	Introduction to Qualitative Research	3

**Thesis Option**

**SES 699 Thesis (6 Credits)**

The thesis option may be included as elective hours within a student's program. The thesis option requires the completion of a research study, including problems development with data collections and appropriate analysis. The thesis will be completed in a format consistent with UNC Graduate School guidelines. Students must request approval from their advisor to complete the Thesis and the Student's advisory and at least one

additional UNC faculty member will comprise the thesis committee.

**Non-Thesis Option**

The Comprehensive Examination must be completed by those students who do not complete the thesis. The comprehensive examination will consist of a written portion, which will be sequestered. Comprehensive examination questions will be focused primarily on content addressed in the Social Psychology of Sport and Physical Activity emphasis area. However, content from required research courses and from the students elective coursework will also be included. It should be understood that the comprehensive examination and the thesis are intended to be of similar difficulty.

**SPORT AND EXERCISE SCIENCE M.S. —  
SPORT ADMINISTRATION EMPHASIS**

**College of Natural and Health Sciences**

**Degree Requirements — 30 Credits**

See “Sport and Exercise Science M.S.” (p. 233).

**DEGREE REQUIREMENTS**

**Required Emphasis Credits — 21 hours**

SES 560	Issues and Ethics in Sport Management	3
SES 570	Program Management	3
SES 576	Sport Promotion and Marketing	3
SES 602	Introduction to Research in Sport and Exercise Science	3
SES 675	Management of Sports Facilities and Equipment	3
SES 676	Sport Public Relations and Information Systems	3
SES 688	Legal Aspects of Sport	3

**Elective Credits — 3-9 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.

SES 622	Directed Studies	1-4
SES 650	Financial Management for Sport Organizations	3
SES 670	Sport and Higher Education	3
SES 678	Event Development and Management	3
SES 692	Graduate Internship in Sport and Exercise Science	1-6

**NOTE:** SES 692 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 SES 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**

**SES 699 Thesis (6 Credits)**

The thesis option may be included as elective hours within a student's program. The thesis option requires the completion of a research study, including problems development with data collections and appropriate analysis. The thesis will be completed in a format consistent with UNC Graduate School guidelines. Students must request approval from their advisor to complete the Thesis and the Student's advisory and at least one

additional UNC faculty member will comprise the thesis committee.

**Non-Thesis Option**

The Comprehensive Examination must be completed by all students who do not elect the thesis option. The comprehensive examination will consist on a non-sequestered written literature review and analysis paper. The written literature review will be focused on the content addressed in the Sport Administration emphasis.



## SPORT AND EXERCISE SCIENCE M.S. — SPORT PEDAGOGY EMPHASIS

### College of Natural and Health Sciences

#### Degree Requirements — 33 Credits

See “Sport and Exercise Science M.S.” (p. 233).

#### DEGREE REQUIREMENTS

##### Required Emphasis Credits — 27 hours

SES 602	Introduction to Research in Sport and Exercise Science	3
SES 603	Professional Development Seminar	3
SES 612	Assessment in Sport Pedagogy	3
SES 614	Analysis of Teaching in Physical Education	3
SES 628	Adventure Education	3
SES 640	Curriculum in Physical Education	3
SES 643	Instructional Strategies for K-12 Physical Education	3
SES 645	Supervision in K-12 Physical Education	3
SES 680	Perspectives in Sport Pedagogy	3

##### Elective Credits — 6 hours

#### Select one of the following options:

##### Thesis Option

##### SES 699 Thesis (6 Credits)

The thesis option may be included as elective hours within a student's program. The thesis option requires the completion of a research study, including problems development with data collections and appropriate analysis. The thesis will be completed in a format consistent with UNC Graduate School guidelines. Students must request approval from their advisor to complete the Thesis and the Student's advisory and at least one additional UNC faculty member will comprise the thesis committee.

##### Non-Thesis Option

Students selecting this option must complete a written project and a corresponding oral presentation. Project topic must be per-approved but his/her designated M.S. Advisor. Contact the Program Coordinator if an M.S. Advisor had not been designated.

## SPORTS COACHING M.A.

### College of Natural and Health Sciences

#### Degree Requirements — 30 Credits

See “Sports Coaching M.A.” (p. 234).

#### DEGREE REQUIREMENTS

##### Required Courses

SES 582	Psychology for Sports Coaches	3
SES 583	International Perspectives of Sports Coaching	3
SES 584	Sport Administration for Sports Coaches	3
SES 585	Introduction to Sports Injuries for Coaches	2
SES 586	Training and Conditioning Principles for Sports Coaches	3
SES 587	Sports Coaching Principles and Perspectives	3
SES 588	Evaluation of Coaching using Technology	3
SES 589	Bridging Theory and Practice in Sports Coaching	3
SES 604	Teacher and Coach Action Research	3
SES 692	Graduate Internship in Sport and Exercise Science	1-6

**NOTE:** There are no endorsements or licenses associated with this degree.

*Portfolio.* In lieu of a comprehensive exam or thesis, all students must develop and present a portfolio that displays successful incorporation of the theoretical and foundational aspects of effective coaching. Public exhibition of the portfolio before an audience of faculty and students is required.

## TEACHING AMERICAN SIGN LANGUAGE M.A.

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### College of Education and Behavioral Sciences

#### Degree Requirements — 30 Credits

See "Teaching American Sign Language M.A. (p. 192)"

#### DEGREE REQUIREMENTS

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##### Required Major Core Credits - 3 credit hours

SRM 600	Introduction to Graduate Research	3
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##### Required Emphasis Credits - 27 credit hours

TASL 501	First and Second Language Acquisition in ASL	3
TASL 502	ASL Teaching Methods	3
TASL 503	ASL Assessment and Testing	3
TASL 504	ASL Curriculum Development and Design	3
TASL 505	Teaching Deaf Community, Culture, and ASL Literature	3
TASL 506	Contemporary Professional Issues in Teaching ASL	3
TASL 507	ASL Research Methods	3
TASL 593	Practicum for ASL Teaching I	3
TASL 594	Practicum for ASL Teaching II	3

Although all applicants will undergo an informal screening for the application process, all students will be required to submit the results of their American Sign Language Proficiency Interview (ASLPI) prior to the practicum courses, TASL 593 and TASL 594.

All students are expected to complete two teaching practica experiences, a portfolio, and a research project as part of their graduation requirements.

## TEACHING AMERICAN SIGN LANGUAGE M.A.: LICENSURE: WORLD LANGUAGES (GRADES K-12)

### College of Education and Behavioral Sciences

#### Degree Requirements — 42 Credits

See Teaching American Sign Language M.A.: Licensure: World Languages (Grades K-12) (p. 192)

#### DEGREE REQUIREMENTS

##### Required Professional Teacher Education Program Courses for Initial Teacher Licensure Graduate Students - 12 credit hours

EDF 500	Conceptions of Schooling	3
EDFE 125	Application for Graduate Licensure Admission to PTEP	
EDRD 523	Reading and Writing in the Content Areas	3
EDSE 509	Strategies for Students with Exceptionalities	3
PSY 500	Educational Psychology for Teachers	3

##### Required Major Core Credits - 3 credit hours

SRM 600	Introduction to Graduate Research	3
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##### Required Emphasis Credits - 27 credit hours

TASL 501	First and Second Language Acquisition in ASL	3
TASL 502	ASL Teaching Methods	3
TASL 503	ASL Assessment and Testing	3
TASL 504	ASL Curriculum Development and Design	3
TASL 505	Teaching Deaf Community, Culture, and ASL Literature	3
TASL 506	Contemporary Professional Issues in Teaching ASL	3
TASL 507	ASL Research Methods	3
TASL 593	Practicum for ASL Teaching I	3
TASL 594	Practicum for ASL Teaching II	3

Although all applicants will undergo an informal screening for the application process, all students will be required to submit the results of their American Sign Language Proficiency Interview (ASLPI) prior to the practicum courses, TASL 593 and TASL 594. All students are expected to complete two teaching practica experiences, a portfolio, and a research project as part of their graduation requirements.

Teacher education and educator preparation licensure programs do not accept Professional Teacher Education Program (PTEP) or field based courses that are more than ten years old. PLEASE NOTE: Teacher Candidates have the right to petition this policy at the discretion of the program coordinator.

Teaching Diverse Learners M.A. — with dual endorsement in Special Education and Culturally and Linguistically Diverse Education

### College of Education and Behavioral Sciences

#### Degree Requirements — 33 Credits

See "Teaching Diverse Learners M.A. (p. 211)"

#### Admission Requirements:

- A valid elementary, secondary or early childhood Colorado General Education Teacher License
- A 3.0 GPA in the last 60 hours
- Three credits of approved literacy instruction (not a condition of admission and can be completed while completing program requirements)
- Evidence of familiarity with a second language (not a condition of admission and can be completed while completing program requirements)

#### DEGREE REQUIREMENTS

##### Required Credits — 33 hours

ECLD 592	Second Language Acquisition Theory	3
ECLD 594	Foundations of Language and Linguistics for ESL/Bilingual Educators	3
ECLD 596	Effective Instruction in Culturally and Linguistically Diverse Education	3
EDS 581	Basic Principles of CLD & SPED Education	3
EDS 582	Assessment: Special Education and Culturally and Linguistically Diverse Students	3
EDS 602	Graduate Research with Diverse Learners	3
EDS 603	Field Based Experience CLD/SPED	6
EDSE 597	Effective Instruction in Special Education	3
EDSE 614	Behavioral Interventions	3
EDSE 619	Secondary Services	3

## TECHNOLOGY, INNOVATION AND PEDAGOGY M.A.

### College of Education and Behavioral Sciences

#### Degree Requirements — 30 Credits

#### DEGREE REQUIREMENTS

##### Required Core

TIP 523	Innovative Pedagogy and Assessment	3
TIP 525	Learners and Curriculum in the Digital Age	3
TIP 527	Social Justice in the Digital Age	3
TIP 529	Instructional Design	3

##### Research Core

SRM 600	Introduction to Graduate Research	3
TIP 675	Innovating Education Culture: Research and Practice	3

##### Electives

Select 12 credits in collaboration with academic advisor

TIP 630	Trends and Issues in Instructional Design and Technology	3
TIP 631	Distance Education	3
TIP 633	Instructional Design Applications	3
TIP 635	Instructional Materials Development for Online Learning	3
TIP 640	Applications of Multiliteracies	3
TIP 641	Designing, Playing, and Learning	3
TIP 643	Alternative Instructional Formats	3
TIP 645	Children's Engineering and STEM	3

##### Additional Course Options

TIP 622	Directed Study	3
TIP 695	Special Topics in Technology, Innovation and Pedagogy	3

*NOTES: Students need to have completed the preparatory coursework prior to taking the comprehensive examination. In addition, the student's advisor signature is required on the Permission form to take Written Comprehensive Examination, which verifies that the student is cleared to take the comprehensive examination. Successful completion of the written comprehension exam is required to complete the Master of Arts program.*

Students may transfer up to 6 semester hours or 9 quarter hours of approved graduate level credit to the program from other accredited institutions. 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.

## THEATRE EDUCATION M.A. - THEATRE EDUCATOR INTENSIVE

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### College of Performing and Visual Arts

#### Degree Requirements — 36 Credits

This focused program consists of two three-week summer institutes for eighteen (18) credits - 9 each year - one three (3) credit 500 level or above approved UNC or transferable theatre course; three (3) three-credit on-line courses spread out over two academic years (graduate transfer credits may also apply), and six (6) credits of thesis advisement for a total of thirty-six (36) credits spread out over the course of two academic years and two summer sessions.

#### DEGREE REQUIREMENTS

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##### Required Courses — 33 credits

THED 530	Theatrical Production I	3
THED 531	Theatrical Production II	3
THED 540	Directing/Acting: Realism and Non-Realism/Period Styles	3
THED 541	Directing/Acting: Musical Theatre	3
THED 560	Innovative Strategies in Drama Education	3
THED 561	Voice and Movement	3
THED 600	Dramaturgy/Research Methodology	3
THED 670	Advocacy, History, and Philosophy of Theatre Education	3
THED 680	Theatre Education Curriculum Development	3
THED 690	Thesis I	3
	or	
THED 696	Action Research I	3
THED 699	Thesis II	3
	or	
THED 697	Action Research II	3

##### Theatre Electives — 3 credits

Approved 500 or 600 Level Theatre Course	3
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The Coordinator of the M.A. in Theatre Education: Theatre Educator Intensive program will assign each student an academic advisor and a graduate committee. The academic advisor will serve as the chair of the graduate committee.

It is recommended that students have a graduate committee review each semester. The student will discuss the graduate review with the academic advisor and the Coordinator of the M.A. in Theatre Education: Theatre Educator Intensive program. The student will assume responsibility for scheduling graduate reviews. Two unsuccessful graduate reviews will be considered grounds for termination of the program. In conjunction with THED 690 or THED 696 and THED 699 or THED 697, the student will prepare and submit a written thesis or action

research proposal. Prior to beginning work on the thesis, the thesis proposal must be approved by all members of the student's graduate committee.

A written research thesis or action research project is required of all Master of Arts degree candidates in the School of Theatre Arts and Dance. In conjunction with the required written research thesis, graduate students are required to direct a thesis production.

Upon completion of the program, the student will be required to demonstrate competence in the designated area of concentration in accordance with approved school standards. The student's committee must approve the candidate for graduation.

## Educational Specialist Degrees

### EDUCATIONAL LEADERSHIP ED.S.

#### College of Education and Behavioral Sciences

##### Degree Requirements — 30 Credits

See "Educational Leadership Ed.S." (p. 200).

#### DEGREE REQUIREMENTS

##### Research — 3 hours

Select one of the following courses:

PSY 674	Measurement I: Educational Testing	3
SRM 602	Statistical Methods I	3
SRM 670	Evaluation: Models and Designs	3
SRM 680	Introduction to Qualitative Research	3

##### Educational Leadership Courses — 15 hours

##### ELPS or HESA Prefix Courses (15 hours)

##### Field-Based Learning — 3 hours

Select from among the following courses:

ELPS 606	Internship in Educational Leadership	1- 9
ELPS 695	Practicum in Educational Leadership	1- 3
HESA 670	Internship in Higher Education and Student Affairs Leadership	6
HESA 675	Field Experience in Student Affairs	1- 3

##### Electives — 9 hours

Courses Fulfilling Professional Needs and Interests	9
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**NOTE:** Satisfactory performance on a concluding activity approved by division faculty, in accordance with Graduate School policy, must be demonstrated.

### EDUCATIONAL LEADERSHIP AND SPECIAL EDUCATION ADMINISTRATION ED.S.

#### College of Education and Behavioral Sciences

##### Degree Requirements — 39 Credits

See "Educational Leadership and Special Education Administration Ed.S." (p. 200) under Educational Leadership and Policy Studies, or in the School of Special Education (p. 207)

#### DEGREE REQUIREMENTS

##### Research — 3 hours

SRM 670	Evaluation: Models and Designs	3
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##### Educational Leadership Courses — 21 hours

ELPS 601	Leadership Development Through Inquiry	3
ELPS 603	Shaping Organizations: Management and Leadership in Education	3
ELPS 604	Understanding People: Professional Development and Educational Leadership	3
ELPS 650	School Finance and Budgeting	3
ELPS 654	Instructional Leadership and Supervision	3
ELPS 660	Law and the Administrator	3
ELPS 670	The Principalship: Leadership at the School Site Level	3

##### Special Education Administration Courses — 9 hours

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

##### Field-based Learning — 6 hours

ELPS 606	Internship in Educational Leadership	1- 9
EDSE 697	Externship in Special Education: Administration	1-12

**NOTE:** Satisfactory performance on a concluding activity demonstrating attainment of program outcomes and approved by faculty, in accordance with Graduate School policy, must be demonstrated.

**SCHOOL PSYCHOLOGY ED.S.****College of Education and Behavioral Sciences****Degree Requirements — 71 Credits**

See “School Psychology Ed.S.” (p. 204).

The Ed.S program is approved by the National Association of School Psychologists.

See “School Psychology Admission Requirements” (p. 204).

**DEGREE REQUIREMENTS****Required Major Credits — 71 credits****Psychological and Educational Foundations (43 hours)**

APCE 607	Theories of Counseling	3
APCE 625	Applied Developmental Science	3
APCE 628	Concepts and Principles of Applied Behavior Analysis	3
APCE 629	Measurement and Experimental Design in Applied Behavior Analysis	3
APCE 640	School-Based Psychological Consultation	3
APCE 655	Family, School, and Community Contexts	3
APCE 656	Systems-Based Behavioral Health	3
APCE 667	Intervening with Trauma and Crisis in the Schools	3
APCE 670	Principles of Psychometrics and Assessment	3
APCE 747	Psychological Aspects of Academic Programming and Intervention	3
APCE 758	Advanced Psychopathology	3
APCE 763	Legal and Professional Foundations of School Psychology	4
APCE 781	Evaluation of Psychological Services	3
EDSE 630	Applied Behavior Analysis I	3

**Applied Practice in School Psychology (19 hours)**

APCE 618	Practicum in Child, Adolescent, and Family Interventions	5
APCE 644	Assessment I: Cognitive and Academic Functioning	5
APCE 645	Social and Behavioral Assessment in the Schools	3
APCE 779	Practicum in School Psychology	1-3

APCE 779: Must complete 6 credits over the academic year.

**Multicultural Understanding (3 hours)**

APCE 623	Understanding and Counseling Diverse Populations	3
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**Supervised Field Work (6 hours)**

APCE 789	Internship in School Psychology	1-8
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APCE 789: A minimum of 6 credits must be taken, 2 credits across three semesters.

A written comprehensive examination is a program requirement, and it is satisfied by achieving a score of 147 or higher on the National School Psychology Exam.

**SCHOOL PSYCHOLOGY ED.S. —  
APPLIED BEHAVIOR ANALYSIS  
EMPHASIS**

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**College of Education and Behavioral Sciences**

**Degree Requirements — 78 Credits**

See “School Psychology Ed.S.” (p. 204).

The Ed.S program is approved by the National Association of School Psychologists.

See “School Psychology Admission Requirements” (p. 204).

**DEGREE REQUIREMENTS**

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**Required Major Credits — 78 credits**

**Psychological and Educational Foundations (31 hours)**

APCE 607	Theories of Counseling	3
APCE 625	Applied Developmental Science	3
APCE 640	School-Based Psychological Consultation	3
APCE 655	Family, School, and Community Contexts	3
APCE 656	Systems-Based Behavioral Health	3
APCE 667	Intervening with Trauma and Crisis in the Schools	3
APCE 670	Principles of Psychometrics and Assessment	3
APCE 747	Psychological Aspects of Academic Programming and Intervention	3
APCE 758	Advanced Psychopathology	3
APCE 763	Legal and Professional Foundations of School Psychology	4

**Applied Behavior Analysis Core (19 hours)**

APCE 628	Concepts and Principles of Applied Behavior Analysis	3
APCE 629	Measurement and Experimental Design in Applied Behavior Analysis	3
APCE 631	Applied Behavior Analysis II	3
EDSE 630	Applied Behavior Analysis I	3
EDSE 632	Ethics in Applied Behavior Analysis	3
EDSE 633	Applications of Applied Behavior Analysis	4

**Applied Practice in School Psychology (19 hours)**

APCE 618	Practicum in Child, Adolescent, and Family Interventions	5
APCE 644	Assessment I: Cognitive and Academic Functioning	5
APCE 645	Social and Behavioral Assessment in the Schools	3
APCE 779	Practicum in School Psychology	1- 3

APCE 779: Must complete 6 credits over the academic year.

**Multicultural Understanding (3 hours)**

APCE 623	Understanding and Counseling Diverse Populations	3
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**Supervised Field Work (6 hours)**

APCE 789	Internship in School Psychology	1- 8
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APCE 789: A minimum of 6 credits must be taken, 2 credits across three semesters.

A written comprehensive examination is a program requirement, and it is satisfied by achieving a score of 147 or higher on the National School Psychology Exam.



## Doctoral Degrees

### APPLIED STATISTICS AND RESEARCH METHODS PH.D.

#### College of Education and Behavioral Sciences

##### Degree Requirements — 64 Credits

See “Applied Statistics and Research Methods Ph.D.” (p. 196).

The Doctor of Philosophy degree program focus is on the application of statistical concepts, research design, and general research methodology to the solution of practical problems in a variety of disciplines including: education, mental health, business, and public health.

##### Master’s en route to the Ph.D.

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 64 hours required for the Ph.D. The student must be conferred with the M.S. degree prior to admission to doctoral candidacy.

#### DEGREE REQUIREMENTS

##### Required Major Credits — 3 hours

SRM 689	Internship in Applied Statistics	1-10
SRM 689: Take 3		

##### Complete one of the following Concentration Areas:

##### Applied Statistics Concentration — 33 hours

SRM 606	Multiple Linear Regression Analysis	3
SRM 607	Non-Parametric Statistics	3
SRM 609	Sampling Methods	3
SRM 614	Linear Models	3
SRM 636	Applied Bayesian Statistics	3
SRM 637	Applied Time Series Analysis	3
SRM 645	Statistical Process Control	3
SRM 731	Multivariate Analysis	3
SRM 752	Statistical Inference	4
	Elective Credits	5

##### Research Methods Concentration — 33 hours

##### Required Research Methods Core (all students in the PhD Research Methods Concentration) (11 hours)

SRM 521	Statistical Computing with SPSS	1
SRM 519	Qualitative Analysis Software	1
	or	
SRM 522	Introduction to R	1
SRM 627	Survey Research Methods	3
SRM 660	Mixed Methods Research	3

SRM 770	Evaluation: Advanced Methods	3
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##### Research Methods Area of Specialization (Choose one)

##### Quantitative Research Methods (22 hours)

SRM 610	Statistical Methods III	3
SRM 625	Applied Multiple Regression Analysis	3
SRM 626	Applied Multilevel Modeling	3
SRM 629	Structural Equation Modeling	3
	Choose 3 credits from one of the following:	
SRM 685	Educational Ethnography	3
	or	
SRM 686	Qualitative Case Study Research	3
	or	
SRM 687	Narrative Inquiry	3
	Elective Credits	7

##### Qualitative Research Methods Specialization (22 hours)

SRM 685	Educational Ethnography	3
SRM 686	Qualitative Case Study Research	3
SRM 687	Narrative Inquiry	3
SRM 688	Writing Qualitative Research	3
	Elective Credits	10

\*Note: it is assumed students entering the research methods Ph.D. would have previously completed at least an introductory level qualitative methods course (equivalent to SRM 680), an introductory level program evaluation course (equivalent to SRM 670), an introductory level measurement course (equivalent to PSY 674), and basic training in SAS (equivalent to SRM 520).

##### Cognate Option

A student in the research methods concentration may elect to complete 15 semester hours within a cognate area in lieu of the elective credits requirement. These hours must be at the graduate level and approved by the student’s advisor. The intent of the cognate is to equip the student in a substantive discipline within which the dissertation may be written.

##### Approved electives may be substituted for required courses completed during a Master’s program.

##### Research Core — 12 hours

SRM 611	Advanced Statistical Data Analysis	3
SRM 620	Advanced Statistical Programming	3
SRM 684	Research Ethics	1
SRM 700	Advanced Research Methods	3
SRM 732	Research and Statistical Consulting	2
	II	

##### Research Proposal/Dissertation — 16 hours

SRM 797	Doctoral Proposal Research	1-4
SRM 799	Doctoral Dissertation	1-12

SRM 797: Take 4 hours

SRM 799: Take 12 hours

**Research Tools**

All Ph.D. students must demonstrate competency in two acceptable research tools.

**Deficiencies**

Students who enter the doctoral program without a working knowledge of SAS programming must take SRM 520 early in their doctoral program.

**AUDIOLOGY AU.D.****College of Natural and Health Sciences****Degree Requirements — 117 Credits**

See “Audiology Au.D.” (p. 224).

**DEGREE REQUIREMENTS****Core Requirements — 54 hours**

ASLS 555	Neuroanatomy and Neurophysiology of Communication	3
ASLS 570	Rehabilitative Audiology	2
ASLS 571	Speech and Hearing Science	1- 3
ASLS 582	Educational Audiology	3
ASLS 668	Cochlear Implants	3
ASLS 711	Auditory Physiology	3
ASLS 712	Amplification I	3
ASLS 721	Psychoacoustics	2
ASLS 723	Amplification II	3
ASLS 724	Differential Diagnosis of Auditory Disorders	3
ASLS 731	Auditory Processing Disorders	2
ASLS 741	Hearing Loss Prevention	3
ASLS 742	Advanced Diagnosis of Auditory Disorders	2
ASLS 743	Medical Aspects of Audiology	3
ASLS 744	Vestibular Assessment and Management	2
ASLS 751	Ototoxicology	2
ASLS 772	Audiology Practice Management	2
ASLS 774	Professional Issues in Audiology	2
ASLS 775	Advanced Electro-diagnosis	1- 3
ASLS 782	Pediatric Audiology	3

**Teaching Requirements (1 hours)**

ASLS 720	Supervised Teaching in Audiology	1
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**Clinical Practicum (13 hours)**

ASLS 574	Clinical Practicum in Audiology	1
ASLS 580	Practicum in Rehabilitative Audiology	1- 2
ASLS 594	Practicum and Advanced Topics in Audiology	1- 6

ASLS 580: 2 credits required

ASLS 594: 10 credits required

**Internships (9 hours)**

ASLS 592	Internship in Public Schools	2-15
ASLS 692	Internship in Medical Settings	2-16

ASLS 592: Eight weeks of Internship in Public Schools (ASLS 592) are required to obtain licensure from the Colorado Department of Education for employment as an audiologist in the public schools.

ASLS 592: 4 credits required

ASLS 692: 5 credits required

**Externship (26 hours)**

ASLS 792	Externship in Audiology	3-12
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Students are expected to complete ASLS 792, Clinical Residency, over three semesters.

**Elective Courses (2 hours)**

Students will choose at least 2 credits from courses approved by the program advisor. Electives will be chosen to supplement specialized career needs. For example, some students may elect to become more proficient in American Sign Language; others who desire a medical emphasis may elect to take additional courses in genetics or pharmacology.

**Research Courses (12 hours)**

ASLS 515	Foundations of Research and Writing	1
ASLS 615	Research in Audiology and Speech-Language Pathology	1- 4
ASLS 715	Applied Research in Audiology	1- 4
SRM 602	Statistical Methods I	3

ASLS 615 and ASLS 715: 4 credits required

**BIOLOGICAL EDUCATION PH.D.****College of Natural and Health Sciences****Degree Requirements — 64 Credits**

See “Biological Education Ph.D.” (p. 221).

**DEGREE REQUIREMENTS****Pedagogical Credits — 10 hours**

BIO 631	Teaching College Biology	3
BIO 632	College Biology Course Development	3
BIO 792	Doctoral Supervised Teaching	1- 6

BIO 792: Take 4 hours

**Content Elective Credits — 18-20 hours**

BIO 512	TA Development Seminar	1
BIO 521	Advanced Genetics	3
BIO 524	Genomics	3
BIO 525	Molecular Genetics	3
BIO 526	Population Genetics	3
BIO 527	Bioinformatics	3
BIO 528	Developmental Biology	3
BIO 529	Developmental Biology Lab	1
BIO 530	Plant Systematics	4
BIO 533	General Parasitology	4
BIO 534	Mammalogy	4
BIO 535	Survey of Fishes, Amphibians and Reptiles	4
BIO 537	Morphogenesis of Algae and Fungi	4
BIO 538	Ornithology	4
BIO 540	Anatomy and Morphogenesis of Plants	4
BIO 541	Advanced Human Anatomy	3
BIO 542	Molecular and Cellular Laboratory	2
BIO 544	Comparative Vertebrate Adaptations	4
BIO 545	Pathogenic Microbiology	3
BIO 546	Pathogenic Microbiology Laboratory	1
BIO 547	Immunology and Disease	4
BIO 548	Virology	3
BIO 549	Virology Laboratory	1
BIO 550	Cell Physiology	3
BIO 552	Mammalian Physiology I	3
BIO 553	Mammalian Physiology II	3
BIO 554	General Plant Physiology	4
BIO 555	Reproductive and Biology	3
BIO 556	Current Topics in Biomedical Research	2
BIO 557	Mammalian Physiology I Laboratory	1
BIO 558	Mammalian Physiology II Laboratory	1

BIO 560	Behavioral Ecology	3
BIO 561	Plant Ecology	3
BIO 562	Conservation Biology	3
BIO 563	Animal Communication	3
BIO 564	Plant Ecology Lab	1
BIO 565	Current Topics in Ecology and Evolutionary Research	2
BIO 566	Animal Physiological Ecology	3
BIO 567	Animal Physiological Ecology Laboratory	1
BIO 568	Disturbance Ecology	3
BIO 569	Conceptual Issues in Evolution	2
BIO 570	Coevolution in Ecological Systems	3
BIO 572	Species and Speciation	3
BIO 576	Pharmacology	3
BIO 580	Mammalian Endocrinology	3
BIO 581	Neurobiology	3
BIO 582	Cancer Biology	3
BIO 591	Biology Roundtable	1
CHEM 581	General Biochemistry I	4
CHEM 582	General Biochemistry II	4
CHEM 587	Toxicology	3
EDF 685	Philosophical Foundations of Education	3
ET 604	Computer Graphics and Visual Literacy	3
ET 615	Distance Education: Theories and Practice	3
GEOG 507	Geographic Information Science	3
GEOG 540	Biogeography	3
HESA 650	College Student Development: Foundational Theory	3
HESA 668	College Students: Culture, Characteristics, Campus Life	3
PSY 540	Theories and Principles of Learning	3
PSY 575	Educational Assessment	3
PSY 627	Psychometrics	3
PSY 635	Individual Differences in Cognition	3
PSY 640	Cultural Issues in Education Psychology	3
PSY 644	Motivation in Education	3
PSY 674	Measurement I: Educational Testing	3
PSY 675	Measurement II: Advanced Techniques	3
PSY 681	Cognition and Instruction I	3
PSY 682	Cognition and Instruction II	3
SCED 555	Science Education for Adults and Communities	3
SCED 678	Science Education Seminar	1-2
SCED 680	Science Curricula in Secondary/College Settings	3

BIO 591: Limit 2 hours

NOTE: A student can count a maximum of 8 credits from the following list of double numbered courses: BIO 530, BIO 533, BIO 534, BIO 535, BIO 537, BIO 538, BIO 540, BIO 554, BIO 562, BIO 566 BIO 567, BIO 576

NOTE: Students can count no more than 9 credits of non BIO content elective courses

**Research Core — 18-19 hours**

BIO 691	Seminar in Biological Sciences	1
SRM 700	Advanced Research Methods	3

BIO 691: Take 4 hours

**Select one of the following courses:**

SRM 502	Applied Statistics	3
SRM 602	Statistical Methods I	3

**Select one of the following courses:**

BIO 594	Foundations of Biological Research	2
SCED 694	Science Education Research	3

**Select 6 hours from the following courses:**

BIO 622	Directed Studies	1-4
SRM 603	Statistical Methods II	3
SRM 680	Introduction to Qualitative Research	3

**Research Proposal/Dissertation — 16 hours**

BIO 797	Doctoral Proposal Research	1-4
BIO 799	Doctoral Dissertation	1-12

BIO 797: Take 4 credits

BIO 799: Take 12 credits

**NOTES:** Students must complete a minimum of 50 semester hours in biological science of combined undergraduate and graduate courses.

SRM 502 and SRM 700 may be waived depending on course background of the student.

Students in this program are exempt from the 94 graduate credit hours to Ph.D. minimum policy.

## CHEMICAL EDUCATION PH.D.

### College of Natural and Health Sciences

#### Degree Requirements — 64-94 Credits

See “Chemical Education Ph.D.” (p. 222).

Select either the B.S. to Ph.D. or the Master’s to Ph.D. options.

The student must have completed requirements of an ACS-certified baccalaureate degree in chemistry or must remove any deficiencies. If not previously taken, physical chemistry (CHEM 551, CHEM 552, CHEM 453, CHEM 454) and biochemistry (CHEM 581) may be taken to partially meet this requirement.

#### Research Tools

Students must demonstrate research skills in areas pertinent to the dissertation research topic. The Students’ competence in these skills will be assessed by the Students’ oral exam committee and/or dissertation committee members.

The skills may include statistical analysis, 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 earth sciences.

**Qualifier Examinations.** Qualifier examinations are scheduled during the week preceding the beginning of classes each semester. Pre-Master’s students 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. If a qualifier exam is failed, the student is required to attend the appropriate undergraduate course(s) in that area. Any cost associated with enrollment in undergraduate courses is the responsibility of the graduate student.

**Comprehensive Examinations.** A written and oral comprehensive examination must be passed in one sub-discipline of chemistry (a minimum of two graduate-level courses are required in the subdiscipline prior to taking the exam). The standardized ACS exam in general chemistry I and II must be taken and passed (with a minimum average of 90 percent). A written and oral comprehensive examination must be passed in chemical education.

*NOTE: Students will select sufficient electives to complete the degree program. 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 student’s academic and research advisors.*

#### B.S. TO PH.D. REQUIREMENTS — 94 CREDITS

##### Chemistry Component — minimum 18 hours

Each student must complete a minimum of 18 hours in this category. Each student must complete courses in a minimum of three areas of chemistry (analytical, biological, inorganic, organic

or physical). One course in biochemistry is required if not previously taken.

##### Electives — 18 hours

CHEM 522	Advanced Analytical Chemistry	3
CHEM 523	Chemical Spectroscopy	3
CHEM 533	Organic Synthesis and Stereochemistry	3
CHEM 534	Theory and Mechanisms of Organic Reactions	3
CHEM 541	Solid State Chemistry	3
CHEM 543	Organometallic Chemistry	3
CHEM 551	Physical Chemistry I	4
CHEM 552	Physical Chemistry II	4
CHEM 560	Environmental Chemistry	2
CHEM 581	General Biochemistry I	4
CHEM 582	General Biochemistry II	4
CHEM 587	Toxicology	3
CHEM 590	Advanced Topics in Chemistry	3
CHEM 622	Directed Studies	1-3
CHEM 693	Chemical Research	1-9

CHEM 551, CHEM 552, CHEM 581, CHEM 582: These courses may not be taken if equivalent courses were previously taken at the undergraduate level.

##### Pedagogy Component — minimum 13 hours

Each student must complete a minimum of 13 hours in this category.

##### Required — 10

CHEM 682	Problems in Teaching Chemistry	3
CHEM 755	Supervised Practicum in College Teaching	1-4
SCED 694	Science Education Research	3

##### Electives — 3

In conjunction with their advisor, candidates can select appropriate graduate-level courses in supporting areas such as: Statistics and Research Methods (SRM)  
Psychology (PSY)  
Educational Technology (ET)  
Science Education (SCED)

##### Research Component — minimum 63 hours

Each student must complete the 63 required hours in this category. Research competence must be demonstrated in both chemistry and chemical education at the level of a chemistry master’s thesis and a chemical education doctoral dissertation. The results of the dissertation project (or part of the project) must be submitted, after research advisor approval, and accepted for publication to a peer-reviewed, professional journal prior to graduation.

**Research Coursework — 16-19****Required Seminars — 4**

CHEM 600	Seminar in Chemistry	1
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CHEM 600: one seminar each on chemical literature, chemical thesis or thesis equivalent research, chemical education literature, and chemical education dissertation research.

**Methodology (12-15)****Required Research Core — 12 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

**Electives**

In conjunction with their advisor, candidates can select appropriate graduate-level courses in supporting areas such as:

Statistics and Research Methods (SRM)

Psychology (PSY)

Educational Technology (ET)

Science Education (SCED)

**Required Research — Minimum of 44 hours****Masters Research — 10**

CHEM 693	Chemical Research	1- 9
CHEM 695	Thesis Proposal	1
CHEM 699	Thesis	1- 6

CHEM 693: Take 3 credits

CHEM 699: Take 6 credits

**Doctoral Research — Minimum of 34 hours**

CHEM 793	Doctoral Research Practicum-Chemistry	1- 9
CHEM 797	Doctoral Research Proposal-Chemistry	1- 4
CHEM 799	Doctoral Dissertation-Chemistry	1-12

CHEM 793: Take a minimum of 18

CHEM 797: Take 4

CHEM 799: Take 12

**MASTER'S TO PH.D. REQUIREMENTS — 64 HOURS****Pedagogy Component — minimum 13 hours**

Each student must complete a minimum of 13 hours in this category.

**Required — 10**

CHEM 682	Problems in Teaching Chemistry	3
CHEM 755	Supervised Practicum in College Teaching	1- 4
SCED 694	Science Education Research	3

**Electives — 3**

In conjunction with their advisor, candidates can select appropriate graduate-level courses in supporting areas such as:

Statistics and Research Methods (SRM)

Psychology (PSY)

Educational Technology (ET)

Science Education (SCED)

**Research Component — minimum 51 hours**

Each student must complete the 51 required hours in this category. Research competence must be demonstrated in both chemistry and chemical education at the level of a chemistry master's thesis and a chemical education doctoral dissertation. A prior master's thesis in chemistry may be used, with approval of the Graduate Committee, as evidence of competency in chemistry research. The results of the dissertation project (or part of the project) must be submitted, after research advisor approval, and accepted for publication to a peer-reviewed, professional journal prior to graduation.

**Research Coursework — 14-17****Required Seminars — 2**

CHEM 600	Seminar in Chemistry	1
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CHEM 600: one seminar each on chemical education literature, and chemical education dissertation research

**Methodology — 12-15****Required Research Core — 12 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

**Electives**

In conjunction with their advisor, candidates can select appropriate graduate-level courses in supporting areas such as:

Statistics and Research Methods (SRM)

Psychology (PSY)

Educational Technology (ET)

Science Education (SCED)

**Required Doctoral Research — Minimum of 34 hours**

CHEM 793	Doctoral Research Practicum-Chemistry	1- 9
CHEM 797	Doctoral Research Proposal-Chemistry	1- 4
CHEM 799	Doctoral Dissertation-Chemistry	1-12

CHEM 793: Take a minimum of 18

CHEM 797: Take 4

CHEM 799: Take 12

**COUNSELING PSYCHOLOGY PH.D.****College of Education and Behavioral Sciences****Degree Requirements — 125 Credits\***

Accredited by the American Psychological Association. For more information regarding program accreditation, contact the APA's Office of Program Consultation and Accreditation, 750 1st Street NE, Washington, DC 20002-4242 or at (202)336-5979 or at [www.apa.org/ed/accreditation/](http://www.apa.org/ed/accreditation/).

**REQUIRED MAJOR CREDITS****Introductory Core Required — 17 hours**

APCE 558	Diagnosis and Treatment Planning	3
APCE 612	Practicum in Individual Counseling	5
APCE 660	Psychological Consultation: Theory and Practice	3
APCE 669	Advanced Methods: Couples and Family Therapy	3
SRM 600	Introduction to Graduate Research	3

**Counseling Psychology Core — 8 hours**

APCE 616	Career Theory, Counseling and Assessment	3
APCE 701	Professional Development Seminar in Counseling Psychology	1
PSY 530	Life Span Developmental Psychology	3

APCE 701: Take two times

**Research Core — 17 hours**

APCE 733	Seminar in Research Methods in Counseling Psychology	2
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

**Suggested Electives for Students Completing Quantitative Dissertations:**

SRM 607	Non-Parametric Statistics	3
	or	
SRM 609	Sampling Methods	3
	or	
SRM 625	Applied Multiple Regression Analysis	3
	or	
SRM 627	Survey Research Methods	3

**Suggested Electives for Students Completing Qualitative Dissertations:**

SRM 685	Educational Ethnography	3
	or	

SRM 686	Qualitative Case Study Research	3
	or	
SRM 687	Narrative Inquiry	3
	or	
SRM 688	Writing Qualitative Research	3

**Practica Required — 28 hours**

APCE 694	Practicum in Couples and Family Therapy	4
APCE 702	Practicum in Counseling	4
APCE 712	Advanced Practicum in Individual Counseling	4
APCE 714	Practicum in Supervision of Counseling	3-6
APCE 715	Seminar in Counselor Supervision and Theory	2
APCE 762	Practicum in Group Facilitation	4
APCE 793	Practicum in Clinic Administration and Service Delivery	3
APCE 794	Advanced Practicum in Clinic Administration and Service Delivery	1
APCE 795	External Practicum in Counseling Psychology	3

APCE 714: 3 credits required.

**Suggested Practica Electives:**

APCE 617	Play Therapy: Theory and Practicum	3
APCE 713	Practicum in Supervision of Play Therapy	3
APCE 773	Practicum in Supervision of Group Facilitation	3
APCE 774	Practicum in Supervision of Family Therapy	3
APCE 785	Advanced Practicum in Community Engagement: Campus Connections	1

**Assessment Core Required — 9 hours**

APCE 674	Assessment for Intervention: Cognitive and Academic	4
APCE 677	Psychometrics in Counseling Psychology	1
APCE 678	Assessment for Intervention: Personality and Behavior	4

**Suggested Assessment Elective:**

APCE 782	Introduction to Rorschach Administration and Scoring	3
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**Licensing Core — 27 hours**

APCE 623	Understanding and Counseling Diverse Populations	3
APCE 657	Legal and Ethical Aspects of Counseling and Psychology	3

APCE 682	Biological Bases of Behavior	3
APCE 707	Seminar in Personality and Counseling Theories	3
APCE 758	Advanced Psychopathology	3
PSY 540	Theories and Principles of Learning	3
PSY 587	Social Cognitive Neuroscience	3
PSY 590	Seminar in History and Systems	3
PSY 664	Advanced Social Psychology	3

**Internship - 3 hours**

APCE 791	Internship in Counseling Psychology	1- 5
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APCE 791: 1 Year, 2000 Hours

**Research Proposal/Dissertation — 16 hours**

APCE 797	Doctoral Proposal Research	1- 4
APCE 799	Doctoral Dissertation	1-12

APCE 797: Take 4

APCE 799: Take 12

**NOTES:** \* 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 and may significantly reduce the total number of hours required to complete the program. 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).

*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.*



## COUNSELOR EDUCATION AND SUPERVISION PH.D.

### College of Education and Behavioral Sciences

#### Degree Requirements — 83-92 Credits

See “Counselor Education and Supervision Ph.D.” (p. 194)

#### DEGREE REQUIREMENTS

##### Required Major Credits — 37-43 hours

##### Counseling Core (12 hours)

APCE 702	Practicum in Counseling	4
APCE 712	Advanced Practicum in Individual Counseling	4
APCE 762	Practicum in Group Facilitation	4

##### Supervision Core (8 hours)

APCE 714	Practicum in Supervision of Counseling	3- 6
APCE 715	Seminar in Counselor Supervision and Theory	2

##### Theory and Instruction Core (17-23 hours)

APCE 703	Professional Development Seminar in Counselor Education	1
APCE 710	Seminar in Instruction, Pedagogy, and Evaluation in Counseling and Psychology	3
APCE 746	Advanced Seminar in Counselor Education and Supervision	3
APCE 792	Internship in Counselor Education and Supervision	1- 6
APCE 723	Seminar in Advanced Multicultural Perspectives in Counselor Education and Supervision	3

APCE 703: Must be taken twice

APCE 792: Take 6-12 hours

##### Interest Areas (Select One) — 12-15 hours minimum

##### Couples and Families (13 hours)

APCE 668	Sexuality Counseling	3
APCE 669	Advanced Methods: Couples and Family Therapy	3
APCE 694	Practicum in Couples and Family Therapy	4
APCE 774	Practicum in Supervision of Family Therapy	3

##### Play Therapy (12 hours)

APCE 609	Foundations of Play Therapy	3
APCE 617	Play Therapy: Theory and Practicum	3

APCE 713	Practicum in Supervision of Play Therapy	3
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Students will complete three additional credits of an elective to be selected in consultation with their advisor.

##### School Counseling (15 hours - if no previous School Counseling background)

APCE 602	Foundations of School Counseling	3
APCE 608	Organization, Administration and Evaluation of School Counseling Programs	3
APCE 614	Internship in School Counseling and Guidance	1- 9
APCE 748	Instruction, Supervision and Leadership in School Counseling	3
or		
ELPS 660	Law and the Administrator	3

APCE 614: Take 6 hours

NOTE: Students with a School Counseling background will work with advisor to select 9 credits in addition to APCE 748 to comprise interest area.

##### Gerontological Counseling (15 hours)

APCE 668	Sexuality Counseling	3
GERO 560	Community Resources for Older Adults	3
GERO 625	Psychosocial Aspects of Aging	3
GERO 635	Social Policies of Aging	3
GERO 640	Health Aspects of Gerontology	3

##### Research Core — 3 hours

SRM 700	Advanced Research Methods	3
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(Additional six hours under Research Tool 2.)

##### Research Proposal/Dissertation — 16 hours

APCE 797	Doctoral Proposal Research	1- 4
APCE 799	Doctoral Dissertation	1-12

##### Research Tools — 15 hours

##### 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

APCE 716	Research Seminar in Counselor Education	3
SRM 680	Introduction to Qualitative Research	3

##### Suggested Electives for Students Completing Quantitative Dissertations:

SRM 607	Non-Parametric Statistics	3
or		
SRM 609	Sampling Methods	3

	or		
SRM 625	Applied Multiple Regression Analysis	3	
	or		
SRM 627	Survey Research Methods	3	

- Cultural Studies and Equity Graduate Certificate Program

This program is accredited by the Council for Accreditation of Counseling and Related Educational Programs.

**Suggested Electives for Students Completing Qualitative Dissertations:**

SRM 685	Educational Ethnography	3
	or	
SRM 686	Qualitative Case Study Research	3
	or	
SRM 687	Narrative Inquiry	3
	or	
SRM 688	Writing Qualitative Research	3

**Students have the option to complete the Doctoral Minor in Applied Statistics and Research Methods; this is part of the plan of study and is done in consultation with the academic advisor.**

**Other Recommended Electives:**

APCE 609	Foundations of Play Therapy	3
APCE 617	Play Therapy: Theory and Practicum	3
APCE 713	Practicum in Supervision of Play Therapy	3
APCE 773	Practicum in Supervision of Group Facilitation	3
APCE 774	Practicum in Supervision of Family Therapy	3
APCE 793	Practicum in Clinic Administration and Service Delivery	3
APCE 794	Advanced Practicum in Clinic Administration and Service Delivery	1

**NOTES:** 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. Accepted presentations: 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 that students have been involved in grant writing as a part of their education.

Students may complete a doctoral minor in one of the following areas in lieu of an interest area:

- Higher Education and Student Affairs Leadership
- Educational Leadership and Policy Studies
- Special Education
- Educational Psychology

**EDUCATIONAL LEADERSHIP ED.D.****College of Education and Behavioral Sciences****Degree Requirements — 64 Credits**

See “Educational Leadership Ed.D.” (p. 200).

**DEGREE REQUIREMENTS****Educational Leadership Core — 21 hours**

ELPS 608	Issues in Educational Leadership: Implications for Practice	3
ELPS 666	Planning and Change in Education	3
ELPS 667	Leadership at the District Level	3
ELPS 751	Doctoral Core I	6
ELPS 752	Doctoral Core II	6

**Specialization Area — 9 hours**

Coursework that relates directly to goals as educational leaders (e.g. building level leadership, central office leadership, special education, educational technology).

**Field Based Learning — 6 hours**

Select one or both of the following courses:

ELPS 606	Internship in Educational Leadership	1- 9
ELPS 695	Practicum in Educational Leadership	1- 3

**Research Core — 12 hours minimum**

ELPS 754	Research in Educational Leadership	3
SRM 602	Statistical Methods I	3

Select research electives from the following courses (or equivalents approved by the doctoral committee) (6 hours):

PSY 674	Measurement I: Educational Testing	3
SRM 603	Statistical Methods II	3
SRM 670	Evaluation: Models and Designs	3
SRM 680	Introduction to Qualitative Research	3
SRM 700	Advanced Research Methods	3

**Research Proposal/Dissertation — 16 hours**

ELPS 797	Doctoral Proposal Research	1- 4
ELPS 799	Doctoral Dissertation in Educational Leadership and Policy Studies	1-12

**Deficiencies or Additional Elective Courses**

ELPS 650	School Finance and Budgeting	3
ELPS 651	School Business Management	3
ELPS 654	Instructional Leadership and Supervision	3
ELPS 660	Law and the Administrator	3

ELPS 662	Design and Delivery of Professional Development	3
ELPS 665	Policy Analysis and Development	3
ELPS 670	The Principalship: Leadership at the School Site Level	3

**EDUCATIONAL MATHEMATICS PH.D.****College of Natural and Health Sciences****Degree Requirements — 71 Credits**

See “Educational Mathematics Ph.D.” (p. 229).

**Master’s Degree en route to the Ph.D.**

Students may apply for admission to the Ph.D. in Educational Mathematics and complete the M.A. in Mathematics - Liberal Arts 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.

**DEGREE REQUIREMENTS****Ph.D. Requirements****Mathematics Content Core — 27 semester hours****A. Required Courses - 12 hours**

MATH 709	Abstract Algebra I	3
MATH 723	Abstract Algebra II	3
MATH 732	Complex Variables	3
MATH 735	Real Analysis	3

**B. Minimum of 15 hours chosen from the following courses:**

MATH 622	Directed Studies	1- 4
MATH 700	Advanced Seminar	2
MATH 727	Representation Theory	3
MATH 728	Topics in Discrete Mathematics	3
MATH 733	Geometric Analysis	3
MATH 736	Real Analysis II	3
MATH 744	Differential Geometry	3
MATH 764	Difference Equations and Chaos	3
MATH 778	Mathematical Logic	3
MATH 791	Number Theory	3
MATH 795	Special Topics	3

At most, two courses may be included from the following: (The two courses may both come from Category I but at most one course can be from Category II.)

**Category I**

MATH 525	Linear Algebra I	3
MATH 532	Basic Analysis II	3
MATH 540	Introduction to Topology	3

**Category II**

MATH 528	Discrete Mathematics	3
MATH 529	Mathematical Problem Solving	3
MATH 531	Basic Analysis I	3
MATH 543	Modern Geometry	3
MATH 560	Introductory Complex Variables	3

**Research Core — 12 hours**

MED 610	Survey of Research in Mathematics Education	3
MED 700	Cognitive Processes in Mathematics	3
MED 701	Quantitative Research in Mathematics Education	3
MED 702	Qualitative Research in Mathematics Education	3

**Educational Core — 10 hours (minimum)****A. Required Courses (4 hours)**

MED 703	Teaching and Learning K-12 Mathematics	3
MED 710	Seminar in Post-Secondary Mathematics Teaching	1

**B. Elective Courses (6 hours)**

(Advisor must approve courses)

MED 622	Directed Studies	1- 3
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	2- 3
MED 750	History and Philosophy of Mathematics Education	3

**Research Proposal/Dissertation — 16 hours**

MATH 797	Doctoral Proposal Research	1- 4
MATH 799	Doctoral Dissertation	1-12

MATH 797: Take 4 hours

MATH 799: Take 12 hours

**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 the two research tools may be counted for these electives. A student must complete research tool "option A" and may select any one of the remaining four options.

**Research Tools****A. Applied Statistics and Research Methods (0-7 hours)**

SRM 502	Applied Statistics or approved equivalent	3
MED 701	Quantitative Research in Mathematics Education	3

Choose one of the following courses (or approved equivalent):

EII 705	Quasi-Experimental Methods in Education Research	3
SRM 608	Experimental Design	3
SRM 610	Statistical Methods III	3

NOTE: MED 701 is also counted as a required course in the Research Core hours above

### Select One Additional Tool (0-3 hours)

#### 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 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 710 is normally taken in the first year of the program.*

Students in this program must pass written comprehensive exams in mathematics and mathematics education followed by an oral comprehensive exam over their entire program. A document describing examination procedures may be obtained from the program office or the program website.

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.

## EDUCATIONAL PSYCHOLOGY PH.D.

### College of Education and Behavioral Sciences

#### Degree Requirements — 67 Credits

See "Educational Psychology Ph.D." (p. 203).

All students will take 18 credits of Foundation courses covering key disciplines within the field of Educational Psychology, including cognition and instruction, motivation, cultural issues, measurement, and development. In addition, students will take courses in the Research Core and select one Research Tool (in Measurement and Assessment, Qualitative Research, or a self-designed option) in order to gain the research skills, knowledge, and expertise to support their scholarly work while in the doctoral program. Finally, the student is given the opportunity to specialize their content knowledge and skills by selecting five courses of their choice, in consultation with their advisor.

#### DEGREE REQUIREMENTS

##### Foundations — 18 credits

PSY 630	Advanced Child and Adolescent Psychology	3
PSY 640	Cultural Issues in Education Psychology	3
PSY 644	Motivation in Education	3
PSY 661	Trends and Issues in Educational Psychology	3
PSY 674	Measurement I: Educational Testing	3
PSY 681	Cognition and Instruction I	3

##### Research Core/Research Tool I — 12 credits

PSY 663	Apprenticeship	1-3
SRM 603	Statistical Methods II	3
SRM 610	Statistical Methods III	3
SRM 700	Advanced Research Methods	3

PSY 663: Take 3 credits

##### Select ONE of the following options for Research Tool II:

##### Research Tool II: Qualitative Methods — 6 credits

SRM 680	Introduction to Qualitative Research	3
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##### and one of the following:

SRM 685	Educational Ethnography	3
SRM 686	Qualitative Case Study Research	3
SRM 687	Narrative Inquiry	3
or		

##### Research Tool II: Measurement and Assessment — 6 credits

PSY 675	Measurement II: Advanced Techniques	3
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PSY 686	Advanced Seminar in Measurement and Assessment or	3
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### Research Tool II: Self-Designed — 6 credits

Two courses selected by the student in consultation with advisor, and contingent upon advisor and Graduate School approval. These courses would represent research tools that support the student's independent research and would need to be in compliance with Graduate School policies (see Graduate School Research Requirements (p. 52)).

### Coursework for Specialization — 5 courses; 15 credits

Select 5 courses to total at least 15 credits from the courses below:

PSY 550	Cognitive Development	3
PSY 575	Educational Assessment	3
PSY 595	Special Topics in Psychology	1- 5
PSY 622	Directed Studies	1- 3
PSY 654	Seminar in College Teaching	3
PSY 664	Advanced Social Psychology	3
PSY 675	Measurement II: Advanced Techniques	3
PSY 680	Neuroscience Seminar	3
PSY 682	Cognition and Instruction II	3
PSY 684	Advanced Seminar in Human Development	3
PSY 686	Advanced Seminar in Measurement and Assessment	3
PSY 693	Research Practicum	1- 3
PSY 694	Practicum	3
PSY 695	Special Topics in Educational Psychology	1- 3

Other advanced coursework in Educational Psychology, SRM, Educational Technology, Educational Leadership, and others in consultation with advisor.

### Research Proposal/Dissertation — 16 credits

PSY 797	Doctoral Proposal Research	1- 4
PSY 799	Doctoral Dissertation	1-12

### Comprehensive Exams

Doctoral students take comprehensive examinations when they have fulfilled the requirements of the graduate school and are considered prepared by their advisor. Specific procedures for written comprehensives and oral defense of the comprehensives are available from the program website or the program office.

### Research Tools

Ph.D. students in Educational Psychology must demonstrate competency in two research tools, as required by the UNC Graduate School. Those tools, as indicated above, are measurement and assessment, qualitative research methods, or another approved area.

### Deficiencies

Upon entrance to the Ph.D. program, a candidate must be able to satisfy the core course requirements (or the equivalent) for the M.A. degree in education psychology, or must take additional courses to meet those requirements. Doctoral program courses may have prerequisites that necessitate a student's program credits to be above the 67-credit minimum.

### Master's Degree en route to the Ph.D.

Students may apply for admission to the Ph.D. in Education Psychology and complete their M.A. in Education 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, students will complete the 30-credit MA program. See Educational Psychology (p. 202) for more information. Students must complete all program requirements (including Comprehensive Examination) for the M.A. in addition to the minimum 67 credit hours required for the Ph.D. Students must be conferred with the M.A. degree prior to admission to doctoral candidacy.

## EDUCATIONAL STUDIES ED.D.

### College of Education and Behavioral Sciences

Administered by the School of Teacher Education (p. 209). The degree prepares candidates to understand the relationship among research, policy, and practice in education in order to contribute to reforming educational systems. Candidates are expected to assume roles as university faculty members, educational leaders in school districts and state and federal agencies, district level curriculum specialists, and to assume leadership roles in nonprofit and private sectors. Programs of study for degree candidates will be individualized to meet candidate's career goals. The extent of an individual's program will be dependent upon previous college work and professional experience, but the minimum is 64 credits.

Graduate applicants for this degree must complete a free School of Teacher Education on-line graduate application [http://www.unco.edu/cebs/teachered/graduate/doctorate\\_edu\\_studies/apply.html](http://www.unco.edu/cebs/teachered/graduate/doctorate_edu_studies/apply.html) and submit a writing sample in addition to the UNC Graduate School application.

### Degree Requirements — 64 Credits

#### DEGREE REQUIREMENTS

##### Educational Studies Core — 12 hours

EDF 670	Introduction of Research Literature	3
EDF 685	Philosophical Foundations of Education	3
EDF 700	Implementation and Evaluation of Curriculum	3
	or	
EDF 790	Supervised Practicum in Professional Teacher Preparation	3
EDF 701	Doctoral Seminar	1

EDF 701: Take at least three times

##### Research Core — 12 hours

(Coursework completed previously may be substituted for related research courses, within limits allowed by Graduate School)

SRM 602	Statistical Methods I	3
SRM 680	Introduction to Qualitative Research	3

##### Take two from among the following:

Substitutions may be coordinated with your advisor.

EDF 601	Discourse Analysis in Language and Literacy Research	3
EDF 795	Comprehensive Seminar	3
SRM 603	Statistical Methods II	3
SRM 641	Special Topics	1- 4

SRM 685	Educational Ethnography	3
SRM 700	Advanced Research Methods	3

SRM 641: with advisor consent

##### Multidisciplinary cognate — 24 hours

Candidates will design the cognate with the assistance of their program advisor.

##### Possible cognates:

Curriculum Studies

Reading

Mathematics Education

Bilingual, Multicultural, and ESL Education

Innovation and Education Reform

##### Dissertation — 16 hours

EDF 797	Doctoral Proposal Research	1- 4
EDF 799	Doctoral Dissertation	1-12

EDF 797: Take 4 hours

EDF 799: Take 12 hours

##### Scholarly paper requirement

Students are required to submit for publication one paper to a professional journal prior to dissertation proposal hearing. Other research endeavors prior to the dissertation are encouraged. Students may take EDF 795 Comprehensive Seminar to support the writing of a scholarly paper.

## HIGHER EDUCATION AND STUDENT AFFAIRS LEADERSHIP PH.D.

### College of Education and Behavioral Sciences

#### Degree Requirements — 64 Credits

See “Higher Education and Student Affairs Leadership Ph.D.” (p. 202).

#### DEGREE REQUIREMENTS

##### Required Courses — 9 hours

HESA 761	Scholarly Writing for Scholar/Leaders	3
HESA 781	Collaborative Inquiry for Scholar/Leaders	3
HESA 782	Research Capstone in Higher Ed	3

**NOTE:** These three core courses are taught as a cohort and must be taken sequentially. These courses also fulfill the Graduate School requirements for second research tool.

##### Select 24 credits from the following, in consultation with advisor and committee:

HESA 601	Introduction to Higher Education & Student Affairs	3
HESA 611	Organization and Administration	3
HESA 612	Higher Education Assessment and Evaluation	3
HESA 622	Directed Studies	1-4
HESA 650	College Student Development: Foundational Theory	3
HESA 651	Philosophical, Historical and Cultural Foundations of Student Affairs in Higher Education	3
HESA 652	Enrollment Management Services	3
HESA 655	Multiculturalism in Higher Education and Student Affairs	3
HESA 658	Helping Skills for Practitioners	3
HESA 660	Women in Higher Education and Student Affairs	3
HESA 661	Practicum in College Teaching for Student Development	3
HESA 665	International Higher Education and Student Affairs	3
HESA 668	College Students: Culture, Characteristics, Campus Life	3
HESA 669	Culturally Responsive Aspects of Transformative Learning	3
HESA 670	Internship in Higher Education and Student Affairs Leadership	6
HESA 671	Introduction to Leadership in Higher Education and Student Affairs Leadership	3
HESA 675	Field Experience in Student Affairs	1-3

HESA 680	Law and Higher Education	3
HESA 683	Finance and Resource Management in Higher Education	3
HESA 685	Human Resources in Higher Education	3
HESA 690	Public Policy in Higher Education	3
HESA 695	Current Issues in Higher Education and Student Affairs Leadership	3
HESA 696	Special Topics in Higher Education and Student Affairs Leadership	1-4
HESA 751	Advanced College Student Development: Social Identity	3
HESA 765	Advanced Multiculturalism	3
HESA 771	Advanced Leadership in Higher Education and Student Affairs Leadership	3
SRM 700	Advanced Research Methods	3

##### Research Core — 15

SRM 602	Statistical Methods I	3
SRM 603	Statistical Methods II	3
SRM 680	Introduction to Qualitative Research	3
	6 additional credit hours of SRM selected in consultation with your advisor	6

##### Dissertation Proposal and Research — 16

HESA 797	Doctoral Proposal Research	1-4
HESA 799	Doctoral Dissertation	1-12

HESA 797: Take 4 hours

HESA 799: Take 12 hours

Additional enrollment in HESA 999 Graduate School Continuous Registration (1) may be required to comply with Graduate School policies on continuous registration.

**NOTE:** SRM 600 Introduction to Graduate Research (3) is a prerequisite to coursework in the Research Core. Any student who has not completed that course, or an equivalent course, prior to entry to the HESAL Ph.D. program must complete SRM 600; that course will not be applied to the above requirements for the Ph.D. All coursework for the program must be completed with a grade of “B-” or better. Written and oral comprehensive examinations may be taken after completion of specified coursework and two satisfactory progress reports. A document describing eligibility criteria and examination procedures may be obtained from the program office or the program website. Comprehensive examinations are offered in the fall and spring semesters.



## MUSIC D.A.

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(Select from four emphases listed below or three emphases listed separately)

### College of Performing and Visual Arts

#### Degree Requirements — 67-71 Credits

See “Music D.A.” (p. 241).

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.

See “Graduate Admission Requirements” (p. 238) for more information.

**Collaborative Piano Emphasis**

**Conducting Emphasis**

**Jazz Studies Emphasis**

**Music Performance Emphasis**

#### DEGREE REQUIREMENTS

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##### Required Emphasis Credits — 3-9 hours

MUS 623	Individual Studies in Effective Teaching	1-3
MUS 794	Supervised Practicum in College Teaching	2

MUS 623: Take 1-3 credits

MUS 794: Take 2-6 credits

##### Primary Emphasis — 18 hours

The primary emphasis area develops a major scholarly and/or performing function for the college and university level in Conducting, Collaborative Piano, Jazz Studies, or Music Performance (with an optional concentration in Pedagogy). Courses are selected by advisement based upon candidate's area of focus and upon the candidate's needs identified through the advisory examinations.

##### Secondary Emphasis — 8-10 hours

This area develops a scholarly and/or performing emphasis in one of the DA degree emphasis areas: Music History and Literature, Composition, Music Performance, Conducting, Collaborative Piano, Jazz Studies, Music Education, Opera Theatre, Theory, Jazz Pedagogy, Piano Pedagogy, or related areas outside Music. It is expected that a creative project of some type will be undertaken as part of the secondary 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 — 4-7 hours

##### Research core emphasis determined by study in primary area

- Collaborative Piano, Conducting, Performance Emphases OR
- Jazz Studies Emphasis

##### 1. Research Core — 15 hours (Collaborative Piano, Conducting, Performance Emphases)

MUS 700	Introduction to Doctoral Research	3
<b>Select two Courses (6 hours) (music history exam)</b>		
MUS 507	History of Instruments and Instrumental Practices	3
MUS 643	Seminar: Medieval Music	3
MUS 644	Seminar: Music in the Renaissance	3
MUS 645	Seminar: The Baroque Period	3
MUS 646	Seminar: The Classic Period	3
MUS 647	Seminar: The Romantic Period	3
MUS 651	Seminar in Music History: Debussy to 1945	3
MUS 652	Seminar in Music History: 1945 to the Present	3

Music history exam: Dependent upon results of advisory exams

##### Select two Courses (6 hours) (music theory exam)

MUS 501	18th Century Counterpoint	3
MUS 502	Harmony and Form	3
MUS 503	Post-Tonal Music	3
MUS 505	Sixteenth Century Counterpoint	3
MUS 595	Music Theory Seminar	3
MUS 603	Analytical Studies in Music	3
MUS 604	Schenkerian Analysis	3

Music theory exam: Dependent upon results of advisory exams

##### 2. Research Core - 16 hours (Jazz Studies Emphasis)

MUS 700	Introduction to Doctoral Research	3
MUS 527	Advanced Jazz Theory	2
MUS 544	Seminar in Jazz History	3
MUS 585	Advanced Jazz Improvisation	2

##### Select one Course (3 hours) (music history exam)

MUS 507	History of Instruments and Instrumental Practices	3
MUS 643	Seminar: Medieval Music	3
MUS 644	Seminar: Music in the Renaissance	3
MUS 645	Seminar: The Baroque Period	3
MUS 646	Seminar: The Classic Period	3
MUS 647	Seminar: The Romantic Period	3
MUS 651	Seminar in Music History: Debussy to 1945	3
MUS 652	Seminar in Music History: 1945 to the Present	3

Music history exam: Dependent upon results of advisory exams

**Select one Course (3 hours) (music theory exam)**

MUS 501	18th Century Counterpoint	3
MUS 502	Harmony and Form	3
MUS 503	Post-Tonal Music	3
MUS 505	Sixteenth Century Counterpoint	3
MUS 595	Music Theory Seminar	3
MUS 603	Analytical Studies in Music	3
MUS 604	Schenkerian Analysis	3

Music theory exam: Dependent upon results of advisory exams

**Research Proposal/Dissertation — 16 hours**

MUS 797	Doctoral Proposal Research	1-4
MUS 799	Doctoral Dissertation	1-12

MUS 797: Take 4 credits

MUS 799: Take 12 credits

**NOTES:** *The hours allotted to the doctoral dissertation may be divided between performance and dissertation requirements according to the plan of study as outlined and approved by the candidate's committee.*

*Performance, Conducting, Jazz Studies, and Collaborative Piano majors will perform two recitals for 8 semester hours and complete a four semester hour dissertation. Students seeking the D.A. in Music Education, Music History and Literature or Composition will complete a 12-hour dissertation.*

Composition majors will present a recital of their compositions written as part of their degree program.

A reading knowledge of one foreign language (typically 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, voice, 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 and jazz studies areas a substitute research tool may be permitted after consultation and approval by the candidate's committee. For the collaborative piano emphasis, language proficiency will be examined upon entry. Candidates must demonstrate pronunciation proficiency in French, German, Italian and the International Phonetic Alphabet as well as reading proficiency in French, German, and Italian. Candidates with deficiencies will meet with their major advisor and other appropriate faculty to determine the best way to remedy those deficiencies. Students should contact the

Graduate Coordinator or appropriate area faculty to clarify language requirements.

The candidate must complete two consecutive semesters (minimum of 9 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.

The Music Performance Emphasis has an optional concentration in pedagogy.

## MUSIC D.A. — MUSIC COMPOSITION EMPHASIS

### College of Performing and Visual Arts

#### Degree Requirements — 70 Credits

See "Music D.A. — Music Composition Emphasis (p. 241)".

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.

See "Graduate Admission Requirements (p. 238)" for more information.

### DEGREE REQUIREMENTS

#### Primary Emphasis — 18 hours

The primary emphasis area develops a focused scholarly and/or creative and pedagogical expertise to professional levels in Music Composition. Courses are selected by advisement based upon candidate's area of focus and upon the candidates needs identified through the advisory examination.

#### Secondary Emphasis — 10 hours

##### Elective Credits — 5 hours

##### Research and Pedagogy Core — 21 hours

MUS 504	Music Theory Pedagogy	3
MUS 649	Music History Pedagogy	3
MUS 700	Introduction to Doctoral Research	3

##### Select two courses (6 hours) (music history advisory exam)

Period Seminars in Music History		
MUS 507	History of Instruments and Instrumental Practices	3
MUS 643	Seminar: Medieval Music	3
MUS 644	Seminar: Music in the Renaissance	3
MUS 645	Seminar: The Baroque Period	3
MUS 646	Seminar: The Classic Period	3
MUS 647	Seminar: The Romantic Period	3
MUS 651	Seminar in Music History: Debussy to 1945	3
MUS 652	Seminar in Music History: 1945 to the Present	3

Music history exam: Dependent upon results of advisory exams

##### Select two courses (6 hours) (music theory exam)

Graduate Music Theory and Analysis

MUS 501	18th Century Counterpoint	3
MUS 502	Harmony and Form	3
MUS 503	Post-Tonal Music	3
MUS 505	Sixteenth Century Counterpoint	3
MUS 595	Music Theory Seminar	3
MUS 603	Analytical Studies in Music	3
MUS 604	Schenkerian Analysis	3

Music theory exam: Dependent upon results of advisory exams

#### Research Proposal/Dissertation — 16 hours

MUS 797	Doctoral Proposal Research	1-4
MUS 799	Doctoral Dissertation	1-12

MUS 797: Take 4 credits

MUS 799: Take 12 credits

**NOTES:** The hours allotted to the doctoral dissertation may be divided between performance and dissertation requirements according to the plan of study as outlined and approved by the candidate's committee.

*Performance, Conducting, Jazz Studies, and Collaborative Piano majors will perform two recitals for 8 semester hours and complete a four semester hour dissertation. Students seeking the D.A. in Music Education, Music History and Literature or Composition will complete a 12-hour dissertation.*

Composition majors will present a recital of their compositions written as part of their degree program.

A reading knowledge of one foreign language (typically 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, voice, 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 and jazz studies areas a substitute research tool may be permitted after consultation and approval by the candidate's committee. For the collaborative piano emphasis, language proficiency will be examined upon entry. Candidates must demonstrate pronunciation proficiency in French, German, Italian and the International Phonetic Alphabet as well as reading proficiency in French, German, and Italian. Candidates with deficiencies will meet with their major advisor and other appropriate faculty to determine the best way to remedy those deficiencies. Students should contact the Graduate Coordinator or appropriate area faculty to clarify language requirements.

The candidate must complete two consecutive semesters (minimum of 9 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.

The Music Performance Emphasis has an optional concentration in pedagogy.

## MUSIC D.A. — MUSIC EDUCATION EMPHASIS

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### College of Performing and Visual Arts

#### Degree Requirements — 66 Credits

See "Music D.A. — Music Education Emphasis" (p. 241).

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.

See "Graduate Admission Requirements" (p. 241) for more information.

#### DEGREE REQUIREMENTS

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##### Required Emphasis Credits — 25 hours

##### Primary Emphasis (15 hours)

EDF 640	Psychological Foundations of Education	3
EDF 685	Philosophical Foundations of Education	3
MUS 519	Foundations of Music Education	3
MUS 533	Curriculum Trends in Music Education	3
MUS 612	Psychology of Music Teaching and Learning	3

##### Secondary Emphasis (10 hours)

##### Elective Credits — 13 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.

##### Research Core — 12 hours

MUS 610	Research in Music Education	3
MUS 700	Introduction to Doctoral Research	3
SRM 602	Statistical Methods I	3
SRM 603	Statistical Methods II	3

##### Research Proposal/Dissertation — 16 Hours

MUS 797	Doctoral Proposal Research	1-4
MUS 799	Doctoral Dissertation	1-12

MUS 797: Take 4 credits

MUS 799: Take 12 credits

**NOTE:** 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 leadership, 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.

## MUSIC D.A. — MUSIC HISTORY AND LITERATURE EMPHASIS

### College of Performing and Visual Arts

#### Degree Requirements — 70 Credits

See "Music D.A. — Music History and Literature Emphasis (p. 241)".

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.

See "Graduate Admission Requirements (p. 238)" for more information.

### DEGREE REQUIREMENTS

#### Primary Emphasis — 18 hours

The primary emphasis area develops a focused scholarly and/or creative and pedagogical expertise to professional levels in Music History and Literature. Courses are selected by advisement based upon candidate's area of focus and upon the candidates needs identified through the advisory examination.

#### Secondary Emphasis — 10 hours

##### Elective Credits — 5 hours

##### Research and Pedagogy Core — 21 hours

MUS 504	Music Theory Pedagogy	3
MUS 649	Music History Pedagogy	3
MUS 700	Introduction to Doctoral Research	3

##### Select two courses (6 hours) (music history advisory exam)

Period Seminars in Music History		
MUS 507	History of Instruments and Instrumental Practices	3
MUS 643	Seminar: Medieval Music	3
MUS 644	Seminar: Music in the Renaissance	3
MUS 645	Seminar: The Baroque Period	3
MUS 646	Seminar: The Classic Period	3
MUS 647	Seminar: The Romantic Period	3
MUS 651	Seminar in Music History: Debussy to 1945	3
MUS 652	Seminar in Music History: 1945 to the Present	3

Music history exam: Dependent upon results of advisory exams

##### Select two courses (6 hours) (music theory exam)

Graduate Music Theory and Analysis		
MUS 501	18th Century Counterpoint	3
MUS 502	Harmony and Form	3
MUS 503	Post-Tonal Music	3
MUS 505	Sixteenth Century Counterpoint	3
MUS 595	Music Theory Seminar	3
MUS 603	Analytical Studies in Music	3
MUS 604	Schenkerian Analysis	3

Music theory exam: Dependent upon results of advisory exams

##### Research Proposal/Dissertation — 16 hours

MUS 797	Doctoral Proposal Research	1-4
MUS 799	Doctoral Dissertation	1-12

MUS 797: Take 4 credits

MUS 799: Take 12 credits

**NOTES:** The hours allotted to the doctoral dissertation may be divided between performance and dissertation requirements according to the plan of study as outlined and approved by the candidate's committee.

Performance, Conducting, Jazz Studies, and Collaborative Piano majors will perform two recitals for 8 semester hours and complete a four semester hour dissertation. Students seeking the D.A. in Music Education, Music History and Literature or Composition will complete a 12-hour dissertation.

Composition majors will present a recital of their compositions written as part of their degree program.

A reading knowledge of one foreign language (typically 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, voice, 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 and jazz studies areas a substitute research tool may be permitted after consultation and approval by the candidate's committee. For the collaborative piano emphasis, language proficiency will be examined upon entry. Candidates must demonstrate pronunciation proficiency in French, German, Italian and the International Phonetic Alphabet as well as reading proficiency in French, German, and Italian. Candidates with deficiencies will meet with their major advisor and other appropriate faculty to determine the best way to remedy those deficiencies. Students should contact the Graduate Coordinator or appropriate area faculty to clarify language requirements.

The candidate must complete two consecutive semesters (minimum of 9 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.

The Music Performance Emphasis has an optional concentration in pedagogy.

**NURSING D.N.P. — ADULT  
GERONTOLOGY ACUTE CARE NURSE  
PRACTITIONER (AGACNP) EMPHASIS  
(POST BACHELOR'S)**

**College of Natural and Health Sciences**

**Degree Requirements — 97 credits**

See "Nursing D.N.P. (p. 230)".

**DEGREE REQUIREMENTS**

**Nursing Science BS to D.N.P. Core — 24 hours**

NURS 507	Policy, Leadership and Nursing Issues	3
NURS 601	Theoretical Foundations for Advanced Nursing	3
NURS 608	Advanced Health Care Concepts	3
NURS 618	Epidemiology in Advance Nursing Practice	3
NURS 668	Population Centered Health Care	3
NURS 678	Professional Practice and Healthcare Finance Seminar	3
NURS 703	Philosophical Underpinnings of Nursing Science	3
NURS 707	Leadership in Health Policy	3

**Nursing Practitioner Emphasis - 16 hours**

NURS 612	Advanced Pharmacology	4
NURS 613	Advanced Health Assessment	4
NURS 614	Advanced Pathophysiology	3
NURS 624	Health Promotion and Disease Prevention in Advanced Practice of Nursing	3
NURS 690	Advanced Professional Role	2

**Nursing Practice AGACNP Emphasis — 25 hours**

NURS 609	Foundations in Public Health for Advanced Practice Nurses	3
NURS 651	Adult Gerontology Acute Care I	3
NURS 652	Adult Gerontology Acute Care II	3
NURS 653	Adult Gerontology Acute Care III	3
NURS 682	AGACNP Practicum I	3
NURS 683	AGACNP Practicum II	2
NURS 684	AGACNP Acute Care Skills	1
NURS 686	AGACNP Practicum III	3
NURS 693	AGACNP Synthesis Practicum	4

**DNP Research Core — 29 hours**

NURS 606	Research and Evidence-based Practice in Nursing	3
NURS 723	Design, Methods and Analysis in Health Care Research, Part I	3
NURS 724	Design, Methods and Analysis in Health Care Research, Part II	3

NURS 725	Translational Research Methods	3
NURS 791	DNP Seminar I	1
NURS 792	DNP Seminar II	1
NURS 793	DNP Seminar III	1
NURS 795	DNP Capstone Project Proposal Seminar	2
NURS 798	DNP Project Practicum	1-12

**Elective - 3 hours**

3 elective credits required, approval of program coordinator needed

**NURSING D.N.P. — FAMILY NURSE  
PRACTITIONER (FNP) EMPHASIS (POST  
BACHELOR’S)**

NURS 798 DNP Project Practicum 1-12

**Electives - 3 hours**

3 elective credit required, approval of  
program coordinator needed.

**College of Natural and Health Sciences**

**Degree Requirements — 95 credits**

See “Nursing D.N.P. (p. 230)”.

**DEGREE REQUIREMENTS**

**Nursing Science BS to D.N.P. Core — 24 hours**

NURS 507	Policy, Leadership and Nursing Issues	3
NURS 601	Theoretical Foundations for Advanced Nursing	3
NURS 608	Advanced Health Care Concepts	3
NURS 618	Epidemiology in Advance Nursing Practice	3
NURS 668	Population Centered Health Care	3
NURS 678	Professional Practice and Healthcare Finance Seminar	3
NURS 703	Philosophical Underpinnings of Nursing Science	3
NURS 707	Leadership in Health Policy	3

**Nursing Practitioner Emphasis - 16 hours**

NURS 612	Advanced Pharmacology	4
NURS 613	Advanced Health Assessment	4
NURS 614	Advanced Pathophysiology	3
NURS 624	Health Promotion and Disease Prevention in Advanced Practice of Nursing	3
NURS 690	Advanced Professional Role	2

**Nursing Practice FNP Emphasis — 23 hours**

NURS 654	Acute Care of Adults	3
NURS 656	Care of Chronic Illness in Adults	3
NURS 674	Care of Women and Pediatric Populations	3
NURS 675	FNP Clinical I	2
NURS 676	FNP Advanced Clinical Topics	2
NURS 677	FNP Clinical II	4
NURS 689	FNP Clinical Synthesis	6

**DNP Research Core — 29 hours**

NURS 606	Research and Evidence-based Practice in Nursing	3
NURS 723	Design, Methods and Analysis in Health Care Research, Part I	3
NURS 724	Design, Methods and Analysis in Health Care Research, Part II	3
NURS 725	Translational Research Methods	3
NURS 791	DNP Seminar I	1
NURS 792	DNP Seminar II	1
NURS 793	DNP Seminar III	1
NURS 795	DNP Capstone Project Proposal Seminar	2



**NURSING D.N.P. (POST-MASTER'S)****College of Natural and Health Sciences****Degree Requirements — 44 credits**

See “Nursing D.N.P. (p. 230)”.

Students that are APNs may also enter with a master’s and complete the doctoral degree with 33 hours. The general plan of study for students who enter the DNP with a baccalaureate degree in nursing and a conferred master’s degree is listed below.

**DEGREE REQUIREMENTS****DNP Major Core Courses - 15 hours**

NURS 618	Epidemiology in Advance Nursing Practice	3
NURS 668	Population Centered Health Care	3
NURS 678	Professional Practice and Healthcare Finance Seminar	3
NURS 703	Philosophical Underpinnings of Nursing Science	3
NURS 707	Leadership in Health Policy	3

**DNP Research Courses - 26 hours**

NURS 723	Design, Methods and Analysis in Health Care Research, Part I	3
NURS 724	Design, Methods and Analysis in Health Care Research, Part II	3
NURS 725	Translational Research Methods	3
NURS 791	DNP Seminar I	1
NURS 792	DNP Seminar II	1
NURS 793	DNP Seminar III	1
NURS 795	DNP Capstone Project Proposal Seminar	2
NURS 798	DNP Project Practicum	1-12

NURS 798 (p. 323): All doctoral students must earn 12 hours to fulfill the requirement for the doctorate.

**Elective - 3 hours**

3 credit elective required, approval of program coordinator needed

**NURSING EDUCATION PH.D.****College of Natural and Health Sciences****Degree Requirements — 66-78 credits**

See “Nursing Education Ph.D.” (p. 232).

(Select the BS to Ph.D. or the Master’s to Ph.D. entry options)

**DEGREE REQUIREMENTS****Research Core — 15 hours**

NURS 723	Design, Methods and Analysis in Health Care Research, Part I	3
NURS 724	Design, Methods and Analysis in Health Care Research, Part II	3
NURS 790	Doctoral Research Colloquium	3
SRM 680	Introduction to Qualitative Research	3
SRM 700	Advanced Research Methods	3

**Research and Dissertation — 16 hours**

NURS 797	Doctoral Proposal Research	1-4
NURS 799	Doctoral Dissertation	1-12

**Research Tools**

Students must demonstrate research skills in areas pertinent to the dissertation research topic. The Students’ competence in these skills will be assessed by the Students’ oral exam committee and/or dissertation committee members.

**BS TO PH.D. REQUIREMENTS — 78 HOURS****Nursing Science BS to Ph.D. Core — 15 hours**

NURS 614	Advanced Pathophysiology	3
NURS 702	Advanced Concepts of Vulnerable Underserved Populations	3
NURS 703	Philosophical Underpinnings of Nursing Science	3
NURS 707	Leadership in Health Policy	3
NURS 711	Advanced Theory and Knowledge Development in Nursing	3

**Nursing Education — 26 hours**

NURS 631	Teaching Strategies for Practice and Academic Settings	3
NURS 661	Planning and Evaluating Education in Practice and Academic Settings	3
NURS 695	Advanced Academic Nursing Roles	3
NURS 730	The Scholarship of Teaching and Practice in Nursing Education	2
NURS 740	Intensive Teaching Practicum	3
NURS 760	Advanced Nursing Curriculum Design and Program Evaluation	3

NURS 780	The Professorial Role in Nursing Education	3	NURS 631	Teaching Strategies for Practice and Academic Settings	3
PSY 681	Cognition and Instruction I	3	NURS 661	Planning and Evaluating Education in Practice and Academic Settings	3

Choose one of the following courses:

NURS 710	Measurement of Nursing Student Outcomes	3
	or	
SRM 670	Evaluation: Models and Designs	3

The BS to Ph.D. students will receive the master's degree en-route to the Ph.D.

#### **Electives — 6 hours (with advisor approval)**

Examples include transcultural nursing courses or coursework in education, educational leadership, educational psychology, educational technology, statistics, gerontology, etc.

### **MASTER'S TO PH.D. REQUIREMENTS — 66 HOURS**

Students may also enter with a master's and complete the doctoral degree with 66 hours. The general plan of study for students who enter the doctoral program with a baccalaureate degree in nursing and a conferred master's degree is listed below.

#### **Nursing Science Master's to Ph.D. Core — 12 hours**

NURS 702	Advanced Concepts of Vulnerable Underserved Populations	3
NURS 703	Philosophical Underpinnings of Nursing Science	3
NURS 707	Leadership in Health Policy	3
NURS 711	Advanced Theory and Knowledge Development in Nursing	3

#### **Nursing Education — 17 hours**

NURS 730	The Scholarship of Teaching and Practice in Nursing Education	2
NURS 741	Evidence-Based Teaching	3
NURS 760	Advanced Nursing Curriculum Design and Program Evaluation	3
NURS 780	The Professorial Role in Nursing Education	3
PSY 681	Cognition and Instruction I	3

Choose one of the following courses:

NURS 710	Measurement of Nursing Student Outcomes	3
	or	
SRM 670	Evaluation: Models and Designs	3

#### **Electives — 6 hours (with advisor's approval)**

#### **Deficiencies**

\*Equivalencies or portfolio experience will determine student's need to take these additional hours (may be used as elective courses):

**REHABILITATION SCIENCES PH.D.****College of Natural and Health Sciences****Degree Requirements — 66-67 Credits**

See "Rehabilitation Sciences Ph.D." (p. 227)

**DEGREE REQUIREMENTS****Required Major Content — 9 hours**

All students are required to take 9 credit hours of the following required major coursework based upon their post-degree goals and in consultation with their advisor.

RCS 659	Seminar in Rehabilitation Counseling Supervision	3
RCS 695	Seminar in Foundations of Human Rehabilitation	3
GERO 665	Research Application and Grant Development	3
PSY 654	Seminar in College Teaching	3
APCE 710	Seminar in Instruction, Pedagogy, and Evaluation in Counseling and Psychology	3

**Rehabilitation Professoriate - Take any combination of the following for a minimum of 9 hours.**

All students are required to take 9 credit hours of supervised practice based upon their post degree goals and in consultation with their advisor. These courses are repeatable up to 9 credit hours each.

RCS 755	Supervised Practicum in College Teaching	3
RCS 757	Advanced Seminar in Rehabilitation Administration	3
RCS 758	Seminar in Collaborative Research in Human Sciences	3
RCS 759	Advanced Practicum in Rehabilitation Counseling Supervision	3

**Research Methods and Statistics Core — 18 hours**

All doctoral students are required to take the following 18 credit hours in research methods and statistics in order to satisfy one of the two university required research tools.

SRM 602	Statistical Methods I	3
SRM 603	Statistical Methods II	3
SRM 608	Experimental Design	3
SRM 610	Statistical Methods III	3
SRM 680	Introduction to Qualitative Research	3
SRM 700	Advanced Research Methods	3

**Cognate - 14-15 hours**

All doctoral students are required to take 14-15 credit hours in a one of five specialization areas (cognates) based upon their research interests and post degree goals. The

cognate serves to satisfy one of the two university required research tools. Prospective students will identify their chosen cognate as part of their application process and should contact program faculty for updated cognate coursework listings.

**Business Management Cognate - Healthcare Administrative Specialization - 14 hours**

Students must take 14 credit hours in the following courses.

MBA 654	Leadership and Organizational Behavior	3
MBA 660	Marketing Management	3
MBA 670	Advanced Financial Management	3
MBA 671	Current Issues in Healthcare Policy & Management	2
MBA 672	Managing Healthcare Organizations	2
MBA 673	Managing Healthcare Quality and Compliance	2
MBA 681	Talent Management	2
MBA 682	Training and Organization Development	2
MBA 684	Managing Organizational Change	2
CH 610	Program Planning and Evaluation	3

**Community Health Cognate - 15 hours**

Students must take 15 credit hours in the following courses.

CH 509	Behavior Change Theories	3
CH 530	Strategies for Community Health Promotion	3
CH 533	Physical Activity Interventions in the Community	3
CH 535	Effective Community Health Engagement	3
CH 550	Environmental Health	3
CH 610	Program Planning and Evaluation	3
CH 620	Epidemiology	3
CH 635	Policy, Advocacy, Leadership & Management in Community Health	3

**Gerontology Cognate - 15 hours**

Students must take 15 credit hours in the following courses. Results in a graduate certificate in gerontology\*

GERO 560	Community Resources for Older Adults	3
GERO 625	Psychosocial Aspects of Aging	3
GERO 630	Intervention Strategies with Older Adults	3
GERO 635	Social Policies of Aging	3
GERO 640	Health Aspects of Gerontology	3
GERO 665	Research Application and Grant Development	3
CH 610	Program Planning and Evaluation	3

\*GERO 560, 625, 635, and 640 are required for the Gerontology certificate.

**Research Methods and Statistic Cognate - 15 hours**

Students must take 15 credit hours in the following. Results in a doctoral minor.

SRM 611	Advanced Statistical Data Analysis	3
SRM 625	Applied Multiple Regression Analysis	3
SRM 627	Survey Research Methods	3
SRM 629	Structural Equation Modeling	3
SRM 635	Categorical Data Analysis	3
SRM 685	Educational Ethnography	3
SRM 686	Qualitative Case Study Research	3
SRM 705	Advanced Issues in Research Methods	3

**Self-Designed Cognate - 15 hours**

The self-designed cognate must have a cohesive theme that is clearly articulated. A course plan with approval from student’s program advisor is required. All courses must be at or above the 500 level to qualify.

**Research Proposal/Dissertation - 16 hours**

All doctoral students are required to complete a minimum of 4 hours of Doctoral Proposal Research and 12 hours of Doctoral Dissertation credit.

RCS 797	Doctoral Proposal Research	1- 4
RCS 799	Doctoral Dissertation	1-12

## SCHOOL PSYCHOLOGY PH.D.

### College of Education and Behavioral Sciences

The Ph.D. program is accredited by the Commission on Accreditation of the American Psychological Association. Questions related to the program's accredited status should be directed to the Commission on Accreditation:

*Office of Program Consultation and Accreditation  
American Psychological Association*

*750 1st Street NE*

*Washington, DC 20002*

*Phone: (202) 336-5979 or Email: [apaaccred@apa.org](mailto:apaaccred@apa.org)*

*Web: [www.apa.org/ed/accreditation/](http://www.apa.org/ed/accreditation/)*

The Ph.D. program in School Psychology is also approved by the National Association of School Psychologists.

Students in the Ph.D. program in School Psychology must complete all requirements of the M.A. degree in Foundations of Professional Psychology, in addition to the credits here. Upon completion of the M.A. degree, students will automatically be admitted to the Ph.D. program in School Psychology.

### Degree Requirements — 99-103 Credits

#### DEGREE REQUIREMENTS

##### School Psychology Core — 25 semester hours

APCE 623	Understanding and Counseling Diverse Populations	3
APCE 640	School-Based Psychological Consultation	3
APCE 656	Systems-Based Behavioral Health	3
APCE 667	Intervening with Trauma and Crisis in the Schools	3
APCE 747	Psychological Aspects of Academic Programming and Intervention	3
APCE 763	Legal and Professional Foundations of School Psychology	4
EDSE 630	Applied Behavior Analysis I	3
PSY 587	Social Cognitive Neuroscience	3

##### Assessment Core — 8 semester hours

APCE 644	Assessment I: Cognitive and Academic Functioning	5
APCE 646	Assessment II: Socio-emotional and Behavioral Functioning	3

##### Practicum Core — 16-19 semester hours

APCE 618	Practicum in Child, Adolescent, and Family Interventions	5
APCE 776	Externship in School Psychology	1- 2
APCE 779	Practicum in School Psychology	1- 3

APCE 776: Take twice

APCE 779: Must complete 6 credits over the academic year

#### Select one of the following courses:

APCE 617	Play Therapy: Theory and Practicum	3
APCE 681	Practicum in Systems Consultation	3
APCE 694	Practicum in Couples and Family Therapy	4
APCE 778	Clinical Neuropsychology Practicum	3

#### Ph.D. Electives 9-10 semester hours (Choose three):

APCE 609	Foundations of Play Therapy	3
APCE 624	Assessment and Treatment of Substance Abuse	3
APCE 631	Applied Behavior Analysis II	3
APCE 665	Family Systems	3
APCE 669	Advanced Methods: Couples and Family Therapy	3
APCE 755	Supervised Practicum in College Teaching	1- 6
APCE 782	Introduction to Rorschach Administration and Scoring	3
APCE 785	Advanced Practicum in Community Engagement: Campus Connections	1
EDSE 632	Ethics in Applied Behavior Analysis	3
EDSE 633	Applications of Applied Behavior Analysis	4
SRM 607	Non-Parametric Statistics	3
SRM 609	Sampling Methods	3
SRM 611	Advanced Statistical Data Analysis	3
SRM 625	Applied Multiple Regression Analysis	3
SRM 626	Applied Multilevel Modeling	3
SRM 627	Survey Research Methods	3
SRM 629	Structural Equation Modeling	3
SRM 635	Categorical Data Analysis	3
SRM 636	Applied Bayesian Statistics	3
SRM 637	Applied Time Series Analysis	3
SRM 660	Mixed Methods Research	3
SRM 680	Introduction to Qualitative Research	3
SRM 685	Educational Ethnography	3
SRM 686	Qualitative Case Study Research	3

SRM 705	Advanced Issues in Research Methods	3
SRM 770	Evaluation: Advanced Methods	3

**Supervision Core — 3 semester hours**

APCE 775	Supervision in School Psychology	3
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**Research Core — 19 semester hours****Research Methodology**

SRM 700	Advanced Research Methods	3
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**Applied Statistics**

SRM 603	Statistical Methods II	3
SRM 610	Statistical Methods III	3

**Applied Research Methods**

APCE 629	Measurement and Experimental Design in Applied Behavior Analysis	3
APCE 663	Seminar in Research and Professional Practice	1
APCE 781	Evaluation of Psychological Services	3

APCE 663: Must complete 1 credit per semester for 4 semesters, excluding summer.

**Internship Core — 3 semester hours**

APCE 789	Internship in School Psychology	1- 8
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**Dissertation Core — 16 semester hours**

APCE 797	Doctoral Proposal Research	1- 4
APCE 799	Doctoral Dissertation	1-12

APCE 797: Take 4 credits

APCE 799: Take 12 credits

**NOTE:** A student entering with previously completed graduate coursework may be able to have courses waived with advisor consent. In addition to formal course requirements, students must complete written and oral comprehensive examinations. As part of their written examination, students must pass the National School Psychology examination with a score of 147 or higher. Students must also complete a dissertation and a minimum 2000 hour internship.

## SPECIAL EDUCATION PH.D.

### College of Education and Behavioral Sciences

#### Degree Requirements — 77-83 Credits

See “Special Education Ph.D.” (p. 208).

The Ph.D. in Special Education is a flexible doctoral program with provisions for individual planning to prepare stewards of the discipline of special education 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 and gifts and talents. Graduates develop leadership knowledge and skills in exceptionalities related to six major themes: theory, pedagogy, research methodology, evidence-based practice, public policy/advocacy, and collaboration. 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.

#### DEGREE REQUIREMENTS

Students will be required to demonstrate literacy and competency in computer applications as part of the program.

##### Doctoral Core Courses (25 hours)

EDSE 701	Introduction to Doctoral Study in Exceptionalities	1
EDSE 702	Law of Exceptionalities	3
EDSE 721	Theories of Exceptionality	3
EDSE 727	Seminar in Exceptionalities	3
EDSE 728	Seminar in Professional Writing	3
EDSE 732	Research in Exceptionalities	3
EDSE 733	Preparing Teachers of Students with Exceptionalities	3
EDSE 744	Grant Writing Seminar	3
EDSE 745	Advanced Doctoral Seminar	3

##### Externships (3 hours - minimum)

EDSE 730	Externship in Exceptionalities	1- 9
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Externships are taken in one to three hour blocks and involve an off-campus experience. Variable titles related to inquiry, university teaching, research, and administration are selected based on the nature of the externship.

##### Elective Credits — 9 hours (minimum)

Students are to select 9 semester hours of courses in a cognate closely related to the student’s program goals. 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: transition of children and youth with exceptionalities; education of infants and preschool children with exceptionalities; one of the categorical areas of special education (autism, blind or visually impaired, deaf or hard of hearing, emotionally disturbed, learning disabilities, mental retardation, etc.); gifts and talents; curriculum development; special education administration; university teaching/research; or other areas as designed by the student and his or her advisor.

##### Research Core — 12 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

##### Research Proposal/Dissertation — 16 hours

EDSE 797	Doctoral Proposal Research	1- 4
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Requires permission of major advisor. Explores dissertation research problems, theoretical frameworks, methodology, and data analysis procedures expected to develop an approved dissertation proposal. Students enroll for 1- to 4-hour blocks for a maximum of 4 hours. The student works closely with the Research Advisor and Doctoral Committee members to develop the proposal.

EDSE 799	Doctoral Dissertation	1-12
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Requires permission of major advisor. Dissertation research is taken in 1- to 12-hour blocks for a maximum of 12 hours. The student works closely with the Research Advisor and Doctoral Committee members to develop the proposal.

##### Research Tools — 12-18 hours

Students in special education must demonstrate proficiency in two of the four research tools listed below:

##### 1. Research Design/Applied Statistics (3 hours from the following courses)

The GPA for this course and the 12 hours of Research Core above must be 3.0 or higher.

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 611	Advanced Statistical Data Analysis	3
SRM 625	Applied Multiple Regression Analysis	3
SRM 627	Survey Research Methods	3
SRM 629	Structural Equation Modeling	3

SRM 635	Categorical Data Analysis	3
SRM 685	Educational Ethnography	3
SRM 686	Qualitative Case Study Research	3
SRM 687	Narrative Inquiry	3
SRM 688	Writing Qualitative Research	3
SRM 705	Advanced Issues in Research Methods	3

**2. Evaluation (9 hours from the following courses)**

ELPS 654	Instructional Leadership and Supervision	3
ELPS 665	Policy Analysis and Development	3
SRM 670	Evaluation: Models and Designs	3
SRM 770	Evaluation: Advanced Methods	3

**3. Instructional Technology (9 hours from the following courses)**

ET 502	Instructional Design	3
ET 602	Performance Technology for Instructional Environments	3
ET 617	Development of Online Applications	3
ET 628	Design of Multimedia Learning Environments	3
ET 702	Instructional Design Theory and Research	3

**4. Collateral Field (9 hours)**

Contact the doctoral coordinator for examples of approved courses taken in a collateral field (cognition, instruction, measurement, psychology, human development, rehabilitation; additional research courses may be considered) that will support the dissertation research (600-level and above).

**Comprehensive Performance Assessment**

The comprehensive examination consists of a written Major Paper plus a matrix of performance options that demonstrates competency in theory, pedagogy, research methodology, evidence-based practice, public policy/advocacy, and collaboration.



## SPORT AND EXERCISE SCIENCE PHD — BIOMECHANICS EMPHASIS

### College of Natural and Health Sciences

#### Degree Requirements — 64-67 Credits

See “Sport and Exercise Science Ph.D. (p. 234)”.

#### DEGREE REQUIREMENTS

##### Prerequisites — 3 hours

SES 602	Introduction to Research in Sport and Exercise Science	3
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May be required if not taken during a student’s Master’s program.

##### Required Credits — 24 hours

SES 618	Biomechanics of Locomotion	3
SES 619	Advanced Biomechanics	3
SES 620	Neuromuscular Structure and Function	3
SES 622	Directed Studies	1- 4
SES 625	Laboratory Techniques in Exercise Science Research	3
SES 627	Muscle Physiology	3
SES 755	Supervised Practicum in College Teaching	1- 6

SES 622: Take 6 hours

SES 625: Laboratory Techniques in Biomechanics

SES 755: Take 3 hours

##### Elective Credits (in consultation with advisor) — 12 hours

SES 550	Neural Aspects of Kinesiology	3
SES 624	Advanced Developmental Kinesiology	3
SES 626	Metabolism	3
SES 635	Exercise and Sports Psychology	3
SES 665	Advanced Sociological Kinesiology	3
SES 692	Graduate Internship in Sport and Exercise Science	1- 6

##### Research Core — 12 hours

SRM 602	Statistical Methods I	3
SRM 603	Statistical Methods II	3
SES 703	Research Seminar in Sport and Exercise Science	3
SRM 610	Statistical Methods III	3
	or	
SRM 680	Introduction to Qualitative Research	3

##### Research Proposal/Dissertation — 16 hours

SES 797	Doctoral Proposal Research	1- 4
SES 799	Doctoral Dissertation	1-12

### Research Tools

Doctoral students in this degree must demonstrate competency in the two following research tools listed below:

1. **Research Design.** Applied Statistics/Quantitative Methods. Complete 9-12 hours (excluding SRM 600 and SRM 700).
2. **Discipline-Specific Laboratory Techniques.** Exhibit competency in laboratory-based research work, which is specific to a student’s emphasis area. Coursework supporting this requirement is acceptable, but not required.

**Note:** In additions to Graduate School candidacy and graduation requirements, doctoral students in the School of Sport and Exercise Science must complete requirements associated with the SES doctoral matrix.

## SPORT AND EXERCISE SCIENCE PH.D. — EXERCISE PHYSIOLOGY EMPHASIS

### College of Natural and Health Sciences

#### Degree Requirements — 64-67 Credits

See “Sport and Exercise Science Ph.D.” (p. 234).

#### DEGREE REQUIREMENTS

##### Prerequisites — 3 hours

SES 602	Introduction to Research in Sport and Exercise Science	3
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May be required if not taken during a student’s Master’s program.

##### Required Credits — 12 hours

SES 625	Laboratory Techniques in Exercise Science Research	3
SES 626	Metabolism	3
SES 627	Muscle Physiology	3
SES 632	Cardiovascular Physiology	3

SES 625: Laboratory Techniques in Exercise Physiology

##### Elective Credits in consultation with advisor — 24 hours

BIO 547	Immunology and Disease	4
BIO 550	Cell Physiology	3
BIO 552	Mammalian Physiology I	3
BIO 553	Mammalian Physiology II	3
BIO 556	Current Topics in Biomedical Research	2
BIO 576	Pharmacology	3
BIO 582	Cancer Biology	3
CHEM 581	General Biochemistry I	4
CHEM 582	General Biochemistry II	4
SES 550	Neural Aspects of Kinesiology	3
SES 619	Advanced Biomechanics	3
SES 620	Neuromuscular Structure and Function	3
SES 622	Directed Studies	1-4
SES 624	Advanced Developmental Kinesiology	3
SES 635	Exercise and Sports Psychology	3
SES 665	Advanced Sociological Kinesiology	3
SES 690	Graduate Seminar in Sport and Exercise Science	1
SES 692	Graduate Internship in Sport and Exercise Science	1-6
SES 696	College Teaching	3
SES 755	Supervised Practicum in College Teaching	1-6

##### Research Core — 12 hours

SRM 602	Statistical Methods I	3
SRM 603	Statistical Methods II	3

SES 703	Research Seminar in Sport and Exercise Science	3
SRM 610	Statistical Methods III	3
	or	
SRM 680	Introduction to Qualitative Research	3

##### Research Proposal/Dissertation — 16 hours

SES 797	Doctoral Proposal Research	1-4
SES 799	Doctoral Dissertation	1-12

##### Research Tools

Doctoral students in this degree must demonstrate competency in two research tools. Three possibilities are listed below:

1. **Research Design.** Applied Statistics/Quantitative Methods. Complete 9-12 hours (excluding SRM 600 and SRM 700).
2. **Research Design.** Applied Statistics/Qualitative Methods. Complete 9-12 hours (excluding SRM 600 and SRM 700).
3. **Discipline-Specific Laboratory Techniques.** Exhibit competency in laboratory-based research work, which is specific to a student’s concentration area. Coursework supporting this requirement is acceptable, but not required.

**NOTE:** In addition to Graduate School Candidacy and graduations requirements, doctoral students in the School of Sports and Exercise Science must complete requirements associated with the SES doctoral matrix.

**SPORT AND EXERCISE SCIENCE PH.D. —  
SOCIAL PSYCHOLOGY OF SPORT &  
PHYSICAL ACTIVITY EMPHASIS**

**College of Natural and Health Sciences**

**Degree Requirements — 64-67 Credits**

See “Sport and Exercise Science Ph.D. (p. 234)”.

**DEGREE REQUIREMENTS**

**Prerequisites — 3 hours**

SES 602	Introduction to Research in Sport and Exercise Science	3
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May be required if not taken during a student’s Master’s program.

**Required Credits — 15 hours**

SES 624	Advanced Developmental Kinesiology	3
SES 625	Laboratory Techniques in Exercise Science Research	3
SES 635	Exercise and Sports Psychology	3
SES 636	Motivation	3
SES 665	Advanced Sociological Kinesiology	3

SES 625: Laboratory Techniques in Social Psychology of Sport and Physical Activity

**Elective Credits (with advisor approval) — 21 hours**

GERO 625	Psychosocial Aspects of Aging	3
PSY 664	Advanced Social Psychology	3
SES 619	Advanced Biomechanics	3
SES 620	Neuromuscular Structure and Function	3
SES 622	Directed Studies	1- 4
SES 626	Metabolism	3
SES 627	Muscle Physiology	3
SES 670	Sport and Higher Education	3
SES 680	Perspectives in Sport Pedagogy	3
SES 692	Graduate Internship in Sport and Exercise Science	1- 6
SES 696	College Teaching	3
SES 755	Supervised Practicum in College Teaching	1- 6
SOC 532	Social Psychology of Group Dynamics	3
SOC 552	Applied Social Theory	3

**Research Core — 12 hours**

SRM 602	Statistical Methods I	3
SRM 603	Statistical Methods II	3
SES 703	Research Seminar in Sport and Exercise Science	3
SRM 610	Statistical Methods III	3

	or	
SRM 680	Introduction to Qualitative Research	3

**Research Proposal/Dissertation — 16 hours**

SES 797	Doctoral Proposal Research	1- 4
SES 799	Doctoral Dissertation	1-12

**Research Tools**

Doctoral students in this degree must demonstrate competency in two research tools. Three possibilities are listed below:

1. **Research Design.** Applied Statistics/Quantitative Methods. Complete 9-12 hours (excluding SRM 600 and SRM 700).
2. **Research Design.** Applied Statistics/Qualitative Methods. Complete 9-12 hours (excluding SRM 600 and SRM 700).
3. **Discipline-Specific Laboratory Techniques.** Exhibit competency in laboratory-based research work, which is specific to a student’s emphasis area. Coursework supporting this requirement is acceptable, but not required.

**NOTE:** In addition to Graduate School candidacy and graduation requirements, doctoral students in the School of Sport and Exercise Science must complete requirements associated with the SES doctoral matrix.

## SPORT AND EXERCISE SCIENCE PH.D. — SPORT ADMINISTRATION EMPHASIS

### College of Natural and Health Sciences

#### Degree Requirements — 64-67 Credits

See “Sport and Exercise Science Ph.D.” (p. 234).

#### DEGREE REQUIREMENTS

##### Prerequisites — 3 hours

SES 703	Research Seminar in Sport and Exercise Science	3
	or	
	A graduate research course from Educational Psychology (EPSY), Psychology (PSY) or Applied Statistics and Research Methods (SRM). Advisor approval is required for this choice.	

Students in this emphasis are required to successfully complete, with a grade of “B” or better in each course, the doctoral minor in Applied Statistics and Research Methods.

##### Required Emphasis Credits — 27 hours

SES 560	Issues and Ethics in Sport Management	3
SES 650	Financial Management for Sport Organizations	3
SES 660	Sport Personnel Management	3
SES 665	Advanced Sociological Kinesiology	3
SES 676	Sport Public Relations and Information Systems	3
SES 678	Event Development and Management	3
SES 679	Advanced Sport Marketing and Consumer Behavior	3
SES 688	Legal Aspects of Sport	3
SES 705	Seminar in Sport Administration	3

##### Elective Credits — 10 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.

ELPS 601	Leadership Development Through Inquiry	3
ELPS 650	School Finance and Budgeting	3
ET 501	Introduction to Applications of Educational Technology in PK-12 Education	3
ET 504	Instructional Materials Design II	3
HESA 680	Law and Higher Education	3

SES 576	Sport Promotion and Marketing	3
SES 670	Sport and Higher Education	3
SES 675	Management of Sports Facilities and Equipment	3
SES 692	Graduate Internship in Sport and Exercise Science	1-6
SES 696	College Teaching	3
SES 755	Supervised Practicum in College Teaching	1-6
SRM 610	Statistical Methods III	3
SRM 611	Advanced Statistical Data Analysis	3
SRM 627	Survey Research Methods	3
SRM 680	Introduction to Qualitative Research	3

**NOTE:** The course SES 692 Graduate Internship in Sport and Exercise Science 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 SES 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.

##### Research Core — 12 hours

SRM 602	Statistical Methods I	3
SRM 603	Statistical Methods II	3
SES 703	Research Seminar in Sport and Exercise Science	3
	or	
SRM 700	Advanced Research Methods	3
SRM 610	Statistical Methods III	3
	or	
SRM 680	Introduction to Qualitative Research	3

##### Research Proposal/Dissertation — 16 hours

SES 797	Doctoral Proposal Research	1-4
SES 799	Doctoral Dissertation	1-12

##### Research Tools

Doctoral students in this degree must demonstrate competency in two research tools. Four possibilities are listed below:

- 1. Research Design.** Applied Statistics/Quantitative Methods. Complete 9-12 hours (excluding SRM 600 and SRM 700).
- 2. Research Design.** Applied Statistics/Qualitative Methods. Complete 9-12 hours (excluding SRM 600 and SRM 700).
- 3. Discipline-Specific Laboratory Techniques.** Exhibit competency in laboratory-based research work, which is specific to a student's emphasis area. Coursework supporting this requirement is acceptable, but not required.
- 4.** A collateral field of study may be used as a substitute for a research tool. See Graduate School policies for details.

**NOTE:** In addition to Graduate School candidacy and graduation requirements, doctoral students in the School of Sport and Exercise Science must complete requirements associated with the SES doctoral matrix.

## SPORT AND EXERCISE SCIENCE PH.D. — SPORT PEDAGOGY EMPHASIS

### College of Natural and Health Sciences

#### Degree Requirements — 65-68 Credits

See “Sport and Exercise Science Ph.D.” (p. 234).

#### DEGREE REQUIREMENTS

##### Prerequisites — 3 hours

SES 602	Introduction to Research in Sport and Exercise Science	3
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May be required if not taken during a student’s Master’s program.

##### Required Emphasis Credits — 22 hours

SES 614	Analysis of Teaching in Physical Education	3
SES 640	Curriculum in Physical Education	3
SES 641	Instructional Strategies for Elementary School Physical Education	3
SES 642	Instructional Strategies for Secondary School Physical Education	3
SES 685	Critical Pedagogy	3
SES 695	Seminar in Physical Education	2
SES 696	College Teaching	3

SES 695: take twice

##### Elective Credits — 15 hours

**NOTE:** 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.

##### 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:

SES 619	Advanced Biomechanics	3
SES 620	Neuromuscular Structure and Function	3
SES 624	Advanced Developmental Kinesiology	3
SES 626	Metabolism	3

##### Research Core — 12 hours

SRM 602	Statistical Methods I	3
SRM 603	Statistical Methods II	3
SES 703	Research Seminar in Sport and Exercise Science	3
SRM 610	Statistical Methods III	3
	or	
SRM 680	Introduction to Qualitative Research	3

##### Research Proposal/Dissertation — 16 hours

SES 797	Doctoral Proposal Research	1-4
SES 799	Doctoral Dissertation	1-12

##### Research Tools

Doctoral students in this degree must demonstrate competency in two research tools. Four possibilities are listed below:

1. **Research Design.** Applied Statistics/Quantitative Methods. Complete 9-12 hours (excluding SRM 600 and SRM 700).
2. **Research Design.** Applied Statistics/Qualitative Methods. Complete 9-12 hours (excluding SRM 600 and SRM 700).
3. **Discipline-Specific Laboratory Techniques.** Exhibit competency in laboratory-based research work, which is specific to a student’s emphasis area. Coursework supporting this requirement is acceptable, but not required.
4. A collateral field of study may be used as a substitute for a research tool. See Graduate School policies for details.

**NOTE:** In addition to Graduate School candidacy and graduation requirements, doctoral students in the School of Sport and Exercise Science must complete requirements associated with the SES doctoral matrix.

## TECHNOLOGY, INNOVATION AND PEDAGOGY PH.D.

### College of Education & Behavioral Sciences

#### Degree Requirements - 67 credits

See "Technology Innovation and Pedagogy Ph.D (p. 196)."

#### DEGREE REQUIREMENTS

##### Content Core - 15 Credits

TIP 720	Doctoral Seminar	3
TIP 721	Learning Theories and Technology Integration	3
TIP 723	Global & Cultural Perspectives in Educational Technology	3
TIP 725	Critical Theory and Research in Educational Technology	3

##### Select one of the following:

PSY 644	Motivation in Education	3
PSY 674	Measurement I: Educational Testing	3
PSY 681	Cognition and Instruction I	3

##### Research Core - 12 credits

TIP 700	Methods of Research in Instructional Design and Educational Technology I	3
SRM 602	Statistical Methods I	3
SRM 680	Introduction to Qualitative Research	3
SRM 700	Advanced Research Methods	3

##### Select 9 credits from the following:

EDF 601	Discourse Analysis in Language and Literacy Research	3
SRM 603	Statistical Methods II	3
SRM 627	Survey Research Methods	3
SRM 685	Educational Ethnography	3
SRM 686	Qualitative Case Study Research	3
SRM 687	Narrative Inquiry	3
TIP 701	Methods of Research in Instructional Design and Educational Technology II	3
TIP 770	Visual Methods for Educational Research in Digital Contexts	3

Or, other advance statistical or research methods courses with advisor.

##### Select one of the following Cognates:

#### 1. Integration & Innovation Cognate - minimum of 15 credits

TIP 740	Innovations in Technology & Education	3
TIP 741	Design Thinking	3
TIP 742	Multimedia & Computer Graphics	3

TIP 743	Visual and New Media Literacy	3
TIP 745	Multimodal Composing	3
TIP 747	Simulations in Education	3
TIP 749	Gaming and Application Design	3

#### 2. Instructional Technology Cognate - minimum of 15 credits

TIP 730	Performance Technology for Instructional Environments	3
TIP 731	Advanced Instructional Design Theory, Research and Practice	3
TIP 733	Case Studies in Instructional Design and Performance Technology	3
TIP 735	Online Theory and Management	3
TIP 737	Technology Leadership & Managing Educational Projects	3

#### Comprehensive Exam (no credit)

Students demonstrate a menu of competencies in an electronic portfolio and respond to two exam questions. Students showcase competencies during the oral defense. See attached comprehensive exam document.

#### Dissertations - 16 credits

TIP 797	Dissertation Proposal Research	1-4
TIP 799	Dissertation Research	1-12

TIP 797: Take 4 credits.

TIP 799: Take 12 credits.

Program Requirement: Students are required to complete a minimum of one academic year of field-based engagement related to future professional aspirations. Students are encouraged to work with faculty on research, attend and present at conferences, and publish papers in scholarly journals.

## Doctoral Minors

### APPLIED STATISTICS AND RESEARCH METHODS

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#### College of Education and Behavioral Sciences

#### Doctoral Minor Requirements — 15 Credits

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.

#### MINOR REQUIREMENTS

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##### Required courses — 15 hours

A minimum of five (5) courses completed during the student's UNC doctoral program with grades 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 610	Statistical Methods III	3
SRM 611	Advanced Statistical Data Analysis	3
SRM 625	Applied Multiple Regression Analysis	3
SRM 626	Applied Multilevel Modeling	3
SRM 627	Survey Research Methods	3
SRM 629	Structural Equation Modeling	3
SRM 635	Categorical Data Analysis	3
SRM 636	Applied Bayesian Statistics	3
SRM 637	Applied Time Series Analysis	3
SRM 660	Mixed Methods Research	3
SRM 670	Evaluation: Models and Designs	3
SRM 671	Grant Writing for Evaluators	3
SRM 680	Introduction to Qualitative Research	3
SRM 685	Educational Ethnography	3
SRM 686	Qualitative Case Study Research	3
SRM 687	Narrative Inquiry	3
SRM 688	Writing Qualitative Research	3
SRM 705	Advanced Issues in Research Methods	3
SRM 770	Evaluation: Advanced Methods	3

**NOTE:** SRM 502 or SRM 617 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 program is required. In consultation with their doctoral program advisors, students may include sufficient SRM courses in their programs of study to meet the requirements for the minor.

## EDUCATIONAL LEADERSHIP AND POLICY STUDIES

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### College of Education and Behavioral Sciences

#### Doctoral Minor Requirements — 15 Credits

The Educational Leadership minor is a 15 credit program available to students in any UNC doctoral program with the approval of their doctoral program advisor. The intent of this minor is to encourage doctoral students throughout the University to increase and expand their understanding of leadership theories, practices, strategies and research that support best practices in leading change and improvement of instructional settings. Completion of the minor will be noted in the student's transcript as "Minor in Educational Leadership and Policy Studies." No application for admission to the minor is required; students will declare their intent to complete the minor on their doctoral program of studies filed with the Graduate School.

#### MINOR REQUIREMENTS

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##### Required Courses — 15 Hours

A minimum of five (5) courses completed during the student's UNC doctoral program with grades of "B-" or better from the following courses:

ELPS 601	Leadership Development Through Inquiry	3
ELPS 603	Shaping Organizations: Management and Leadership in Education	3
ELPS 604	Understanding People: Professional Development and Educational Leadership	3
ELPS 605	External Environments: Social, Political, and Economic Influences in Educational Leadership	3
ELPS 608	Issues in Educational Leadership: Implications for Practice	3
ELPS 622	Directed Studies	1- 3
ELPS 650	School Finance and Budgeting	3
ELPS 651	School Business Management	3
ELPS 654	Instructional Leadership and Supervision	3
ELPS 660	Law and the Administrator	3
ELPS 662	Design and Delivery of Professional Development	3
ELPS 665	Policy Analysis and Development	3
ELPS 666	Planning and Change in Education	3

#### Features and Conditions:

1. No application for admission to the minor is required. In consultation with their doctoral program advisors, students will declare their intent to complete the minor on their doctoral program of studies filed with the Graduate School.
2. ELPS-prefixed courses used for the minor may be part of a student's program of required or elective courses.



## EDUCATIONAL PSYCHOLOGY

### College of Education and Behavioral Sciences

#### Doctoral Minor Requirements — 15 Credits

**Admission Requirements** . The minor will be open to all students who are enrolled in good standing in a doctoral degree program at the University of Northern Colorado. Doctoral students must notify the Educational Psychology program director by submitting: 1) a letter stating their intent to obtain a minor in Educational Psychology, and 2) a letter from their doctoral program advisor indicating approval of the minor.

#### MINOR REQUIREMENTS

##### Concentration Area — 15 hours (minimum)

Substitutions will be allowed if they are approved by the Graduate Program Coordinator or the School Director.

##### Select one of three concentration areas:

##### 1) Learning and Cognition Concentration

PSY 540	Theories and Principles of Learning	3
PSY 590	Seminar in History and Systems	3
PSY 661	Trends and Issues in Educational Psychology	3
PSY 681	Cognition and Instruction I	3
PSY 682	Cognition and Instruction II	3
PSY 685	Advanced Seminar in Learning and Cognition	3

##### 2) Human Development Concentration

PSY 530	Life Span Developmental Psychology	3
PSY 590	Seminar in History and Systems	3
PSY 630	Advanced Child and Adolescent Psychology	3
PSY 661	Trends and Issues in Educational Psychology	3
PSY 684	Advanced Seminar in Human Development	3

##### 3) Research and Measurement Concentration

PSY 575	Educational Assessment	3
PSY 661	Trends and Issues in Educational Psychology	3
PSY 674	Measurement I: Educational Testing	3
PSY 675	Measurement II: Advanced Techniques	3
PSY 686	Advanced Seminar in Measurement and Assessment	3

## HIGHER EDUCATION AND STUDENT AFFAIRS LEADERSHIP

### College of Education and Behavioral Sciences

#### Doctoral Minor Requirements — 15 Credits

A doctoral minor in Higher Education and Student Affairs Leadership is available to students in any UNC doctoral program with the approval of their doctoral program advisor. The intent of this minor is to encourage doctoral students who anticipate working in higher education settings to increase and expand their understanding of higher education organizations, policies, and procedures and to understand developmental needs of college students and services offered to assist students. Completion of the minor will be noted in the student's transcript as "Minor in Higher Education and Student Affairs Leadership." No application for admission to the minor is required; students will declare their intent to complete the minor on their doctoral program of studies filed with the Graduate School.

#### MINOR REQUIREMENTS

##### Required courses — 15 hours

A minimum of five (5) courses completed during the student's UNC doctoral program with grades of "B-" or better from the following courses:

HESA 601	Introduction to Higher Education & Student Affairs	3
HESA 611	Organization and Administration	3
HESA 612	Higher Education Assessment and Evaluation	3
HESA 650	College Student Development: Foundational Theory	3
HESA 651	Philosophical, Historical and Cultural Foundations of Student Affairs in Higher Education	3
HESA 652	Enrollment Management Services	3
HESA 655	Multiculturalism in Higher Education and Student Affairs	3
HESA 658	Helping Skills for Practitioners	3
HESA 660	Women in Higher Education and Student Affairs	3
HESA 668	College Students: Culture, Characteristics, Campus Life	3
HESA 669	Culturally Responsive Aspects of Transformative Learning	3
HESA 671	Introduction to Leadership in Higher Education and Student Affairs Leadership	3
HESA 680	Law and Higher Education	3
HESA 683	Finance and Resource Management in Higher Education	3
HESA 685	Human Resources in Higher Education	3
HESA 690	Public Policy in Higher Education	3

HESA 695	Current Issues in Higher Education and Student Affairs Leadership	3
HESA 751	Advanced College Student Development: Social Identity	3
HESA 765	Advanced Multiculturalism	3
HESA 771	Advanced Leadership in Higher Education and Student Affairs Leadership	3

### Features and Conditions

1. Completion of the minor will be noted on the student's transcript as Minor in Higher Education and Student Affairs Leadership.
2. Course substitutions will be allowed only upon verification by the Graduate Program Coordinator of the HESAL program that a transfer course from another university is equivalent to one of the UNC courses listed above, or that it would be accepted in the HESAL Ph.D. program as a higher education elective course. Field experiences and internships may not be substituted for the above courses. All course substitutions must have been taken within the time frame of the student's UNC doctoral program.
3. HESA-prefixed courses used for the minor may be part of a student's program of required or elective courses.
4. No application to the Higher Education and Student Affairs Leadership program is required. In consultation with their doctoral program advisor, students may include sufficient HESA-prefixed courses to meet the requirements for the minor.

## READING

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### College of Education and Behavioral Sciences

#### Doctoral Minor Requirements — 15 Credits

A Doctoral Minor in Reading is available to students in any UNC doctoral program with the approval of their doctoral program advisor.

### MINOR REQUIREMENTS

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#### Required courses — 15 hours

A minimum of five (5) courses completed during the student's UNC doctoral program with grades of "B-" or better among the following courses:

EDRD 611	Language, Literacy and Cognitive Development	3
EDRD 612	Reading in the Elementary Schools	3
EDRD 614	Literature for Children, Adolescents and Young Adults	3
EDRD 617	Evaluation and Improvements of Literacy Teaching and Learning	4
EDRD 620	Reading in the Middle and Secondary Schools	3
EDRD 642	Teaching the Writing Process in Schools	3
EDRD 645	Reading Research	3
EDRD 670	Directing a School-Wide Reading/Literacy Program	3
EDRD 692	Clinical Practicum in Literacy Coaching	4
EDRD 745	Topical Seminar in Reading/Literacy	2-4

### Features and Conditions

1. Completion of the minor will be noted in the student's transcript as Minor in Reading.
2. No other course substitutions are permitted without approval from the Reading Programs Coordinator.
3. Some or all of the EDRD courses used for the minor may be part of a student's program of required or elective classes.
4. Because each 600-level course is also in the MA degree program, doctoral students must complete doctoral-level assignments with satisfactory grades according to the syllabus for each course.
5. In consultation with their doctoral program advisors, students must include sufficient Reading courses in their program of study to meet requirements for the minor. Because many of the courses are offered on a cohort model often through Extended Studies, doctoral Reading Minor students may need to seek permission from the instructor or program coordinator to enroll.

## SPECIAL EDUCATION

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### College of Education and Behavioral Sciences

#### Doctoral Minor Requirements — 18 Credits

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 School 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.

#### MINOR REQUIREMENTS

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##### Required Courses — 9 hours

EDSE 510	Foundations of Special Education	3
EDSE 511	Learning Environments and Cultural Considerations	3
EDSE 512	Assessment, IEP Development and Instructional Planning	3

##### Select one of the following courses (3 hours):

EDSE 532	Typical and Atypical Early Child Development: Application to Early Childhood Special Education	3
EDSE 541	Introduction to Visual Impairments and Deaf-Blindness	3
EDSE 550	Foundations of Deaf Education	3
EDSE 613	Applied Assessment	3
EDSE 614	Behavioral Interventions	3
EDSE 616	Scientifically Based Literacy Interventions	3
EDSE 617	Mathematics and Content Area Learning for Students with Disabilities	3
EDSE 618	Educating Students with Significant Support Needs	3
EDSE 619	Secondary Services	3
EDSE 676	Assessment and Interventions for Students with Challenging Behaviors	3
EDSE 677	Transition to Adulthood for Youth with Exceptionalities	3
EDSE 678	Strategies for Students with Autism/Significant Needs	3

EDSE 679	Interventions for Students with Cultural and Linguistic Differences	3
EDSE 680	Administration and Supervision of Special Education	3
EDSE 682	Foundations in Gifted Education	3

##### Select 6 hours of the following courses:

EDSE 702	Law of Exceptionalities	3
EDSE 721	Theories of Exceptionality	3
EDSE 727	Seminar in Exceptionalities	3
EDSE 732	Research in Exceptionalities	3
EDSE 745	Advanced Doctoral Seminar	3

## TECHNOLOGY, INNOVATION AND PEDAGOGY

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### College of Education and Behavioral Sciences

#### Doctoral Minor Requirements — 15 Credits

A Doctoral Minor in Technology, Innovation and Pedagogy is available to students in any UNC doctoral program with the approval of their doctoral program advisor. In addition, a written notification needs to be sent to the Educational Technology program coordinator and the Graduate School by the student's doctoral program advisor.

#### MINOR REQUIREMENTS

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##### Required Courses

A minimum of five courses for a total of 15 credits completed during the student's UNC doctoral program with grades of "B" or better from the following courses:

TIP 721	Learning Theories and Technology Integration	3
TIP 723	Global & Cultural Perspectives in Educational Technology	3
TIP 725	Critical Theory and Research in Educational Technology	3
TIP 730	Performance Technology for Instructional Environments	3
TIP 731	Advanced Instructional Design Theory, Research and Practice	3
TIP 733	Case Studies in Instructional Design and Performance Technology	3
TIP 735	Online Theory and Management	3
TIP 737	Technology Leadership & Managing Educational Projects	3
TIP 740	Innovations in Technology & Education	3
TIP 741	Design Thinking	3
TIP 742	Multimedia & Computer Graphics	3
TIP 743	Visual and New Media Literacy	3
TIP 745	Multimodal Composing	3
TIP 747	Simulations in Education	3
TIP 749	Gaming and Application Design	3
TIP 770	Visual Methods for Educational Research in Digital Contexts	3

##### Features and Conditions:

1. Completion of the minor will be noted in the student's transcript as Minor in Technology, Innovation and Pedagogy. Needs to be included on formal submitted plan of study.
2. Courses from outside the Technology, Innovation and Pedagogy program may not count toward the minor.

3. This minor is not available to students in the Educational Technology or Technology, Innovation and Pedagogy degree or certificate programs.
4. Some or all of the course used for the minor may be part of the students' program of required or elective classes.

No application to the Technology, Innovation and Pedagogy program is required to add the minor. Students should work in consultation with their doctoral program advisor to include sufficient TIP courses in their programs of study to meet the requirements for the doctoral minor.

## Graduate Certificate Programs

### ADULT GERONTOLOGY ACUTE CARE NURSE PRACTITIONER (AGACNP) GRADUATE CERTIFICATE PROGRAM (NON-DEGREE)

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#### College of Natural and Health Sciences

##### Certificate Requirements — 30 Credits

The certificate in AGACNP at the graduate level provides the nurse who has a master's in nursing for advanced clinical practice in the acute care of adolescent, adults, elderly and frail elderly. The graduate is eligible to apply for national certification upon program completion.

The graduate is eligible to be recognized as an Advanced Practice Nurse from the State Board of Nursing with all the rights and privileges associated with this title. Health policies, OSHA requirements, CPR and ACLS certification are required.

Prerequisites: Master's degree in Nursing, Advanced Health Assessment, Advanced Pharmacology and Advanced Pathophysiology

#### **CERTIFICATE REQUIREMENTS**

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##### Required AGACNP Credits — 30 hours

NURS 609	Foundations in Public Health for Advanced Practice Nurses	3
NURS 624	Health Promotion and Disease Prevention in Advanced Practice of Nursing	3
NURS 651	Adult Gerontology Acute Care I	3
NURS 652	Adult Gerontology Acute Care II	3
NURS 653	Adult Gerontology Acute Care III	3
NURS 682	AGACNP Practicum I	3
NURS 683	AGACNP Practicum II	2
NURS 684	AGACNP Acute Care Skills	1
NURS 686	AGACNP Practicum III	3
NURS 690	Advanced Professional Role	2
NURS 693	AGACNP Synthesis Practicum	4

### ANIMAL AUDIOLOGY GRADUATE CERTIFICATE PROGRAM (NON-DEGREE)

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#### College of Natural and Health Sciences

##### Certificate Requirements - 12 hours

The Animal Audiology certificate program provides specialized training in the assessment and management of hearing loss in animals. The program is designed for graduate students enrolled in a Doctor of Audiology program and for currently practicing audiologists. Emphasis is on the use of the brainstem auditory evoked response (BAER) for screening and diagnosis of canines and equines, although the skills acquired will transfer to BAER testing of other animals and human infants. Students will also learn about the physiology of hearing and sound production systems of animals. All students will complete 6 credits of practicum working with or observing animals at a local veterinary clinic or other off-campus locations.

Prerequisites: Enrollment in or completion of a Doctor of Audiology (AuD) program.

#### **CERTIFICATE REQUIREMENTS**

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##### Required Credits - 12 hours

ASLS 596	Comparative Hearing and Vocal Mechanisms	3
ASLS 696	Seminar in Animal Audiology	3
ASLS 794	Practicum in Animal Awareness	2
ASLS 796	Practicum in Animal Audiology	2

ASLS 796: Take 2 hours per semester for 2 semesters

## APPLIED BEHAVIOR ANALYSIS GRADUATE CERTIFICATE PROGRAM (NON-DEGREE)

### College of Education and Behavioral Sciences

#### Certificate Requirements — 19 credits

The Applied Behavior Analysis (ABA) certificate program is an online 6-course sequence designed to prepare special educators, professionals in psychology, and behavior analysts, with knowledge and skills in the area of ABA. Coursework in the ABA certificate includes: concepts and foundations of applied behavior analysis; measurement and experimental design; identifying functions or problem behavior; designing, implementing and evaluating interventions; behavior change systems; ethics, management, and supervision; and application of applied behavior analysis through the lifespan, including individuals with cultural and linguistic diversity, autism, traumatic brain injury, and extremely challenging behaviors.

The coursework can be completed in 3 semesters and one summer session. All coursework is offered completely online and prepares students to sit for the examination to become a Board Certified Behavior Analyst (BCBA). Students who are interested in taking the BCBA exam must also have at least a master's degree and supervision from another person who is a BCBA by the time they sit for the exam.

Note: If you are also interested in obtaining an MA concurrently, please see the online Intervention Specialist MA degree offered through the Special Education Program.

#### CERTIFICATE REQUIREMENTS

##### Required Credits

APCE 628	Concepts and Principles of Applied Behavior Analysis	3
APCE 629	Measurement and Experimental Design in Applied Behavior Analysis	3
APCE 631	Applied Behavior Analysis II	3
EDSE 630	Applied Behavior Analysis I	3
EDSE 632	Ethics in Applied Behavior Analysis	3
EDSE 633	Applications of Applied Behavior Analysis	4

## APPLIED CAUSAL EVALUATION OF POLICY AND INNOVATION GRADUATE CERTIFICATE

### College of Education and Behavioral Sciences

#### Education Innovation Institute

#### Certificate Requirements -12 credits

This 12-credit fully online program will provide those earning the certificate with the information and skills necessary to manage high quality evaluations of programs and policies in their own professional context. Through a series of 1- and 2-credit online courses, recipients will be able to: (1) deduce appropriate lessons from existing applied education research to inform practice in their local context; (2) identify key design elements of a low-cost, rigorous causal evaluation; (3) interpret findings and match communication strategies to the appropriate audiences; and (4) apply local evaluation findings to inform continuous learning and strategic investments.

#### CERTIFICATE REQUIREMENTS

##### Required Credits - 10 Hours

EII 604	Introduction to Applied Causal Evaluation of Policy and Innovation	1
EII 606	Methods in Causal Evaluation	2
EII 607	Ethical Data Management and Analysis I	2
EII 609	Defining Interventions and Using Logic Models	1
EII 610	Randomized Control Trials in Schools	2
EII 611	Process Evaluation	1
EII 614	Introduction to Cost Studies	1

##### Elective Credits - 2 Hours

EII 608	Ethical Data Management and Analysis II	2
EII 612	Data Visualization for Educators	1
EII 613	Research-Practitioner Partnerships	1
EII 615	Application of Cost Analyses to Decision-Making	2

## CHILD AND ADOLESCENT GRADUATE CERTIFICATE PROGRAM (NON-DEGREE)

### College of Education and Behavioral Sciences

#### Certificate Requirements — 15 credits

This sequence of courses provides foundational preparation for mental health professionals who work with children and youth. The certificate program is designed for pre-service and in service mental health professionals who desire endorsement for specialization, or completion of academic requirements for registration through the Association for Play Therapy.

**Prerequisites :** Master's degree in appropriate mental health profession or current enrollment in appropriate graduate program.

#### CERTIFICATE REQUIREMENTS

##### Required Credits — 9 hours

APCE 603	Understanding Children, Adolescents, and Their Systems	3
APCE 609	Foundations of Play Therapy	3

##### Elective Credits — 6 hours

APCE 628	Concepts and Principles of Applied Behavior Analysis	3
PSY 530	Life Span Developmental Psychology	3
APCE 558	Diagnosis and Treatment Planning	3

##### Special Topics Courses

(offered with a rotating sequence as APCE 508 or APCE 513)

Advanced Theories of Play Therapy	1
Parent Child Interactive Therapy	1
Play Therapy with Traumatized Children	1
Filial Therapy	1
Play Therapy in School Settings	1
Play Therapy with Special Populations	1
Therapeutic Parenting	1

**Candidates who wish to be endorsed for registration through the Association for Play Therapy will also be required to successfully complete the following:**

APCE 617	Play Therapy: Theory and Practicum	3
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## CHINESE AS A SECOND LANGUAGE (CSL) GRADUATE TEACHING CERTIFICATE

### College of Education and Behavioral Sciences

#### Certificate Requirements — 15 credits

##### Admissions Requirements:

In order to have the certificate notation applied to a student's transcript, the student must apply for admission to the certificate program through the Graduate School.

- An earned Bachelor's degree from an accredited institution;
- GPA of 3.0 or above in the last 60 semester hours or GRE consistent with criteria;
- TOEFL for international students: 8.0; or CIE assessment;
- Chinese language proficiency evidence by:
  - Native speaker of Chinese; or
  - A degree related to Chinese language and culture; or
  - Passing score of state recognized test: Praxis, NES

#### CERTIFICATE REQUIREMENTS

##### Requirements

ECLD 592	Second Language Acquisition Theory	3
ECLD 594	Foundations of Language and Linguistics for ESL/Bilingual Educators	3
FL 541	Methods of Teaching World Languages	3
ECLD 605	Seminar in Multilingual Teaching and Learning I	3
EDFE 501	Practicum	1- 4
	or	
	Appropriate elective approved by the program coordinator/advisor	3

A "B-" grade or above in each of the course and an overall GPA of 3.00 or above must be achieved to earn the CSL Teaching Certificate.

## CULTURAL STUDIES AND EQUITY GRADUATE CERTIFICATE PROGRAM (NON-DEGREE)

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### College of Education and Behavioral Sciences

#### Certificate Requirements — 16 credits

##### Admission Requirements

For admittance to the certificate program, students should be successfully admitted to the University as a degree or non-degree seeking graduate student. No other prerequisites or admission standards beyond the university requirements are needed. In alignment with the Graduate School standards, all courses must be passed with a "B" grade or higher.

This graduate certificate program is intended for degree and non-degree seeking graduate students interested in issues of culture, diversity, equity and social justice. Students enrolled in any CEBS graduate program preparing for careers in teaching, administration, counseling, or research may obtain the certificate in addition to their graduate degree. Students in graduate programs outside of CEBS with interest in education are welcome, as are non-degree seeking practicing educators looking for professional development in cultural diversity.

#### CERTIFICATE REQUIREMENTS

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##### Required Credits — 7 credits

EDF 618	Internship in Cultural Studies and Equity	1
EDF 619	Pluralism in Education	3
ECLD 606	Culturally and Linguistically Diverse Learners in the U. S. Educational System	3

##### Elective credits — 9 credits

Choose from the following:

APCE 623	Understanding and Counseling Diverse Populations	3
ECLD 600	Literacy and Content Area Instruction in Spanish Bilingual Classrooms	3
ECLD 602	Teaching Culturally & Linguistically Diverse Learners	3
ECLD 603	Methods and Assessment in Culturally & Linguistically Diverse Education	3
EDLD 746	Sociocultural Theories and Linguistically Diverse Education	3
EDSE 679	Interventions for Students with Cultural and Linguistic Differences	3
HESA 655	Multiculturalism in Higher Education and Student Affairs	3

HESA 669	Culturally Responsive Aspects of Transformative Learning	3
HESA 765	Advanced Multiculturalism	3

A "B" grade in each of the courses must be achieved to earn the Cultural Studies and Equity Certificate.



## DIETETIC INTERNSHIP (NON-DEGREE)

### College of Natural and Health Sciences

#### Program Requirements - 24 credits

The UNC Dietetic Internship is a distance education based, post-baccalaureate, non-degree, non-certificate program created to prepare post-baccalaureate students for careers in the dietetics professions. It is accredited by the Accreditation Council for Education Nutrition and Dietetics (ACEND), 120 South Riverside Plaza, Suite 2000, Chicago, IL 60606 (331-899-0040, ext 5400). Application to the program is through the Dietetic Internship Central Application System (DICAS) at <https://portal.dicas.org> and registration with the match system, D&D Digital ([www.dndigital.com](http://www.dndigital.com)) is required. Please see UNC Dietetic Internship website ([www.unco.edu/dietetic](http://www.unco.edu/dietetic)) for additional information on application process. Applicants must have completed a baccalaureate degree and obtained a Verification Statement of completion of the Didactic Program in Dietetics competencies from an ACEND- accredited program prior to beginning the Internship upon selection. Successful completion of the Dietetic Internship results in a Verification Statement of completion of the internship competencies making the graduate eligible to take the national credentialing examination to be a Registered Dietitian.

There are three primary practice areas: clinical, community and foodservice and are required of all interns in the program. In addition, there are two concentration areas to select from: Management in Dietetics and Nutrition Education and Counseling in Dietetics. There is a mandatory 3-day orientation period in Greeley, CO that provides the necessary information to begin. Approval of the supervised practice schedule by the Dietetic Internship Coordinator is required prior to enrolling in FND 592 and beginning the rotations.

#### PROGRAM REQUIREMENTS

##### Required Credits - 24 credits

FND 510	Foodservice Management	2
FND 512	Medical Nutrition Therapy Skills	2
FND 592	Dietetics Supervised Practice	1-10

*FND 592: Students must complete 20 hours.*

## FAMILY NURSE PRACTITIONER (FNP) GRADUATE CERTIFICATE PROGRAM (NON-DEGREE)

### College of Natural and Health Sciences

#### Certificate Requirements — 39 Credits

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 national certification upon program completion.

The graduate is eligible to be recognized as an Advanced Practice Nurse from the State Board of Nursing with all the rights and privileges associated with this title. Health policies, OSHA requirements, CPR and ACLS certifications are required.

**Prerequisites:** Master's degree in nursing.

#### CERTIFICATE REQUIREMENTS

##### Required FNP Certificate Credits — 39 hours

NURS 612	Advanced Pharmacology	4
NURS 613	Advanced Health Assessment	4
NURS 614	Advanced Pathophysiology	3
NURS 624	Health Promotion and Disease Prevention in Advanced Practice of Nursing	3
NURS 654	Acute Care of Adults	3
NURS 656	Care of Chronic Illness in Adults	3
NURS 674	Care of Women and Pediatric Populations	3
NURS 675	FNP Clinical I	2
NURS 676	FNP Advanced Clinical Topics	2
NURS 677	FNP Clinical II	4
NURS 689	FNP Clinical Synthesis	6
NURS 690	Advanced Professional Role	2

**GEOGRAPHIC INFORMATION SCIENCE  
GRADUATE CERTIFICATE**

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**College of Humanities and Social Sciences**

**Certificate Requirements — 15 credits**

See "Geographic Information Science Graduate Certificate" (p. 214)

**CERTIFICATE REQUIREMENTS**

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**Core Courses - 12 credits**

GEOG 507	Geographic Information Science	3
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**Select one of the following courses - 3 credits**

GEOG 515	Geospatial Statistics	3
GEOG 520	Topics in Systematic Geography	3
GEOG 622	Directed Studies	1- 3

Note: Students may petition to accept other courses as an elective in the Graduate Certificate in GISci program. Generally, proposed courses should include substantial material on computer and/or statistical techniques. Students may petition that one course at the 400level count as a program elective. Approval of the Graduate Certificate in GISci Program Director is required.

**GEOGRAPHY EDUCATION GRADUATE  
CERTIFICATE PROGRAM (NON-DEGREE)**

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**College of Humanities and Social Sciences**

**Certificate Requirements — 12 credits**

The certificate provides K-12 in-service teachers with a graduate-level foundation of the geography discipline. The first three courses are offered in a 2-week summer institute, followed by a capstone course offered online. Geography 520 is offered for any of the subfields in geography and is repeatable. Teachers develop publishable instructional units from the concepts presented in the courses and conduct professional development workshops for colleagues. Applications are limited to teachers with current full-time teaching contracts.

**CERTIFICATE REQUIREMENTS**

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**Required Credits — 12 hours**

GEOG 513	Professional Renewal	1- 3
GEOG 520	Topics in Systematic Geography	3
GEOG 592	Field Course in Geography	1- 6

GEOG 520: Take 2 times under different subtitles

## GERONTOLOGY GRADUATE CERTIFICATE PROGRAM (NON-DEGREE)

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### College of Natural and Health Sciences

#### Certificate Requirements — 12 Credits

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.

#### CERTIFICATE REQUIREMENTS

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##### Required Credits — 12 hours

GERO 560	Community Resources for Older Adults	3
GERO 625	Psychosocial Aspects of Aging	3
GERO 635	Social Policies of Aging	3
GERO 640	Health Aspects of Gerontology	3

## GIFTED AND TALENTED EDUCATION GRADUATE CERTIFICATE PROGRAM (NON-DEGREE)

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### College of Education and Behavioral Sciences

#### Certificate Requirements — 12 credits

This four-course certificate program is designed for K-12 teachers who want to learn more about characteristics of students who are identified as needing Gifted Education services and programming. Teachers will complete the program with a foundation in Gifted and Talented Education that better prepares them to meet the needs of a wide variety of learners. The courses provide a broad overview of the field of Gifted Education. In addition, teachers will learn research-based instructional strategies and will be required to work directly with students to apply the knowledge and skills learned in the courses.

#### CERTIFICATE REQUIREMENTS

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##### Required Credits — 12 credits

EDSE 683	The Gifted Learner: Nature and Needs	3
EDSE 685	Curriculum & Instructional Practice in Gifted Education	3
EDSE 686	Emotional and Social Development of the Gifted and Talented	3
EDSE 687	Program Strategies and Services for the Gifted and Talented	3
	or	
EDSE 689	Creativity in Gifted Education	3

## MATHEMATICS GRADUATE CERTIFICATE

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### College of Natural and Health Sciences

#### Certificate Requirements - 18 credits

The certificate provides individuals with a broad background in mathematics at the graduate level.

The certificate is designed for those individuals who need 18 credit hours in graduate mathematics to meet the Higher Learning Commission's credential requirement for teaching undergraduate mathematics courses.

#### Admission Requirements

At least 24 hours of undergraduate mathematics coursework at the level of Calculus I or above with at least a 2.8 GPA.

### CERTIFICATE REQUIREMENTS

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#### Required Credits - 9 hours

Three of the following four courses (to total 9 credits):

MATH 534	Continuous Mathematics	3
MATH 543	Modern Geometry	3
MATH 550	Applied Probability and Statistics	3
MATH 591	Abstract Algebra and Number Theory	3

#### Elective Credits - 9 hours

Nine additional credit hours of graduate level (500 or above) mathematics courses. Theses may include the fourth course from the list of required courses. Five hundred level courses are the most suitable, and recommend course include:

MATH 520	Functions and Equations	3
MATH 528	Discrete Mathematics	3
MATH 529	Mathematical Problem Solving	3
MATH 537	Mathematical Modeling	3
MATH 599	Mathematics Action Research Project Seminar	3

## MATHEMATICS TEACHER LEADERSHIP GRADUATE CERTIFICATE (NON- DEGREE)

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### College of Natural and Health Sciences

#### Certificate Requirements — 18 Credits

The courses for this certificate provide K-12 in-service mathematics teachers the opportunity to develop the knowledge, skills and dispositions to take leadership for improving K-12 mathematics education. The coursework supports teachers in learning 1) how to work with other teachers through coaching and professional development, 2) about the role of culture in mathematics, teaching, learning and leadership, 3) how to support the development of teachers' mathematics content knowledge and 4) how to negotiate and lead change and manage conflict.

**Prerequisites:** Must be an in-service, credentialed K-12 math teacher or math teacher leader.

### CERTIFICATE REQUIREMENTS

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#### Required credits:

##### Three of the following (9 credits):

MED 680	Teaching Math for Understanding I	3
MED 681	Teaching Math for Understanding II	3
MED 682	Implementing Mathematics Curriculum	3
MED 684	Mathematics Coaching	3

##### Take one of the following combinations (6 hours):

MED 685	Math Teacher Leadership I	2
MED 686	Math Teacher Leadership II	2
MED 687	Math Teacher Leadership III	2

#### OR

MED 685	Math Teacher Leadership I	2
MED 687	Math Teacher Leadership III	2
MED 688	Math Teacher Leadership IV	2

##### Three of the following (3 hours):

MED 683	Seminar in Equity and Diversity Issues in Mathematics Education Subtitle: Exploring the role of gender in mathematics education Subtitle: Exploring the role of identity and agency in mathematics education Subtitle: Exploring the role of race in mathematics education Subtitle: Exploring the role of socio-economic status in mathematics education	1-3
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MED 683: Repeatable under different subtitles

## MUSIC PERFORMANCE GRADUATE CERTIFICATE PROGRAM (NON-DEGREE)

### College of Performing and Visual Arts

#### Certificate Requirements — 12 Credits

The Graduate Certificate in Performance is a two-semester post-baccalaureate course of study designed for advanced, non-degree seeking students wishing to pursue intense and concentrated musical study in violin, viola, violoncello, double bass, flute, clarinet, oboe, bassoon, saxophone, horn, trumpet, tenor trombone, bass trombone, euphonium, tuba, percussion, piano, voice, or opera performance at the graduate level. Prerequisite for admission is a bachelor's degree or an equivalent diploma. Applicants whose first language is not English must prove acceptable English language ability before being granted Regular Admission. They may do so by submitting TOEFL, PTE, or IELTS test scores. International students may enroll in English courses in addition to the 12 credit-hour requirement. Applicants who successfully graduate from level 7 of UNC's Intensive English Program may be eligible for Regular Admission. Applicants who have received a bachelor's or master's degree from a US Institution do not need to submit language scores. All students are required to be enrolled in an appropriate health insurance plan.

Major programmatic emphasis is placed on the development of solo and ensemble skills. A residency of two semesters (summers excluded) at the University of Northern Colorado is required with 12 total hours of earned credit in music courses. Students must maintain a 3.0 grade point average and show satisfactory performance at juried performance examinations each semester. Students entering the program are required to develop specific goals for the course of study in consultation with the assigned advisor. These might include preparation for solo competitions, preparation for orchestra auditions, preparation for entrance into a graduate program, or similar related goals.

### CERTIFICATE REQUIREMENTS

**The student will enroll in the following courses each semester:**

#### String students (violin, viola, cello, double bass)

MUS 673	Individual Instruction in Strings, Harp or Guitar	2
MUS 630	Small Ensembles and Chamber Music	1
MUS 667	University Symphony Orchestra	1- 3

*MUS 673: Take 4 credits total (2 credits each semester)*

*MUS 630: Take 2 credits total (1 credit each semester)*

*MUS 667: Take 2 credits total (1 credit each semester)*

*MUS electives: Take 4 credits total (2 credits each semester)*

**Choose two credits of music electives each semester in consultation with assigned advisor.**

#### Woodwind students (flute, clarinet, oboe, bassoon, saxophone)

MUS 674	Individual Instruction in Woodwinds	2
MUS 630	Small Ensembles and Chamber Music	1

**Choose one of the following** (Determined by audition)

MUS 667	University Symphony Orchestra	1- 3
MUS 691	Wind Ensemble	1- 3

*MUS 674: Take 4 credits total (2 credits each semester)*

*MUS 667 or MUS 691: Take 2 credits total (1 credit each semester)*

*MUS 630: Take 2 credits total (1 credit each semester)*

*MUS electives: Take 4 credits total (2 credits each semester)*

**Choose two credits of music electives each semester in consultation with assigned advisor.**

#### Brass and percussion students (trumpet, horn, tenor trombone, bass trombone, euphonium, tuba, and percussion)

MUS 675	Individual Instruction in Brass or Percussion	2
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**And choose one of the following** (Determined by audition)

MUS 667	University Symphony Orchestra	1- 3
MUS 690	Symphonic Band	1- 3
MUS 691	Wind Ensemble	1- 3

*MUS 675: Take 4 credits total (2 credits each semester)*

*MUS 667 or MUS 690 or MUS 691: Take 2 credits total (1 credit each semester)*

*MUS electives: Take 6 credits total (3 credits each semester)*

**Choose three credits of music electives each semester in consultation with assigned advisor.**

#### Piano students

MUS 671	Individual Instruction in Piano	2
MUS 630	Small Ensembles and Chamber Music	1

*MUS 671: Take 4 credits total (2 credits each semester)*

*MUS 630: Take 2 credits total (1 credit each semester)*

*MUS electives: Take 6 credits total (3 credits each semester)*

**Choose three credits of music electives each semester in consultation with assigned advisor.**

**Voice Students (Early music, Oratorio, and Art Song)**

MUS 670	Individual Instruction in Voice	2
MUS 628	UNC Early Music Ensemble	1

MUS 670: Take 4 credits total (2 credits each semester)

MUS 628: Take 2 credits total (1 credit each semester)

**Take 6 credits total (3 credits each semester) - choose three credits each semester from the following courses in consultation with assigned advisor:**

MUS 536	German Art Song	2
MUS 538	French/Italian Art Song	2
MUS 539	British/American Art Song	2
MUS 561	Vocal Coaching for Singers	1
MUS 630	Small Ensembles and Chamber Music	1
MUS 685	Performance in Opera Theatre	1-12
MUS 686	Scene Studies in Opera	1-3

\* *MUS 536, MUS 538 and MUS 539 include an academic element. Enrollment eligibility is based on language scores.*

**Opera Performance Students**

MUS 670	Individual Instruction in Voice	2
MUS 685	Performance in Opera Theatre	1-12

MUS 670: Take 4 credits total (2 credits each semester)

MUS 685: Take 2 credits total (1 credit each semester)

**Take 6 credits total (3 credits each semester) - choose three credits each semester from the following courses in consultation with assigned advisor:**

MUS 560	Opera Directing Seminar	1-3
MUS 561	Vocal Coaching for Singers	1
MUS 605	English Diction	1
MUS 606	German Diction	1
MUS 607	French Diction	1
MUS 608	Italian Diction	1
MUS 628	UNC Early Music Ensemble	1
MUS 686	Scene Studies in Opera	1-3

**Jazz Students - Instrumental**

MUS 621	Small Jazz Ensembles	1
MUS 625	Jazz Ensembles	1

MUS 636	Individual Instruction in Jazz	2
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*MUS 636: Take 4 credits total (2 credits each semester)*

*MUS 625: Take 2 credits total (1 credit each semester)*

*MUS 621: Take 2 credits total (1 credit each semester)*

*MUS electives: Take 4 credits total (2 credits each semester)*

**Choose two credits of music electives each semester in consultation with assigned advisor.**

**Jazz Students - Vocal**

MUS 636	Individual Instruction in Jazz	2
MUS 624	Vocal Jazz Ensembles	1

*MUS 636: Take 4 credits total (2 credits each semester)*

*MUS 624: Take 2 credits total (1 credit each semester)*

*MUS electives: Take 6 credits total (3 credits each semester)*

**Choose three credits of music electives each semester in consultation with assigned advisor.**

**Application Requirements:**

- Two letters of recommendation
- Official transcripts
- Live in person audition, or by video recording with an interview by phone or video conference. Audition selections should consist of 20 minutes of representative repertoire.
- \$60 non-refundable application fee
- International students must submit a letter of financial support

**Continuation of Graduate Studies at UNC:**

Although acceptance into the Graduate Certificate in Performance program does not automatically constitute admission to the Graduate School, certificate students may apply to continue their studies in an MM or DA program at UNC. A maximum of nine credits may be transferred upon petition to graduate degree programs in the School of Music.

## NURSING EDUCATION GRADUATE CERTIFICATE PROGRAM (NON-DEGREE)

### **College of Natural and Health Sciences**

#### **Certificate Requirements — 12 Credits**

The Certificate in Nursing Education is designed to provide bachelor's, master's and doctorate-prepared nurses with advanced knowledge in nursing education for academic or practice settings. The courses are all online. Selections are tailored to meet student needs. Students must complete each course with a grade of "B" or better.

Applicants must have a BSN and have/maintain an unencumbered RN license. Application materials are available on the UNC School of Nursing home page at <http://www.unco.edu/nhs/nursing>. If not currently enrolled in a nursing program at UNC, students must be admitted by the Graduate School and by the School of Nursing before enrolling in courses. Completed applications are submitted electronically and will be considered on an open schedule.

The Certificate in Nursing Education consists of 12 credit hours.

#### **CERTIFICATE REQUIREMENTS**

##### **Take four of the following courses:**

NURS 632	Clinical Instruction and Precepting in Nursing	3
NURS 631	Teaching Strategies for Practice and Academic Settings	3
NURS 741	Evidence-Based Teaching	3
NURS 695	Advanced Academic Nursing Roles	3
NURS 780	The Professorial Role in Nursing Education	3
NURS 661	Planning and Evaluating Education in Practice and Academic Settings	3
NURS 760	Advanced Nursing Curriculum Design and Program Evaluation	3
PSY 681	Cognition and Instruction I	3

## TEACHER LEADERSHIP GRADUATE CERTIFICATE PROGRAM (NON-DEGREE)

### **College of Education and Behavioral Sciences**

#### **Certificate Requirements — 16 Credits**

The Teacher Leadership Certificate is a 16 credit program designed to support teachers' efforts to improve teaching and learning in schools. Participants will take four courses organized to broaden their perspectives of leadership and how it functions within a school setting. Additionally, participants will develop leadership strategies and capacities to engage in collaborative leadership with peers, community and administrators.

Target participants for this effort will be practicing teachers (P-12) interested in site-based leadership activities focused on improving teaching and learning.

The delivery model for this certificate program will be an on-line, cohort-based structure with a design that allows peer exchange and collaborative planning among participants sharing interests and instructional goals.

The certificate program will be completed over one academic year sequence.

#### **CERTIFICATE REQUIREMENTS**

##### **Core Courses — 12 hours**

ELPS 601	Leadership Development Through Inquiry	3
ELPS 603	Shaping Organizations: Management and Leadership in Education	3
ELPS 604	Understanding People: Professional Development and Educational Leadership	3
ELPS 654	Instructional Leadership and Supervision	3

##### **Internship — 4 hours**

ELPS 606	Internship in Educational Leadership	1-9
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ELPS 606: Take one credit of Internship with each Core course above for a total of 4 hours.

## TEACHING ENGLISH TO SPEAKERS OF OTHER LANGUAGES (TESOL) GRADUATE CERTIFICATE

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### College of Education and Behavioral Sciences

#### Certificate Requirements — 16 Credits

The Teaching English to Speakers of Other Languages (TESOL) Graduate Certificate is a 16 credit program designed to provide preparation to those interested in teaching English as a Foreign Language (EFL) in international settings, or teaching English as Second Language (ESL) in non K-12 (adult education) domestic settings. Participants will take five courses, with an experiential component, organized to prepare students at the graduate level for teaching in settings where disposition and skills are needed to work with diverse populations in a rapidly changing world. The program is not associated with any K-12 teaching license.

#### Admission Requirements:

For admittance to the certificate program, students should be successfully admitted to the University as a degree or non-degree seeking graduate student, including:

- An earned Bachelor's degree from an accredited institution;
- GPA of 3.0 or above in the last 60 semester hours or GRE consistent with criteria;
- TOEFL for international students: 80

**Prerequisite:** Enrollment as a degree or non-degree seeking graduate student at UNC.

#### CERTIFICATE REQUIREMENTS

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##### Core Courses — 13 credits

ECLD 592	Second Language Acquisition Theory	3
ECLD 594	Foundations of Language and Linguistics for ESL/Bilingual Educators	3
ECLD 610	Practices in ESL/EFL Instruction and Assessment	3
EDRD 523	Reading and Writing in the Content Areas	3
EDFE 501	Practicum	1-4

*EDFE 501: Take 1 credit.*

##### Elective Credits - 3 credits

ECLD 593	Language, School and Society	3
	or	
	Appropriate elective approved by the program coordinator/advisor	3

A "B-" grade or above in each of the courses and an overall GPA of 3.00 or above must be achieved to earn the TESOL Certificate.

## TEACHING ONLINE GRADUATE CERTIFICATE PROGRAM (NON-DEGREE)

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### College of Education and Behavioral Sciences

#### Certificate Requirements — 12 Credits

##### Admission Requirements

For admittance to the certificate program, students should be successfully admitted to the University as a degree or non-degree seeking graduate student. No other prerequisites or admission standards beyond the university requirements are needed. This certificate is independent of state K12 licensure. It provides documentation of extended training in online pedagogy. Applicants to the certificate program are reviewed on an open schedule. In alignment with the Graduate School standards, all courses must be passed with a "B" grade or higher.

This graduate certificate program is intended for degree and non-degree seeking graduate students interested in becoming effective online educators. It serves to meet the growing demands for online teaching skills among today's K12 educators. The program develops knowledge and skills in information technology, interactive and collaborative teaching strategies, online classroom management and communication skills, and knowledge of legal and ethical issues in online learning.

**Prerequisites:** Enrollment as a degree or non-degree seeking graduate student at UNC.

#### CERTIFICATE REQUIREMENTS

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##### Required credits — 12 credits

ET 500	Introduction to Instructional Design and Technology	3
ET 502	Instructional Design	3
ET 613	Teaching in an Online Environment	3
ET 692	Internship	3



## TEACHING STUDENTS WITH AUTISM (TSA) GRADUATE CERTIFICATE PROGRAM (NON-DEGREE)

### College of Education and Behavioral Sciences

#### Certificate Requirements — 12 Credits

This certificate program was designed to increase the knowledge school-based personnel have when teaching students with autism. It is a 4-course online series designed to prepare teachers and related service providers (e.g., speech Therapists, Occupational Therapist, School Psychologist) to deliver instruction to students with autism using scientifically-based strategies. Using the current research literature, these online courses were developed to determine the content and sequence of the courses.

Participants engage in a variety of learning opportunities throughout the courses including video enhanced learning modules and technology enhanced discussions. Curriculum includes an overview of autism and teaching strategies, administering and interpreting classroom-based assessments for instructional planning, applying scientifically-based teaching strategies to increase academic achievement, increasing communication, sensory, and social skills, and addressing behavioral challenges for students with autism.

While enrolled in the classes the participant must work with at least one pre K-12 grade student with autism or severe disabilities. In order to successfully complete the classes/program, participants must complete assignments by applying the knowledge learned to an aspect of the student's program (e.g., schedule, curriculum, programming) and demonstrating mastery of the concepts. To be awarded the Teaching Students with Autism Certificate, participants must pass each class with a grade of B- or better.

#### CERTIFICATE REQUIREMENTS

##### Required Credits - 12 credits

EDSE 678	Strategies for Students with Autism/Significant Needs	3
EDSE 624	Communication, Sensory, and Social Skills Strategies for Working with Students with Autism	3
EDSE 625	Applied Behavior Analysis for Teachers	3
EDSE 626	Instructional and Behavioral Interventions for Students on the Autism Spectrum	3

## Teacher Licensure Programs

Teacher licensure programs are either attached to an undergraduate major (See Undergraduate Teacher Licensure Programs, in the University of Northern Colorado Undergraduate catalog), or are stand-alone post-baccalaureate graduate programs described below. They are approved by the Colorado Department of Education and the Colorado Department of Higher Education. These programs include initial recommendation for endorsement for teacher licensure to the Colorado Department of Education. Individuals who already possess a Colorado license and are wishing to add an additional endorsement should refer to the Graduate Added Endorsement Licensure Programs.

A teacher license is a right to teach in Colorado public schools, and an endorsement is the right to teach in a specific area (for example, in an elementary classroom or a secondary social studies classroom). Licensure programs at UNC are called PTEP- Professional Teacher Education Programs. Most licensure programs are administered by the School of Teacher Education, [www.unco.edu/teach](http://www.unco.edu/teach), unless otherwise noted. UNC Licensure Officer Charles R Warren PhD NBCT is located in the Dean's Office, McKee 126, 970-351-2653, [charles.warren@unco.edu](mailto:charles.warren@unco.edu).

#### In this Section

Early Childhood and Early Childhood Special Education (EC/ECSE) endorsement (Ages 0-8 yrs) (p. 178)

K-12 Education, Post Baccalaureate Licensure (K-12) (p. 179)

Secondary Education, Post Baccalaureate (7-12) (p. 182)

#### Special Licensure

School Orientation and Mobility (O&M) endorsement (Ages 0-21 yrs) (p. 183)

Gifted and Talented Specialist endorsement (PreK-12) (p. 183)

Special Education Generalist endorsement (Ages 5-21 yrs) (p. 184)

#### Administration

Principal (K-12) (p. 184)

Special Education Director (p. 185)

Administrator (p. 185)

#### Added Endorsement

Culturally and Linguistically Diverse Bilingual Education Specialist (K-12) (p. 186)

Culturally and Linguistically Diverse Education endorsement (K-12) (p. 187)

Reading Specialist (K-12) (p. 187)

Reading Teacher (K-12) (p. 188)

**EARLY CHILDHOOD AND EARLY  
CHILDHOOD SPECIAL EDUCATION  
(EC/ECSE) ENDORSEMENT (AGES 0-8  
YRS)**

**College of Education and Behavioral Sciences**

**Endorsement Requirements — 33-45 credits**

The graduate level endorsement program for the Early Childhood and Early Childhood Special Education (EC/ECSE) is designed to prepare outstanding early childhood educators to meet the unique educational needs of children from birth through age 8. This program is designed to develop a range of specialized skills for individuals who work in classrooms and community-based settings with children who have identified disabilities or are at-risk and their families. The program leads to recommendation for Colorado Department of Education's ECSE Generalist Teaching License/endorsement, ECSE Specialist endorsement, and ECE endorsement. In addition, the students will receive a recommendation for Large Child Care Center Director Qualification through the Colorado Department of Human Services. The program consists of the required courses and practicum requirements agreed upon by the student and advisor. If a student enters the endorsement program for EC/ECSE without a current teacher licensure, the student is required to complete additional admission requirements and course requirements listed under Professional Teacher Education.

**ENDORSEMENT REQUIREMENTS**

**Required Credits — 33 hours**

EDSE 510	Foundations of Special Education	3
EDSE 511	Learning Environments and Cultural Considerations	3
EDSE 512	Assessment, IEP Development and Instructional Planning	3
EDSE 530	Family/Professional Partnerships	3
EDSE 531	Assessment and Planning in Early Childhood Special Education	3
EDSE 532	Typical and Atypical Early Child Development: Application to Early Childhood Special Education	3
EDSE 533	Curriculum and Instruction in Early Childhood Special Education	3
EDSE 534	Research, Policy, and Advocacy in Early Childhood Special Education	3
EDSE 537	Practicum in EC/ESCE: Infants and Toddlers	2
EDSE 538	Practicum in EC/ECSE: 3-5 years	2
EDSE 539	Practicum in EC/ECSE: 5-8 years	2
EDSE 616	Scientifically Based Literacy Interventions	3

**Required Professional Teacher Education Program  
Courses for Initial Teacher Licensure Graduate  
Students — 12 credit hours**

EDF 500	Conceptions of Schooling	3
EDFE 125	Application for Graduate Licensure Admission to PTEP	
EDRD 611	Language, Literacy and Cognitive Development	3
EDSE 130	Student Teaching Application	
EDSE 507	Field-Based Experience	3
PSY 500	Educational Psychology for Teachers	3

*Teacher education and educator preparation licensure programs do not accept Professional Teacher Education Program (PTEP) or field based courses that are more than ten years old. PLEASE NOTE: Teacher Candidates have the right to petition this policy at the discretion of the program coordinator.*

## K-12 EDUCATION, POST BACCALAUREATE LICENSURE (K-12)

### College of Education and Behavioral Sciences

See <http://uncpostbac.com>

#### Admission requirements

- A completed baccalaureate degree in one of the following licensure areas: Sport and Exercise Science, Music or Visual Arts. Students will have their transcripts evaluated for major content; additional content classes may be required. Persons with a non-related degree may declare a Second Bachelor's Degree.
- Applicants desiring to count licensure hours toward a Master of Arts or Master of Science degree in any area must apply concurrently to the Graduate School (for admission into the MA or MS degree program) and to the Post-Baccalaureate Licensure program in K12. EDFE 555 cannot be used as hours toward a Master's Degree.
- An interview with an appropriate content advisor is required.
- Applicants must have an overall 3.0 GPA for admission. If the grade point average is below 3.0, the applicant is required to provide evidence of qualifications sufficient to pursue graduate education.

#### REQUIREMENTS

##### Required Common PTEP — 21 credit hours

EDF 500	Conceptions of Schooling	3
EDFE 125	Application for Graduate Licensure Admission to PTEP	
EDFE 130	Application for Student Teaching	
EDFE 555	Supervised Student Teaching	1- 9
EDRD 523	Reading and Writing in the Content Areas	3
EDSE 509	Strategies for Students with Exceptionalities	3
PSY 500	Educational Psychology for Teachers	3

- Candidates must **pass** the Praxis or Place test prior to Student Teaching.
- Candidates may not take extra courses with Student Teaching without prior approval from the Program Coordinator and the STE Director.
- All PTEP Field Experiences and methods courses need to be successfully completed prior to Student Teaching.

- Student Teaching outside the supervision of UNC Faculty may or may not be approved.
- Teacher Candidates will not be placed in a school where they were once students or where they have a close relative attending and/or working.

#### SELECT ONE OF THE THREE CONTENT AREA PROGRAM OF STUDIES:

##### Physical Education (Sport and Exercise Science) — 49 credit hours

##### Content Courses

##### Outdoor Activity (select one)

SES 125	Hiking	1
SES 127	Cross-Country Skiing	1
SES 128	Cycling	1
SES 130	Kayaking	1
SES 131	Orienteering	1
SES 135	Rock Climbing	1
SES 234	Mountain Biking	2
SES 235	Backcountry Skiing	2
SES 236	Technical Rock Climbing	2
SES 237	Paddle Sports	2
SES 238	Winter Wilderness Living	2

##### Target Sport (select one)

SES 111	Bowling	1
SES 113	Fly Fishing/Trap Shooting	1
SES 114	Golf	1

##### Swimming (select one)

SES 116	Water Safety Instructor	2
SES 118	Swimming	1
SES 120	Lifeguard Training	2
SES 133	Scuba Diving	1
SES 152	Swimming Conditioning	1

##### The following 10 hours:

SES 134	Self Defense	1
SES 200	Weight Training and Conditioning	1
SES 201	Track and Field	1
SES 209	Dance Activities	1
SES 240	Secondary Physical Education Content I	3
SES 243	Outdoor and Adventure Programming	3

##### PTEP Courses

SES 170	Introduction to Field Based Experience	1
SES 266	Introduction to Physical Education as a Profession	3
SES 323	Motor Learning and Development	3
SES 338	Teaching Diverse Populations	3
SES 342	Teaching Health-Related Fitness	3
SES 440	Developing Pedagogical Skills in Elementary Physical Education	1-3

SES 442	Developing Pedagogical Skills in Secondary Physical Education	1-3	MUS 364	Brass and Percussion Class	2
SES 612	Assessment in Sport Pedagogy	3	MUS 492	Marching Band	1
SES 614	Analysis of Teaching in Physical Education	3		Individual Performance	14
				Major Ensemble	7
SES 641	Instructional Strategies for Elementary School Physical Education	3		Piano Proficiency Examination	
SES 642	Instructional Strategies for Secondary School Physical Education	3			
SES 688	Legal Aspects of Sport	3			
<b>Music - Instrumental Track</b>			<b>PTEP Preparation Courses - Vocal/General/Piano Track</b>		
Foundational Courses			MUS 314	Guitar in the Classroom	1
MUS 100	Recitals, Concerts and Productions		MUS 323	Choral Techniques and Conducting	2
MUS 113	Music Theory I	3	MUS 330	String Techniques	1
MUS 114	Aural Skills and Sight Singing I	1	MUS 361	Single Reed and Flute Class	1
MUS 115	Music Theory II	3	MUS 367	Materials and Techniques for Brass and Percussion	1
MUS 116	Aural Skills and Sight Singing II	1	MUS 410	Vocal Pedagogy	2
MUS 143	Musical Styles and Context	3		Individual Performance	14
MUS 213	Music Theory III	3		Major Ensemble	7
MUS 214	Aural Skills and Sight Singing III	1		Piano Proficiency Examination	
MUS 215	Music Theory IV	3		Private Piano is recommended	
MUS 216	Aural Skills and Sight Singing IV	1			
MUS 243	History of Music I	3			
MUS 244	History of Music II	3			
MUS 100: each semester					
<b>Vocal/General/Piano Track</b>			<b>Music PTEP Methods Courses - Instrumental Track</b>		
Foundational Courses			MUS 210	Introduction to Music Education	1
MUS 100	Recitals, Concerts and Productions		MUS 310	Teaching General Music in Elementary Schools	2
MUS 113	Music Theory I	3	MUS 312	Teaching Instrumental Music in Elementary Schools	2
MUS 114	Aural Skills and Sight Singing I	1	MUS 317	Teaching Instrumental Music in Secondary Schools	2
MUS 115	Music Theory II	3	MUS 325	Choral Methods and Literature for Elementary and Secondary Schools	1
MUS 116	Aural Skills and Sight Singing II	1	MUS 331	String Pedagogy and Literature for the Instrumental Music Teacher	2
MUS 143	Musical Styles and Context	3	MUS 356	Marching Band Techniques	1
MUS 213	Music Theory III	3	MUS 414	Transitional Capstone Course in Music Education	2
MUS 214	Aural Skills and Sight Singing III	1	MUS 450	Seminar in Student Teaching for Music Educators	1
MUS 215	Music Theory IV	3			
MUS 216	Aural Skills and Sight Singing IV	1			
MUS 243	History of Music I	3			
MUS 244	History of Music II	3			
MUS 100: each semester					
<b>PTEP Preparation Courses - Instrumental Track</b>			<b>Music PTEP Methods Courses - Vocal/General/Piano Track</b>		
MUS 292	Marching Band	1	MUS 210	Introduction to Music Education	1
MUS 319	Instrumental Techniques and Conducting	1	MUS 310	Teaching General Music in Elementary Schools	2
MUS 320	Wind Literature, Pedagogy and Conducting	2	MUS 311	Teaching General Music in Secondary Schools	2
MUS 330	String Techniques	1	MUS 312	Teaching Instrumental Music in Elementary Schools	2
MUS 360	Voice Class	1	MUS 324	Choral Conducting and Pedagogy for Elementary and Secondary Schools	2
MUS 361	Single Reed and Flute Class	1	MUS 325	Choral Methods and Literature for Elementary and Secondary Schools	1
MUS 362	Double Reed Class	1	MUS 414	Transitional Capstone Course in Music Education	2

MUS 450	Seminar in Student Teaching for Music Educators	1
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ten years old. PLEASE NOTE: Teacher Candidates have the right to petition this policy at the discretion of the program coordinator.

### Art and Design — 66 credit hours

#### Foundations

ART 181	Ancient Art History	3
ART 182	Medieval to Rococo Art History	3
ART 183	2D Design	3
ART 184	3D Design	3
ART 234	Drawing I	3

#### Required Major Credits

ART 231	Painting I	3
ART 261	Sculpture I	3
ART 265	Metalsmithing	3
ART 271	Introduction to Photography	3

#### Select one from the following

ART 253	Intaglio Printmaking I	3
ART 254	Relief Printmaking I	3
ART 308	Workshop in Art	1-4
ART 356	Monotypes	3

#### Elective Credits

	Advanced Art History	4
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#### Select one from the following

#### Select one from the following

ART 221	Fiber Design I	3
ART 223	Weaving	3

#### Area of Concentration — Total 6 credits

A minimum of six credits (300 level or above) must be completed in one of the following areas of concentration: art history, ceramics, computer graphics, drawing, graphic design, painting, photographic imaging, photographic communications, printmaking, or sculpture.

#### Professional Teacher Education Program (PTEP)

ART 248	Introduction to Art Education/Art for the Exceptional Child	3
ART 345	Clinical Experiences I: K-12 Art	3
ART 440	Foundations of Art Education	3
ART 441	Cultural Studies in the K-12 Curriculum	3
ART 442	Curriculum and Instruction in Art: Studio Strategies	3
ART 445	Clinical Experiences II: K-12 Art	3
ART 466	Visual Arts Student Teaching Seminar	1

### General Requirements

ENG — with B or better

COMM — with C or better

Teacher education and educator preparation licensure programs do not accept Professional Teacher Education Program (PTEP) or field based courses that are more than

**SECONDARY EDUCATION, POST BACCALAUREATE (7-12)**

**College of Education and Behavioral Sciences**

The program includes a combination of on-campus and extended studies courses. See <http://uncpostbac.com>.

**Admission requirements**

- A completed baccalaureate degree in one of the following majors: Biology, Chemistry, Earth Science, English, Geography, History, Mathematics, Physics, Theatre Arts. Students will have their transcripts evaluated for major content; additional content classes may be required. Students must complete their content classes prior to beginning the PTEP (Professional Teacher Education Program). These classes may be completed at UNC or any other accredited college or community college.
- All applicants wishing to count licensure hours toward a Master of Arts degree in any area must apply to the Graduate School for admission into the MA or MAT degree program at the same time he or she applied to the Post-Baccalaureate Licensure program in Secondary Education.
- 3.0 GPA for admission in the last 60 credit hours of course work. Different areas may have various content courses GPA requirements.
- An interview with an appropriate content advisor is required.

**REQUIREMENTS**

**Required PTEP Core Credits — 27 hours**

EDF 500	Conceptions of Schooling	3
EDFE 125	Application for Graduate Licensure Admission to PTEP	
EDFE 130	Application for Student Teaching	
EDFE 554	Secondary Practicum	3
EDFE 555	Supervised Student Teaching	1-9
EDRD 523	Reading and Writing in the Content Areas	3
EDSE 509	Strategies for Students with Exceptionalities	3
ET 501	Introduction to Applications of Educational Technology in PK-12 Education	3
PSY 500	Educational Psychology for Teachers	3

**One of the following Content methods courses or sequences:**

EED 341	Methods for Teaching Composition in Secondary Schools	3
	or	

EED 541	Methods for Teaching Composition in Secondary School and	3
EED 402	Methods for Teaching Literature in Secondary Schools	3
	or	
EED 502	Methods for Teaching Literature in Secondary Schools	3
	or	
SOSC 341	Teaching Secondary Social Studies	3
<b>One of the following:</b>		
HIST 400	Teaching History in the Secondary Curriculum	1
	or	
MED 441	Methods of Teaching Mathematics	3
	or	
SCED 441	Methods of Teaching Secondary School Science	3
	or	
THEA 385	Methods of Teaching Drama	3

- Candidates must **pass** the Praxis or Place test prior to Student Teaching.
- Candidates may not take extra courses with Student Teaching without prior approval from the Program Coordinator and the STE Director.
- All PTEP Field Experiences and methods courses need to be successfully completed prior to Student Teaching.
- Student Teaching outside the supervision of UNC Faculty may or may not be approved.
- Teacher Candidates will not be placed in a school where they were once students or where they have a close relative attending and/or working.
- Teacher education and educator preparation licensure programs do not accept Professional Teacher Education Program (PTEP) or field based courses that are more than ten years old. PLEASE NOTE: Teacher Candidates have the right to petition this policy at the discretion of the program coordinator.

## SCHOOL ORIENTATION AND MOBILITY (O&M) ENDORSEMENT (AGES 0-21 YRS)

### College of Education and Behavioral Sciences

The orientation and mobility endorsement is designed to provide additional competencies for students completing their graduate licensure program in Special Education: Visual Impairment. Students must obtain faculty consent before enrolling in any mobility coursework. Students earning licensure in O&M through the Association for Education and Rehabilitation of Blind and Visually Impaired (ACVREP) must complete the following coursework in addition to the Visual Impairment program requirements.

#### REQUIREMENTS

##### Endorsement Requirements — 15 Credits

EDSE 547	Individual Instruction in Orientation and Mobility	3
EDSE 647	Applied Methods in Orientation and Mobility	3
EDSE 648	Practicum in Orientation and Mobility	3-9

EDSE 648: Repeatable, maximum of 9 credits

## GIFTED AND TALENTED SPECIALIST ENDORSEMENT (PREK-12)

### College of Education and Behavioral Sciences

The graduate level endorsement program for the Gifted and Talented Specialist prepares teachers at the elementary and secondary level to work with gifted and talented students in order to help them develop their full potential. The program leads to recommendation for Colorado Department of Education's Gifted and Talented Specialist endorsement. The Gifted and Talented Specialist is required to pass the approved PLACE exam prior to licensing. The program consists of the required courses and practicum requirements agreed upon by the student and advisor. If a student enters the endorsement program for Gifted and Talented Specialist without a current teacher licensure, s/he is required to complete additional admission requirements and course requirements listed under Professional Teacher Education.

#### REQUIREMENTS

##### Endorsement Requirement — 24-27 hours

EDSE 682	Foundations in Gifted Education	3
EDSE 683	The Gifted Learner: Nature and Needs	3
EDSE 684	Assessment and Identification in Gifted Education	3
EDSE 685	Curriculum & Instructional Practice in Gifted Education	3
EDSE 686	Emotional and Social Development of the Gifted and Talented	3
EDSE 687	Program Strategies and Services for the Gifted and Talented	3
EDSE 688	Communication and Leadership in Gifted Education	3
EDSE 691	Practicum in Teaching the Gifted and Talented	1-12

EDSE 691: Take 3-6 hours - Number of hours determined by advisor based on candidates; prior background and experiences in Gifted and Talented education.

## SPECIAL EDUCATION GENERALIST ENDORSEMENT (AGES 5-21 YRS)

### College of Education and Behavioral Sciences

#### Endorsement Requirements - 27 hours

The graduate level endorsement program for preparing teachers to work with students with special education needs at K-12 levels is designed for individuals who have already completed an approved teachers licensure program in early childhood or elementary/secondary education, and/or who have Master degrees in education OR in an IDEA-designated related services profession. The special education generalist teacher is required to pass the Generalist PLACE exam prior to licensing. If the candidate does not already have an elementary teacher license, they are also required to pass the Elementary PLACE test or the Elementary PRAXIS test. The program consists of the required courses and practicum hours specified in the student's program of study, and agreed upon by the candidate. Candidates who have not completed requirements that satisfy eligibility for a valid Colorado teacher license must also complete requirements listed under Professional Teacher Education.

#### ENDORSEMENT REQUIREMENTS

##### Required Credits 27 hours

EDSE 510	Foundations of Special Education	3
EDSE 512	Assessment, IEP Development and Instructional Planning	3
EDSE 613	Applied Assessment	3
EDSE 614	Behavioral Interventions	3
EDSE 616	Scientificallly Based Literacy Interventions	3
EDSE 617	Mathematics and Content Area Learning for Students with Disabilities	3
EDSE 618	Educating Students with Significant Support Needs	3
EDSE 619	Secondary Services	3
EDSE 693	Practicum in Special Education	3-12

*EDSE 693: A candidate is required to have passed necessary licensure test(s) prior to completing the practicum, if they wish to receive an institutional recommendation for licensure at the University of Northern Colorado. When a candidate holds a valid license in another teaching area, he/she can request waiver of the practicum by his/her advisor.*

## PRINCIPAL (K-12)

### College of Education and Behavioral Sciences Requirements — 27 Credits

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 27 semester hours of coursework including a field experience.

See “Principals’ Licensure (Non-Degree)” (p. 199).

#### REQUIREMENTS

##### Leadership Core — 12 hours

ELPS 601	Leadership Development Through Inquiry	3
ELPS 603	Shaping Organizations: Management and Leadership in Education	3
ELPS 604	Understanding People: Professional Development and Educational Leadership	3
ELPS 605	External Environments: Social, Political, and Economic Influences in Educational Leadership	3

##### Additional Requirements — 15 hours minimum

ELPS 606	Internship in Educational Leadership	1-9
ELPS 654	Instructional Leadership and Supervision	3
ELPS 660	Law and the Administrator	3
ELPS 670	The Principalship: Leadership at the School Site Level	3



## SPECIAL EDUCATION DIRECTOR

### College of Education and Behavioral Sciences

#### Licensure Requirements — 28-39 Credits

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 or special service provider licensed and have completed three years of successful teaching experience or the equivalent. In addition to the admission requirements, a student must hold or be eligible for Colorado licensure as Special Education Generalist Teacher 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 children with special education needs with regard to delivery systems, evaluation, programming, identification, finance, law and due process.

#### REQUIREMENTS

##### Required Major Credits — 28-39 hours

EDSE 510	Foundations of Special Education	3
EDSE 511	Learning Environments and Cultural Considerations	3
EDSE 512	Assessment, IEP Development and Instructional Planning	3

##### Special Education Administration (22-33 hours)

EDSE 680	Administration and Supervision of Special Education	3
EDSE 681	Administrative Planning and Program Evaluation in Special Education	3
EDSE 697	Externship in Special Education: Administration	1-12
EDSE 718	Advanced Seminar in Education of Students with Hearing and/or Visual Handicaps	3
ELPS 650	School Finance and Budgeting	3
ELPS 654	Instructional Leadership and Supervision	3
ELPS 660	Law and the Administrator	3

**NOTE:** Students wishing to obtain Colorado licensure in this area are required to pass proficiency examination(s). Students should contact the School of Special Education.

## ADMINISTRATOR

### College of Education and Behavioral Sciences

#### Licensure Requirements — 21 Credits

The Administrator Licensure Program in the Program 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 18 semester hours of graduate coursework and an internship (3 hours). The Administrator License requires completion of the leadership core (Please See "Leadership Core — 12 hours" (p. 184) .) 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).

See "Administrators' Licensure (Non-Degree Requirements)" (p. 98).

#### REQUIREMENTS

##### Required Credits — 21 hours (minimum)

ELPS 606	Internship in Educational Leadership	1-9
ELPS 654	Instructional Leadership and Supervision	3
ELPS 660	Law and the Administrator	3
ELPS 665	Policy Analysis and Development	3
ELPS 667	Leadership at the District Level	3

ELPS 606: minimum 2 hours at central office and 1 hour with other agencies.

##### Select one of the following two courses:

ELPS 650	School Finance and Budgeting	3
ELPS 651	School Business Management	3

##### Select one of the following two courses:

PSY 674	Measurement I: Educational Testing	3
SRM 670	Evaluation: Models and Designs	3

*Teacher education and educator preparation licensure programs do not accept Professional Teacher Education Program (PTEP) or field based courses that are more than ten years old. PLEASE NOTE: Teacher Candidates have the right to petition this policy at the discretion of the program coordinator.*

## CULTURALLY AND LINGUISTICALLY DIVERSE BILINGUAL EDUCATION SPECIALIST (K-12)

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### College of Education and Behavioral Sciences

#### Requirements — 18 Credits

The graduate Culturally and Linguistically Diverse Bilingual Education Specialist (K-12) was created with the primary goal to help educators support and enhance the biliteracy skills of students in their classrooms, and to address the critical shortage of Linguistically Diverse: Bilingual Specialists throughout the state of Colorado. This program is offered to educators who already hold a teaching licensure and the Colorado Linguistically Diverse Education Endorsement (ESL) or equivalent. The program requires the completion of 18 semester hours. After the completion of the program, students must pass the Bilingual Education PLACE Exam to be eligible for the Bilingual Education Specialist state endorsement. Requirements for program admission include: Admission to the Graduate School; a teaching licensure; the Colorado Linguistically Diverse (ESL) endorsement; and evidence of Spanish fluency.

#### REQUIREMENTS

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##### Required Credits — 18 hours

ECLD 600	Literacy and Content Area Instruction in Spanish Bilingual Classrooms	3
ECLD 604	Field Experience in Culturally & Linguistically Diverse Education	3
ECLD 605	Seminar in Multilingual Teaching and Learning I	3
ECLD 606	Culturally and Linguistically Diverse Learners in the U. S. Educational System	3
SPAN 555	Literature for Children and Adolescents	3
	3 Graduate Credits of Spanish Language with approval of advisor	3

## CULTURALLY AND LINGUISTICALLY DIVERSE EDUCATION ENDORSEMENT (K-12)

### College of Education and Behavioral Sciences

#### Requirements — 24 Credits

The graduate Culturally and Linguistically Diverse Education endorsement (K-12) program was created to prepare teachers to serve the growing number of English language learners in their classrooms, and to address the critical shortage of teachers who are eligible to apply for the Colorado CLD Education endorsement so that they can effectively educate students who are learning English as a new language. The CLD endorsement program requires the completion of 24 semester hours. Requirements for the program include: Admission to the Graduate School; and teaching licensure or enrollment in a teacher preparation program. Evidence of second language learning experience needs to be demonstrated for completion of this program.

#### REQUIREMENTS

##### Required Credits — 24 hours

ECLD 592	Second Language Acquisition Theory	3
ECLD 593	Language, School and Society	3
ECLD 594	Foundations of Language and Linguistics for ESL/Bilingual Educators	3
ECLD 602	Teaching Culturally & Linguistically Diverse Learners	3
ECLD 603	Methods and Assessment in Culturally & Linguistically Diverse Education	3
ECLD 604	Field Experience in Culturally & Linguistically Diverse Education	3
ECLD 605	Seminar in Multilingual Teaching and Learning I	3
EDRD 523	Reading and Writing in the Content Areas	3

## READING SPECIALIST (K-12)

### College of Education and Behavioral Sciences

#### Endorsement Requirements — 56 hours

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:

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.
- Pass the Colorado PLACE Test for Reading Teacher endorsement.

#### REQUIREMENTS

##### Required Literacy Courses — 32 hours

EDRD 612	Reading in the Elementary Schools	3
EDRD 614	Literature for Children, Adolescents and Young Adults	3
EDRD 617	Evaluation and Improvements of Literacy Teaching and Learning	4
EDRD 620	Reading in the Middle and Secondary Schools	3
EDRD 642	Teaching the Writing Process in Schools	3
EDRD 645	Reading Research	3
EDRD 670	Directing a School-Wide Reading/Literacy Program	3

EDRD 692 Clinical Practicum in Literacy Coaching 4

**Select one of the following courses:**

EDRD 622 Directed Studies 1-3

EDRD 622: Content to be determined with Advisor

**Select one of the following courses:**

**Required Support Courses — 24 hours**

EDEL 620 Researched Applications for Instruction in Mathematics, K-9 3

SRM 600 Introduction to Graduate Research 3

SRM 670 Evaluation: Models and Designs 3

ECLD 602 Teaching Culturally & Linguistically Diverse Learners 3

ECLD 603 Methods and Assessment in Culturally & Linguistically Diverse Education 3

ELPS 662 Design and Delivery of Professional Development 3

**Select one of the following courses:**

EDEC 670 Curriculum and Instruction in Early Childhood and Primary Education 3

EDEL 612 Elementary School Curriculum 3

EED 541 Methods for Teaching Composition in Secondary School 3

**READING TEACHER (K-12)**

**College of Education and Behavioral Sciences**

**Endorsement Requirements — 29 hours**

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:**

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.

**REQUIREMENTS**

**Elementary and Secondary Reading Endorsement Requirements - 29 hours**

**Required Reading Credits – 29 hours**

EDRD 611	Language, Literacy and Cognitive Development	3
EDRD 612	Reading in the Elementary Schools	3
EDRD 614	Literature for Children, Adolescents and Young Adults	3
EDRD 617	Evaluation and Improvements of Literacy Teaching and Learning	4
EDRD 620	Reading in the Middle and Secondary Schools	3
EDRD 642	Teaching the Writing Process in Schools	3
EDRD 645	Reading Research	3
EDRD 670	Directing a School-Wide Reading/Literacy Program	3
EDRD 692	Clinical Practicum in Literacy Coaching	4

## Other Graduate Degree Programs

### INTERDISCIPLINARY STUDIES: GRADUATE INTERDISCIPLINARY DEGREE

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The Graduate Interdisciplinary Degree Program is designed to be a rigorous, quality program providing the 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, a faculty member will be assigned from each discipline concerned to provide close supervision, participation, and coordination. It is imperative that the program be truly interdisciplinary and represents an integration of subject matter from each of the major disciplines. Programs that parallel other degree programs are not acceptable as interdisciplinary degree programs. Identification of two primary disciplines 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, MAT, MM, MPH, MS, DA or EdD). Secondary disciplines may also be included.

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

#### Interdisciplinary Admission Application

1. The degree application returned with the appropriate non-refundable application fee.
2. One official copy of the applicant's transcripts from all colleges or universities attended (except UNC).
3. 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) 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.
4. Three letters of recommendation from appropriate professional sources attesting to the applicant's ability to pursue the intended graduate interdisciplinary program.
5. A detailed written statement of career goals and objectives and a rationale for pursuing the proposed interdisciplinary program. This must be a compelling statement clarifying why no single existing degree program could satisfy these goals.
6. Identification of two primary disciplines 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, MAT, MM, MPH, MS, DA or Ed.D.). Secondary disciplines may also be included.

7. A current resume that summarized 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 complete 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 Admissions 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 Coordinator who contacts the disciplines 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 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:

1. If the graduate faculty advisors determine a student has any course or degree deficiencies in his/her background, the proposal must list the course work necessary to alleviate those course or degree deficiencies. (Deficiency courses must be completed at the earliest possible date).
2. SRM 600 or one of the research oriented substitute courses approved by the Graduate Council (master's) or a 12 hours research core (doctoral) must be proposed. The proposal must also contain at least one additional research methods, statistics, or applied research courses (i.e. computer science, tests/measurements, etc.).
3. Secondary disciplines (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.
4. 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.

5. No more than one-third of the proposed courses may be double-numbered courses offered simultaneously toward undergraduate and graduate students.
6. No more than nine (9) semester hours, individually or in combination, of courses numbers 508, 513, or 622 may be proposed or counted in the degree program.
7. 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 school directors. 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.
8. **Master's Degree** : Proposed course work must equal at least thirty (30) semester hours of graduate level courses plus any deficiency credits.

At least twelve (12) semester hours of graduate level course work must be proposed in each of at least two primary disciplines. Courses numbered 622 and 699 may not be used to meet this requirement.

If a thesis is proposed, the thesis must be a minimum/maximum of six (6) semester hours.

One of the designated advisors must be named as the Program Advisor.

9. **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.

At least fifteen (15) semester hours of graduate-level course work must be proposed in each of at least two primary disciplines. 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, 797 and 799 may not be used meet this requirement. The Plan of Study must include four (4) semester hours of proposal (797) and twelve (12) semester hours of doctoral dissertation (799)

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 study must recommend at least one additional graduate faculty advisor, subject to approval by his/her school director and the Dean of the Graduate School.

**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 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 decisions 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: Oral (p. 48) section of this Catalog for further details).

**Dissertation.** Each interdisciplinary degree program student must complete a dissertation proposal and final dissertation that reflects the integrated nature of the interdisciplinary degree. Students in interdisciplinary degree programs must comply with the same policies and procedures that guide research proposals and dissertations in distinct disciplines or areas of study.

## COLLEGE OF EDUCATION AND BEHAVIORAL SCIENCES (EBS)

### University Programs

Graduate Programs (p. 54)

### Office of the Dean

**Dean:** Eugene P. Sheehan, Ph.D.

**Associate Dean:** Jingzi (Ginny) Huang, Ph.D.

**Location:** McKee 125

**Telephone:** 970.351.2817

The mission of the College of Education and Behavioral Sciences is to contribute to the betterment of society through research, professional service, and the preparation of individuals who are skilled lifelong learners capable of working effectively with diverse populations in an evolving global community.

The College offers programs at the graduate and undergraduate levels. Graduate programs in Psychological Sciences and Applied Statistics and Research Methods and Educational Technology prepare students for employment in a range of fields including education and the business and technology sectors. The undergraduate program in psychology provides students with a liberal arts degree and transferable skills in several areas including research design and analysis and the ability to understand human behavior.

Several programs in the College provide professional training by offering specialized undergraduate licensure and graduate degree programs in education and psychology. The undergraduate licensure programs (Teacher Education Endorsement: Professional Teacher Education Programs (PTEP) prepare elementary, middle, secondary, K-12, and special education teachers. The Center for Urban Education in Denver trains elementary teachers for work in urban schools. Elementary, middle, and secondary teacher candidates must major in a content degree program offered in one of the other colleges. The online Distance Opportunities Interpreter Training Center offers undergraduate programs in sign language interpretation.

Graduate programs are also offered to prepare school administrators, school psychologists, educational technology personnel, counselors and counseling psychologists for schools, mental health agencies and private practice. These programs also prepare college and university faculty and administrators.

The professional education faculty members of the College are committed to the serious study of education and the promotion of professional standards to ensure quality and foster innovation in professional preparation. The College Conceptual Framework holds the view that education is a

transformational enterprise and that professional educators use evidence in decision making; respect diversity; collaborate with others; are standards and performance-based; and can use technology to improve teaching and learning.

Programs in the College are accredited by the National Council for the Accreditation of Teacher Education. All educator preparation programs are approved for licensure by the Colorado State Board of Education and authorized by the Colorado Department of Higher Education. The American Psychological Association and the Council for Accreditation of Counseling and Related Educational Programs accredit programs in School Psychology and Counseling and Counselor Education.

Other major units in the College are the Tointon Institute for Educational Change, Bresnahan-Halstead Center on Mental Retardation and Developmental Disabilities, and the Kephart Memorial Child Study Center. A common focus of these diverse units is to provide teachers and administrators with advanced professional development.

### Department of American Sign Language & Interpreting Studies

**Director:** Barbara Garrett, Ph.D.

**Teaching ASL M.A. Program Coordinator:** Greta Knigga-Daugherty, Ph.D.

**Location:** McKee Room 114

**Telephone:** 970-351-1117

**Website:** <http://www.unco.edu/cebs/asl-interpreting/>

The Department of American Sign Language & Interpreting Studies (ASLIS) designs and delivers quality programs that center around learning, using, and teaching American Sign Language. Undergraduate and graduate programs are offered, as are liberal arts core courses and professional development coursework and certificates. Programming is offered on the UNC main campus to traditional undergraduate students and online to a national audience of both undergraduate and graduate students.

The master's program in Teaching ASL (TASL) is a unique hybrid program offered online with summer sessions on the main campus in Greeley. Two programs are available depending on the students' career goals: M.A. for those interested in teaching on the post-secondary level and M.A.: Licensure: World Languages (Grades K-12) for those interested in teaching on the K-12 level.

The ASLIS department also offers ASL-IV on the UNC main campus and ASL III and ASL IV online. An ASL minor is available for students interested in a stronger language foundation.

Additionally, a B.A. in ASL-English Interpretation is offered on the UNC main campus or in a hybrid online delivery system that requires an annual four-week summer session on campus.

The ASLIS faculty (hearing and deaf) are selected for their recognized expertise. They each contribute to their respective field by researching, publishing and presenting in various local, national and international venues. They are acknowledged as outstanding teachers by their students and their peers.

### **Teaching American Sign Language M.A.**

The Teaching American Sign Language (TASL) M.A. Program is a distance delivered master's degree with required onsite summer sessions which prepares instructors to teach American Sign Language (ASL) on the post-secondary level. The focus of this program is on pedagogical coursework as applicable to teaching ASL as a foreign or as a modern language, not learning or mastering ASL. Therefore, all students must demonstrate ASL proficiency through an informal screening prior to acceptance into the program.

**Please note:** The licensure option is available through the Teaching American Sign Language (TASL) M.A.: Licensure: World Languages (Grades K-12) Program.

### **Admissions requirements:**

- A minimum GPA of 3.0 on the last 60 semester hours of coursework.
- International applicants must pass the TOEFL exam with a minimum score of 550 or 90 for the internet based exam.

### **Application requirements:**

1. Complete the online application for the UNC Graduate School and pay the graduate application fee.
2. Send all official transcripts to the UNC Graduate School.
3. Submit two letters of recommendation from supervisors/teachers who know the applicant's work to the UNC Graduate School.
4. Submit a 1-2 page statement of educational goals and philosophy to the UNC Graduate School.
5. All applicants will be required to demonstrate ASL proficiency prior to acceptance to the TASL Program.

**Application Deadline:** February 15th for the following summer. However, applications will be accepted until all spots have been filled. Applicants will be notified no later than April 15th whether they have been accepted into the program or not.

### **Demonstration of ASL Proficiency:**

Although all applicants will undergo an informal screening for the application process, all students will be required to submit the results of their American Sign Language Proficiency Interview (ASLPI) prior to the practicum courses, TASL 593 and TASL 594.

### **For degree and program requirements, see:**

Teaching American Sign Language M.A. (p. 114)

### **Teaching American Sign Language M.A.: Licensure: World Languages (Grades K-12)**

The Teaching American Sign Language (TASL) M.A.: Licensure: World Languages (Grades K-12) is a distance delivered master's degree with required onsite summer sessions which prepares instructors to teach American Sign Language (ASL) in a number of settings including secondary and post-secondary levels. The focus of this program is on pedagogical coursework as applicable to teaching ASL as a foreign or as a modern language, not learning or mastering ASL. Therefore, all students must demonstrate ASL proficiency through an informal screening prior to acceptance into the program.

**Please note:** The non-licensure option is available through the Teaching American Sign Language (TASL) M.A. Program.

### **Admissions requirements:**

- A minimum GPA of 3.0 on the last 60 semester hours of coursework.
- International applicants must pass the TOEFL exam with a minimum score of 550 or 90 for the internet based exam.

### **Application requirements:**

1. Complete the online application for the UNC Graduate School and pay the graduate application fee.
2. Send all official transcripts to the UNC Graduate School.
3. Submit two letters of recommendation from supervisors/teachers who know the applicant's work to the UNC Graduate School.
4. Submit a 1-2 page statement of educational goals and philosophy to the UNC Graduate School.
5. All applicants will be required to demonstrate ASL proficiency prior to acceptance to the TASL Program.

**Application Deadline:** February 15th for the following summer. However, applications will be accepted until all spots have been filled. Applicants will be notified no later than April 15th whether they have been accepted into the program or not.



**Demonstration of ASL Proficiency:**

Although all applicants will undergo an informal screening for the application process, all students will be required to submit the results of their American Sign Language Proficiency Interview (ASLPI) prior to the practicum courses, TASL 593 and TASL 594.

**For degree and program requirements, see:**

Teaching American Sign Language M.A.: Licensure:  
World Languages (Grades K-12)

**Department of Applied Psychology and Counselor Education**

**Chair:** Heather Helm, Ph.D.

**Location:** McKee 248

**Telephone:** 970.351.2731

**Applied Psychology and Counselor Education Faculty:**

Vilma (Betty) Cardona, Ph.D.; Elysia Versen Clemens, Ph.D.; Heather Helm, Ph.D.; Brian D. Johnson, Ph.D.; Danielle Kahlo, Ph.D.; Jennifer L. Murdock, Ph.D.; Jeffrey A. Rings, Ph.D.; Basilia (Lia) C. Softas-Nall, Ph.D.; Natalie Stipanovic, Ph.D.; Lu Tian, Ph.D.; Stephen L. Wright, Ph.D.

The Department of Applied Psychology and Counselor Education (APCE) offers a Ph.D. in Counseling Psychology (APA Accredited), a Ph.D. in Counselor Education and Supervision (CACREP Accredited), an M.A. in Clinical Mental Health Counseling (CACREP Accredited), an M.A. in Marriage, Couples, and Family Counseling/Therapy (CACREP Accredited), and an M.A. in School Counseling (CACREP Accredited).

**Counseling Psychology Ph.D.**

This program is designed to develop counseling psychologists who can independently apply scientific psychological principles to improve the well being of individuals across the lifespan. The program focuses on developing competencies in the application of three treatment modalities: individual, group, and couples and family therapy. In addition, attention is directed toward the development of competencies in research, assessment, clinical supervision, advocacy, and program evaluation. This program subscribes to the scientist-practitioner model, with an emphasis on training practitioners and researchers to work with diverse populations. Graduates obtain employment in faculty positions, counseling centers, private practice, community agencies, health care, and business. The program is APA accredited, which leads to eligibility for licensure as a psychologist.

The Department of Applied Psychology and Counselor Education, along with the Department of School Psychology, offers services to the University and the local

community through the Psychological Services Clinic, a research and training facility.

In our doctoral program at the University of Northern Colorado (UNC), we offer a Major Area of Study in Counseling Psychology with a minimum of 3 full-time academic years of graduate study in didactic course work and supervised clinical training in that Major Area of Study, which includes completing a dissertation that is consistent with the field of Counseling Psychology; students also complete 1 additional year of pre-doctoral internship. Students must complete at least 2 of the 3 academic training years as a full-time resident at UNC. Students that complete our program are appropriately trained in the area of health service psychology to be eligible for licensure as doctoral level psychologists. We offer students experience in being trained in treatment interventions from multiple modalities by completing: two individual practica courses, one family systems course, one couples and family practicum course, and a group practicum course. Live supervision is provided for these practica courses at our on-site training clinic that provides psychological services to community members and university students. Students are also exposed to psychological assessment by completing a cognitive assessment course and a personality assessment course, as well as the option of completing additional assessment courses. Furthermore, our students are trained to create, disseminate, and utilize scholarly research to engage in evidence-based practice. Our program places relatively greater concentration on training related to research. Students take six courses in the area of research and have the option of completing one additional research course in order to receive a doctoral minor in applied statistics and research methods.

**Admission:** Application materials must be completed and on file in the Graduate School by December 1st. The Graduate School Application includes: a completed application form, one official copy of academic transcripts, one official copy of GRE scores (and TOEFL scores if an International applicant), three letters of recommendation from individuals familiar with an applicant's academic and clinical skills (letter writers should also complete the Graduate School's Letter of Recommendation form), and an application fee.

1. All entering doctoral students will hold a bachelor's or master's degree in psychology/counseling or a related field; should have a GPA of at least 3.0 on a 4.0 scale, have GRE Verbal and Quantitative scores of at least 291 total, and a minimum of 3.5 on the Analytical Writing subtest. International students must have a TOEFL score of at least 213 on the computer based test and 550 on the paper based tests. An official copy of GRE scores (and TOEFL if an international applicant) needs to be submitted.

2. The Counseling Psychology program has a supplemental application form that should also be sent to the Graduate School by December 1st. The supplemental materials include: completion of the Supplementary Data Sheet (included in the Counseling Psychology Application Packet or on the Counseling Psychology program's website), applicant's current vita, and a written statement responding to questions related to an applicant's mental health experiences, professional background/interests and aspirations.
3. A further review process is conducted by the faculty. Finalists are invited to attend an admission screening workshop.

Admission decisions are based on the professional judgment of the Counseling Psychology faculty, considering the above data, including personal characteristics and interpersonal communication style as assessed in the pre-admission workshop. Applications are evaluated on a competitive basis; positions are limited.

**For degree and program requirements, see:**  
Counseling Psychology Ph.D. (p. 127)

### **Counselor Education and Supervision Ph.D.**

The doctoral program in counselor education and supervision prepares individuals for employment as counselor educators and supervisors in graduate programs offering training in school counseling, clinical counseling, couples and family counseling/therapy, and counseling with children and adolescents. Graduates are also qualified for licensure as professional counselors, couples and family counselors, or school counselors. The Ph.D. in Counselor Education and Supervision is accredited by the Council for Accreditation of Counseling and Related Educational Programs (CACREP).

The Department of Applied Psychology and Counselor Education, along with the Department of School Psychology, offers services to the University and the local community through the Psychological Services Clinic, a research and training facility.

**Admission:** Application must be complete and on file in the Applied Psychology and Counselor Education Office by December 1, with decisions announced by the first week of March.

- All applicants should have a GPA of at least a 3.0 on a 4.0 scale, and have GRE Verbal and Quantitative scores of at least 500 each, or 291 total on the new scoring scale, and a minimum of 3.5 on the Analytical Writing subtest. International students must have a TOEFL score of at least 213 on the computer based test and 550 on the paper based tests. An official copy of GRE scores (and TOEFL in an international applicant) needs to be submitted.

- A master's degree in counseling or a related area is required; CACREP accredited programs preferred.
- Three letters of recommendation are required from individuals who are familiar with the student's academic and clinical skills.
- Written statement must be completed regarding the relationship of the doctoral program to the future career goals of the applicant.

Attendance at a doctoral applicant interview day is required for the admission process to be completed. Admission decisions are based on the professional judgment of the Counselor Education and Supervision 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 Counselor Education and Supervision Ph.D. Students**

Entering doctoral students should have completed graduate courses in the following areas:

- Diagnosis and Treatment Planning
- Career Counseling and Theory
- Counseling Theories
- Lifespan Development
- Family Systems
- Group Counseling/Guidance
- Legal and Ethical Issues in Counseling
- Substance Abuse
- Appraisal and Assessment
- Introduction to Graduate Research

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.

### **For degree and program requirements, see:**

Counselor Education and Supervision Ph.D. (p. 129)

### **Professional Counseling**

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. Supervised training is provided through the Psychological Services Clinic to the University and the local community. Opportunities for a broad understanding of human behavior and human relationships are included in the education of the student in Counseling.

The Counseling faculty is committed to the development of broadly based competent professional counselors skilled in helping people with personal, interpersonal and career concerns in community agencies or in schools. The requirements of the program are conceptualized within the framework and standards set forth by accreditation standards, the counseling profession, Colorado state law, Graduate School and job requirements. The Professional Counseling programs are accredited by the Council for the Accreditation of Counseling and Related Educational Programs (CACREP).

**Admission.** The prospective 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 60 hours of course work. If the applicant's GPA is below 3.0, the Graduate Record Exam (General Test) score must be submitted. It is recommended that the applicant have a total score that meets or exceeds 1000 on the Verbal and Quantitative subtests, or 291 total on the new scoring scale, and a minimum of 3.5 on the Analytical Writing subtest. Two years of post bachelor's degree work experience is recommended for applicants under 25 years of age. Attendance at a pre-admission workshop is required for this admission process to be completed. When attendance at the preadmission workshop is an extreme hardship for the applicant, special arrangements are made.

Acceptance is based on consideration of the following criteria:

- Clarity of career goals.
- Intellectual qualities.
- Professional judgment of appropriate personality characteristics as evidenced by a structured interview, interpersonal communication style and personal references.

#### *Clinical Mental Health Counseling M.A.*

The Clinical Mental Health Counseling program at the master's level prepares professional counselors to work in various agency settings such as mental health centers, probation and parole departments, substance abuse centers and residential treatment centers.

**For degree and program requirements, see:**  
Clinical Mental Health Counseling M.A. (p. 64)

#### *Marriage, Couples, and Family Counseling/Therapy M.A.*

The requirements for the Marriage, Couples, and Family Counseling/Therapy program are directed toward the development of competent professionals in the practice of marital and family counseling. The degree area specializes in relationships, interpersonal interaction, and systems theory.

**For degree and program requirements, see:**  
Marriage, Couples and Family Counseling/Therapy M.A. (p. 82)

#### *School Counseling M.A.*

The School Counseling program is designed at the master's level to develop a professional who counsels with children and adults in elementary, middle and high schools.

**For degree and program requirements, see:**  
School Counseling M.A. (p. 97)

## Department of Applied Statistics and Research Methods

**Chair:** Jay R. Schaffer, Ph.D.

**Location:** McKee 518

**Telephone:** 970.351.2807

**Faculty :** Krystal M. Hinerman, Ph.D.; Susan R. Hutchinson, Ph.D.; Maria K. E. Lahman, Ph.D.; Trent L. Lalonde, Ph.D.; Enayetur Raheem, Ph.D.; Jay R. Schaffer, Ph.D.; Khalil Shafie, Ph.D.

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.

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 school in support of other university programs at the graduate level.

**Admission :** Applications must be complete and on file in the ASRM office by March 1 for Fall admission and by October 1 for Spring admission.

### **Applied Statistics and Research Methods M.S.**

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 Master's program to the student's professional goals.

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.

**For degree and program requirements, see:**

Applied Statistics and Research Methods M.S. (p. 54)

**Applied Statistics and Research Methods Ph.D.**

The student must provide the ASRM program coordinator with a written statement regarding the relationship of the doctoral program to the student's professional goals. It is expected that the student possesses the knowledge, skills and competencies equivalent to those of a graduate from our M.S. degree program. Should it be necessary, a student may use elective credits to make up deficiencies.

This program prepares students to teach courses at the university level in applied statistics and 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.

**For degree and program requirements, see:**

Applied Statistics and Research Methods Ph.D. (p. 121)

Applied Statistics and Research Methods Doctoral Minor (p. 159)

## Educational Technology

**Location:** McKee 518

**Telephone:** 970.351.2816

**Coordinator:** Mia K. Williams, Ph.D.

**Faculty:** Heng-Yu Ku, Ph.D., Mia Kim Williams, Ph.D.

Educational Technology oversees the degree programs in Technology, Innovation, and Pedagogy; Educational Technology and related endorsements. Educational Technology also supports teacher preparation with technology-rich method courses for various preparation programs. Graduate courses are offered in both face-to-face and online formats. Face to face classes within the program generally meet once a week; evening classes are available to support local and commuting students that work full time. Programs may be pursued on a part-time basis (although there are specific University limits on total program length and continuous registration). International students are represented in the existing Educational Technology programs and are encouraged to apply to the new Technology, Innovation and Pedagogy offerings.

Technology, Innovation, and Pedagogy MA and PhD programs are accepting applications on a continuous basis. Defining a new learning environment requires a set of technologies and social practices where meaning is

delivered and consumed in new formats. The MA program provides a rigorous but practical experience in educational technology innovation and pedagogical practices.

Coursework can focus on Innovation and Integration, Instructional Design, or a combination of both. The PhD program in Technology, Innovation, and Pedagogy builds a deep theoretical base in critical and innovative pedagogy as well as developed technology application skills. It provides different areas of focus, or cognates, including innovation and integration and instructional technology. The PhD program culminates in a dissertation of original research in the field.

Our faculty encourages cooperative research and other scholarly projects, and coursework offers opportunities to publish research and present in scholarly venues. The goal of the programs is to develop education professionals and classroom teachers that have foundational theoretical knowledge of technology infused pedagogy for transformative teaching and learning. Graduates work in a variety of learning contexts (K-12, higher education, online environments, military training, business/organizational, and international settings), as scholars, educators, professional developers, chief officers, program developers and consultants.

**Technology, Innovation and Pedagogy Ph.D.**

The Doctor of Philosophy in Technology, Innovation and Pedagogy provides a terminal degree in educational technology that culminates in a dissertation of original research in the field. Graduates work in a variety of learning contexts (PK-12, higher education, online environments, military training, business/organizational, and international settings) as professors, researchers, consultants, innovation officers, and scholars. Cooperative research, design, teaching and other scholarly projects are encouraged among students and faculty. The program is research focused and designed to be rigorous but practical. Students are expected to engage in theoretical and practical experiences throughout the program documented in the comprehensive exam process.

The doctoral faculty in the educational technology review applications in both fall and spring semesters. Admission criteria follow the UNC Graduate School expectations and include the expectations of minimum GPA and GRE scores. Applications require a two-page statement of career goals, three letters of reference, and transcripts from previous undergraduate and graduate work. The statement of career goals should specifically address how this degree program will assist the applicant in furthering his/her skills and knowledge and applying them in the future. The applicant must also complete a short interview scheduled with the doctoral faculty that concludes in a brief writing sample. The interview may be conducted in person or through digital technologies. International students are encouraged to apply early in order to be able to handle passport, visa, and other issues in a timely manner.

Once admitted, the student will work closely with their academic advisor to develop a plan of study that meets the individual professional needs. While all students are expected to complete the core content and research courses, electives are selected to tailor the program to meet various professional foci within the field of educational technology. Once admitted to a program, students must maintain a satisfactory grade point average of 3.2. Students will receive an annual letter of progress providing feedback regarding their individual progress toward completion of their program until they have passed the comprehensive exam.

### **Comprehensive Exam Expectations**

Students must complete both Phase I and Phase II of the Comprehensive Exam Expectations in order to schedule a Comprehensive Oral Exam with the Graduate School. It is encouraged to complete Phase I prior to beginning Phase II, but it is acceptable to complete both Phases in the same semester. Phase II cannot be complete in a semester prior to the completion of Phase I.

### **Phase I - Electronic Showcase Portfolio**

Students will work on constructing an electronic portfolio over the duration of their coursework. The expectation is that coursework may contribute to the items showcased in the portfolio, however work beyond the course assignments is expected. Work conducted completely outside of a course is also acceptable. The portfolio is divided into 5 areas and may be completed in any order. 5 areas of portfolio:

1. Applications of Educational Technology
2. Engagement in Research Practices
3. Demonstration of Innovative Pedagogy
4. Participation in Professional Collaboration
5. Awareness of Critical, Social, and Global Perspectives

### **Phase II - Written Exam**

Students will complete a take home written exam consisting of two questions. The exam will be conducted over a set two-week period each semester.

### **Dissertation Format Options**

A. Traditional 5-chapter format consisting of Introduction, Literature Review, Method, Findings, and Discussion.

B. Articles format consisting of Introduction, Literature Review, Method, at least three chapters containing one Publishable Article each, and Conclusion.

### **For degree and program requirements: see:**

Technology, Innovation and Pedagogy, Ph.D. (p. 158)

### **Technology, Innovation and Pedagogy M.A.**

The Master's of Arts (MA) in Technology, Innovation and Pedagogy provides an advanced degree in technology knowledge and pedagogical practices that culminates with a comprehensive exam and optional research-based project or thesis. Graduates work in a variety of learning contexts (K-12, higher education, online environments, military training, business/organizational, and international settings) as scholars, educators, professional developers, program developers, and consultants. Cooperative research and other scholarly projects are encouraged among students and faculty. Students are encouraged to publish research and present in scholarly venues. The program is designed to be rigorous but practical.

The doctoral faculty in the department review applications on a continual basis in both fall and spring semesters. The priority application deadline for spring or summer program admissions is November 15; the application deadline for fall program admissions is April 15. Applications require a two-page statement of intent, three letters of reference, and transcripts from previous undergraduate and graduate work. The statement of intent should specifically address educational experience and future goals and how this program is a good match for your aspirations. After a screening of the applications, program faculty will conduct a short interview process. The interview may be conducted in person, by telephone, or by videoconference. International students are encouraged to apply early in order to be able to handle passport, visa, and other issues in a timely manner. Potential students with limited English abilities are encouraged to examine the application options available through the University's Center for International Education. In many cases, students may be admitted to an academic program, but begin their studies in the Intensive English Program.

### **Program Admission and Completion Requirements:**

Admission criteria follow the UNC Graduate School expectations and include the expectations of minimum GPA and GRE scores. Once admitted, the student will work closely with their academic advisor to develop a plan of study that meets the individual professional needs. While all students are expected to complete the core content and research courses, electives are selected to tailor the program to meet various professional foci within the field of educational technology. A MA degree in Technology, Innovation and Pedagogy will be conferred with a minimum of 30 credits beyond the undergraduate degree and successful completion of a comprehensive exam. Students seeking a more in-depth research experience may elect to complete an optional research or thesis project.

Once admitted to a program, students must maintain a satisfactory grade point average of 3.2. Students will receive an annual letter of progress providing feedback

regarding their individual progress toward completion of their program.

**For degree and program requirements, see:**

Technology, Innovation and Pedagogy M.A. (p. 116)

### **School Library Education M.A.**

The Master of Arts in School Library Education is tailored specifically to K-12 professionals who would like to obtain employment in Colorado's K-12 libraries and learning resource/media centers. Applications to this program are reviewed by the faculty throughout the calendar year and there is no application deadline. Applications require a two-page statement of career goals, three letters of reference, and transcripts from previous undergraduate work. A teaching license valid for the State of Colorado is also required. The statement of career goals should specifically address how this degree program will assist the candidate in furthering his/her skills and knowledge and applying them in the future. The faculty review of applications generally takes one to two weeks. Major delays usually occur due to incomplete applications or insufficient information.

**For degree and program requirements, see:**

School Library Education MA (p. 98)

### **Department of Leadership, Policy and Development: Higher Education and P-12 Education**

**Chair:** Matthew Birnbaum, Ph.D.

**Location:** McKee 418

**Telephone:** 970.351.2861

**Faculty:** Anthony Armenta, Ed.D.; Matthew Birnbaum, Ph.D.; Florence M. Guido, Ph.D.; Chayla Haynes, Ph.D.; Christopher Jenkins, Ph.D.; Gabriel Serna, Ph.D.; Linda R. Vogel, Ph.D.; Spencer Weiler, Ph.D.; Tamara Yakaboski, Ph.D.

The Leadership, Policy and Development Department includes the Educational Leadership and Policy Studies (ELPS) Program and the Higher Education and Student Affairs Leadership (HESAL) Program. For specific degree, licensure, and certificate programs offered, please refer to the following listing of the appropriate program of interest.

#### **Educational Leadership and Policy Studies**

**Location:** McKee 418

**Telephone:** 970.351.2861

**Faculty:** Anthony Armenta, Ed.D.; Christopher Jenkins, Ph.D.; Linda R. Vogel, Ph.D.; Spencer Weiler, Ph.D.

The mission of the program 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 underlying philosophy of the ELPS 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 ELPS programs are exemplified by the following beliefs:

- Human growth and development are lifelong pursuits.
- Leadership encompasses a learned set of knowledge, skills, attitudes and practices.
- Organizations are artifacts of a larger society.
- Learning, teaching, and collegiality are fundamental activities of organizations.
- Validated knowledge and active inquiry form the basis of practice.
- Moral and ethical imperatives drive leadership behavior.
- Effective leadership in organizations depends on individual and team efforts.
- Leaders' behaviors and actions model their beliefs and values.
- Leaders effect positive change in individuals and organizations.
- Effective leaders develop positive interpersonal relationships.
- Diversity strengthens organizations.
- Organizations and leaders are accountable.

The ELPS programs and the scholarship of its faculty and students emphasize:

- Formal and informal roles and strategies of educational leaders in P-12 schools and post-secondary settings
- 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

#### *Administrators' Licensure (Non-Degree)*

An application packet available through the program Office (McKee 418) describes materials for admission review by the faculty: current resume, goals statement, and Professional Assessment Forms. Admission decisions are made throughout the year.

#### **For licensure requirements, see:**

Administrators' Licensure: District Level Leadership (p. 185)

#### *Principals' Licensure (Non-Degree)*

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. Students desiring a principal's license must submit an application to the Graduate School. In addition, an application packet, available through the program office (McKee 418), describes materials for admission review by the faculty: current resume, goals statement, and Professional Assessment Forms. Admission decisions are made throughout the year.

#### **For licensure requirements, see:**

Principals' Licensure (p. 184)

#### *Educational Leadership M.A.*

The Master of Arts degree in Educational Leadership 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, professional development, organizational behavior, and contemporary educational issues.

An application packet, available through the program office (McKee 418), describes materials for admission review by the faculty: current resume, goals statement, background information form, and Professional

Assessment Forms. Admission decisions are made throughout the year.

One set of materials may be submitted for review for admission to the M.A. and either the Colorado Principal or Administrator Licensure program. This intent should be clearly described in the statement of goals and noted on the application form.

The master's degree requires a minimum of 30 semester hours of graduate study, of which 12 hours are core learning experiences. Students may obtain the master's degree while also working concurrently on a principal or administrator license.

#### **For degree and program requirements, see:**

Educational Leadership M.A. (p. 73)

#### *Educational Leadership and Special Education Administration M.A. with dual licensure as a Principal and Special Education Director*

The Master's (M.A.) degree program in Educational Leadership and Special Education Administration prepares candidates to become effective leaders and managers of educational programs and services at both the school building and school district levels of impact. Candidates for this degree complete coursework in applied research/evaluation, the principalship, foundations of educational leadership, contextual understanding of systems, policy/legal/procedural information, program planning & organization, budget & resources, and parent/community engagement. 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. The program prepares graduates to assume roles as building principals at elementary, middle, or high school levels: and district level positions as special education directors and/or central office administrators.

Upon successful completion of this program, students will earn a M.A. degree with dual licensure as a Principal and Special Education Director.

Graduate applications for this degree are evaluated by the Graduate School, Department of Educational Leadership and Policy Studies, and the School of Special Education. Entering students must possess a bachelors degree from an accredited college or university. The M.A. Degree requires 39 semester hours of graduate study beyond the bachelors degree. Satisfactory performance on a concluding activity demonstrating attainment of program outcomes and approved by faculty, in accordance with Graduate School policy, must be demonstrated.

#### **For degree and program requirements, see:**

Educational Leadership Special Education Administration MA (p. 73)

*Educational Leadership Ed.S.*

An application packet, available through the program office (McKee 418), describes materials for admission review by the faculty: current resume, goals statement, background information form, 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 and noted on the application form. Admission decisions are made throughout the year.

**For degree and program requirements, see:**

Educational Leadership Ed.S. (p. 118)

*Educational Leadership and Special Education Administration Ed.S.*

The interdisciplinary Educational Specialist (Ed.S.) degree program in Educational Leadership and Special Education Administration prepares candidates to become effective leaders and managers of educational program and services at both the school building and school district levels of impact. Candidates for this degree complete coursework in applied research/evaluation, the principalship, foundations of educational leadership, contextual understanding of systems, policy/legal/procedural information, program planning and organization, budget and resources, and parent/community engagement. 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. The program prepares graduates to assume roles as building principals at the elementary, middle, or high school levels; and district level positions as special education directors and/or central office administrators.

Graduate applications for this degree are evaluated by the Graduate School, Department of Educational Leadership and Policy Studies, and the School of Special Education. Entering students must possess a master's degree from an accredited college or university. The Ed.S. degree requires 39 semester hours of graduate study beyond the master's degree. Satisfactory performance on a concluding activity demonstrating attainment of program outcomes and approved by faculty, in accordance with Graduate School policy, must be demonstrated.

**For degree and program requirements, see:**

Educational Leadership and Special Education Administration EdS (p. 118)

*Educational Leadership Ed.D.*

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. The current focus of the Ed.D. is preparing P-12 leaders for public and private schools and other educational organizations.

The purpose of the Ed.D. program is to engage educators in P-12 and other education-related settings in the advanced study of educational leadership so they can critique and improve their own practice. The program focuses on problems of practice - studying practice, engaging in constructive critique of practice, and improving one's practice. Coursework in the program is designed to be highly relevant to the participants' jobs and careers.

Features that make this program attractive to current and aspiring educational leaders:

- Collaborative and collegial learning community;
- Challenging, provocative, research-based knowledge;
- Cohort approach to learning for 3 semesters of enrollment;
- Instructional techniques emphasizing practices of adult learning;
- Emphasis on problems of practice;
- Professional networking with area P-12 educational leaders;
- National and internationally recognized university faculty and affiliates;
- Faculty and cohort commitment that all participants successfully complete the program.

**Admission** . An application packet, available through the program 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 problem of practice, background information form, 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 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 address a problem of practice 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.

**Residency.** Students may complete the UNC residency requirement without leaving their employment.

**Program of Study.** The nature of doctoral studies implies a blend of required learning experiences and individualized program development to reflect the personal, professional, and academic goals of each student. Each doctoral student admitted to the program works with an advisor and a program planning committee to develop a plan of study.

**For degree and program requirements, see:**  
Educational Leadership Ed.D. (p. 118)

### **Higher Education and Student Affairs Leadership**

**Program Coordinator:** Matthew Birnbaum, Ph.D.

**Location:** McKee 418

**Telephone:** 970.351.2861

**Email:** HESAL@unco.edu

**Faculty:** Matthew Birnbaum, Ph.D.; Florence M. Guido, Ph.D.; Chayla Haynes, Ph.D.; Gabriel Serna, Ph.D.; Tamara Yakaboski, Ph.D.

The Higher Education and Student Affairs Leadership (HESAL) program is distinguished for weaving social justice throughout the curriculum and helping students develop equity, diversity, and inclusion competencies. Our graduates are prepared to provide effective and ethical leadership in a variety of student affairs, academic, and policy arenas. The HESAL program emphasizes excellence in professional practice, research, and scholarly writing. Each of our fulltime faculty members is a former student services administrator and coursework blends theory and practice. We welcome students from diverse backgrounds and life experiences.

The program offers M.A. and Ph.D. degrees on the Greeley campus and a Ph.D. through Extended Campus at the Lowry campus. The program also offers coursework for students in other graduate programs, including a doctoral minor.

**Commitment to Social Justice and Diversity** The HESAL faculty is committed to social justice, equity,

diversity, and inclusion in our practice and scholarship. The curriculum is designed to raise critical consciousness, which we believe is fundamental to developing advanced professional leadership competencies. Students are expected to engage in coursework, practice, and research that explores inclusive perspectives in all areas of post-secondary education. The faculty believes in creating an atmosphere that supports multiple perspectives, both in the pursuit of individual research and as a community of scholars.

**Program Approach to Graduate Study** The HESAL program embraces 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 students and faculty.

**Admission Process:** There are two parts in the process of admission to the HESAL M.A. and Ph.D. Programs, including the Graduate School application process and the HESAL Program application process, which includes an interview.

To download the application packet from the HESAL Program, please visit our forms page, [www.unco.edu/cebs/hesal/apply.htm](http://www.unco.edu/cebs/hesal/apply.htm). Visit the UNC Graduate School site for information about their part of the application process, <http://www.unco.edu/grad/>.

These two parts must be pursued simultaneously. It takes up to 20 working days for the Graduate School to set up a student record, evaluate eligibility for admission, and prepare a screening packet for our HESAL Selection Committee. Once the HESAL faculty has reviewed your full application, including the interview, they make a recommendation regarding your admission. If accepted to the program, students will be assigned an advisor and the recommendation will be forwarded on to the Graduate School. The Graduate Dean then communicates the official admission decision to you in writing, and the Graduate School staff record the decision on your student record.

The HESAL program has two deadlines for admissions. The first is usually in early spring and the second in May. Those individuals seeking a graduate assistantship should apply before the first deadline. Please see the HESAL webpage for current information.

#### *Higher Education and Student Affairs Leadership M.A.*

The Higher Education and Student Affairs Leadership (HESAL) Master of Arts (M.A.) degree is a 39 credit hour program that prepares effective student affairs professionals who value a social justice perspective. Students take a wide array of courses in consultation with an assigned advisor who assists you in preparing for a vocation in higher education and student affairs' diverse environments. Students are required to earn three (3) credit

hours of field experience under the mentorship of experienced higher education and student affairs leaders. The HESAL M.A. program follows applicable C.A.S. standards.

For specific details on program requirements, curriculum, and course descriptions, please consult the University of Northern Colorado's Graduate Catalog.

**Admission to M.A. program:** Students must hold a bachelor's degree in any major from an accredited institution.

**For degree and program requirements, see:**  
Higher Education and Student Affairs Leadership M.A.  
(p. 80)

#### *Higher Education and Student Affairs Leadership Ph.D.*

The HESAL Ph.D. is a 64 credit hour program that integrates social justice and empirical research throughout the inquiry-based curriculum. The program offers students the opportunity to focus studies on leadership, college student development, higher education culture and diversity, and organizations and policy in both student affairs and broader higher education contexts. Opportunities are provided for practical experiences under the mentorship of experienced higher education leaders. Students are admitted as a cohort group, with expectations that they will engage in collaborative research and other scholarly endeavors early in the doctoral program.

**Admission:** Students must hold a masters degree in higher education, college student affairs, or a related field from an accredited institution and have two years of successful work experience in an institution of higher education. SRM 600 or an equivalent introduction to graduate research course, is required for admission. The program may waive this requirement for admission purposes, in which case the student must make up the deficiency. Coursework to make up the deficiency will not count toward the Ph.D. requirements. Additional details regarding admissions criteria and the application process may be seen on the program's web site, at [www.unco.edu/cebs/hesal](http://www.unco.edu/cebs/hesal). Financial assistance and additional professional experiences are available through an extensive network of graduate assistant opportunities, both within the program and in a number of UNC offices.

**For degree and program requirements, see:**  
Higher Education and Student Affairs Leadership Ph.D.  
(p. 136)

## School of Psychological Sciences

**Director:** Mark B. Alcorn, Ph.D.

**Location:** McKee 0014  
**Telephone:** 970.351.2957

**Faculty:** Mark B. Alcorn, Ph.D.; Michael Todd Allen, Ph.D.; Kathryn F. Cochran, Ph.D.; Molly M. Jameson Cox, Ph.D.; Thomas N. Dunn, Ph.D.; David M. Gilliam, Ph.D.; Carl E. Granrud, Ph.D.; Nancy J. Karlin, Ph.D.; Rena A. Kirkland, Ph.D.; Paul Klaczynski, Ph.D.; James A. Kole, Ph.D.; Teresa M. McDevitt, Ph.D.; Phillip E. Peterson, Ph.D. Kristina Phillips, Ph.D.; Michael Phillips, Ph.D.; Kevin Pugh, Ph.D.; Steven M. Pulos, Ph.D.; Rosann Ross, M.A.; Eugene P. Sheehan, Ph.D.; Marilyn C. Welsh, Ph.D.; William Douglas Woody, Ph.D.

**Emeritus Faculty:** William A. Barnard, Ph.D.; Theodore R. Bashore, Ph.D.; Susan P. Bromley, Psy.D.; John B. Cooney, Ph.D.; Grant L. Morris, Ph.D.; Jeanne E. Ormrod, Ph.D.; Charles S.L. Poston, Ph.D.; Paul D. Retzlaff, Ph.D.

## Educational Psychology

The master's and doctoral programs are designed to prepare individuals for educational activities such as instruction, evaluation, test construction, educational research, educational consulting to business and public schools, and university teaching. All students must abide by the codes of ethics of the American Psychological Association (APA) and the American Educational Research Association (AERA).

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 cognition, and the development of children, adolescents, and adults. Faculty and students have access to computers, a complete set of data analysis software packages and laboratory facilities available for both teaching and research purposes. Service courses are offered to support other university programs at both the undergraduate and graduate levels.

## Accelerated (4 + 1) Psychology B.A. and Educational Psychology M.A.

Motivated and high-achieving students may seek to complete the requirements for the B.A. in Psychology and M.A. in Educational Psychology in five years. To obtain both degrees, students must complete all the requirements for the B.A. described in the Undergraduate Catalog and all of the requirements for the M.A. described in the Graduate Catalog. Completing the requirements for both degrees in the accelerated Master's program is made possible by taking 9 credits of graduate course work in the junior and senior years (paid for at the undergraduate tuition rate). Students remain eligible for financial aid as an undergraduate; any Graduate School aid is not available until students are admitted as a Graduate student.

Students interested in transferring into an accelerated Master's Program must:

- have a cumulative GPA of at least 3.0 to take graduate-level courses as a junior or senior.
- Meet with the program's advisor in their junior year, apply (following the same procedure and meeting the same requirements as other M.A. applicants). Full admission is dependent on completing the B.A. requirements in the senior year while maintaining a minimum 3.0 GPA.
- Students and faculty identify the graduate courses the students should take. The program application will be signed and forwarded to the Graduate School with signatures of the program advisor indicating the approval of graduate course transfer.

### **Educational Psychology M.A.**

Upon meeting the admission criteria for the Graduate School, the candidate's application is forwarded to the program area faculty for review. Applications are processed as they are received. 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 interest and career goals, three letters of reference, and GRE scores should be submitted if available, but are not required.

Applications are evaluated case by case according to the following preferred guidelines:

- GPA of 3.0 in the last 60 semester hours of academic work.
- Three letters of recommendation indicating a high potential for academic success.
- Congruency between the applicant's career goals and the purpose of the M.A. program as indicated by the letter of interest.
- Educationally-related work experience is desirable, but not required.

### **Educational Psychology M.A. en route to the Ph.D.**

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, students will complete the 30 credit M.A. program See Educational Psychology MA (p. 74) for more information. Students must complete all program requirements (including Comprehensive Examination) for the M.A. in addition to the minimum credit hours required for the Ph.D. Students

must be conferred with the M.A. degree prior to admission to doctoral candidacy.

**For degree and program requirements, see:**  
Educational Psychology M.A.

### **Educational Psychology Ph.D.**

The overall goal of the program is to produce university instructors and scholars capable of original basic and applied research in psychological and educational processes.

There is considerable emphasis on research training within the program. Research topics of the faculty pertain to processes in learning cognition, and development, measurement and assessment, social perspectives to research design and to applications of the findings from educational psychology to informal and informal educational settings.

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. 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 are evaluated case by case according to the following preferred guidelines:

- GRE combined score of 1,200 on the verbal and quantitative reasoning sections, with a minimum verbal score of 500 and an analytical writing score of at least 4.0.
- 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 areas of emphasis: Learning and Cognitive Processes, Human Development, and Research, and Measurement. All students must take the common core emphasis area and electives in consultation with the advisor. Students must take a minimum of 67 hours to graduate. A doctoral minor is also available.

**For degree and program requirements, see:**

Educational Psychology Ph.D. (p. 133)

Educational Psychology Doctoral Minor (p. 161)

## Department of School Psychology

**Chair: Michelle S. Athanasiou, Ph.D.**

**Location:** McKee 248

**Telephone:** 970.351.2731

**School Psychology Faculty:** Michelle S. Athanasiou, Ph.D.; Achilles N. Bardos, Ph.D.; Robyn S. Hess, Ph.D.; David M. Hulac, Ph.D.; Nicholas D. Young, Ph.D.

The Department of School Psychology is housed within the College of Education and Behavioral Sciences and offers graduate training at two levels:

- Educational Specialist in School Psychology (Ed.S.)
- Doctor of Philosophy in School Psychology (Ph.D.)

The aim of these programs is to develop professionals who are able to apply psychological and educational principles to improve the psychosocial environments of children (ages birth-21) and their families. Attention is directed toward the development of skills in the assessment of the intellectual, emotional, and social development of children; planning and implementing direct academic and social/emotional interventions with a focus on evidence-based and culturally sensitive practice; and providing individual and systems consultation within schools and the larger community. Students who successfully complete either the Ed.S. or Ph.D. are eligible for state licensure and national certification. Ph.D. graduates are eligible to pursue licensure as psychologists.

**Admission Requirements:** Application materials must be completed and on file at the Graduate School by December 1st. Graduate School Application materials include: a completed application form and application fee, one official copy of all academic transcripts, one official copy of GRE scores, and three letters of recommendation from individuals familiar with the applicant's academic skills and relevant experience.

1. All entering students will hold at least a bachelor's degree, should have a GPA of at least 3.0 on a 4.0 scale, combined GRE Verbal and Quantitative scores of 300, and a minimum of 3.5 on the Analytical Writing subtest.
2. Applicant must submit Department of School Psychology supplementary materials along with the Graduate School application. This material includes: a supplementary data sheet, current vita, and a written statement regarding the relationship of the program to the personal and professional goals of the applicant.
3. Finalists for the doctoral program are invited to attend an onsite interview.

Applications are evaluated competitively for a limited number of positions. The applicant must demonstrate clear potential for success. Admission decisions for the Ph.D.

are typically announced by March 1st and decisions for the Ed.S. by March 15th.

### School Psychology Ed.S.

The Specialist program is designed for those students who wish to become school psychologist practitioners. Training is primarily oriented toward the acquisition of those skills necessary for effective functioning in the educational environment as a school psychologist. The program is based on the student entering with a bachelor's degree. A student with a master's degree in an area of professional psychology should meet with his or her advisor to develop a specific plan of study. A course in abnormal psychology is prerequisite to the program and must be completed prior to or during the first year of study.

This program is accredited by the National Association of School Psychologists and leads to licensure as a School Psychologist through the Colorado Department of Education.

### School Psychology Ed.S.: Applied Behavior Analysis Emphasis

The Ed.S. in school psychology with an applied behavior analysis emphasis combines the NASP-approved Ed.S. program in school psychology (see Ed.S. School Psychology) with additional required coursework in applied behavior analysis (ABA). Students completing the Ed.S. in School Psychology: Applied Behavior Analysis emphasis will be eligible for licensure as a school psychologist, and will have met the coursework requirements need to sit for the exam to become a Board Certified Behavior Analyst (BCBA). The course sequence is approved by the Behavior Analytic Certification Board (BACB®).

**For degree and program requirements, see:**  
School Psychology Ed.S. (p. 119)

### School Psychology Ph.D.

The principal goal of the doctoral program is the training of a scientist-practitioner who possesses a broad and general knowledge of psychology and is able to apply these skills with proficiency in the areas of advanced intervention, assessment, consultation, research, and program evaluation. Doctoral students in School Psychology are expected to engage in scholarly work throughout their program of study to gain skill as a researcher. They are expected to work with an approved faculty member for five hours per week for a minimum of four semesters (summers excluded). The program is based on the student entering with a bachelor's degree. Students with advanced graduate degrees in an area of professional psychology may be able to waive some coursework and should meet with their advisors to develop a specific plan of study. A course in abnormal psychology is a

prerequisite to the program and must be completed in the first year of study.

The Ph.D. program is accredited by the Commission on Accreditation of the American Psychological Association. Questions related to the program's accredited status should be directed to the Commission on Accreditation: Office of Program Consultation and Accreditation, American Psychological Association, 750 1st Street, NE, Washington, DC 20002, Phone: (202) 336-5979 / E-mail: [apaaccred@apa.org](mailto:apaaccred@apa.org), Web: [www.apa.org/ed/accreditation](http://www.apa.org/ed/accreditation). The Ph.D. program in School Psychology is also approved by the National Association of School Psychologists.

Doctoral graduates are eligible for licensure as psychologists through the state Department of Regulatory Agencies (DORA) and as school psychologists through the state Department of Education. Graduates are qualified to assume positions as school-based practitioners, university professors, consultants, educational researchers, and psychologists (after obtaining DORA licensure).

**For degree and program requirements, see:**  
School Psychology Ph.D. (p. 149)

## School of Special Education

**Director Harvey Rude, Ed.D.**

**Location:** McKee 29  
**Telephone:** 970.351.2691

**Faculty:** Rashida Banerjee, Ph.D.; Sandra K. Bowen, Ph.D.; Robin D. Brewer, Ed.D.; Paula W. Conroy, Ed.D.; Silvia Correa-Torres, Ed.D.; Kay A. Ferrell, Ph.D.; Lewis B. Jackson, Ed.D.; John L. Luckner, Ed.D.; Tracy Mueller, Ph.D.; Francie R. Murry, Ph.D.; Stuart N. Omdal, Ph.D.; Lori Peterson, Ph.D.; Corey D. Pierce, Ph.D.; Jennifer Ritchotte, Ph.D.; Harvey Rude, Ed.D.; Todd H. Sundeen, Ph.D.; Jennifer Urbach, Ph.D.; Hasan Zaghlawan, Ph.D.

The School 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 Disabilities, and an annual Special Education Summer Symposia Series in Vail, 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 levels.

## Special Education M.A.

### *Deaf and Hard of Hearing Emphasis*

The MA degree in Special Education with a Deaf/Hard of Hearing emphasis prepares professionals as a special education specialist: deaf/hard of hearing to work with children and youth with hearing losses ages birth-21 and their families in order to help them develop their full potential. The Special Education Deaf/Hard of Hearing Specialist is required to pass an approved elementary education content exam prior to entry into the preparation program, and the Deaf Education PLACE exam prior to licensing. The program consists of the required courses and practicum requirements agreed upon by the student and advisor. Students entering the Master of Arts program in Special Education: Deaf/Hard of Hearing without a current teacher licensure are required to complete additional admission requirements and course requirements listed under Professional Teacher Education. Students are encouraged to contact a program advisor to determine additional requirements. Also, individuals who are not proficient in sign can enroll in the program and concurrently take sign courses. The Special Education Deaf/Hard of Hearing Specialist is required to pass a sign proficiency examination prior to student teaching.

**For degree and program requirements, see:**

Special Education M.A. — Deaf and Hard of Hearing Emphasis (p. 99)

### *Early Childhood Special Education Emphasis*

This master's program is designed to prepare teachers who will work with young children from birth to age 8 across the full spectrum of learning needs and abilities. Because it promotes an inclusive approach to early education, the program is appropriate for teachers who will work in Early Childhood Special Education and/or Early Childhood Education settings. Teacher candidates will demonstrate knowledge and skills in parent-professional partnerships, recommended research-based practices, typical and atypical early child development, and approaches to effective assessment and intervention. Students are required to pass the Early Childhood Special Education PLACE exam before enrolling in practicum coursework. For candidates without a current teaching license who wish to obtain licensure, additional courses are required through the Professional Teacher Education Program.

**For degree and program requirements, see:**

Special Education M.A. — Early Childhood Special Education Emphasis (p. 101)

### *Generalist Emphasis*

The MA degree in Special Education with Generalist emphasis prepares teachers who will work with students who are identified with a variety of disabilities from moderate to severe intensity. The emphasis of the program content focuses on literacy and mathematics instruction,

understanding standards and assessment, behavior, elementary and secondary differentiated instruction, and technology. Teachers completing this program will demonstrate the skills needed to provide appropriate academic and behavioral supports and accommodations for students with disabilities. The Special Education Generalist candidate is required to pass the approved Elementary Education content exam prior to entry into the preparation program, and the special education Generalist PLACE exam prior to licensing. The Generalist program consists of the required courses and practicum requirements agreed upon by the student and advisor. If a student enters the Master of Arts program in Special Education Generalist without a current teacher licensure, s/he is required to complete additional admission requirements and course requirements listed under Professional Teacher Education and determined by the licensing office.

**For degree and program requirements, see:**

Special Education M.A. — Generalist Emphasis (p. 102)

*Gifted and Talented Education Emphasis*

The MA degree in Special Education with Gifted and Talented emphasis prepares teachers at the elementary and secondary level to work with gifted and talented students in order to help them develop their full potential.

The Special Education Gifted and Talented Specialist is required to pass the approved PLACE exam prior to licensing. The program consists of the required courses and practicum requirements agreed upon by the student and advisor. If a student enters the Master of Arts program in Special Education: Gifted and Talented without a current teacher licensure, s/he is required to complete additional admission requirements and course requirements listed under Professional Teacher Education.

**For degree and program requirements, see:**

Special Education M.A. — Gifted and Talented Education Emphasis (p. 102)

*Intervention Specialist: Academic Coaching and Leadership Emphasis*

The Intervention Specialist: Academic Coaching and Leadership Emphasis is a comprehensive program that weaves research and practice while providing current educational professionals with the knowledge and skills that are needed to provide services, supervise, and coach other educators to ultimately foster student growth academically, behaviorally, and socially.

**For degree and program requirements, see:**

Special Education M.A. — Intervention Specialist: Academic Coaching and Leadership Emphasis (p. 103)

*Intervention Specialist: Applied Behavior Analysis Emphasis*

The Intervention Specialist with an emphasis in Applied Behavior Analysis (ABA) is an online Masters degree designed to prepare educators with knowledge and skills in the area of ABA and leadership. Coursework in the Intervention Specialist with an ABA emphasis includes: special education law; leadership in the school and community; research and reflective practice; concepts and foundations of applied behavior analysis; measurement and experimental design; identifying functions or problem behavior; designing, implementing and evaluating interventions; behavior change systems; ethics, management, and supervision; and application of applied behavior analysis through the lifespan, including individuals with cultural and linguistic diversity, autism, traumatic brain injury, and extremely challenging behaviors. This graduate program prepares educators to become leaders in schools and communities in the area of applied behavior analysis.

**For degree and program requirements, see:**

Special Education M.A. — Intervention Specialist: Applied Behavior Analysis Emphasis (p. 103)

*Visual Impairment Emphasis*

The MA degree in Special Education with a Visual Impairment Emphasis is designed to prepare teachers who will work with students who are visually impaired. The program consists of the required courses and practicum requirements agreed upon by the student and advisor. Students entering the Master of Arts program in Special Education: Visual Impairment without a current teacher licensure are required to complete additional course requirements listed under Professional Teacher Education. Students may complete licensure and degree requirements in a minimum of 42 credits if they desire licensure of education of students with visual impairments only. Students seeking an added endorsement in Orientation and Mobility may complete this 15 credit program in consultation with their program advisor.

**Admission.** The student must possess a grade point average on the last 60 semester hours 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. Acceptance or rejection of an applicant will be made after an evaluation of all of the above requirements is made.

Please see degree and program requirements for any additional admission information.

**Comprehensive Examination:** In addition to admission to the program and satisfactory completion of all coursework, each student must pass a written comprehensive examination before she or he is allowed to graduate.

**Evaluation.** 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.

**Licensure.** Students who seek Colorado licensure in an area of Special Education or request an institutional recommendation for licensure from UNC must meet Colorado teacher licensure requirements.

Students wishing to obtain Colorado licensure are required to pass proficiency examination(s). Students should contact the School of Special Education in McKee for information.

A master's degree or a school approved licensure program is required before the University of Northern Colorado will recommend the student for endorsement.

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 approved documentation and completion of a licensure examination. However, a minimum of 15 semester hours must be taken at UNC.

**For degree and program requirements, see:**

- Special Education M.A. — Visual Impairment Emphasis (p. 104)
- Orientation and Mobility (O&M) Endorsement (p. 183)
- Teaching American Sign Language M.A. (p. 114)

**Educational Leadership and Special Education Administration M.A. with dual licensure as a Principal and Special Education Director**

The Master's (M.A.) degree program in Educational Leadership and Special Education Administration prepares candidates to become effective leaders and managers of educational programs and services at both the school building and school district levels of impact. Candidates for this degree complete coursework in applied research/evaluation, the principalship, foundations of educational leadership, contextual understanding of systems, policy/legal/procedural information, program planning & organization, budget & resources, and parent/community engagement. 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. The program prepares graduates to assume roles as

building principals at elementary, middle, or high school levels; and district level positions as special education directors and/or central office administrators.

Upon successful completion of this program, students will earn a M.A. degree with dual licensure as a Principal and Special Education Director.

Graduate applications for this degree are evaluated by the Graduate School, Department of Educational Leadership and Policy Studies, and the School of Special Education. Entering students must possess a bachelors degree from an accredited college or university. The M.A. Degree requires 39 semester hours of graduate study beyond the bachelors degree. Satisfactory performance on a concluding activity demonstrating attainment of program outcomes and approved by faculty, in accordance with Graduate School policy, must be demonstrated.

**For degree and program requirements, see:**

- Educational Leadership & Special Education Administration Master of Arts with dual licensure as a Principal and Special Education Director (p. 73)

**Educational Leadership and Special Education Administration Ed.S.**

The interdisciplinary Educational Specialist (Ed.S.) degree program in Educational Leadership and Special Education Administration prepares candidates to become effective leaders and managers of educational program and services at both the school building and school district levels of impact. Candidates for this degree complete coursework in applied research/evaluation, the principalship, foundations of educational leadership, contextual understanding of systems, policy/legal/procedural information, program planning and organization, budget and resources, and parent/community engagement. 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. The program prepares graduates to assume roles as building principals at the elementary, middle, or high school levels; and district level positions as special education directors and/or central office administrators.

Graduate applications for this degree are evaluated by the Graduate School, Department of Educational Leadership and Policy Studies, and the School of Special Education. Entering students must possess a master's degree from an accredited college or university. The Ed.S. degree requires 39 semester hours of graduate study beyond the master's degree. Satisfactory performance on a concluding activity demonstrating attainment of program outcomes and approved by faculty, in accordance with Graduate School policy, must be demonstrated.

**For degree and program requirements, see:**

Educational Leadership and Special Education  
Administration Ed.S. (p. 118)

### Special Education Ph.D.

The Ph.D. program in Special Education is designed to prepare candidates in theory, pedagogy, research methodology, evidence-based practice, public policy and advocacy, and collaboration. The philosophy of the doctoral program is based on the concept that learning is an active, self-regulated process. The doctoral program is composed of required courses in special education, research methods, electives, research tools, and requires the completion of a dissertation. Doctoral learners are guided through their program by their advisor (who usually serves as Research Chair for the dissertation) and a committee of faculty from special education and other disciplines. The doctoral dissertation is defended by the Doctoral Learner in a committee meeting open to the campus community. The program can be completed in 3-5 years, depending on enrollment status (full- or part-time) and professional goals.

In joint planning sessions, the doctoral learner and advisor, in consultation with the doctoral committee, should establish a tentative doctoral plan of study during the first and second semesters on campus. This plan should be based on past experience and training and on the student's interests and goals. The plan of study must include an emphasis on critical thinking, breadth and depth of theoretical understanding, scholarship, methods of inquiry, direct experiences in schools with diverse populations, and collaboration with faculty and student colleagues. Doctoral learners are expected to become stewards of the discipline, demonstrating: a) the ability to conduct research and scholarship; b) an understanding of the history and foundational ideas of special and gifted education; and c) the ability to represent and communicate ideas effectively and clearly.

Each applicant must receive a positive recommendation from representatives of the School of Special Education faculty to be recommended for admission to the Graduate School.

### Admission Requirements

The School of Special Education accepts applications from doctoral applicants throughout the year. However, complete applications must be received by **April 1** to be considered for admission beginning summer or fall semester. International applicants must submit all required materials by **March 15**. Applications are reviewed by the Doctoral Admissions and Review Committee, and every artifact submitted [see below] will be considered when making a decision.

The committee typically meets every three weeks during the academic year. Applications received during the summer term may not be reviewed until fall semester.

Students are encouraged to begin their program of study during the summer term.

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 140 on the quantitative and 146 on the verbal sections of the GRE-General Test with a combined score of at least 297 and an analytical writing score of at least 3.5. Please see general university requirements for admission for doctoral applicants.

The doctoral application is a two-step process: (a) completion of the admission application (<http://www.unco.edu/grad/prospective/applying.html>), submitted to the Graduate School; and (b) submission of the additional artifacts, listed below, to the School of Special Education, Doctoral Admissions and Review Committee, Campus Box 141, Greeley, CO 80639.

In addition to the minimum GPA and GRE requirements for the Graduate School admission, a strong doctoral application to the School of Special Education includes:

1. A resume that highlights the applicant's professional experience working with children or youth and excellent demonstration of leadership potential through presentations, publications, grants, or professional service;
2. A written statement (3-5 page, 12 font, double spaced) that addresses the following:
  - a. Your interest in a particular area of exceptionality (e.g., learning disabilities, autism, deaf or hard of hearing, transition, gifts and talents);
  - b. A brief discussion of some of the trends in that area of your chosen exceptionality, and;
  - c. Your future goals after you earn a doctorate in special education from the University of Northern Colorado. Your future goals should focus on teaching, research, and leadership in the field of exceptionalities.
3. A published or professional writing sample that is thoughtful; communicates effectively; illustrates thorough understanding of academic scholarship that demonstrates strong and logical linkages among the question(s), the results/findings, and conclusions; is both technically and mechanically correct; and is completed in an exemplary manner.
4. Three names, titles, and contact information for references. It is recommended that at least one of these references be a former professor who can comment on the applicant's ability to succeed at the doctoral level.

In addition, the applicant may be invited to participate in an in-person, telephone, or internet-conference interview. The interview will evaluate specific and positive demonstration of interpersonal skills, with clear indication



of potential in all areas: effective practitioner, scholar, advocate, and educational leader.

#### **International Applicants:**

Admissions requirements for international applicants include the same requirements mentioned above. In addition, all applicants, including applicants who have successfully completed a master's degree in the US, whose native language is not English, must meet a minimum TOEFL (Test of English as a Foreign Language) score of 80 on the internet based (iBT) test. Applicants may request the Educational Testing Service (ETS) to send an official TOEFL score report directly to the University of Northern Colorado. The institution code for the University of Northern Colorado is 4074. Materials from international applicants will not be reviewed until the Doctoral Admissions and Review Committee receive official TOEFL scores.

If you have questions or concerns regarding the application process, please contact Dr. Silvia Correa-Torres at [silvia.correa-torres@unco.edu](mailto:silvia.correa-torres@unco.edu) or 970-351-1660.

#### **For degree and program requirements, see:**

- Special Education Administration Licensure (p. 185)
- Special Education Ph.D. (p. 151)
- Special Education Doctoral Minor (p. 163)

## School of Teacher Education

**Director: Jingzi (Ginny) Huang, Ph.D.**

**Location:** McKee 216

**Telephone:** 970.351.2908

**Faculty:** Frederick J. Bartelheim, Ed.D.; Margaret Berg, Ph.D.; James A. Erikson, Ph.D.; Gary Fertig, Ph.D.; Thomas A. Griggs, Ph.D.; Jenni L. Harding-DeKam, Ed.D.; Jody K. Lawrence, Ph.D.; Valerie Middleton, Ph.D.; Madeline Milian, Ed.D.; Kathleen O'Neil, Ph.D.; Michael F. Opitz, Ph.D.; Fredrick L. Silverman, Ed.D.; Susan A. Thompson, Ed.D.; Dana Walker, Ph.D.; Mia K. Williams, Ph.D.; Suzette Youngs, Ph.D.

**Cumbres** prepares Hispanic/Latino students to teach with an English as a Second Language or bilingual education endorsement.

**Location:** McKee 262

**Telephone:** 970.351.2417

#### **Educational Studies Ed.D.**

The Ed.D. in Educational Studies prepares candidates to understand the relationship among research, policy, and practice in education in order to contribute to reforming educational systems. Candidates complete an educational studies core, a multidisciplinary cognate, a research core, and a dissertation. The program prepares candidates to assume roles as university faculty members, educational leaders in school districts and state and federal agencies,

district level curriculum specialists, and to assume leadership roles in nonprofit and private sectors.

Graduate applicants for this degree must have evaluations by the School of Teacher Education, in addition to the Graduate School, in order to determine admissibility.

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.

#### **For degree and program requirements, see:**

Educational Studies Ed.D. (p. 135)

#### **Education M.A.T.**

The Master of Arts in Teaching degree provides experienced practitioners with the knowledge, abilities, and dispositions needed to scaffold their own professional development toward a vision of accomplished practice. Candidates in this program analyze philosophical and contemporary practices and theories relating to knowledge acquisition as a means of enhancing student learning and the curriculum development process within school systems. Three abilities are emphasized throughout the program: critical reflection, systematic inquiry, and collaboration. Teacher participants use these abilities to plan and implement a series of learning and assessment projects for the purpose of improving students' learning and achievement. The M.A.T. program provides opportunities to develop in-depth understanding of content-specific pedagogy, the curriculum development process, teacher research, and portfolio approaches to teaching and learning. Teachers are encouraged to become school leaders as they gain confidence working with increasingly diverse groups of children, parents, and colleagues. The program has several emphases: in Elementary Education including Post Baccalaureate initial licensure, Curriculum Studies, Culturally and Linguistically Diverse Education, and English Education. The latter three programs require one year of successful classroom teaching experience for graduation.

#### **For degree and program requirements, see:**

- Education M.A.T. — Curriculum Studies Emphasis (p. 70)
- Education M.A.T. — Elementary Education with Licensure Emphasis (p. 71)
- Education M.A.T. — English Education Emphasis (p. 72)
- Education M.A.T. — Culturally and Linguistically Diverse Education Emphasis (p. 72)

**Literacy M.A.**

The Literacy M.A. graduate program prepare students to be inquiring practitioners who seek knowledge and experiences about literacy processes and practices.

These evolving scholars are guided and encouraged to pursue knowledge, commit to inquiry, engage in problem solving related to literacy processes and practices, and participate as leaders in literacy related activities. The inquiring practitioners learn to use literacy knowledge, practices, and processes to serve the changing technological, diversity, and literacy education needs of dynamic local and global environments.

**Admission.** Applicants must have one year of full-time teaching experience, an overall 3.0 GPA on the last 60 semester hours; must complete the Literacy program Application and have three letters of recommendation sent to the Coordinator of the Literacy Program in McKee Hall. Upon receiving formal notification of admission a student must meet with his/her assigned advisor to plan a program of study.

There are several steps to the evaluation of the Literacy Program as well as to the evaluation of the students enrolled in the Literacy M.A. degree program. The evaluation process is ongoing. For admission into the Graduate School and admission into the Literacy M.A. degree program a student must complete and submit specific documents (Graduate School application, Literacy program application, three letters of reference and a resume) that Literacy program faculty members review and evaluate. As a student takes courses, he/she completes a university generated course evaluation form and may be asked to complete an instructor developed evaluation form. When a student reaches the mid-point of taking the eleven reading courses (after five courses), the student and the student's advisor meet to complete a progress interview. The purpose of the interview is for the student to reflect upon his/her performance to date, as well as to make known his/her evaluation of the strengths and needs of the Literacy program. At the conclusion of all the Literacy M.A. degree coursework, a student completes a synthesis notebook and oral defense or completes a thesis. Following the successful completion of the synthesis notebook and oral defense or thesis defense, the student completes an exit survey evaluating all of the elements of the Literacy program that the student has participated in and completed. Two years after graduating from the Literacy program with a Master of Arts degree the student will be asked to complete another survey and to reflect on his/her overall program experience.

**Endorsement**

By completing the Master of Arts degree in Literacy students fulfill the requirements for institutional recommendation for endorsement as a K-12 Reading Teacher. Students seeking endorsement must provide evidence of two or more years of teaching experience in an

accredited and/or established elementary, middle, or secondary school while holding a Type A or teaching license equivalent certificate before such recommendation is made. Students wishing to obtain Colorado licensure in reading are required to pass a State of Colorado administered proficiency examination PLACE Reading Teacher. Students should contact the Licensure Officer in McKee for information.

**For degree and program requirements, see:**  
Literacy M.A. (p. 82)

**Multilingual Education M.A. - Teaching English to Speakers of Other Languages (TESOL)**

The Masters of Art in Multilingual Education: TESOL prepares students with advanced knowledge, skills, and cross-cultural competencies to work in the field of TESOL (Teaching English to Speakers of Other Languages) in international or non K-12 (adult education) domestic settings, or engage in language education in multilingual settings.

**Admission:**

For admittance to the proposed program, students should be successfully admitted to the University as a degree seeking graduate student: An earned Bachelor's degree from an accredited institution; GPA of 3.0 or above in the last 60 semester hours; For international students: TOEFL at 8.0 or above ; IELTS at 7.0 or above. Provisional admission possible with enrollment in and successful completion of UNC's Intensive English program prior to official admission to the program.

For degree and program requirements, see:

Multilingual Education MA Teaching English to Speakers of Other Languages (TESOL) (p. 85)

**Multilingual Education M.A. - World Language Licensure Program****Admission:**

For admittance to the proposed program, students should be successfully admitted to the University as a degree seeking graduate student: An earned Bachelor's degree from an accredited institution; GPA of 3.0 or above in the last 60 semester hours; English proficiency requirement for international students: TOEFL at 80 or above ; IELTS at 7.0 or above.

**Location of offering:**

The program will be offered on UNC campus and through distant learning format to those who cannot be physically in Greeley. International students may more likely take the courses f2f though they may, if they choose, take courses on line via technology in their own countries.

For degree and Program Requirements, See:

Multilingual Education MA World Language Licensure Program (p. 86)

**Teaching Diverse Learners M.A.**

This MA degree program is designed for currently licensed teachers, such as those who hold Early Childhood, Elementary or Secondary licenses, who wish to receive added endorsements in the areas of Special Education Generalist and Culturally Linguistically Diverse Education. The program is a blended design that incorporates all courses and field experiences necessary to receive both endorsements, and a Master of Arts Degree.

**For degree and program requirements, see:**

Teaching Diverse Learners M.A. (p. 115)

## COLLEGE OF HUMANITIES AND SOCIAL SCIENCES (HSS)

### University Programs

Graduate Programs (p. 54)

### Office of the Dean

**Dean:** Laura Connolly, Ph.D.

**Associate Dean:** Christine Marston, Ph.D

**Location:** Candelaria 0215

**Telephone:** 970.351.2707

**Website:** [www.unco.edu/humanities-social-sciences](http://www.unco.edu/humanities-social-sciences)

### Introduction

The College of Humanities and Social Sciences offers a broad range of academic pursuits. Our major areas of study are organized in 14 units designated as schools, departments or programs. These various disciplines give students a fuller understanding of the past, present, and future roles of both the individual and society in shaping human experience. The humanities and the social sciences are cornerstones of a liberal arts education. In courses and other learning experiences provided by the college, students become familiar with the most significant accomplishments of the human intellect and spirit and gain appreciation for the potential we have as humans and as societies.

Scholars in the humanities study many aspects of human existence, such as written and non-written evidence of human progress and how human creativity both reflects the world around us and helps to shape it. The humanities consider how systems of thought and knowledge have developed over time and how they continue to influence our decisions today. Humanistic inquiry asks how events in the past affect the present and how understanding the past can help us shape the future. The humanities produced the first thinkers who formally examined how different cultures and ethnicities approach common needs and how they express commonly held aspirations in diverse ways. Some humanities disciplines demonstrate how language mirrors our identity and opens windows to the world, while others study ways in which humans have learned to cooperate in order to articulate their values and accomplish their goals.

With goals closely related to those of the humanities, the social sciences view the world around us as a laboratory for observation, experimentation, and the advancement of new ideas and practices. Social scientists strive to understand the human capacity for adapting to changing environments and circumstances. Some disciplines examine systems of exchange, communication, and organization. Others study the ways in which humans identify and assert themselves as individuals and as groups,

and they learn from the experiences and interaction among people in different times, circumstances, and places.

The College of Humanities and Social Sciences is committed to the liberal arts tradition of advancing human knowledge through serious scholarship, superior instruction, and the freedom of academic inquiry. The faculty employs the latest teaching and learning technology while emphasizing accessibility and the benefits of student-teacher interaction. Humanities and Social Sciences majors are broadly educated to think critically and independently, to articulate ideas and appreciate diverse perspectives, and to exercise reason and make informed judgments. These tools prepare graduates for life in a complex world, help them enter a wide variety of professions, and lay the foundations for lifelong learning.

### School of Communication

**Director:** Thomas G. Endres, Ph.D.

### Communication Studies

**Location:** Candelaria 1265

**Telephone:** 970.351.2045

**Faculty:** Linda S. Allen, Ph.D.; Thomas G. Endres, Ph.D.; James A. Keaten, Ph.D.; Sherilyn R. Marrow, Ph.D.; Heidi Muller, Ph.D.; David L. Palmer, Ph.D.; Cheryl Pawlowski, Ph.D.; Charles E. Soukup, Ph.D.

The focus of the communication discipline is on the process of human message exchange. Classes in communication studies (COMM) emphasize the examination of theories and research relevant to the field of communication and personal improvement in communication ability.

### *Communication M.A.*

This program focuses on the study of human symbolic interaction. Students will emphasize coursework relevant to rhetorical and communication theory, interpersonal and group communication, and communication research methods.

Graduates of this program will 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 communication.

**For degree and program requirements, see:**

Communication M.A. (p. 64)

## Department of Criminology and Criminal Justice

**Chair:** Sarah Goodrum, Ph.D.

**Location:** Candelaria Hall 2249

**Telephone:** 970.351.2186

**FAX:** 970.351.1527

**Faculty:** Mary Evans, Ph.D.; Colleen Fitzpatrick, Ph.D.; Brian Iannacchione, Ph.D.; Brian Smith, M.A., J.D.; Victoria Terranova, Ph.D.; Mary West-Smith, Ph.D., Kyle C. Ward, Ph.D.

### Criminology and Criminal Justice M.A.

The master's program in Criminology and Criminal Justice is designed to be completed in two years by working professionals. It emphasizes the importance of furthering society's ideals of a fair-minded and unbiased system of justice as embraced by the rule of law. The concept of "best practices" is an overarching theme in all core classes. Students will be informed of current research regarding effective practices in all aspects of criminal justice, will develop the ability to make informed decisions regarding practices for their particular areas within the system, and will acquire the knowledge and skills to be more capable supervisors in criminal justice organizations and agencies by making use of research findings that support effective policy planning and programming.

Students receiving the M.A. in Criminology and Criminal Justice will be competent in research methodology and writing skills and will possess an increased understanding of the theoretical foundations for crime causation. The M.A. may be the foundation for further advanced graduate work or may serve as a terminal degree.

In addition to meeting the requirements of the Graduate School, the applicant must submit a letter of application outlining his or her career and educational goals. Two letters of recommendation must be provided.

**For degree and program requirements, see:**  
Criminology and Criminal Justice M.A. (p. 65)

## Department of English

**Location:** Ross 1284

**Telephone:** 970.351.2971

**Faculty:** Stacy R. Bailey, M.A.; Kristin Bovaird -Abbo, Ph.D.; Crystal Brothe, M.A.; Kenneth Chan, Ph.D.; Joseph Chaves, Ph.D.; Sarah Cornish, Ph.D.; Molly Desjardins, Ph.D.; Marcus E. Embry, Ph.D.; Lahcen E. Ezzaher, Ph.D.; Emily B. Golson, Ph.D.; Burke Hilsabeck, Ph.D.; Jeraldine Kraver, Ph.D.; Claudia Milstead, Ph.D.; Norman L. Peercy, Ph.D.; Stuart R. Rabinowitz, Ph.D.; Marc Santos, Ph.D.; Sonja Scullion, M.A.; Tracey A. Sedinger, Ph.D.; Teresa Sellmer, M.A.; Cody Shaffer, M.A.; Lisa H. Zimmerman, M.F.A.

The discipline of English deals with literature and language and other related subjects such as creative writing, film, folklore, myth, and cultural studies. 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.

### English M.A.

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, rhetoric/composition, 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.

**For degree and program requirements, see:**  
English M.A. (p. 75)

## Department of Geography and GIS

**Chair:** James M. Dunn, Ph.D.

**Location:** Candelaria 2200

**Telephone:** 970.351.2715

**Faculty:** Karen S. Barton, Ph.D.; Charles O. Collins, Ph.D.; David M. Diggs, Ph.D.; James P. Doerner, Ph.D.; James M. Dunn, Ph.D.; Katherine M. Johnson, Ph.D.; Phil Klein, Ph.D.; Jessica Salo, Ph.D.

The Geospatial Technology field is considered a high growth industry by the United States Department of Labor.

The Department of Labor's High Growth Profile report states the market for geospatial technology is "growing at an annual rate of almost 35 percent, with the commercial subsection expanding at the rate of 100 percent each year". This has produced a dramatically growing demand for GISci specialists. The ever expanding sophistication required for GISci positions has encouraged both graduating undergraduates and working professionals to seek out advanced geospatial training.

### **Graduate Certificate in Geographic Information Science**

The Geospatial Technology field is considered a high growth industry by the United States Department of Labor. The Department of Labor's High Growth Profile report states the market for geospatial technology is "*growing at an annual rate of almost 35 percent, with the commercial subsection expanding at the rate of 100 percent each year*". This has produced a dramatically growing demand for GISci specialists. The ever expanding sophistication required for GISci positions has encouraged both graduating undergraduates and working professionals to seek out advanced geospatial training.

The term Geographic Information Science (GISci) includes the closely related fields of Geographic Information Systems (GIS), Remote Sensing, Cartography and Geovisualization, and several other sub fields. The Graduate Certificate in Geographic Information Science (GISci) program provides students advanced level experience in Geographic Information Science software, techniques, and applications. Increasingly industry practitioners are asking their GISci technicians and analysts to have a higher level of skills. The GISci program assures that students have experience and advanced knowledge in four core sub sectors of the GISci industry:

1. Advanced geospatial analysis techniques;
2. Basic and advanced geospatial programming skills;
3. The ability to develop and manage Web GIS projects; and
4. The development and management of large geospatial databases in a secure environment.

Students admitted to the program who have not completed a baccalaureate degree in a related discipline with sufficient course work in GIS can expect prerequisite and quantitative deficiency courses to be added to their plan of study. At a minimum, the equivalent, through course work or professional experience of GEOG 307 must be completed before enrolling in any of the required courses for the Graduate Certificate in Geographic Information Science. Additionally, GEOG 327 or equivalent professional experience must be completed before taking GEOG 527. Deficiency course requirements will be determined by the program faculty.

### **For Certificate Requirements:**

See "Geographic Information Science Graduate Certificate" (p. 170)

## **Department of History**

**Chair:** Joan L. Clinefelter, Ph.D.

**Location:** Ross Hall 3270

**Telephone:** 970.351.2905

**Faculty:** Mary Green Borg, M.A.; Emily Brownell, Ph.D.; Joan L. Clinefelter, Ph.D.; Fritz Fischer, Ph.D.; Aaron Haberman, Ph.D.; Jacob Melish, Ph.D.; Steven Seegel, Ph.D.; Nicholas Syrett, Ph.D.; T.J. Tomlin, Ph.D.; Robert G. Weis, Ph.D.; Michael Welsh, Ph.D.; Corinne Wieben, 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 program 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 program has a second, but no less important, role in training teachers at both the graduate and undergraduate levels.

### **Scholarships**

Master's degree candidates are encouraged to apply for the Oliver M. Dickerson stipend presently established at \$1,000-\$4,000 per academic year. Application should be made to the Coordinator of Graduate Studies, Department of History, UNC, Greeley, CO 80639.

For additional resources: See "Financial Aid" (p. 17).

### **Center of Excellence.**

The University has designated the Department of History as a Center of Excellence. In 2002, the department was given a University award for "Departmental Excellence in Teaching."

### **History M.A.**

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.

**For degree and program requirements, see:**  
History M.A. (p. 81)

## Department of Hispanic Studies

**Location:** Candelaria Hall 0295  
**Telephone:** 970.351.2811

### Foreign Languages M.A.

The master's 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-listening, reading speaking, writing - and in four general content areas - civilization, language, literature, pedagogy. The most recent teaching methodologies are studied and researched.

#### *Spanish Teaching Emphasis*

Students may complete the M.A. degree:

- in summers only on the Greeley campus or
- by combining summer studies with regular academic year program offerings
- by combining one summer of study at the University of Salamanca, Spain with the above programs.

**For degree and program requirements, see:**

Foreign Languages M.A. — Spanish Teaching Emphasis (p. 77)

## Department of Sociology

**Chair:** Kyle Anne Nelson, Ph.D., M.P.H.

**Location:** Candelaria 2285B  
**Telephone:** 970.351.2592

**Faculty:** Sandra Harmon, M.A.; Angela Henderson, Ph.D.; Jeffrey A. Houser, Ph.D.; Melanie Moore, Ph.D.; Kyle Anne Nelson, Ph.D., M.P.H.; Harmony Newman, Ph.D.; Josh Packard, Ph.D.; Andrew Preloog, Ph.D., Diane L. Schott, M.A.

**Emeritus Faculty :** John W. Fox, Ph.D.; Pamela Hewitt, Ph.D.; Karen Jennison, Ph.D., James P. Marshall, Ph.D.; David Musick, Ph.D., Daniel F. O'Connor, Ph.D.; Phil Reichel, Ph.D.; Jacqueline Bloom Stanfied, Ph.D.; Richard Trahan, Ph.D.; John A. Vonk, Ph.D.

The UNC Department of Sociology is dedicated to the academic understanding and analysis of social, cultural and institutional aspects of human life. At its core, the sociological mission is rooted in social theory and the scientific method; we strive to empower students with the

theoretical and analytical skills necessary to understand and evaluate an increasingly complex society, both globally and locally. We prepare students for work in both public and private sectors of the economy including the areas of education, health, government, social welfare, marketing, and research. In addition, our department is dedicated to building sociological knowledge and skills that are applicable to advanced academic and post-graduate degrees.

### Sociology M.A.

The master's program in Sociology centers on the application of sociological theory and research methods to various social problems experienced by groups, communities, organizations, schools, and governmental bodies.

#### **Applied Emphasis:**

The applied emphasis program culminates in a professional research report based on the Research Internship experience.

#### **Thesis Emphasis:**

Students who are interested in conducting a thesis project must consult their advisor and apply for this option to the Sociology graduate faculty during their second semester of study. The thesis requires six SOC 699 credit hours to be taken in 3-credit increments. Completion of the thesis also requires oral defenses of the proposal and the final draft before a faculty committee.

#### **Admission:**

In addition to meeting the Graduate School requirements, the following materials should be submitted to the Sociology department:

- A letter of intent including research/teaching interests and specific career
- Two letters of recommendation

Students are strongly encouraged to review the research areas of the Sociology faculty on our website and contact faculty in whose research they are interested. The student must meet with a graduate advisor during the second semester of the program to determine a course of study and pursuit of either the Thesis or Applied emphasis. Assistantships including stipends and partial tuition waivers are offered on a competitive basis each semester. Graduate application deadline to be considered for fall semester assistantships is April 1st.

**For degree and program requirements, see:**

Sociology M.A. — Applied Emphasis (p. 98)

Sociology M.A. — Thesis Emphasis (p. 99)

## KENNETH W. MONFORT COLLEGE OF BUSINESS (MCB)

### Office of the Dean

**Location:** Kepner 2053  
**Telephone:** 970.351.2764

**Dean:** Paul M. Bobrowski, Ph.D.

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.

Recognized in 2000 by CCHE as a Colorado Program of Excellence, 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.

Performance based standards for degree programs in the Kenneth W. Monfort College of Business are available online at [www.mcb.unco.edu](http://www.mcb.unco.edu).

### Introduction: Monfort College of Business

In the Monfort College of Business highly-qualified faculty teach in reasonable class sizes (average of 30) in a technology-rich environment. The program is complimented by state-of-the-art learning facilities, an executive professor program, and an approach to learning that links theory with practice. MCB remains as the only business program in U.S. history to receive the **Malcolm Baldrige National Quality Award**.

### Mission Statement

To provide excellent primarily undergraduate and focused graduate business programs and related learning opportunities that prepare the individuals for successful careers and responsible citizenship in a global society. We accomplish this by focusing our efforts in teaching, research and service to benefit student learning.

### AACSB Accreditation

The Monfort College holds 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. The Monfort College's programs have been AACSB-accredited since 1992.

### Master of Business Administration

**MBA Coordinator & Advisor:** Don Gudmundson, Ph.D.

**Location:** Kepner 2053  
**Telephone:** 970.351.2766

The Master of Business Administration at University of Northern Colorado is designed to prepare the students for managerial positions in for profit, non-for-profit and government settings. The flexibility of the program allows for both part time and full time students to take advantage of the state of the art curriculum under supervision of experienced faculty whose academic and professional experience garnered the prestigious Malcom Baldrige award for the college.

Each course blends theoretical and practical aspect of decision making under varied business conditions enabling students to apply their academic and professional experiences in solving the challenging and ever-changing managerial problems. The program is intended to utilize an integrated approach across functional disciplines equipping students to approach their managerial roles and responsibilities holistically throughout their professional life. The program is intended to provide an opportunity to all qualified students to pursue their graduate business course of study regardless of their undergraduate major.

The program consists of foundation and core courses culminating with specialized tracks. Students may petition the program admission committee if they have completed some or all of the foundation requirements through their undergraduate degree programs or documented extensive professional experience.

### MBA Program Learning Goals and Objectives

As part of the Monfort College of Business' continuous improvement efforts, it has developed the following learning goals and objectives. The outcomes related to these learning goals and objectives are measured and the results are reviewed by faculty. Corrective actions are taken as needed to ensure a superior learning experience for our students.

#### Learning Goals

Be proficient with key business fundamentals

Demonstrate conceptual and analytical skills

#### Learning Objectives

Students will be able to integrate knowledge from all business disciplines applying current and emerging business knowledge and technology to make decisions in complex environments.

Students will analyze data and information to identify key problems, generate and evaluate appropriate alternatives to make effective decisions.



Demonstrate knowledge of how businesses operate in a global environment	Students will demonstrate awareness and understanding of the international challenges that encompass cultural, financial, legal and other problems.
Demonstrate ethical awareness	Students will demonstrate ethical awareness by employing an ethical framework to identify possible ethical issues or problems and analyze the consequences for various stakeholders.
Be effective communicators	Students will prepare and deliver professional quality presentations on a business topic. Students will prepare professional quality business documents.

### Admissions to MBA Program

The MBA program is designed for individuals who have a bachelor degree from an accredited institution and are interested in obtaining a graduate degree that prepares them for managerial positions in their career.

Prospective MBA students should be cognizant of competency requirement with business computer software applications in succeeding in the MBA program. This competency may be demonstrated through a college-level business computer software applications course within the past six years or significant work experience with such business computer software applications.

Students admitted to the program who have not completed a baccalaureate degree in a business related discipline can expect prerequisite and quantitative deficiency courses (MBA foundation courses) to be added to their plan of study. Deficiency course requirements will be determined by the program faculty.

As well as meeting minimum admissions criteria, the admission process into the MBA program in the Monfort College of Business at the University of Northern Colorado is subject to the approval of the MBA program coordinator and graduate faculty of the program in consultation with the Dean of the Monfort College of Business and the Dean of the Graduate School.

### Criteria for Admissions into the MBA Program

The primary criteria in determining eligibility for admission the Monfort College of Business MBA Program are previous academic achievement and performance on the Graduate Management Admission Test and other factors such as work experience and career progression.

Applicants must submit a completed application form and transcripts from each institution of higher education attended to the UNC Graduate School office. Each applicant is considered on an individual basis. For students with a non-business Bachelors' degree, additional course work completion (called "Foundation courses") will be required before enrolling in the core courses of the program.

### Admission Requirements Checklist

- A non-refundable application fee
- Official transcripts (undergraduate and graduate). Undergraduate GPA of 3.0 and above is preferred.
- Demonstrated math proficiency at college level calculus or equivalent.
- GMAT or GRE scores sent directly to the University. Students may apply for probationary status if they receive a score less than 500 on the GMAT or 1000, a combination of verbal and quantitative on the GRE score. Students may take up to 8 hours of foundation courses prior to taking the GMAT. GMAT or GRE requirement may be waived for applicants who have received a graduate degree from an accredited institution.
- A current professional resume.
- A personal statement, single-spaced and maximum of than two pages (Arial or Times New Roman typeface, no smaller than 11-point type with no less than 1-inch margins), describing:
  - Reasons for pursuing the MBA
  - The impact it will have on both your short- and long-term career goals
  - What value you will bring to the classroom
- Evidence of two years of professional experience (encouraged).
- Applications will be considered when all documents have been received at the Office of Graduate Studies.

### Additional Admission Requirements for International Students

All international students and any applicant educated outside the U.S. must demonstrate proficiency in English. Those whose native language is not English, or whose language of instruction for their undergraduate degree was not English, will be required to submit a score from the Test of English as a Foreign Language (TOEFL).

Requirements are as follows:

- TOEFL iBT: 80
- IELTS: 6.5
- PTE: 60

- UNC's Intensive English Program: Level 6

## Department of Accounting and Computer Information Systems

**Chair:** Lloyd "Pat" Seaton, Ph.D., C.P.A.

**MAcc Coordinator:** Donald Gudmundson Ph.D.

**Location:** Kepner 2085 B

**Telephone:** 970.351.2411

**Faculty:** Cris de la Torre, Ph.D., J.D.; Janel Greiman, M.T., C.P.A.; Michael W. Martin, J.D., LL.M.; Allen W. McConnell, M.S., C.P.A.; Richard I. Newmark, Ph.D.; Lloyd "Pat" Seaton, Ph.D., C.P.A.; Karen F. Turner, Ph.D., C.P.A.; William E. Wilcox, Ph.D., C.P.A.

### Master of Accounting Advising

**Location:** Kepner 2090

**Telephone:** 970.351.2855

**MAcc Advisor:** William Wilcox, Ph.D.

### Accounting M.Acc. (MAcc Degree)

The Master of Accounting degree (MAcc) is designed to enhance the student's applied accounting research skills, communication skills, problem-solving capability, and other skills and knowledge required to be a successful professional accountant in public accounting, business, or government. The program is designed for students who desire to enter public or private accounting with plans to sit for the CPA exam with greater skills in applying accounting knowledge to various accounting and business situations. Students will be better qualified for higher level management positions as a result of the extra value of a graduate degree. Additionally, completion of this program will satisfy Colorado's and most other state's 150-hour requirement for licensing as a CPA.

#### The overall objectives for the program are:

- Expand the students' knowledge base and understanding of business in order to better prepare them for an entry-level position in accounting and industry,
- Prepare students for a successful career in accounting including more career opportunities and quicker advancement,
- Adequately prepare students to write the CPA Exam,
- Grant students the advanced graduate degree upon completing the program, and
- Give students the opportunity to become substantially equivalent in educational requirements with other states in order to make them more mobile with transferring their CPA licensure and practice capabilities.

The MAcc degree requires that students complete a written comprehensive examination or other approved equivalent.

As part of the Monfort College of Business' continuous improvement efforts, it has developed the following learning goals and objectives. The outcomes related to these learning goals and objectives are measured and the results are reviewed by faculty. Corrective actions are taken as needed to ensure a superior learning experience for our students.

### Graduate Accounting Program Learning Goals and Objectives

#### Master's Program Learning Goals

#### Learning Objectives

*On completion of the accounting masters program, graduates will be able to*

*To attain the Program Learning Goals, accounting master students will*

- |   |  |
|---|--|
| <ol style="list-style-type: none"> <li>1 Demonstrate conceptual and analytical skills.</li> </ol>   | <p>Students will analyze accounting data/information to identify key accounting issues, generate and evaluate appropriate alternatives, and propose feasible accounting alternatives at a proficient level.</p>                        |
| <ol style="list-style-type: none"> <li>2 Plan and conduct practice-oriented research to answer/solve accounting issues.</li> </ol>  | <p>Students will demonstrate proficiency in conducting practice-oriented research.</p>   |
| <ol style="list-style-type: none"> <li>3 Communicate complex accounting issues orally and in writing.</li> </ol>  | <p>Students will demonstrate proficiency in preparing and delivering professional quality presentations on various accounting topics.</p> <p>Students will demonstrate proficiency in preparing professional accounting documents.</p> |
| <ol style="list-style-type: none"> <li>4 Appropriately use technology to gain knowledge of complex accounting information and apply that knowledge to new contexts and situations.</li> </ol> | <p>Students will appropriately use the correct technology to solve complex accounting issues.</p>  |
| <ol style="list-style-type: none"> <li>5 Recognize and analyze ethical issues</li> </ol>  | <p>Students will proficiently identify the ethical issues</p>  |

in accounting and business practice, and develop a defensible solution based on applicable codes of conduct.

or problems in an accounting case based on codes of professional conduct, analyze the consequences for various stakeholders and develop a justifiable resolution.

Principles of Accounting I & II  
Intermediate Accounting I & II  
Cost & Managerial Accounting  
Income Tax  
Accounting Information Systems  
Auditing  
Information Systems  
Legal Environment of Business  
Business Finance  
Management of Organizations  
Marketing

### **Admissions to MAcc Program**

The MAcc program is mainly designed for individuals with an undergraduate degree in accounting. The MAcc program may also be useful to other business majors who have completed the required undergraduate courses or who are willing to complete these leveling courses. Students admitted to the program who have not completed a baccalaureate degree in accounting as described above can expect prerequisite deficiency courses to be added to their plan of study. Deficiency course requirements will be determined by the program coordinator.

A minimum GMAT or an equivalent converted GRE score of 500 and an undergraduate GPA of 3.0 are required for admission to the program.

As well as meeting minimum admissions criteria, the admission process into the MAcc program in the Monfort College of Business at the University of Northern Colorado is subject to the approval of the MAcc program coordinator in consultation with the Chair of the Department of Accounting and Computer Information Systems and the Dean of the Monfort College of Business and the Dean of the Graduate School. Our program allows for up to nine hours of 500-level graduate work to be completed by a senior undergraduate accounting student before he or she is admitted into the MAcc program provided the student has a minimum cumulative GPA of 3.0.

### **Criteria for Admissions into the MAcc Program:**

The primary criteria in determining eligibility for admission the Monfort College of Business MAcc Program are previous academic achievement and performance on the Graduate Management Admission Test or the Graduate Record Examination. Other factors such as work experience and career progression may be taken into account.

Applicants must submit a completed application form and transcripts from each institution of higher education attended to the UNC Graduate School office. Each applicant is considered on an individual basis.

For students with a non-accounting Bachelors degree, additional undergraduate course work completion (called "leveling courses") will be required before applying to the program. They must complete all of the required undergraduate coursework listed below to fulfill the course prerequisites for the graduate program.

### **Additional Admission Requirements for International Students**

All international students and any applicant educated outside the U.S. must demonstrate proficiency in English. Those whose native language is not English, or whose language of instruction for their undergraduate degree was not English, will be required to submit a score from the Test of English as a Foreign Language (TOEFL).

### **Graduate - Master of Accounting:**

Requirements are as follows:

TOEFL iBT: 80

IELTS: 6.5

PTE: 60

UNC's Intensive English Program: Level 6

**For degree and program requirements, see:**  
Accounting M.Acc. (p. 54)

## COLLEGE OF NATURAL AND HEALTH SCIENCES (NHS)

### University Programs

Graduate Programs (p. 54)

### Office of the Dean

**Location:** Gunter 1000

**Telephone:** 970.351.2877

**Fax:** 970.351.2176

**Dean:** Ellen Meyer Gregg, Ph.D.

The College of Natural and Health Sciences at the University of Northern Colorado serves the people of Colorado and the nation through the advancement and dissemination of fundamental knowledge, by providing high-quality undergraduate and graduate instruction, and by applying knowledge to solve problems in areas of natural and health sciences and science-related education. To achieve this mission, the College supports:

1. Foundational undergraduate education, academic degrees and professional preparation in natural, health, human and mathematical sciences to prepare students to understand and use these disciplines in their lives and careers in the 21st Century.
2. Focused graduate programs in Natural and Health Sciences and related areas of science education, preparing teachers, college professors, researchers, and other professionals.
3. Basic and applied research in all areas of the natural and health sciences represented in the college, including externally supported activities and both undergraduate and graduate research experiences.
4. K-12 teacher preparation in disciplines represented in the college.
5. Outreach and service programs supporting K-12 teachers and students, health and service professionals, schools, health care organizations, businesses and government agencies.

Programs in the College of Natural and Health Sciences are designed to prepare students for careers in science and industry, health care organizations, community and human service agencies, and schools. In addition, students can pursue pre-professional studies in dentistry, medicine, optometry, pharmacy, podiatry, veterinary medicine, chiropractic medicine, engineering, and education.

The College contains six Schools and one Department:

- School of Biological Sciences
- Department of Chemistry and Biochemistry
- School of Earth Sciences and Physics

- School of Human Sciences
- School of Mathematical Sciences
- School of Nursing
- School of Sport and Exercise Science

### School of Biological Sciences

**Director:** Susan M. Keenan, Ph.D.

#### Biological Sciences

**Location:** Ross Hall 2480

**Telephone:** 970.351.2921

**Faculty:** Rick Adams, Ph.D.; Lauryn Benedict, Ph.D.; Patrick Burns, Ph.D.; Gregory K. DeKrey, Ph.D.; Ginger Fisher, Ph.D.; Scott B. Franklin, Ph.D.; Susana K. Gomez, Ph.D.; James Haughian, Ph.D.; Ann Hawkinson, Ph.D.; Teresa M. Higgins, Ph.D.; Emily Holt Ph.D.; Andrea James, Ph.D.; Susan M. Keenan, Ph.D.; Judith Leatherman, Ph.D.; Stephen P. Mackessy, Ph.D.; Mitchell McGlaughlin, Ph.D.; Melanie Peffer, Ph.D.; Nicholas Pullen, Ph.D.; Robert Reinsvold, Ph.D.; Frank A. Skufca, M.S.; Mark P. Thomas, Ph.D.

**Emeritus Faculty :** Warren R. Buss, Ph.D.; Catherine S. Gardiner, Ph.D.; Margaret E. Heimbrook, Ph.D.; Kathleen S. Jones, Ph.D.; Charles E. Olmsted, III, Ph.D.; Gerald W. Saunders, Ph.D.

#### *Biological Sciences M.S.*

**Admission .** Before admission to the program, students should have completed at least four courses in biology and a combined total of three courses in the supporting areas of chemistry, calculus or physics. Students entering the program with deficiencies in coursework will be required to complete coursework based on recommendations of the graduate committee, the school director and the advisor. The following application materials should be submitted to the Graduate School:

- Application form and fee
- Official transcripts
- A letter of intent including research/teaching interests and goals
- Three letters of recommendation
- General GRE scores

Students are strongly encouraged to review the research areas of the Biology faculty on our website and contact faculty in whose research they are interested.

The student must meet with a graduate advisor and graduate committee during the first semester of the program to determine a course of study.

#### Non-Thesis Emphasis

The non-thesis emphasis is designed to be as flexible as possible. It is intended for those who wish to expand their background in biological sciences content, including biology and science teachers. Non-thesis students must pass an examination to be administered by the advisor in the form of a written paper or equivalent project covering some aspect of their program of study.

#### Thesis Emphasis

This emphasis is designed for students wishing to broaden their background in the biological sciences and to develop research skills in preparation for a doctoral program, or technical or research career. Students will gain background in biology content and in research to allow them to enter professional fields of biology requiring advanced training or to pursue advanced studies. Results of the thesis research must be presented orally in a seminar to the faculty in the School of Biological Sciences during the last semester prior to graduation.

#### For degree and program requirements see:

Biological Sciences M.S. (p. 57)

#### *Biomedical Science M.B.S.*

**Admission.** Before admission to the program, students must have completed a bachelor's degree with a minimum GPA of 3.0 (on a 4.0 scale) and have a strong background in the sciences.

The following application materials should be submitted to the Graduate School:

- Application form and fee
- Official transcripts
- A letter of intent
- Three letters of recommendation accompanied by recommendation forms
- General GRE scores or MCAT scores

**Application deadline:** April 15th.

The Master's in Biomedical Science program has been designed to provide academic enhancement within a one-year time-frame to improve or substantially expand a post-graduate student's overall scholastic credentials. The program will provide a foundation in basic biology that underlies and supports medicine and therefore provides a strong framework for professional school curricula. The MBS program is appropriate for students considering a future in medicine, dentistry, veterinary medicine or biomedically related Ph.D. programs. Students will be required to pass a comprehensive examination covering material from core courses in order to graduate from the program.

#### For degree and program requirements see:

Biomedical Science M.B.S. (p. 58)

#### *Biological Education Ph.D.*

This program is designed for graduate students interested in specializing in either biology education or an area of the biological sciences that matches current faculty interests and expertise. Areas of emphasis in this program prepare students to conduct and supervise biological or pedagogical research and to instruct biology courses at the college or university level.

**Admission.** Before admission to the program, students should have completed at least four courses in biology and a combined total of three courses in the supporting areas of chemistry, calculus or physics. Students entering the program with deficiencies in coursework will be required to complete coursework based on recommendations of the graduate committee, the school director and the advisor. The following application materials should be submitted to the Graduate School:

- Application form and fee
- Official transcripts
- A letter of intent including research/teaching interests and goals
- Three letters of recommendation
- General GRE scores

Students are strongly encouraged to review the research areas of the Biology faculty on our website and contact faculty in whose research they are interested.

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.

#### For degree and program requirements see:

Biological Education Ph.D. (p. 123)

## Department of Chemistry and Biochemistry

**Chair:** Michael D. Mosher, Ph.D.

### Chemistry and Biochemistry

**Location:** Ross Hall 3480

**Telephone:** 970.351.2559

**Faculty:** Kui Chen, Ph.D.; Aichun Dong, Ph.D.; Robert Houser, Ph.D.; Richard M. Hyslop, Ph.D.; Michael Mosher, Ph.D.; Kimberly A. Opperman Pacheco, Ph.D.; David L. Pringle, Ph.D.; James O. Schreck, Ph.D.; Richard W. Schwenz, Ph.D.; Youngjin Song, Ph.D.; Jerry P. Suits, Ph.D., Murielle Watzky, Ph.D.

**Emeritus Faculty :** Clark L. Fields, Ph.D.; Henry W. Heikkinen, Ph.D.; Marlynn R. James, Ph.D.; Loretta L. Jones, Ph.D.; William G. Koch, Ph.D.; Roger A. Kovar, Ph.D.; Marcus K. Meilahn, Ph.D.; James O. Schreck, Ph.D.; Gordon E. Tomasi, Ph.D.

### *Chemistry M.S.*

#### **Education Emphasis**

This Chemistry, M.S. 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 graduates to teach at the junior or community college level.

**Admission.** In addition to the Graduate School requirements for consideration of admission, all students must submit general GRE scores as part of their application packet. The students should have completed chemistry courses comparable to those required in the B.S. 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.

#### **Research Emphasis**

The Chemistry, M.S. 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 the Graduate School requirements for consideration of admission, all students must submit general GRE scores as part of their application packet. The students should have completed a program equivalent to the Bachelor of Science 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 requirements are not met, a candidate may be admitted to the program on a provisional basis.

#### **For degree and program requirements, see:**

Chemistry MS Education Emphasis (p. 60)

Chemistry MS Education Emphasis Non-Thesis Option (p. 61)

Chemistry MS Research Emphasis (p. 62)

Chemistry MS Research Emphasis Non-Thesis Option (p. 63)

### *Chemical Education Ph.D.*

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 coordinators or supervisors in the secondary school, chemistry instructors at two- and four-year colleges or chemistry educators at a university. At the professional level, program graduates are qualified to do fundamental research in chemical education and to direct chemistry research at the undergraduate level.

**Admission.** The student should have completed requirements of an ACS-certified baccalaureate degree in chemistry.

**Master's en route to the Ph.D.** Students who have been admitted to the Ph.D. program in Chemical Education may complete a master's degree in Chemistry en route to completion of the doctoral degree. Requests for a simultaneous master's degree in a discipline other than Chemistry will not be accepted. Students in collaboration with the students' advisors, will develop a plan of study that includes clearly distinct master's and doctoral requirements. Students must graduate from the master's degree program in a minimum of one semester prior to conferring of the doctoral degree.

#### **For degree and program requirements see:**

Chemical Education Ph.D. (p. 125)

## **Department of Earth and Atmospheric Sciences**

**Chair:** William H. Hoyt, Ph.D.

### **Earth Sciences**

**Location:** Ross Hall 3235

**Telephone:** 970.351.2647

**FAX:** 970.351.4197

**Faculty:** Steven Anderson, Ph.D.; Graham B. Baird, Ph.D.; Joe T. Elkins, Ph.D.; Emmett Evanoff, Ph.D.; Wendilyn Flynn, Ph.D.; William H. Hoyt, Ph.D.; David G. Lerach, Ph.D.; Lucinda Shellito, Ph.D.; Byron M. Straw, M.A.

The Earth Sciences program includes the disciplines of geology, meteorology, and oceanography. Many of the undergraduate majors emphasize environmental science applications of those disciplines. 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, geological and biologic characteristics of the world's oceans. The undergraduate program in the earth sciences provides preparation for professional careers in geology, meteorology, secondary-level earth science teaching and various scientific careers in the environmental industry.

#### *Earth Sciences M.A.*

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 K-12 teachers, 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 school 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.

#### **For degree and program requirements, see:**

Earth Sciences M.A. (p. 69)

#### *Environmental Geosciences P.S.M. (Professional Science Master's)*

The Environmental Geosciences Professional Science Master's (P.S.M.) degree program is certified by the Council of Graduate Schools; it operates under guidelines of the P.S.M. National Office. Those guidelines specify that at least half of the credits must be in science content; in addition, Professional Skills courses and a Professional Internship must be completed. 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 a wide variety of other science, technology, engineering, mathematics, or other fields.

#### **For degree and program requirements, see:**

Environmental Geosciences PSM Professional Science Masters (p. 76)

### School of Human Sciences

**Director:** Jamie M. Erskine, Ph.D., R.D.

#### **Audiology and Speech-Language Sciences**

**Location:** Gunter 1400

**Telephone:** 970.351.2734

**Fax:** 970.351.2974

**Faculty:** Kathryn E. Bright, Ph.D.; Diane Erdbruegger, Au.D.; Donald S. Finan, Ph.D.; Ellen Meyer Gregg, Ph.D.; Julie A. Hanks, Ed.D.; Derek Headley, Ph.D.; R. Lynne Jackowiak, M.S.; Erinn M. Jimmerson, M.A.; Deanna K. Meinke, Ph.D.; Kim A. Murza, Ph.D.; Tina M. Stoody, Ph.D.; Jennifer E. Weber, Au.D.; Robyn A. Ziolkowski, Ph.D.

**Emeritus Faculty:** Donna J. Bottenberg, Ph.D.; Linda K. Cleeland, M.Ed.; Kathleen R. Fahey, Ph.D.; Francis A. Griffith, Ph.D.

Audiology and Speech-Language Sciences (ASLS) offers an educational program with a clinical orientation. ASLS also houses the Speech-Language Pathology and Audiology Clinic. ASLS offers an undergraduate pre-professional major in Audiology and Speech-Language Sciences, a professional certifying master's degree program in speech-language pathology, and a professional certifying clinical doctorate in audiology. These programs prepare students in the diagnosis, treatment, and prevention of hearing, balance, speech and language disorders.

#### *Speech-Language Pathology M.A.*

This certifying master's program is fully accredited and provides excellent academic, research, and clinical preparation.

Areas emphasized include:

- The science of communication;
- The nature, prevention, assessment, and management of:
  - developmental articulation disorders
  - language and literacy disorders
  - voice disorders
  - fluency disorders
  - pervasive developmental disorders, including autism
  - dysphagia

- neurologic disorders including aphasia, apraxia, post head-injury disorders and dementia;
- Augmentative and alternative communication systems;
- Aural rehabilitation.

This program offers extensive supervised clinical experience through the well-equipped UNC Speech-Language Pathology and Audiology Clinic and ancillary clinics in Colorado. This M.A. program is accredited by the Colorado Department of Education (CDE) and by the Council on Academic Accreditation (CAA) of the American Speech-Language-Hearing Association (ASHA). Students who complete this program are eligible to apply for the Certificate of Clinical Competence in Speech-Language Pathology from the American Speech-Language-Hearing Association. Graduates can also qualify for licensure from the Colorado Department of Education. 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.

**Admission.** Students will be admitted to this limited-enrollment program on the basis of:

1. academic record,
2. Graduate Record Examination scores,
3. at least three letters of recommendation from persons familiar with their academic/clinical performance,
4. a letter of intent.

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/or audiology. Students who do not have such a background must fulfill academic requirements as determined by their major advisor. These requirements must be met before admission to the graduate program.

**For degree and program requirements, see:**  
Speech-Language Pathology M.A. (p. 105)

#### *Audiology Au.D.*

This certifying clinical doctoral degree program in audiology (Au.D.) is fully accredited and provides excellent academic, research, and clinical preparation.

Areas emphasized include:

- Basic sciences underlying the hearing and balance mechanisms;
- Diagnosis of hearing disorders in persons ranging in age from infants through older adults;

- Audiological treatment of persons who are deaf or hard of hearing, including counseling and specific treatment procedures for children and adults;
- Diagnosis for and dispensing of hearing aids and other amplification and auditory prosthetic devices;
- Educational audiology for diagnosis and treatment of hearing disorders in early childhood and K-12 educational settings;
- Consultation for and execution of hearing conservation programs for industry, schools and other agencies;
- Instrumentation used in evaluation and treatment of hearing and balance disorders;
- Fundamentals of applied research.

Specific exceptions to Graduate School requirements for doctoral degrees have been approved. These exceptions relate to the dissertation proposal, dissertation, defense of dissertation, advancement to candidacy and doctoral committees. Because of the clinical focus of this degree, rigorous academic standards are maintained through measurement of clinical competencies throughout the program rather than completion of a dissertation. Students will be required to complete a capstone research project.

This program offers extensive supervised clinical experience through the well-equipped UNC Speech-Language Pathology and Audiology Clinic and ancillary clinics in Colorado. The Au.D. program leading to certification is accredited by the Colorado Department of Education (CDE) and by the Council on Academic Accreditation (CAA) of the American Speech-Language-Hearing Association (ASHA). Students who complete this program are eligible to apply for the Certificate of Clinical Competence in Audiology from the American Speech-Language-Hearing Association and/or for Board Certification in Audiology awarded by the American Board of Audiology (ABA). Graduates can also qualify for licensure from the Colorado Department of Education and/or the Colorado Department of Regulatory Agencies.

Career opportunities include positions in hospitals; audiology clinics; otolaryngology medical practices; rehabilitation centers; schools; industry; and private practice.

**Admission:** Students will be admitted to this limited-enrollment program on the basis of:

1. academic record,
2. Graduate Record Examination scores,
3. at least three letters of recommendation from persons familiar with their academic/clinical performance,
4. letter of intent.

Admission to the Graduate School does not guarantee admission to the Audiology graduate program.



**Prerequisites:** This program assumes an undergraduate background in audiology and/or speech-language pathology. Students who do not have such a background must fulfill academic requirements as determined by their major advisor. These requirements must be met before admission to the graduate program.

**For degree and program requirements, see:**  
Audiology Au.D. (p. 122)

### Nutrition and Dietetics

**Location:** Gunter 2280  
**Telephone:** 970.351.2755  
**Fax:** 970.351.1489

**Faculty:** Alena M. Clark, Ph.D., R.D.N.; Jamie M. Erskine, Ph.D., R.D.N.; Constance C. Francis, Ph.D., R.D.D.; Catherine A. Gerweck, D.M.D., M.S., R.D.N.; Susan M. Gould, Ph.D., R.D.N.; Judith Stauter, M.S., R.D.N.; Nicole Withrow, Ph.D., R.D.N.

**Emeritus Faculty:** Alana D. Cline, Ph.D., R.D.N.; Norma E. Egeness, M.A.; Clara E. Funderburk, M.A.; Sherrie L. Frye, Ph.D.; Rhonda Foss Hall, M.A.; Joyce C. Kliever, Ed.D.; Wleanor M. Peiffer, Ed.D.; JoAnn Taylor, Ed.D.; Doris O. Walters, M.Ed.; Elisabeth P. Wirick, M.A.

#### *Dietetics M.S.*

The Master of Science in Dietetics is a two-year, online program. The curriculum of 35 credits supports the development of skills related to being a Registered Dietitian Nutritionist. Through their coursework, students will develop critical thinking and leadership skills that will support their future work and development as a Registered Dietitian Nutritionist. This program assumes an undergraduate background in Nutrition and Dietetics and Registered Dietitian Nutritionist status.

Area emphasized include: nutrient metabolism, nutrition assessment, nutrition counseling methods, nutrition communication, public health nutrition and research methods. Career opportunities include registered dietitian nutritionist positions in hospitals, clinics, public health departments, government agencies, research settings, industry and schools.

The Master of Science in Dietetics requires a capstone course which provides students the opportunity to complete an in-depth study of an area of evidence-based research/practice, write a comprehensive paper and present the project results.

#### **Admission Requirements:**

1. Commission on Dietetic Registration, Registered Dietitian Nutritionist active card
2. Bachelor's degree from an accredited college or university

3. Graduate Record Examination
4. Personal statement (discuss experiences that have helped prepare for career, short-term and long-term goals, strengths and weaknesses, experience in online education and potential as a graduate student)
5. Letters of recommendations from three individuals familiar with applicant's academic/employment performance

**For degree and program requirements, see:**

Dietetics M.S. (p. 67)

### Community Health

**Location:** Gunter 1250  
**Telephone:** 970.351.2997  
**FAX:** 970.351.1255

**Faculty:** Danielle R. Brittain, Ph.D.; Mary K. Dinger, Ph.D.; Elizabeth A. Gilbert, Ed.D.; Teresa A. Sharp, Ph.D.

**Emeritus Faculty:** Bryan E.M. Cooke, Ph.D.; Larry R. Harrison, M.S.; Jack LaBonde, M.A.; William Parkos, Ph.D.; Kathleen J. Zavela, Ph.D.

#### *Public Health M.P.H. — Community Health Education Emphasis*

The Master of Public Health (MPH) is the primary professional degree in the field of public health, training students for a variety of public health areas. The program provides a broad, multidisciplinary focus on the factors that influence population health from behavioral risk to environmental exposures to socioeconomic and health policy. Students acquire knowledge, skills and practical experiences that prepare them for professional activities, including: epidemiological and health services research; community needs assessment; environmental and occupational health; health policy; health promotion; and administration of public health programs. Graduates find work in research settings, health care settings, industry, government health agencies, community-based organizations and foundations, and global health. Physicians, veterinarians, nurses and other health care professionals also comprise a portion of the MPH student body, acquiring graduate training in public health to enhance their understanding of the preventive measures and underlying causes of disease.

The future of public health, a field dedicated to improving the health of populations, depends on the collaboration of educators, researchers, policy makers, communities and citizens. The new Colorado School of Public Health, collaboratively formed by the University of Colorado Denver, Colorado State University and the University of Northern Colorado, is the first and only school of public health in the Rocky Mountain region. Combining transferable courses, faculty and resources, the collaborative school allows students to access

specializations, research and service centers located at the three universities.

The MPH with an emphasis in Community Health Education offered at UNC aims to prepare students to work with diverse populations and work within communities to prevent disease and develop positive, healthy lifestyles. Because of the great latitude within the field of community health education, the program allows students to tailor their program to emphasize special interests in public health. The Community Health Education concentration is designed to prepare students to serve as administrators or practitioners in a variety of health education settings. The curriculum is based upon the Council of Education for Public Health's accreditation guidelines.

**Admission:** Applications to the MPH program are accepted yearly for fall entry, with a deadline of January 15. Applicants should have a bachelors degree and submit the required application and materials as listed on <http://www.ucdenver.edu/academics/colleges/PublicHealth/Apply/Admissions/Pages/MPHReqs.aspx>.

Students who seek public health training have varied backgrounds and levels of experience, though many students have a bachelors degree in a biological or sociological science. In addition, a significant number of students are currently employed while seeking professional training and advancement. Approximately 30-40% of students have a prior graduate or professional degree, including fields such as nursing, medicine, veterinary medicine, law, social work, and various laboratory sciences.

Students in the Community Health Education track are prepared to work in population based programs-helping prevent disease and developing positive health lifestyles.

CU Denver, on behalf of the School, will confer the professional degrees ( MPH, DrPH) with each Party's signature and seal shown on the diploma. Final recommendations about students' eligibility for graduation will be made by the Dean of the School or designee, who will forward the recommendations as specified in the policies of the CU Board of Regents, CSU Board of Governors and UNC Board of Trustees.

**For degree and program requirements, see:**  
Public Health M.P.H. — Community Health Education Emphasis (p. 95)

## Gerontology

**Location:** Gunter 1250  
**Telephone:** 970.351.2403  
**FAX:** 970.351.1255

**Gerontology Faculty:** Susan M. Collins, Ph.D.; Robbyn R. Wacker, Ph.D.; Joyce Weil, Ph.D.

## Gerontology M.A.

The Master of Arts in Gerontology prepares students for professional responsibility and leadership in the aging network. Students complete required courses that provide a multidisciplinary foundation in gerontology, and select program electives that will prepare them for working with or on behalf of older adults in direct service, management and administration, further scholarship, or similar professional endeavors.

Graduates find employment in health or mental health related positions, long term care residential or community settings, senior centers, recreation programs, agencies and organizations providing care management and/or administrating policy, community college teaching, industrial and business settings, or private consultation.

**Admission.** The student must send application materials directly to the Graduate School:

1. Two letters of recommendation using the UNC Letter of Recommendation for Graduate School form.
2. Provide a current resume.
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 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.
  - c. What are your career and educational goals? In what role and in what setting would you ultimately like to be employed? If you do not have a specific goal in mind, what are the areas of interest and what would you like to achieve during your graduate studies.
  - 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.

**For degree and program requirements, see:**  
Gerontology M.A. (p. 79)  
Gerontology Graduate Certificate Program (p. 171)

## Rehabilitation

**Location:** Gunter 1250  
**Telephone:** 970.351.2403  
**FAX:** 970.351.1255

**Rehabilitation Faculty:** Jill Bezyak, Ph.D.; Juliet H. Fried, Ed.D.; Joseph N. Ososkie, Ph.D.

**Emeritus Faculty :** James A. Bitter, Ed.D.; Jack A. Bowen , Ph.D.; John H. Cronin, Ed.D.; Garth M. Eldredge, Ph.D.; Dennis A. Gay, Ph.D.; Raymond E. Nelson, Ph.D.; Richard Wolfe, Ph.D.

The School of Human Sciences houses the only rehabilitation degree programs in Colorado. The following graduate degree programs are offered: Master of Arts: Rehabilitation Counseling; and a Doctor of Philosophy: Human Rehabilitation.

Students in these programs are prepared at two professional levels to work with people with physical and/or mental disabilities. Both graduate programs include experiences through practica and internships.

Careers in Human Rehabilitation are available in areas of direct service, administration, teaching and research.

#### *Rehabilitation Counseling M.A.*

The **goal** of the Rehabilitation Counseling Master's Degree Program at the University of Northern Colorado is to provide graduate students with the knowledge, skills and experiences necessary to function as rehabilitation counseling professionals.

Therefore, the **mission** of this program is to educate master's students in the area of Rehabilitation Counseling to assist and support individuals with disabilities or chronic illnesses to achieve maximum potential, meaningful employment, and full community integration. In doing so, the program focuses on encouraging students to pursue a life-long commitment to learning, critical thinking skills, creative problem solving, and an appreciation of the skills and abilities of individuals with disabilities.

**Admission.** The student must send **directly to the Graduate School:**

1. Two letters of recommendation using the UNC Letter of Recommendation for Graduate School form.
2. Provide a current resume.
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.

#### **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 eligible to earn the Certified Rehabilitation Counselor (CRC) designation.
8. All students who graduate will be prepared to enter the professional Rehabilitation Counseling field in public and/or private rehabilitation programs.

**For degree and program requirements, see:**  
Rehabilitation Counseling M.A. (p. 96)

#### *Rehabilitation Sciences Ph.D.*

This mission of the Rehabilitation Sciences doctoral program is to prepare professionals to assume leadership positions in disability research, education, and administration. The program offers a tailored approach where core rehabilitation principles guide individualized instruction and mentored practice. Students are provided opportunities for supervised practice according to their post degree goals through conducting research, instructing undergraduates, and supervising master's level rehabilitation counselors in training. The curriculum emphasizes the importance of applied research methods and statistics proficiency, producing graduates who are competitive in contemporary rehabilitation professions. Each student has the opportunity to direct their own specialization through a chosen cognate and focus their professional experiences in research, teaching, supervision, and/or administration. The current cognates being offered

include: Research Methods and Statistics, Gerontology, Community Health, Business Management: Healthcare Administrative Specialization, or a self-designed cognate. Admission: 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 an allied discipline. The appropriateness of the degree will be determined by the graduate faculty of the school.
2. Have two years of work experience (or equivalent, as determined by the school's graduate faculty) in the field of rehabilitation or an allied discipline.
3. Submit a statement of interest (double spaced, no more than 12 pages) addressing the following:
  - a. Describe your educational history and how it relates to this doctoral degree.
  - b. Describe your employment history and how it shaped your decision to pursue this doctoral degree. Include your experience in the field of disability and/or rehabilitation through internships, work, volunteer, or community activities.
  - c. Describe your primary interest areas within the field of rehabilitation including (1) your research interests and (2) the cognate you propose to pursue as a specialization area for your plan of study.
  - d. What are your short-term and long-term career goals? What do you hope to be doing when you earn your degree? Please include your interests in conducting scholarly research, teaching, administering programs, or working in the field.
4. Provide a current resume.
5. Participate in a personal interview, upon request.

**For degree and program requirements, see:**

See "Rehabilitation Sciences Ph.D.". (p. 147)

## School of Mathematical Sciences

**Director:** Dean E. Allison, Ph.D.

### Mathematical Sciences

**Location:** Ross Hall 2239

**Telephone:** 970.351.2820

**Faculty:** Dean E. Allison, Ph.D.; Spencer Bagley, Ph.D.; William L. Blubaugh, Ph.D.; Ricardo L. Diaz, Ph.D.; Anton Dzhamay, Ph.D.; Nathaniel Eldredge, Ph.D.; Nancy Geisendorfer, M.A.; Robert L. Heiny, Ph.D.; Gulden Karakok, Ph.D. Steven C. Leth, Ph.D.; Oscar Levin, Ph.D.;

Nathaniel G. Miller, Ph.D.; Katherine Morrison, Ph.D.; Jodie Dawn Novak, Ph.D.; Catherine "Frieda" Parker, Ph.D.; Michael K. Petrie, M.A.; Robert A. Powers, Ed.D.; Hortensia Soto-Johnson, Ph.D.; Igor N. Szczyrba, Ph.D.; Angela (Tisi) Steele, M.A.; Dean Zeller, M.S.

**Emeritus Faculty :** William W. Bosch, Ph.D.; Donald D. Elliott, Ph.D.; Jeffrey D. Farmer, Ph.D.; Richard M. Grassl, Ph.D.; Samuel R. Houston, Ph.D.; William D. Popejoy, Ed.D.; Donald L. Schmidt, Ph.D.; Terry A. Scott, Ph.D.; Donald T. Searls, Ph.D.; Robert A. Tolar, Ph.D.

Mathematics and related areas have been important human endeavors since ancient times. Mathematics is a discipline with its own questions, methods and content. It has also been used as a tool to explain the natural world for centuries. Mathematics, statistics and computer science have become essential to almost every other discipline such as the natural sciences, the social sciences, business, and economics.

The School of Mathematical Sciences has faculty in mathematics, mathematics education, statistics and computer science. We offer a variety of undergraduate and graduate programs in these areas. In addition, courses and minors that we offer can be used as important components of a variety of other programs across the university.

### *Mathematics M.A.*

We offer the Mathematics M.A. with two emphases. The Liberal Arts Emphasis is a traditional, on-campus program intended for students who are planning to continue into our Ph.D. program in Educational Mathematics. The Teaching Emphasis is designed for current in-service secondary mathematics teachers, and combines online classes during the academic year with a mixture of online and face-to-face classes during the summer.

Generally, a Bachelor's degree in mathematics or mathematics education with strong mathematics courses is required for admission to these programs. Students without a Bachelor's degree in mathematics are advised to consult the school for a list of recommended undergraduate courses they should take before applying.

### Liberal Arts Emphasis

This program is intended for students who do not already possess a Master's degree and wish to continue into the Ph.D. program in Educational Mathematics. It is not intended as a stand alone program. Students who complete this program and are deemed to be making good progress are automatically admitted to continue with the Ph.D. program.

### **For degree and program requirements, see:**

Mathematics M.A. — Liberal Arts Emphasis (p. 83)

### Teaching Emphasis

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.

**For degree and program requirements, see:**

Mathematics M.A. — Teaching Emphasis (p. 84)

*Educational Mathematics Ph.D.*

This program offers an innovative approach to mathematical pedagogy. A basic tenet of the program is that mathematical content is fundamental to methods, research and reform in mathematics education. The program has three major strands: mathematics, mathematics education, and cognition.

Graduates of the program will be prepared to lead the reform of mathematics education. They will be able to teach mathematics at several levels; perform research; and administer and supervise the reform of mathematics education.

**Admission.** Applicants should possess a master's degree in mathematics or mathematics education, or a strong bachelor's degree in mathematics. It is expected that students will have had a senior level or beginning graduate level course in each of abstract algebra, linear algebra, point-set topology, and real or complex analysis. Applicants not having this preparation may be required to take additional courses to prepare them for the coursework in the program. Also required is an essay of approximately 500 words addressing the applicant's interest in the Doctor of Philosophy in the Educational Mathematics program and the applicant's educational goals.

**For degree and program requirements, see:**

Educational Mathematics Ph.D. (p. 132)

## School of Nursing

**Director:** Faye Hummel, Ph.D.

**Location:** Gunter 3080

**Telephone:** 970.351.2293

**Fax:** 970.351.1707

**Faculty:** Loretta Clukey, Ph.D, Psy.D.; Darcy A. Copeland, Ph.D.; Erin Cummins, M.S.N.; Julie M. Deters, F.N.P.-B.C.; Kathleen N. Dunem, Ph.D.; Katrina S. Einhellig, Ph.D; Barbara Garrity, M.S.N.; Courtney Gryskiewicz, M.S.N.; Melissa L. Henry, Ph.D.; Laura Henson, M.S.N.; Karen Hessler, Ph.D.; Faye I. Hummel, Ph.D.; Martha Levine, Ph.D.; Jeanette McNeill, DrPH; Alison S. Merrill, Ph.D.; Gwyneth R. Milbrath, M.S.N.; Carlo G. Parker, Ph.D.; Marcia Patterson, D.N.P.; Shelia A. Postiglione, M.S.N.; Carol Roehrs, Ph.D.; Deborah E. Rojas, M.S.; Michaela Romero, D.N.P.; Kristin Schams, D.N.P.; Audrey Snyder, Ph.D.; Katherine Sullivan, Ph.D.; Laurie Walker, M.S.; Vicki W. Wilson, Ph.D.

**Emeritus Faculty:** Sandra C. Baird, Ed.D.; Nancy Quinn Beardslee, Ed.D.; Agnes Biegel, M.S.N.; Audrey J. Bopp, M.S.; Adah Bossart, M.S.; Phyllis Drennan, Ph.D.; Priscilla Faulkner, M.S.; Joan T. Hurlock, M.S.; Jane E. Koeckeritz, Ph.D.; Virginia Kinnick, Ed.D.; Debra Leners, Ph.D.; Judith A. Malkiewicz, Ph.D.; Janice Hoot Martin, Ph.D.; Rita Payton, M.S.; Diane Peters, Ph.D.; Judith Richter, Ph.D.; Nancy E. White, Ph.D.

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.

Graduate programs are available at the master's and doctoral level. The Doctor of Nursing Practice is the clinical degree for advanced practice nursing. Graduates are qualified to assume leadership roles in specialized nursing practice and scientific inquiry. MS to D.N.P part-time study only online. BS in Nursing to D.N.P is a hybrid of on-campus and online study. The Ph.D. in Nursing Education offers two levels of entry: BS to MS on campus and MS to Ph.D. online. Graduates are qualified to fill nursing faculty positions in educational institutions and health care agencies.

The Master of Science in Nursing Program has two emphases available: Clinical Nurse Leader (CNL) and the Family Nurse Practitioner (FNP) emphasis. The CNL is a part-time hybrid program and the FNP program is part-time on campus program.

### Nursing M.S.

*Adult Gerontology Acute Care Nurse Practitioner Emphasis*

AGACNP graduates are prepared as advance practice nurses to assess, diagnose, monitor, treat and coordinate the care of acutely and critically ill adolescents, adults, elderly and the frail elderly across transitions of care. The graduate is eligible to apply for national certification upon program completion.

*Advanced Nurse Generalist Emphasis*

The Master of Science degree in Nursing with an emphasis in Advanced Nurse Generalist prepares the post-baccalaureate nursing student for a leadership role in the assessment of client risk, management of client outcomes and promotion of client and family advocacy. This program prepares the graduate to function as a leader in collaborative, evidence-based practice. The Advanced Nurse Generalist directs complex patient care, and provides care coordination for groups of clients, evaluation and improvement of patient and process outcomes, assessment and management of risks across the health and health care continuum. This is not an advanced practice role as defined by the American Association of Colleges of

Nursing. Thesis or Nurse Education Certificate required for degree completion.

#### *Clinical Nurse Leader (CNL) Emphasis*

The Master of Science degree in Nursing with an emphasis in CNL prepares the post-baccalaureate nursing student for a leadership role in the management of clinical outcomes and patient care environments. The graduate is eligible to apply for national certification from the Commission on Nurse Certification, an autonomous arm of the American Association of Colleges of Nursing. Part-time study. Health policies, OSHA requirements, CPR and criminal background check are required. Completion of a master's thesis is an option.

This program prepares the graduate to function as a leader in collaborative, outcomes-based practice. The CNL is an advanced generalist who provides lateral integration at the point of care, complex patient care, evaluation and improvement of patient and process outcomes, assessment and management of risks, and coordination of care. Implementation will vary across settings; this is not an advanced practice role.

**For degree and program requirements, see:**  
Nursing M.S. — Clinical Nurse Leader (CNL)  
Emphasis (p. 93)

#### *Family Nurse Practitioner (FNP) Emphasis*

The Master of Science degree 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 national certification from the American Nurses Credentialing Center or American Academy of Nurse Practitioners. Part-time study only. Health policies, OSHA requirements, CPR, ACLS certification, and criminal background check and drug screen are required. Completion of a master's thesis is an option.

The program provides the graduate with the expertise to function in an autonomous and collaborative role as a Family Nurse Practitioner (FNP) who provides primary care in a variety of settings. The graduate is eligible to be recognized as an Advanced Practice Nurse from the State Board of Nursing with all the rights and privileges associated with this title.

**For degree and program requirements, see:**  
Nursing M.S. — Family Nurse Practitioner (FNP)  
Emphasis (p. 93)

#### **Master's student admission requirements**

1. A bachelor's degree from an NLN or CCNE accredited institution with an upper division major in nursing.
2. Eligibility for Colorado licensure as a registered nurse.

3. A minimum grade point average of 3.0 on the baccalaureate level.
4. A resume or curriculum vitae
5. Two letters of reference.
6. A statement of career goals.
7. One year of clinical experience is preferred.
8. A personal interview may be required.

#### **Nursing D.N.P.**

The Doctor of Nursing Practice prepares expert clinicians for advanced practice roles in hospitals, primary care clinics, specialty settings such as long term care facilities, and virtually any area they wish to practice within the healthcare industry. These highly skilled practitioners will be the leaders in healthcare delivery and care management.

Specific exceptions to the Graduate School requirements for doctoral degrees have been approved. Those exceptions relate to the dissertation proposal, dissertation, defense of dissertation, advancement to candidacy, doctoral committees, research course and credit hours. Because of the clinical focus of this degree, rigorous academic standards are maintained throughout the program and students will be required to complete a capstone project instead of a dissertation.

#### *Family Nurse Practitioner (FNP) Emphasis (Post Bachelors)*

**Post Bachelors in Nursing** – Graduates are qualified to be recognized as a **Family Nurse Practitioner. Apply for national certification and be recognized as an APRN** from the State Board of Nursing.

**Family Nurse Practitioner (FNP) Emphasis:** The post-bachelor's DNP program is for BSN nurses who are interested in a practice-focused doctorate. You will be prepared as a clinical expert with a focus on the critical thinking, leadership and political policy skills needed to advocate and create changes in healthcare practice at the individual, population and organizational systems levels. BSN to DNP graduates will provide primary care health promotion and disease management for patients with episodic or chronic illnesses across the life span, focusing on the underserved.

#### **Admission Requirements: Post Bachelors in Nursing Pathway**

1. A bachelor's degree in nursing from NLN/ACEN or CCNE accredited institutions.
2. A minimum grade point average of 3.0
3. Eligibility for Colorado licensure as a registered nurse.
4. One year minimum of clinical practice is preferred.

5. Three letters of reference from former faculty, supervisor, and/or professional colleagues.
6. Submission of a brief sample of professional writing (maximum of 10 pages). Examples:
  - Describe a scholarly evidence based case study that best exemplifies your practice.
  - Describe a current practice related concept including its scope and significance, the patient population and the clinical setting of interest. Discuss alternative approaches described in the literature and identify an approach that you might take in addressing the concept.
7. A resume or curriculum vitae.
8. Career goal statement articulating “why now” for your practice doctorate.
9. Description of practice experiences and settings.
10. A personal interview may be required.

**For degree and program requirements, see:**

Nursing D.N.P. — Family Nurse Practitioner (FNP) Emphasis (Post Bachelor’s) (p. 144)

*Adult Gerontology Acute Care Nurse Practitioner (AGACNP) Emphasis (Post Bachelor’s)*

**Post Bachelors in Nursing** – Graduates are qualified to apply for national certification through American Nurses Credentialing Center or American Association of Critical Care Nurses and to be recognized as an **Adult Gerontology Acute Care Nurse Practitioner (AGACNP)** by the State Board of Nursing.

**Adult Gerontology Acute Care Nurse Practitioner (AGACNP) Emphasis:** AGACNP graduates are prepared as advance practice nurses to assess, diagnose, monitor, treat and coordinate the care of acutely and critically ill adolescents, adults, elderly and the frail elderly across transitions of care. This predominantly on-line program with 2 summer intensives is designed for the practicing BSN RN to allow them to continue to work in their home environment while in school. This program of study meets the guidelines for nurse practitioner education as recommended by the American Association of Colleges of Nursing and the National Organization of Nurse Practitioner Faculties.

**Admission Requirements: Post Bachelors in Nursing Pathway**

1. A bachelor’s degree in nursing from NLN/ACEN or CCNE accredited institutions.
2. A minimum grade point average of 3.0
3. Eligibility for Colorado licensure as a registered nurse (RN).

4. One year minimum of clinical RN practice in the acute care environment is preferred.
5. Three letters of reference from former faculty, supervisor, and/or professional colleagues addressing your capabilities to complete a clinical doctorate and to be a Family Nurse Practitioner.
6. Submission of a brief sample of professional writing (maximum of 10 pages). Examples:
  - Describe a scholarly evidence based case study that best exemplifies your practice.
  - Describe a current practice related concept including its scope and significance, the patient population and the clinical setting of interest. Discuss alternative approaches described in the literature and identify an approach that you might take in addressing the concept.
7. A resume or curriculum vitae.
8. Career goal statement articulating “why now” for your practice doctorate.
9. Description of practice experiences and settings.
10. A personal interview may be required.

**For degree and program requirements, see:**

Nursing D.N.P. — Adult Gerontology Acute Care Nurse Practitioner (AGACNP) Emphasis (Post Bachelor’s) (p. 143)

*Nursing D.N.P. (Post-Master’s)*

The Doctor of Nursing Practice Post Masters emphasis is designed for clinicians with an APRN certification. Graduates of the Doctor of Nursing Practice program will be prepared as clinical experts with a focus on the critical thinking, leadership and political policy skills needed to advocate and create changes in healthcare practice at the individual, population and organizational systems levels.

**Admissions Requirements: Post Masters in Nursing Pathway**

1. A master’s degree in nursing from NLN/ACEN or CCNE accredited institutions.
2. Preparation as Advanced Practice Nurse (APRN) with documentation of national certification as an APRN.
3. Minimum of 500 clinical practicum hours in the APRN master’s program.
4. A minimum grade point average of 3.0.
5. Eligibility for Colorado licensure as a registered nurse and APRN.

6. Three letters of reference from former faculty, supervisor, and/or professional colleagues that address your ability to complete a clinical doctorate.
  7. Submission of a brief sample of professional writing (maximum of 10 pages). Examples:
    - Describe a scholarly evidence based case study that best exemplifies your practice.
    - Describe a current practice related concept including its scope and significance, the patient population and the clinical setting of interest. Discuss alternative approaches described in the literature and identify an approach that you might take in addressing the concept.
  8. A resume or curriculum vitae.
  9. Career goal statement articulating “why now” for your practice doctorate.
  10. Description of practice experiences and settings.
  11. Graduate level inferential statistical methods course (SRM 602) or equivalent. Must be completed prior to beginning DNP coursework.
  12. A personal interview may be required.
4. A resume or curriculum vitae
  5. Submission of a brief sample of professional writing (maximum of 10 pages). Examples:
    - a. Describe a scholarly evidence based case study that best exemplifies your practice.
    - b. Describe a current practice related concept including its scope and significance, the patient population and the clinical setting of interest. Discuss alternative approaches described in the literature and identify an approach that you might take in addressing the concept.
  6. Three letters of recommendation:
    - a. One addressing the applicant’s experience with/interest in/potential for nursing education, and professional leadership skills.
    - b. One from a doctorally prepared nursing educator addressing the applicant’s academic potential.
    - c. One letter from a reference of the student’s choice.
  7. Personal statement of future goals/interest in nursing education.
  8. Interview with nursing faculty (scheduled by telephone or in person).

**For degree and program requirements, see:**  
Nursing D.N.P. — (Post Master's) (p. 145)

### **Nursing Education Ph.D.**

The Doctorate of Philosophy in Nursing Education prepares nurses who provide professional leadership in nursing education, the scholarship of teaching, practice and research in the discipline. The program has one entry option: Master’s to Ph.D.

### **Admission requirements**

1. Completion of a bachelors in nursing and a master’s degree from an accredited school.
2. Admission to the Graduate Program of UNC:
  - a. GRE scores must have been taken within 5 years of application date, i). Verbal and quantitative scores (800 possible on each) must add up to at least 1000 total, and no less than a 400 on either, ii.) Analytical writing skills (6.0 possible) must be at least 3.5.
  - b. GPA 3.0 minimum (4.0 scale).
  - c. Two copies of all transcripts from any academic work post high school (if previous coursework was from UNC, no copies are required).
3. Current RN licensure.

**For degree and program requirements, see:**  
Nursing Education Ph.D. (p. 145)

## **School of Sport and Exercise Science**

**Director:** Gary D. Heise, Ph.D.

### **Sport and Exercise Science**

**Location:** Gunter 2590

**Telephone:** 970.351.2535

**Fax:** 970.351.1762

**Faculty:** Kyle Bolen, M.S.; Robert J. Brustad, Ph.D.; Russell Carson, Ph.D.; Shannon M. Courtney, M.A.; Brian D. Dauenhauer, Ph.D.; Scott Douglas, Ph.D.; Abbie Ferris, M.S.; J. Reid Hayward, Ph.D.; Gary D. Heise, Ph.D.; David S. Hydock, Ph.D.; Jennifer M. Krause, Ph.D.; Jaimie McMullen, Ph.D.; Alan Morse, Ph.D.; Brett Nichols, Ph.D.; Brent Oja, Ph.D.; Jeremy D. Smith, Ph.D.; Mark A. Smith, Ph.D.; Megan Babkes Stellino, Ed.D.; Laura Stewart, Ph.D.; Yoon Tae Sung, Ph.D.; James V. Turk, M.S.

**Emeritus Faculty:** Mary A. Behling, Ph.D.; Robert Blasi, M.A.; Cynthia Carlisle, Ed.D.; Carolyn A. Cody, Ph.D.; Carolyn Ann Dennehy, Ph.D.; Margaret E. Everett, M.A.; Dianna P. Gray, Ph.D.; Jean A. Hedberg, M.A.; William C. Heiss, Jr., M.A.; Nancy Hinrichs, M.A.; Christy A. Howard, M.S.; Jani Malkiewicz, M.A.; Theresa M. Malumphy, Ph.D.; Harold L. McKain, Jr., Ph.D.; Melissa



A. Parker, Ph.D.; D. Allen Phillips, Ed.D.; Tim B. Ramsey, M.A.; George H. Sage, Ed.D.; Linda A. Sharp, B.A., J.D.; Doris C. Steffy, M.A.; Jim Stiehl, Ph.D.; David K. Stotlar, Ed.D.; Nancy Van Anne, Ph.D.; Thurman Wright, D.P.E.

**The School of Sport and Exercise Science** has a long and distinguished history of preparing individuals to assume leadership roles in sport and physical activity settings, and subscribes to the philosophy that physical activity and sport contribute to the overall quality of life. To this end, the School offers a variety of majors that provide students with the necessary coursework and experience to serve as a foundation for careers in the professions of physical education, exercise science, sport psychology, and sport management. Specific graduate programs include:

#### **Graduate programs:**

- Sport Pedagogy
- Sport Administration (M.S. also offered off-campus)
- Biomechanics
- Exercise Physiology
- Social Psychology of Sport and Physical Activity
- M.A.T. in Physical Education Physical Activity Leadership (off-campus program only)
- M.A. in Sports Coaching (online program only)

Graduate programs in sport and exercise science provide an opportunity to go into greater depth in the study of human movement, pedagogy, and sport administration. Both theory and professional applications are emphasized. The doctoral program seeks to develop critical thinkers with the conceptual and methodological tools for conducting meaningful research, and prepares individuals to teach courses at the college level and assume leadership positions in their respective disciplines.

Many research opportunities are available in the laboratories used by the School of Sport and Exercise Science. Facilities are available for the study and analysis of teaching physical education. The teaching research laboratory is equipped with state-of-the-art physical activity monitoring technology and analytic software for student and faculty use. Biomechanics facilities include motion analysis capabilities, a force-measuring treadmill, and electromyography systems. Applied research in exercise physiology takes place in well-equipped laboratories for analysis of fitness components (cardiorespiratory fitness, body composition, muscular fitness, flexibility/range of motion, and balance), and exercise physiology basic science research is done in laboratories equipped to examine physiological, biochemical, and molecular parameters. Research in social psychology of sport and physical activity is primarily conducted with individuals in natural or “field” settings. The Sport Marketing Research Institute conducts

marketing and other industry research for Colorado and western region sport organizations. Affiliated with the School of Sport and Exercise Science is the Rocky Mountain Cancer Rehabilitation Institute, one of the first programs of its kind in the United States.

#### *Sport and Exercise Science M.S.*

Applicants to the master’s programs and graduate licensure program must apply to the University of Northern Colorado Graduate School before the program area reviews the applicant’s request for admission. To apply, submit the online application via the link on the Graduate School website. Failure to submit all required materials will delay the evaluation and screening of your application.

- A Bachelor’s Degree from an accredited college or university
- Current Resume
- Written Statement of Career Goals applicable to the selected emphasis area
- \$50 non-refundable application fee; International Students: \$60 non-refundable application fee
- Completed Online Application
- Two Letters of Recommendation
- One copy of official transcripts from all accredited colleges or universities attended since completing high school. UNC Alumni need not submit transcripts.

#### **Exercise Physiology Emphasis**

The Exercise Physiology Emphasis focuses on physiological systems’ responses to exercise. The program involves an in depth examination of both acute and chronic adaptations to exercise with special attention placed on the cardiovascular system, skeletal muscle, and metabolism. Students also receive considerable advanced laboratory experience in the classroom and involvement with faculty research. Students in the Master’s program choose between a Thesis Option or Non-Thesis Option.

#### **For degree and program requirements, see:**

Sport and Exercise Science M.S. — Exercise Physiology Emphasis (p. 110)

#### **Social Psychology of Sport & Physical Activity Emphasis**

The focus of this emphasis area is upon social psychological concepts as they relate to sport, exercise and physical activity behavior including motivation, self-perceptions, emotion, group processes and socialization. A lifespan developmental perspective is also taken to address these social psychological forms of influence in sport, exercise and physical activity contexts. Involvement in ongoing faculty research opportunities is encouraged. Research in social psychology of sport and physical activity is primarily conducted with individuals in natural

or “field” settings. Students in this Master’s program choose between a Thesis Option or Non-Thesis Option.

**For degree and program requirements, see:**

Sport and Exercise Science M.S. — Social Psychology of Sport & Physical Activity Emphasis (p. 111)  
Biomechanics Emphasis

Students in the Master’s program will study biomechanics research, laboratory techniques, and have options to study in affiliated areas. Involvement in ongoing laboratory research projects is expected. The Biomechanics Lab is a state-of-the-art research facility with a 10-camera motion analysis system, instrumented force measuring treadmill, 16 channel telemetered EMG system, metabolic cart, TekScan pressure measurement system, isokinetic dynamometer (Biodex) and computers with multiple software packages. Students in the Master’s program choose between a Thesis Option or Non-Thesis Option.

**For degree and program requirements, see:**

Sport and Exercise Science M.S. — Biomechanics Emphasis (p. 109)  
Sport Administration Emphasis

The Master of Science in Sport and Exercise Science: Sport Administration Emphasis curriculum follows the guidelines set for the preparation of students in sport management by the North American Society for Sport Management. Students are prepared to assume positions in the management of sport in collegiate athletic programs and professional, Olympic and commercial sport business. The M.S. program requires a minimum of 30 hours. Students in this Master’s program choose between a Thesis Option or Non-Thesis Option.

**For degree and program requirements, see:**

Sport and Exercise Science M.S. — Sport Administration Emphasis (p. 112)  
Sport Pedagogy Emphasis

The Master of Science in Sport and Exercise Science: Sport Pedagogy Emphasis is designed for individuals who plan to provide leadership in school-related physical education and physical activity settings. Students in this program examine curriculum and instruction that successful teachers employ to inspire today’s youth to enjoy the benefits of an active and healthy lifestyle. Graduate-level coursework is informed by the highest standards, including those of the Society of Health and Physical Educators (SHAPE) America. Students in this Master’s program choose between a Thesis or Non-Thesis Option.

**For degree and program requirements, see:**

Sport and Exercise Science M.S. — Sport Pedagogy Emphasis (p. 113)

*Sports Coaching M.A.*

This online Sports Coaching Master of Arts (M.A.) degree is designed to enhance coaching knowledge and expertise, and to advance existing coaching practices through evaluation and application of current research. One of very few online graduate coaching degrees in the country, this innovative program combines academic knowledge with applied practice and the latest technology. The online sports coaching master’s degree starts each Fall term.

*Portfolio. In lieu of a Thesis Option or Non-Thesis Option, all students must develop and present a portfolio that displays successful incorporation of the theoretical and foundational aspects of effective coaching. Public exhibition of the portfolio before an audience of faculty and students is required.*

**For degree and program requirements, see:**

Sports Coaching M.A. (p. 113)

*Physical Education M.A.T.*

The MAT in Physical Education and Physical Activity Leadership is designed for school professionals who wish to develop advanced skills and strategies in physical education and school-wide physical activity promotion. Students will be prepared to assume a leadership role in coordinating and championing comprehensive school physical activity programs.

*Portfolio. In lieu of a Thesis Option or Non-Thesis Option, all students must develop and present a portfolio that displays successful incorporation of the theoretical and foundational aspects of effective school-wide physical activity promotion. Public exhibition of the portfolio before an audience of faculty and students is required.*

**For degree and program requirements, see:**

Physical Education M.A.T. (p. 94)

*Sport and Exercise Science Post Baccalaureate Licensure Program*

The Post Baccalaureate licensure program allows students with an undergraduate major in sport and exercise science or related areas to obtain teacher licensure.

*Sport and Exercise Science Ph.D.*

**Admission Criteria:**

Applicants must apply to the University of Northern Colorado Graduate School before the program area reviews the applicant’s request for admission. To apply, submit the online application via the link on the Graduate School website. Failure to submit all required materials will delay the evaluation and screening of your application.

- A Master's Degree from an accredited college or university

- Current Resume
- Written Statement of Career Goals applicable to the selected emphasis area
- \$50 non-refundable application fee; International Students: \$60 non-refundable application fee
- Official copies of GRE scores (less than 5 years old) for doctoral applicants
- Completed Online Application
- Three Letters of Recommendation
- One copy of official transcripts from all accredited colleges or universities attended since completing high school. UNC Alumni need not submit transcripts.

#### Biomechanics Emphasis

In addition to required coursework, doctoral students in the biomechanics emphasis assist with current research projects associated with their interests and specialized coursework which exposes them to research tools and procedures in the laboratory. Involvement in these lab research activities will help to stimulate the student's development of research questions to pursue a dissertation. Experience in the classroom as a university-level instructor is also required of doctoral students given the teacher-scholar emphasis at UNC.

#### **For degree and program requirements, see:**

Sport and Exercise Science Ph.D. — Biomechanics Emphasis (p. 153)

#### Exercise Physiology Emphasis

Doctoral students in the exercise physiology emphasis will not only complete coursework in physiology, biochemistry, statistics and research design, but they will also gain valuable classroom teaching experience, and be intimately involved with the basic science and clinical research conducted by exercise physiology faculty.

#### **For degree and program requirements, see:**

Sport and Exercise Science Ph.D. — Exercise Physiology Emphasis (p. 154)

#### Social Psychology of Sport & Physical Activity Emphasis

Students in social psychology of sport and physical activity emphasis will complete coursework in the social and psychological disciplines as they relate to contemporary professional and amateur sport as well as on social and psychological aspects of child development in sports and physical activity. Students will also conduct research in the area of children's physical activity behavior and social influences upon sport and exercise motivation.

#### **For degree and program requirements, see:**

Sport and Exercise Science Ph.D. — Social Psychology of Sport & Physical Activity Emphasis (p. 155)

#### Sport Administration Emphasis

The Doctor of Philosophy in Sport and Exercise Science: Sport Administration emphasis curriculum follows the guidelines set for the preparation of students in Sport Management by 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 coursework in careers in the management of sport in collegiate athletic programs, professional, Olympic, or commercial sport business.

#### **For degree and program requirements, see:**

Sport and Exercise Science Ph.D. — Sport Administration Emphasis (p. 156)

#### Sport Pedagogy Emphasis

The Doctor of Philosophy in Sport and Exercise Science with a Sport Pedagogy emphasis prepares students for academic positions in higher education. Students are afforded the coursework, research, and practical experiences necessary for conducting and translating sound science with practical significance. Students will have the opportunity to gain valuable teaching experience in pedagogy. They will also have opportunities to participate in ongoing and interdisciplinary research within the School of Sport and Exercise Science (SES) and the well-equipped educational research laboratory.

#### **For degree and program requirements, see:**

Sport and Exercise Science Ph.D. — Sport Pedagogy Emphasis (p. 157)

## Other Programs in the College of Natural and Health Sciences

### Graduate Interdisciplinary Degree Program M.A.

#### *Science Education Emphasis*

This fully online program is coordinated by Science Teacher Education Programs and is designed specifically for practicing teachers. Teachers will increase their science content and pedagogical content knowledge as well as gain expertise in inquiry-focused teaching strategies, build understanding of diverse learners, and develop strategies to reflect upon how their teaching impacts their students. In addition, it will provide the opportunity for the teacher to investigate a research question(s) of their choosing. <http://www.unco.edu/nhs/science>

**Admission:** Students will be admitted to the program on the basis of:

1. A bachelor's degree from an accredited college or university,

2. One year of teaching experience in K-12 educational setting,
3. Transcripts,
4. At least two letters of recommendation from persons familiar with their academic and teaching performance,
5. Resume,
6. A 500 word letter of intent addressing interest in the program, their educational goals, areas of study, and topics of potential research interest.

All admission criteria as listed above are taken into consideration for acceptance into the Science Education Emphasis program. Admission to the Graduate School does not guarantee admission to the Science Education Emphasis graduate program.

**For degree and program requirements, see:**  
Graduate Interdisciplinary Degree Program M.A.  
— Science Education Emphasis (p. 79)

## COLLEGE OF PERFORMING AND VISUAL ARTS (PVA)

### University Programs

Graduate Programs (p. 54)

### Office of the Dean

**Location:** Guggenheim 206

**Telephone:** 970.351.2515

**Dean:** Leo Welch, D.M.

**Associate Dean:** Kiki Gilderhus, Ph.D.

The University of Northern Colorado's College of Performing and Visual Arts draws on the extensive resources of the University and the Front Range region of Colorado to provide an outstanding milieu conducive to the development of arts professionals. Our students have transformative and inspiring experiences in a first-class environment that includes advanced technology laboratories in all the arts, contemporary dance studios, traditional and experimental theatre spaces, unparalleled music resources, and studios in the diverse disciplines of the visual arts. The College combines the best of the time-honored academy tradition and the most current and prescient ideas in the arts with the liberal arts education of a major university.

The College of Performing and Visual Arts has an exceptional reputation for offering in-depth study of music, theatre arts, dance, and art and design. The College offers undergraduate and graduate degrees, as well as lifelong learning programs that integrate up-to-date facilities, accessible and highly acclaimed faculty members, practicum experiences with leading arts agencies, and the rich cultural attractions of the region into a well rounded and valuable curriculum.

Whether you are interested in becoming a high school art teacher, an orchestra conductor, a choreographer of modern dance, a stage manager, graphic designer, composer of contemporary jazz, a performance artist, actor, or any one of hundreds of arts professions, you will find the University of Northern Colorado the place to expand and nurture your talent. If you choose to join the College, and its distinguished and accomplished faculty, you will be following in the footsteps of alumni who have been succeeding in and creating the arts of today and the future.

### School of Art and Design

**Director:** Andrew Liccardo, M.F.A.

**Location:** Guggenheim 103

**Telephone:** 970.351.2143

**Faculty:** Michael A. Coronel, M.A.; Lauren Eisen, M.F.A.; Mark Fetkewicz, M.F.A.; Donna Goodwin, Ph.D.; Sieger Hartgers, M.A.; Kris Heintz-Nelson, M.A.; Michael Lemke M.F.A.; Andrew Liccardo, M.F.A.; Kenneth Price, M.A.; Thomas Stephens, M.F.A.; Connie Stewart, Ph.D.; Andrew Jay Svedlow, Ph.D.; John Tonai, M.F.A.; Anna Ursyn, Ph.D.

Accredited by the National Association of Schools of Art and Design (NASAD); the School of Art & Design 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 school 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 School of Art & Design, 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 many careers in the visual arts.

In addition, students pursuing Art Education will have demonstrated ability to teach art effectively in grades K-12.

### Art and Design M.A.

The graduate program in the School of Art & Design leads to the Master of Arts degree. It offers an in-depth and individualized course of study. The program provides opportunities for the K-12 art educator seeking Master's Degree to develop advanced expertise in art education, art history, and studio arts. The M.A. degree can also be used in preparation for further, more advanced, graduate studies. It is the goal of the School of Art & Design to encourage, foster, and provide academic rigor and artistic excellence.

Students may choose from two delivery options for the Master's program. The first is the traditional on-campus program and the second, a low residency option. The low residency option is a hybrid model consisting of two four-week summer residencies and coursework conducted online and in face-to-face meetings, as needed, during two fall and spring semesters. This is a two-year program. Both delivery options maintain the thirty-credit requirement. The on-campus program requires a written thesis. The final requirement for the low residency program is an Action Research project and report.

**Admission** to the Master of Arts in Art & Design degree program is approved by the faculty of the School of Art & Design following an evaluation of the applicant's admission materials. At the time of application to the Graduate School, application materials should be sent to: Coordinator of Graduate Studies, School of Art & Design, University of Northern Colorado, Greeley, CO 80639. Application materials include a portfolio of no less than 20 different pieces of current work in the proposed area of study submitted in one of the following formats: 35mm color slides of professional quality, or a CD or DVD containing digitized images of work in a format which will open on either a Mac or PC (Power Point, jpeg, pdf, etc.), 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 Coordinator or Graduate Studies.

**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 School of Art & Design. 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.

**For degree and program requirements, see:**  
Art & Design M.A. (p. 55)

## School of Music

**Director:** Michael Alexander, D.M.A.

**Senior Associate Director :** Charles A. Hansen, D.M.A.

**Location:** Frasier Hall 108

**Telephone:** 970.351.2993

**Graduate Coordinator:** Carissa Reddick, Ph.D.

**Faculty:** John Adler, D.M.A.; Euridice Alvarez, D.M.A.; Erik Applegate, M.M.; Jonathan Bellman, D.M.A.; Diane Bolden-Taylor, D.M.A.; Jill Burleson Burgett, D.A.; Jason Byrnes, D.M.; David Caffey, M.M.; Derek Chester, D.M.A.; Andrew Dahlke, D.M.A.; Galen Darrough, D.M.A.; Janice Dickensheets, D.A.; Ludek Drizhal, M.M.; Paul Elwood, Ph.D.; Gal Faganel, D.M.A.; Lindsay Fulcher, Ph.D.; Nathan Fulks, D.M.A.; Socrates Garcia, D.A.; Nancy Glen, D.A.; Russell Guyver, D.M.A.; James Hall, D.M.A.; Charles A. Hansen, D.M.A.; Marian K. Hesse, M.M.; Lauren Jacobson, M.M.; Deborah Kauffman, D.M.A.; Stephen Kovalcheck, D.M.A.; Justin Krawitz, D.M.A.; Dana B. Landry, M.M.; Anne Lanzilotti, D.M.A.; Brian Clay Luedloff, M.F.A.; Melissa Malde,

D.M.A.; Richard G. Mayne, Ph.D.; Mark Montemayor, Ph.D.; Michael Oravitz, Ph.D.; Carissa Reddick, Ph.D.; Kenneth Singleton, D.M.A.; Willem vanSchalkwyk, D.M.A.; Michael Truesdell, M.M.; Lei Weng, M.M.; James White, M.A.; Nathaniel G. Wickham, D.M.A.; William Wilson, M.M.; Jittapim Yamprai, D.A.

Approximately 450 music majors annually have made UNC's School of Music their choice for many reasons. The School of Music offers nationally recognized faculty with specialists on every instrument. There are more than 50 performing ensembles, a number of which are nationally recognized.

The UNC School of Music, with 37 full-time and 20 part-time faculty, is organized into seven program areas, each with an area head. The program areas are Winds and Percussion, Strings, Keyboard, Vocal, Academic Studies, Music Education, and Jazz Studies.

Students may choose from a full range of degrees, bachelor through doctoral programs, and from emphases in performance, conducting, music education, music theory, jazz studies, and music history. Considerable variety and depth of course offerings are available at UNC.

General objectives of the University of Northern Colorado School of Music are based on service and leadership in the arts at local, state, regional, national and international 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 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 music 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.

School of Music graduates are well regarded in the professional world. UNC-prepared educators hold positions at universities, colleges, high schools, junior high and elementary schools throughout the United States and the world. 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.

## Major Musical Organizations

**MUSIC THEORY:**

MUS 501 18th Century Counterpoint

MUS 502 Harmony and form I

MUS 503 Harmony and Form II

MUS 504 Music Theory Pedagogy

MUS 505 Sixteenth-Century Counterpoint

MUS 603 Analytical Studies in Music

MUS 604 Seminar in Schenker Analysis

#### **MUSIC HISTORY:**

MUS 643 Seminar: Medieval Music

MUS 644 Seminar: Music in the Renaissance

MUS 645 Seminar: The Baroque Period

MUS 646 Seminar: The Classical Period

MUS 647 Seminar: The Romantic Period

MUS 649 Music History Pedagogy

MUS 651 Seminar in Music History: Debussy to 1945

MUS 652 Seminar in Music History: 1945 to the Present

MUS 653 Vocal Literature and Styles

MUS 657 Instrumental Literature and Styles

#### **INSTRUMENTAL PERFORMANCE (based on applied area)**

MUS 636 Individual Performance in Jazz

MUS 637 Individual Performance in Jazz Composition

MUS 665 Individual Performance in Collaborative Piano

MUS 670 Individual Performance in Voice

MUS 671 Individual Performance in Piano

MUS 673 Individual Performance in Strings, Harp, or Guitar

MUS 674 Individual Performance in Woodwinds

MUS 675 Individual Performance in Brass or Percussion

MUS 677 Individual Performance in Composition

#### **MAJOR MUSICAL ORGANIZATIONS:**

MUS 624 Vocal Jazz Ensemble\*

MUS 625 Jazz Ensemble\*

MUS 667 University Symphony Orchestra

MUS 668 Chamber Orchestra

MUS 680 Mixed Concert Choir

MUS 681 Women's Glee Club

MUS 684 Men's Glee Club

MUS 688 Concert Band

MUS 690 Symphonic Band

MUS 691 Wind Ensemble

\*For Jazz studies students and other students whose primary applied lessons are in jazz, the following Major Musical Organizations apply.

#### **ENSEMBLE BY ADVISEMENT (For Collaborative Piano):**

In addition to Major Musical Organizations listed above:

MUS 630 Small Ensembles and Chamber Music

MUS 666 Chamber Choir

MUS 668 Campus String Orchestra

MUS 682 University Singers

MUS 685 Performance in Opera Theatre

#### *Graduate Admission Requirements*

Prerequisite to admission to any graduate program in Music is completion of an appropriate undergraduate music degree. Admission will be based on an evaluation of the student's competencies and the content of the undergraduate program.

The student must take the appropriate 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 may be required to take written examinations on technique in their performance area.

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.

Candidates will take a written comprehensive examination at a time approved by their major advisor.

**Master's Programs.** An audition in the major applied area is required of all entering graduate students, and three letters of recommendation are also required of Music Education majors.

**Doctoral Program.** An audition in the major applied area is required of all entering graduate students. A minimum of two years public school teaching experience is required of D.A. (Music Education) applicants. Three letters of recommendation are required of all applicants.

#### **Music M.M.**

Each new student entering a graduate program in music at the University of Northern Colorado is required to take graduate advisory examinations in Music History and writing skills, and placement examinations in Music Theory and Aural Skills, and the student's major area. For

students entering the Music Education degree, the major area will be Music Education. Graduate students who do not pass the theory placement exam must enroll in MUS 401. Graduate students who do not pass the aural skills placement exam must enroll in MUS 402. All students must either pass the theory and aural skills exam OR pass MUS 401 and/or MUS 402 with a grade of C or better before they can enroll in graduate-level theory classes or graduate from their programs.

The degree program seeks to assist graduate candidates in developing advanced professional competencies in performance, scholarly abilities, research, and pedagogical techniques for use in the profession or for instruction in higher education.

**Admission** . Residency, when stated in the music section of this Catalog, is interpreted to mean 9 credit hours or more per semester.

The candidates must take the Advisory Examinations in Music History and writing skills, and the Placement Examination in Music Theory and Aural 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.

#### *Collaborative Piano Emphasis*

**For degree and program requirements, see:**  
Music M.M. — Collaborative Piano Emphasis (p. 86)

#### *Composition Emphasis*

**For degree and program requirements, see:**

Music MM Music Composition Emphasis (p. 90)

#### *Conducting Emphasis*

This emphasis is designed to assist the graduate candidate in developing advanced professional competencies in conducting, while pursuing specialized studies in the areas of choral, orchestral, and wind band. In addition to the Music M.M. requirements, an entrance audition is required.

**Admission** . Prospective conducting applicants 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.

**For degree and program requirements, see:**  
Music M.M. — Conducting Emphasis (p. 87)

#### *Instrumental Performance Emphasis*

Performance emphases are available in flute, oboe, clarinet, bassoon, saxophone, horn, trumpet, tenor trombone, bass trombone, euphonium, tuba, percussion, violin, viola, violoncello, string bass, harp, keyboard, voice, and guitar.

**For degree and program requirements, see:**  
Music M.M. — Instrumental Performance Emphasis (p. 87)

#### *Jazz Studies Emphasis*

The Master of Music degree program is designed to assist the graduate student in developing advanced professional competencies in jazz. 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, Jazz History, Jazz Theory, 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.

**For degree and program requirements, see:**  
Music M.M. — Jazz Studies Emphasis (p. 88)

#### *Music Education Emphasis*

The Master of Music (Music Education Emphasis) degree program is designed to develop and enrich professional understandings, skills, and musical/pedagogical competencies in the field of music education.

Incoming students must meet admission requirements of the Graduate School. Candidates must have completed an undergraduate degree in music or music education. Other candidates may be accepted upon petition to the Music Education Program.

Prospective music education graduate students, in addition to following current Graduate School and School of Music application procedures, should submit the following directly to the School of Music director in order to be considered for admission to the UNC Music Education Graduate Program:

- One 30-45 minute video or DVD that is representative of the applicant's teaching abilities. Applicants should include a 10-15 minute performance segment that is representative of their performing ability on their primary instrument or voice. Applicants should select two pieces of contrasting style for the performance segment.



- Three letters of recommendation addressing teaching abilities, potential for success in graduate studies, musicianship, and collegiality.

**For degree and program requirements, see:**  
Music M.M. — Music Education Emphasis (p. 89)

#### *Music History and Literature Emphasis*

In addition to the Music M.M. requirements above, 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.

**For degree and program requirements, see:**  
Music M.M. — Music History and Literature Emphasis (p. 89)

#### *Music Theory Emphasis*

Admission: In addition to following current Graduate School and School of Music application procedures, prospective music theory graduate students should submit the following directly to the School of Music director in order to be considered for admission:

- Three letters of recommendation
  - Official transcripts
  - Writing sample: 7–10 page paper, with research citations (any style) and preferably with musical examples, on a music theory- or music history-related topic exemplifying original, critical thought
- Language Requirement. Students will be expected to demonstrate translational competency in German or French, or a different language if relevant to their course of study, before taking their comprehensive exams.
- Keyboard Proficiency. Students must demonstrate competency in the following keyboard skills before taking their comprehensive exams:
- realize a figured bass and Roman numeral progression with acceptable voice-leading in keyboard style
  - sightread a Bach chorale harmonization
  - perform a short, prepared, intermediate-level piece, such as a two-part Bach Invention, Beethoven Bagatelle, Schubert German Dance, etc.

Students must maintain a GPA of 3.2 in courses that are part of their degree plan.

**For degree and program requirements, see:**  
Music MM Music Theory Emphasis (p. 90)

#### *Vocal Performance Emphasis*

**For degree and program requirements, see:**  
Music M.M. — Vocal Performance Emphasis (p. 91)

## **Music D.A.**

### **Collaborative Piano Emphasis**

### **Conducting Emphasis**

### **Jazz Studies Emphasis**

### **Music History and Literature Emphasis**

### **Music Performance Emphasis**

### **Music Composition Emphasis**

Each new student entering a graduate program in music at the University of Northern Colorado is required to take graduate advisory examinations in Music History and writing skills, and placement examinations in Music Theory and Aural Skills, and the student's major area. For students entering the Music Education degree, the major area will be Music Education. Graduate students who do not pass the theory placement exam must enroll in MUS 401. Graduate students who do not pass the aural skills placement exam must enroll in MUS 402. All students must either pass the theory and aural skills exam OR pass; MUS 401 and/or; MUS 402 with a grade of C or better before they can enroll in graduate-level theory classes or graduate from their programs.

The Doctor of Arts degree provides options for advanced study in the areas of music history and literature, composition, conducting, and performance (with an optional concentration in pedagogy).

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.

**For degree and program requirements, see:**  
Music D.A. (p. 137)

#### *Music Education Emphasis*

This program emphasizes philosophy, psychology, contemporary and past history, and research. It also includes scholarship and musicianship through study in the areas of music history and literature, theory, composition, and performance.

This program area places primary emphasis on a comprehensive working knowledge of contemporary music education practices in public schools and college music programs, and/or community cultural life.

Prospective music education graduate students, in addition to following current Graduate School and School of Music application procedures, should submit the following directly to the Music Education Chair in order to be considered for admission to the UNC Music Education Graduate Program:

- One 30-45 minute video or DVD that is representative of the applicant's teaching abilities. Applicants should include a 10-15 minute performance segment that is representative of their performing ability on their primary instrument or voice. Applicants should select two pieces of contrasting style for the performance segment.
- Three letters of recommendation addressing teaching abilities, potential for success in graduate studies, musicianship, and collegiality.

**For degree and program requirements, see:**  
Music D.A. — Music Education Emphasis (p. 140)

## School of Theatre Arts and Dance

**Director:** David Gene Grapes II, M.F.A.

**Location:** Frasier Hall 105  
**Theatre Arts:** 970.351.2991  
**Dance:** 970.351.2991

**Graduate Coordinator:** Mary Schuttler, Ph.D.

**Faculty:** Monte Black, M.F.A.; Jerald David Blatt, M.F.A.; David Gene Grapes II, M.F.A.; Brian Hapcic, M.F.A.; Rebecca Joy, M.F.A.; Randall Harmon, Ph.D.; John R. Leonard, M.F.A.; Gillian McNally, M.F.A.; Matthew Mott, M.F.A.; Mary Schuttler, Ph.D.; Anne Toewe, Ph.D.; Ken Womble, M.F.A.

UNC's Theatre Arts program combines on line and classroom instruction with first-hand experiences in theatre education. General objectives of the University of Northern Colorado School 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 School embraces the role and mission of the University and has designed its goals and objectives to support and enhance institutional purposes and directions.

### Dance Education M.A.

#### Schedule:

The program will be delivered through both on line learning and on campus classes. The on line learning would take place during the fall and spring semesters, while the students would be on campus during the summers for face-to-face intensive classes. The summer classes would include three classes taught over a three week time period.

#### Admission:

Requirements beyond UNC's Minimum Requirements:

- Applicants must have a Bachelor's degree and a strong desire to obtain a Master of Arts degree in Dance Education.

- Those applying to the program would submit a sample of their scholarly writing for perusal. Scholarly writing could include writing describing curricula, lesson plans or research created or done by the applicant.
- Applicants would also need to describe in detail how they would plan to actively use what they have learned in this graduate program in their own teaching situation or prospective teaching situation.
- Students accepted to this program would be teachers or prospective teachers in Colorado and throughout the nation. There would, however, be an emphasis on accepting those who are already teaching in our state with the goal of improving dance education in Colorado schools. There is also the possibility of accepting international students in this program. (Dr. Sandra Minton is well-known as a dance educator in the U.S. and internationally and has been able, in the past, to attract Colorado, national and international teachers as students to her graduate level courses offered through UNC Extended Studies).
- Students accepted to this program would not need to have completed undergraduate work in dance, although a background in dance as a professional performer or in dance studio classes would be helpful. Having an undergraduate degree in dance would be a plus.
- If a student has had previous experience in the dance field, please briefly describe those experiences. Such dance experiences could include those from dance studios, public or private K-12 schools university programs.

Dance Education M.A (p. 65)

### Theatre Education M.A.

#### Schedule:

This focused program consists of two three-week summer institutes for 18 credits (9 each year); three 3 credit on-line courses spread out over two academic years, one 3 credit 500 level or above transferable theatre course, and 6 credits of thesis advisement for a total of 36 credits. While on campus in the summer, students will attend classes, and view or work on productions, Monday through Saturday for a total of 45 hours per week.

**Admission:** Applicants must have a Bachelor's degree and a strong desire to obtain a Master of Arts degree in Theatre Education. A teaching certificate is recommended yet not required. A minimum of nine and a maximum of twelve students will be admitted each year. The goal is that each class will reflect a mix of diverse backgrounds, experience and interests. Applicants must meet the University of Northern Colorado's graduate admission requirements and apply by April 1. They must also submit an essay stating their goals for the program and discuss why graduate

school is an appropriate choice in their careers at this time, a resume, and three letters of recommendation. Selection for the program will be made by the end of April. GRE is not required.

For degree and program requirements, see:

Theatre Education M.A. (p. 117)

Theatre Educator Intensive (p. 117)

## GRADUATE COURSE DESCRIPTIONS

### Course Designations

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

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. These courses are designed to teach students academic skills and general competencies necessary to succeed in college
- 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 but no undergraduates may be admitted to course numbers above the 500 range.
- Doctoral and Specialist level courses - the 700 range.

Courses with variable titles may have additional prerequisites assigned to specific sections scheduled.

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 Liberal Arts Core requirements.

Courses bearing the designation "gtP" are in gtPathways, Colorado's Guaranteed Transfer Program. These courses are guaranteed to transfer to all Colorado institutions of higher education.

### ANT - Anthropology

College of Humanities and Social Sciences

Department of Anthropology

- Contact (970) 351.2021
- [www.unco.edu/anthropology](http://www.unco.edu/anthropology)

#### 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 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 required.

#### ANT 622 - Directed Studies (1- 4)

Individualized investigation under the direct supervision of a faculty member. (Minimum of 37.5 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

### APCE - Applied Psychology and Counselor Education

College of Education and Behavioral Sciences

Department of Applied Psychology and Counselor Education

Department of School Psychology

- Contact (970) 351.2731
- [www.unco.edu/cebs/apce](http://www.unco.edu/cebs/apce)
- [www.unco.edu/cebs/schoolpsych](http://www.unco.edu/cebs/schoolpsych)

#### APCE 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.

#### APCE 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.

**APCE 558 - Diagnosis and Treatment Planning (3)**

Majors only. Prerequisites: 602 or 650, and pre- or corequisite 607; or pre- or corequisite APCE 701 and corequisite APCE 707 for Counseling Psychology students. An introduction to diagnostic criteria, according to the DSM, for mental and emotional disorders. Students will learn about treatment planning based on causes, symptoms, characteristics, and classifications of abnormal behavior.

**APCE 559 - Introduction to Clinical Hypnosis (2)**

Prerequisites: APCE 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.

**APCE 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.

**APCE 601 - Practicum (1- 3)**

Consent of instructor. Majors only. Open by invitation to graduate students. Supervised professional activity in student's major field; approximately 37.5 clock hours of work per credit. S/U graded. Repeatable, maximum of three credits.

**APCE 602 - Foundations of School Counseling (3)**

Study the conceptual foundation of the counseling and school counseling professions including history, philosophy, principles and trends. Includes functions of counselors, administrators, teachers and parents in meeting students' needs.

**APCE 603 - Understanding Children, Adolescents, and Their Systems (3)**

Prerequisites: APCE 607. A comprehensive study of therapeutic approaches and techniques for children and adolescents. The course focuses on the therapeutic involvement of significant others with children in a variety of settings.

**APCE 605 - Group Laboratory Experience (1)**

Co-requisite: APCE 606 or APCE 662. Consent of coordinator. Provides an opportunity to participate in a group experience. S/U graded.

**APCE 606 - Theories and Practices in Group Guidance (3)**

Prerequisites: APCE 602 and APCE 607. Co-requisite: APCE 605. Majors only. Must be taken at site of admission. Study theories and methods of group counseling including applications in school settings for educational planning, career decisions and interpersonal relations, and forming and facilitating guidance groups in educational settings.

**APCE 607 - Theories of Counseling (3)**

Majors only or consent of instructor. The study and critical analysis of the major counseling theories and elements of effective psychotherapy as they apply to the counseling process.

**APCE 608 - Organization, Administration and Evaluation of School Counseling Programs (3)**

Prerequisite: APCE 602. Majors only or consent of instructor. The major focus of this applied course is on the design, development, implementation, and evaluation of a comprehensive school counseling program that meets national standards.

**APCE 609 - Foundations of Play Therapy (3)**

Prerequisites: Master's degree in appropriate mental health profession, or enrollment in a APCE graduate program, or consent of instructor. Course includes an overview of play therapy principles, history, techniques, and modalities. Course features a practicum element during which students conduct one play therapy session, under supervision of the instructor.

**APCE 612 - Practicum in Individual Counseling (5)**

Prerequisites: APCE 558, APCE 607, APCE 602 or APCE 650, and PSY 530; co-requisite APCE 657; and consent of coordinator. Students will receive supervised experience in counseling, including use of audio and video tapes, client and supervisor feedback, and seminar. This course must be taken at the site of admission. S/U graded. Repeatable, maximum of 10 credits. Course fee required.

**APCE 614 - Internship in School Counseling and Guidance (1- 9)**

Prerequisites: APCE 608, APCE 612 and consent of instructor. Refer to program handbook. Must be taken at site of admission. A culminating field experience for counseling students engaged in counseling and guidance activities in elementary, middle, and high school settings under the supervision of one or more licensed school counselors. S/U graded. Repeatable, maximum of 18 credits. Supervision fee required.

**APCE 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. Assessment fee required.

**APCE 617 - Play Therapy: Theory and Practicum (3)**

Prerequisites: APCE 612 and consent of instructor. Study theoretical bases for play therapy and conduct play therapy under faculty supervision. Course fee required.

**APCE 618 - Practicum in Child, Adolescent, and Family Interventions (5)**

Prerequisite: APCE 607 or APCE 707 and consent of instructor. Supervised experience in interventions with children, adolescents, and families; including counseling and interview analysis, the use of audio and video tapes, client and supervisor feedback, and twice weekly seminars. S/U graded. Repeatable, maximum of 10 credits. Course fee required.

**APCE 619 - Practicum II in Individual Counseling (3)**

Prerequisites: APCE 612, APCE 662 or APCE 606. Corequisites: APCE 616 and APCE 673. School Counseling additional prerequisites: APCE 603 and APCE 608. Clinical Mental Health Counseling child/adolescent placements additional prerequisite: APCE 603. Practicum II is a field-based experience, viewed as a transitional experience to be completed after successful completion of Practicum I and prior to registering for and completing Internship hours. S/U graded. Repeatable, maximum of 6 credits.

**APCE 622 - Directed Studies (1-3)**

Individualized investigation under the direct supervision of a faculty member. (Minimum of 37.5 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

**APCE 623 - Understanding and Counseling Diverse Populations (3)**

Majors only. An examination of counselor training issues and counseling skills relevant to working with clients with diverse cultural backgrounds. This course will sensitize students to the concerns of various cultural groups.

**APCE 624 - Assessment and Treatment of Substance Abuse (3)**

Examination of major treatment approaches to substance abuse and theories of etiology. Investigation of pharmacological and medical aspects of commonly used substances. Explore addiction and abuse in related compulsive behaviors.

**APCE 625 - Applied Developmental Science (3)**

Prerequisite: Undergraduate or graduate level course in developmental psychology. Addresses dynamic nature of individual and family functioning and the interaction of biology and environments. Emphasis on integration of theory and research in developing programs that foster healthy development.

**APCE 628 - Concepts and Principles of Applied Behavior Analysis (3)**

Concepts within the field of applied behavior analysis are covered. Respondent and operant conditioning, including response class, antecedents, consequences, stimulus control, motivating operations, contingencies, functional relationships, and extinction are addressed.

**APCE 629 - Measurement and Experimental Design in Applied Behavior Analysis (3)**

This course covers assessment of behavior, including all dimensions of behavior and structured observation. Single-case research methods, including reversal, multiple baseline, changing criterion, alternating treatment, and multi-element designs are covered.

**APCE 631 - Applied Behavior Analysis II (3)**

Prerequisite: APCE 628. This course covers individual and systematic behavioral interventions, including antecedent interventions, contingency contracting, group contingencies, consequence-based strategies, and token economies.

**APCE 640 - School-Based Psychological Consultation (3)**

Addresses the practice of psychological consultation with school personnel and families. Includes coverage of major consultation theories, school culture, and how consultation is applied to service delivery systems in schools.

**APCE 644 - Assessment I: Cognitive and Academic Functioning (5)**

Prerequisites: APCE 670 and consent of instructor. Advanced supervised experience using a problem-solving approach to assess, plan, and monitor child, adolescent, and adult functioning in areas of cognitive processing and academic achievement in school and community settings. Assessment fee required.

**APCE 645 - Social and Behavioral Assessment in the Schools (3)**

Prerequisites: APCE 644 and APCE 670. Understand and implement techniques for assessing social and behavioral functioning in children and adolescents for the purpose of designing effective interventions in home and school settings.

**APCE 646 - Assessment II: Socio-emotional and Behavioral Functioning (3)**

Prerequisite: APCE 644 or a course in cognitive and academic assessment (to be approved by the course instructor), and consent of instructor. Develop major strategies and techniques for individual behavior and personality assessment of children (K-12) and young adults. Integrate projective assessments with cognitive and behavioral measurements.

**APCE 648 - Assessment III: Early Childhood (3)**

Prerequisites: APCE 644 and APCE 646 and consent of instructor. Covers psychological services for infants and toddlers. Includes law, typical and atypical development, multicultural issues, and intervention services. Provides practice in assessment, with an emphasis on nontraditional methods. Assessment fee required.

**APCE 650 - Orientation to Clinical Counseling (3)**

Provides conceptual foundation for the counseling profession with emphasis on community counseling. Places the profession in a historical context; introduces associations, licensure, certification, accreditation, codes of ethics, and practice settings.

**APCE 655 - Family, School, and Community Contexts (3)**

This course provides an advanced understanding of theory, research, and interventions, as applied to individuals, families, schools, and social systems.

**APCE 656 - Systems-Based Behavioral Health (3)**

This course prepares students to design and implement programs that promote children's mental health, academic success, and social competence. Students will become familiar with implementation science, systems theory and models of service delivery.

**APCE 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.

**APCE 660 - Psychological Consultation: Theory and Practice (3)**

Prerequisite: APCE 607. 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.

**APCE 661 - Psychological Trauma and Intervention for Individuals, Families and Communities (3)**

Prerequisites: APCE 558, APCE 607 and APCE 657. An overview of the impact of crises, disasters, and other trauma-causing events on individuals, families and communities. Students will be introduced to strategies and interventions for working with this population.

**APCE 663 - Seminar in Research and Professional Practice (1)**

Consent of instructor. Build research skills and knowledge serving under the mentorship (research apprentice) of a faculty member. Must complete four credit hours over four semesters, excluding summer.

**APCE 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.

**APCE 667 - Intervening with Trauma and Crisis in the Schools (3)**

Examination of theories of trauma and crisis for use in school settings. Emphasis is given to developing systems that support individuals who have experienced trauma and on strategies for preventing, responding to, and recovering from crisis.

**APCE 668 - Sexuality Counseling (3)**

Recommended for advanced students. Counselors explore the treatment of various sexual issues. Topics covered: male and female sexual systems, sexual myths, variations in sexual behavior and common sexual concerns. Various therapeutic approaches are presented.

**APCE 669 - Advanced Methods: Couples and Family Therapy (3)**

Prerequisite: APCE 665. Prerequisite or corequisite: APCE 612. Course expands on family therapy models presented in APCE 665 and includes other significant models. Training activities include diagnosis, assessment, case presentations, enactments, video use and case analysis.

**APCE 670 - Principles of Psychometrics and Assessment (3)**

Understanding psychological testing through an overview of measurement principles, the psychological assessment process, data management, test construction and development, and the use of test results in individual psychoeducational evaluations and intervention planning.

**APCE 673 - Appraisal and Assessment in Counseling (3)**

Recommended prerequisite: SRM 600. Majors only. This course features an overview of individual and group approaches to assessment used by professional counselors. Course participants evaluate instruments, interpret results, and demonstrate knowledge of psychometric properties. Assessment fee required.

**APCE 674 - Assessment for Intervention: Cognitive and Academic (4)**

Co-requisite: APCE 677. Consent of instructor. This course is designed to cover the basic skills needed to administer and interpret individual intelligence and academic achievement tests, report writing, and provision of verbal feedback from assessment results. Assessment fee required.

**APCE 677 - Psychometrics in Counseling Psychology (1)**

Consent of instructor. Course covers topics in psychometrics including theory and techniques of psychological measurement, scale and inventory construction, reliability, validity, evaluation of measurement quality, classical and contemporary measurement theory, and standardization.

**APCE 678 - Assessment for Intervention: Personality and Behavior (4)**

Prerequisites: APCE 674 and consent of instructor. Provides a foundation of learning the application of personality assessments. Supervised experiences in learning how to administer, interpret, and integrate assessment results in relationship to counseling psychology research and practice.

**APCE 680 - Special Populations Practicum (1- 3)**

Prerequisite: APCE 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 APCE 678. S/U graded. Repeatable, maximum of three credits.

**APCE 681 - Practicum in Systems Consultation (3)**

Prerequisite: APCE 640. Supervised field experience concurrent with professional seminar. Application of case and/or systemic consultation strategies to problems/challenges in the schools or social service agencies.

**APCE 682 - Biological Bases of Behavior (3)**

Presentation of the biological/neuroanatomical underpinnings of behavior and affect, including: function/structure of nervous system, neuropathy, physiology of psychopathology, psychopharmacology, sensation/perception, physiology of emotion, sleep, reproduction and motivation.

**APCE 691 - Internship in Clinical Counseling: Couples and Family Therapy (1- 9)**

Prerequisite: APCE 694 and consent of coordinator. Refer to program handbook. Majors only. Must be taken at site of admission. Minimum of 600 hours onsite required. A culminating field experience for qualified students in the area of community counseling: marriage and family therapy. S/U graded. Repeatable, maximum 18 credits. Supervision fee required.

**APCE 692 - Internship in Clinical Counseling (1- 9)**

Prerequisite: APCE 612 and consent of coordinator. Refer to program handbook. Majors only. Must be taken at site of admission. Minimum of 600 total on-site hours required. A culminating field experience for qualified community counseling students in areas of specialty. S/U graded. Repeatable, maximum of 18 credits. Supervision fee required.

**APCE 694 - Practicum in Couples and Family Therapy (4)**

Prerequisites: APCE 612 or APCE 712, APCE 669. Consent of practicum coordinator. Majors only. Receive supervised experiential training in counseling with families. Develop diagnostic and therapeutic skills in systemic approaches. S/U graded. Course fee required.

**APCE 695 - Seminar: Contemporary Issues in Couples and Family Therapy (3)**

Prerequisites: APCE 665. Majors only. Study of interventions utilized within the major approaches to couple and marital therapy. Covers current issues and research in family therapy.

**APCE 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.

**APCE 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. Course fee required.



**APCE 703 - Professional Development Seminar in Counselor Education (1)**

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.

**APCE 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.

**APCE 710 - Seminar in Instruction, Pedagogy, and Evaluation in Counseling and Psychology (3)**

Prerequisites: APCE 702 and APCE 703. This course provides in-depth study of instructional principles, pedagogy, and evaluation procedures in counseling and counselor education. Instructional methods, techniques, and evaluation models related to counselor education will be discussed.

**APCE 712 - Advanced Practicum in Individual Counseling (4)**

Prerequisites: APCE 702, APCE 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. Course fee required.

**APCE 713 - Practicum in Supervision of Play Therapy (3)**

Prerequisite: APCE 617. Consent of practicum coordinator. Majors only. Doctoral candidates receive experience in supervising child psychotherapy training through working with a staff member.

**APCE 714 - Practicum in Supervision of Counseling (3-6)**

Prerequisites: APCE 702, APCE 712 and consent of practicum coordinator. Majors only. Students gain experience with a faculty member in supervising counseling practice. Repeatable, maximum of six credits.

**APCE 715 - Seminar in Counselor Supervision and Theory (2)**

Prerequisites: APCE 702, APCE 707, APCE 712 and consent of practicum coordinator. Co-requisite: APCE 714. Majors only. Study problems involved in training individuals to engage in the therapeutic process.

**APCE 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.

**APCE 723 - Seminar in Advanced Multicultural Perspectives in Counselor Education and Supervision (3)**

Prerequisite: APCE 623. Majors only. This course focuses on encouraging ethical, effective, and advanced multicultural competencies. This includes awareness of cultures and increasing skills in all areas when working with diverse populations.

**APCE 733 - Seminar in Research Methods in Counseling Psychology (2)**

Consent of instructor. Majors only. Topics include strengths, limitations, interpretation, and technical aspects of rigorous case study; correlational, descriptive, and experimental research designs; measurement techniques; sampling; replication; theory testing; qualitative methods; meta-analysis; and quasi-experimentation.

**APCE 746 - Advanced Seminar in Counselor Education and Supervision (3)**

Prerequisite: APCE 703. Concentrated study, application, synthesis and evaluation of career development and theory, and professional identity for counselors, counselor educators and supervisors. Emphasis on application of leadership and advocacy skills.

**APCE 747 - Psychological Aspects of Academic Programming and Intervention (3)**

Addresses applied psychological aspects of curriculum, instruction, and learning environment in relation to the development, implementation and monitoring of academic interventions in the areas of reading, math and written language.

**APCE 748 - Instruction, Supervision and Leadership in School Counseling (3)**

Prerequisites: APCE 602, APCE 608. An advanced examination of issues and trends in professional school counseling with an emphasis on preparation and supervision of school counselors and leadership in implementation of school counseling programs.

**APCE 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.

**APCE 758 - Advanced Psychopathology (3)**

Prerequisite: APCE 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.

**APCE 762 - Practicum in Group Facilitation (4)**

Prerequisites: APCE 605 and APCE 662 or equivalent, APCE 702, APCE 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. Course fee required.

**APCE 763 - Legal and Professional Foundations of School Psychology (4)**

Professional issues and problems concerning the school psychologist, including certification and licensure requirements, confidentiality, legal and ethical issues, roles and responsibilities.

**APCE 773 - Practicum in Supervision of Group Facilitation (3)**

Prerequisite: APCE 762 and consent of practicum coordinator. Majors only. Doctoral candidates receive experience in supervision of group facilitator training. Work with regular staff member supervising group practicum, observe techniques and processes and receive feedback on progress.

**APCE 774 - Practicum in Supervision of Family Therapy (3)**

Prerequisites: APCE 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.

**APCE 775 - Supervision in School Psychology (3)**

Prerequisites: APCE 644 and consent of instructor. Provides an overview of theories and practice of school psychology. Additionally, under faculty supervision, students participate and apply their skills in the instruction and supervision of students in testing courses. Repeatable, maximum 9 credits.

**APCE 776 - Externship in School Psychology (1- 2)**

Prerequisites: APCE 644, APCE 646, and consent of instructor. Majors only. This course provides students the opportunity to refine their skills (e.g., assessment, counseling) through supervised experience in a hospital, clinic, and/or school setting in which supervision is provided by a licensed psychologist. Must complete a total of 2 credits. Repeatable, maximum of six credits.

**APCE 777 - Applied Neuropsychology (3)**

Prerequisites: APCE 612 or APCE 618 or APCE 702 and APCE 674. Study of brain-behavior relationships emphasizing procedures for diagnosing neurobiological disorders, neuropsychological intervention and treatment planning, and professional practice issues from conception to adulthood.

**APCE 778 - Clinical Neuropsychology Practicum (3)**

Prerequisites: APCE 612 or APCE 618 and APCE 678 and APCE 777. Supervised practice in administering and interpreting neuropsychological tests and qualitative procedures for children, adolescents, and adults. Emphasizes intervention development, rehabilitation, neuropsychological report writing, and use of neuropsychological test batteries.

**APCE 779 - Practicum in School Psychology (1- 3)**

Prerequisites: APCE 607 or APCE 707, APCE 628, APCE 640, APCE 646, APCE 747, and consent of the instructor. Supervised experience in the provision of comprehensive psychological services to children/adolescents within a school setting. Must complete 6 credits over the academic year. Repeatable, maximum of six credits. Supervision fee required.

**APCE 781 - Evaluation of Psychological Services (3)**

Learn the theory and practice of psychological program evaluation. Use technology and measurement skills to promote systems change of evaluating the effectiveness of consultation, therapy, guidance, academic interventions, and placement.

**APCE 782 - Introduction to Rorschach Administration and Scoring (3)**

Prerequisites: APCE 558, APCE 674 and APCE 678. Learn conceptual basis for comparing projective with traditional psychometric procedures and begin skills in administration and scoring of Rorschach test. Assessment fee required.

**APCE 785 - Advanced Practicum in Community Engagement: Campus Connections (1)**

Students take leadership roles in Campus Connections, a service-learning course where students work with at-risk youth. Students oversee mentoring dyads. Supervision of mentoring, crisis intervention, and relationship building are developed. Repeatable, no limits.

**APCE 789 - Internship in School Psychology (1- 8)**

Prerequisite: Permission from your advisor and the internship coordinator. Supervised experience in the practice of school psychology with children and adolescents in a school or clinic setting. (See Ph.D./Ed.S. Internship Guidelines for complete description.) S/U graded. Repeatable, maximum of 16 credits. Supervision fee required.

**APCE 791 - Internship in Counseling Psychology (1- 5)**

Consent of instructor. Majors only. 2,000 hour pre-doctoral internship at a site meeting APA training standards. Completed in 3-6 consecutive semesters after Ph.D. course work and approval of dissertation proposal (required before internship match day). Repeatable, maximum 18 credits. S/U graded.

**APCE 792 - Internship in Counselor Education and Supervision (1- 6)**

Consent of instructor. Capstone experiences in the areas of teaching, research apprenticeships, consulting, supervision, and counseling in preapproved settings. An approved internship plan must be in place before students engage in internship activities. Repeatable, maximum of 12 credits.

**APCE 793 - Practicum in Clinic Administration and Service Delivery (3)**

Prerequisites: APCE 702, APCE 712, and consent of practicum coordinator. Majors only. This course is an introduction to clinical administrative experiences, including conducting intakes, making treatment recommendations, engaging in campus/community outreach and providing therapeutic services. S/U graded. Assessment fee required.

**APCE 794 - Advanced Practicum in Clinic Administration and Service Delivery (1)**

Prerequisites: APCE 702, APCE 712, APCE 793, or 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. S/U graded. Repeatable, maximum of four credits.

**APCE 795 - External Practicum in Counseling Psychology (3)**

Prerequisites: APCE 702, APCE 712 and consent of practicum coordinator. Majors only. This course offers students the opportunity to refine their assessment skills with clients in various community based organizations. S/U graded. Repeatable, maximum of 15 credits.

**APCE 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.

**APCE 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.

**APCE 999 - Graduate School Continuous Registration (1)**

To permit a graduate student to continue making progress in a degree program. S/U graded. Repeatable, no limitations.

**ART - Visual Arts**

College of Performing and Visual Arts

School of Art & Design

- Contact (970) 351.2143
- [www.arts.unco.edu/artanddesign](http://www.arts.unco.edu/artanddesign)

**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, maximum of six credits per subtitle.

**ART 511 - Graduate Ceramic Design (3)**

Prerequisite: ART 410. Design and assembly of hand-built ceramic forms at an advanced level. An exploration of stoneware, raku and sodium vapor firing processes. Repeatable, maximum of six credits. Course fee required.

**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, maximum of six credits.

**ART 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.

**ART 521 - Fiber Design (3)**

Advanced design techniques in fibers. Repeatable, maximum of six credits.

**ART 523 - Weaving (3)**

Concentrate in a selected area of weaving on an advanced design concept. Repeatable, maximum of six credits.

**ART 533 - Life Drawing (3)**

Prerequisite: ART 333 or equivalent. Advanced life drawing emphasizing development of personal interpretations of the human form. Repeatable, maximum of six credits.

**ART 537 - Computer Art (3)**

Further exploration in applying computer graphics to the visual arts and integrating computer-based technologies related to design, desktop publishing and page layout. Some experience in computer graphics is recommended.

**ART 538 - History of Computer Graphics (4)**

Prerequisite: Select one of the following courses: ART 171, ART 437, ART 537, ART 471, ART 571. Facts and aspects related to computer applications in art, graphics animation, interactive art, www. Analyze and contrast images, concepts and approaches to artistic quality and technological solutions in electronic art.

**ART 539 - Computer Graphics Studio (1- 3)**

Consent of instructor. Advanced, individualized or specialized study on specific topics related to computer graphics. Repeatable, maximum of nine credits.

**ART 547 - Multimedia in the Arts - Concepts & Studio Strategies (3)**

Majors/Minors only. Seniors or above. Consent of instructor. Students investigate thematic interpretation of ideas and express them in a variety of systems. Through conceptual thought formatting, students will explore an integration of 2D/3D projects. Consent of the instructor required.

**ART 551 - Collagraphs (3)**

Prerequisite: ART 351. Majors/minors only. Advanced investigation in collagraphs. A collagraph plate is made by cutting and pasting textural elements. This is printed in intaglio/ Relief method.

**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, maximum of nine credits.

**ART 554 - Advanced Relief Printmaking (3)**

Prerequisite: ART 254 or consent of instructor. Advanced investigations in relief printmaking techniques. Individual imagery and technical mastery are emphasized. Repeatable, maximum of nine credits.

**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, maximum of nine credits.

**ART 561 - Graduate Sculpture (3)**

Self-directed or assigned work in specific areas of sculpture. Advanced technical skills emphasized. Repeatable, maximum of six credits.

**ART 569 - Web Style Design (3)**

Prerequisite: ART 437 or ART 471. Provide working knowledge about principles and practices in website design in terms of art applications. Design knowledge related aesthetically to content for Web Page Layout.

**ART 571 - Computer Graphics (3)**

Prerequisite: ART 471 or consent of instructor. Further exploration of computer graphics concepts, application of recently developed techniques to create integrative, interdisciplinary 2-D and 3-D projects, submitting for competitions and professional magazines. Portfolio and paper presentation required.

**ART 573 - Digital Photography Manipulation (3)**

Prerequisite: ART 271. Study principles of localized manipulation and multiple image digital processing techniques. Students will also acquire a working knowledge of post processing and calibration equipment that will enable the student to be able understand both the hardware and software involved with digital post processing. Majors/minors only or by consent of instructor.

**ART 576 - Advanced Black and White Photography (3)**

Prerequisite: ART 274. Learn advanced concepts and practices of black and white film photography. Techniques also include controlling a large format camera, close-up/macro photography, processing sheet film, calibrating the film/paper system for the individual, printing on fiber based paper and toning prints. Majors/minors only or by consent of instructor.

**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 578 - Alternative Photographic Expression (3)**

Prerequisite: ART 271. Explore non-traditional methods of photographic techniques and processes. This class is designed to facilitate the use of alternative cameras/lenses, alternative/non-silver processes and creative presentation techniques. Majors/minors only or by consent of instructor.

**ART 600 - Research Methods in Art (3)**

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 601 - Introduction to Arts Based Inquiry in Graduate Studies (2)**

This course is an introduction to graduate inquiry in the precepts and practices of Collaborative Learning and Arts Based Inquiry including arts based studio, educational and heuristic research.

**ART 615 - Ceramic Studio (1- 3)**

Consent of instructor required. Individualized or specialized study on specific topics in ceramics. Repeatable, maximum of nine credits.

**ART 622 - Directed Studies in Art (1- 4)**

Individualized investigation under the direct supervision of a faculty member. (Minimum of 37.5 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

**ART 625 - Fibers Studio (1- 3)**

Consent of instructor. Individualized or specialized study on specific topic in fibers. Repeatable, may be taken three 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, maximum of six credits.

**ART 634 - Drawing (3)**

Advanced work in development on thematic imagery, inventive media, unique and personal solutions to visual problems. Repeatable, maximum of six credits.

**ART 635 - Drawing Studio (1- 3)**

Consent of instructor required. Individualized or specialized study on specific topics in drawing. Repeatable, maximum of nine credits.

**ART 636 - Painting Studio (1- 3)**

Consent of instructor required. Individualized or specialized study on specific topic in painting. Repeatable, maximum of nine credits.

**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 - Effective Application of Concepts, Theories in K-12 Art Curricula (3)**

Study concepts, theories and issues in art and art educational research based practices. Analyze content, studio and post studio processes, instructional and assessment methods through arts-based and action research lenses.

**ART 648 - Art and the Exceptional Student (3)**

In depth study of art practices, processes, and adaptations for the exceptional learner. Involvement in the review of literature and research field in the development characteristics, needs and instructional adaptation suitable for teaching visual arts to the exceptional learner.

**ART 649 - Current Issues in Art (3)**

A critical review and analysis of cultural, social, philosophical, and theoretical art issues. Educational, museum, gallery and visual culture contexts including studio and post-studio practices are interpreted and evaluated.

**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, maximum of nine credits.

### **ART 660 - Graduate Sculpture Studio (1- 3)**

Self-directed studies in selected sculptural modes or processes. Repeatable, maximum of nine credits.

### **ART 672 - Photography Studio (1- 3)**

Instructor consent required. Advanced individualized or specialized study in photography for graduate students. Repeatable, maximum of nine credits.

### **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 691 - Japanese Art (3)**

Advanced study of Japanese Art.

### **ART 692 - Internship in Art (1- 5)**

Graduate art majors only. Supervised professional activity in major field of study. Must spend a minimum of 30 clock hours per credit hour. Maximum of five credits per semester. Repeatable, under different subtitles.

### **ART 693 - Greek Art (3)**

Advanced study of Greek Art from Aegean civilizations through the Hellenistic Period.

### **ART 694 - Roman Art (3)**

Advanced study of Roman Art from Etruscan civilization through the Late Roman Empire.

### **ART 696 - Action Research in Art Education I (3)**

Prerequisite: ART 600. Students enrolled in Low Residency Option for M.A. in Art Education take this course. They conduct action research plans developed and approved in Art 600: Research Methods in Art.

### **ART 697 - Action Research in Art Education II (3)**

Prerequisite: ART 696. Students enrolled in Low Residency Option for M.A. in Art Education take this course. Complete action research projects by drawing conclusions and implications. They submit final reports to graduate committees.

### **ART 699 - Thesis (1- 6)**

Prerequisite: ART 600. A written thesis is required of all master's degree candidates in visual arts. The thesis must be approved by the supervising committee and meet all requirements of the Graduate School. S/U graded. Repeatable, no limitations.

## **ASLS - Audiology and Speech-Language Sciences**

College of Natural and Health Sciences

School of Human Sciences

- Contact (970) 351.2734
- [www.unco.edu/nhs/asls](http://www.unco.edu/nhs/asls)

### **ASLS 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.

### **ASLS 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.

### **ASLS 515 - Foundations of Research and Writing (1)**

Introduction to graduate-level writing and research strategies. Content includes identification of problems/research topics, use of library databases and web sources, organization of content, and use of current APA style.

### **ASLS 516 - Professional Issues in SLP (2)**

Masters only. Professional issues in speech-language pathology as they relate to public schools, medical settings and private practice. Topics include the legislative issues, business practices, ethics, third party reimbursement procedures and laws.

### **ASLS 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.

### **ASLS 563 - Voice and Resonance Disorders (3)**

Etiologies and symptoms of dysphonia and laryngectomies, assessment and intervention strategies. Resonance disorders associated with cleft lip and palate and causes, including assessment and intervention in a team approach.

**ASLS 567 - Diagnostic Procedures: Introduction (1- 2)**

Masters only. Diagnostic principles, procedures, and materials used to assess individuals with communication disorders. Additional topics: case history, oral mechanism and interviewing techniques. Learners will perform speech/language screenings and diagnostic evaluations. Repeatable, maximum of 8 credits. Course fee required.

**ASLS 568 - Diagnostic Procedures: Intermediate (1- 2)**

Masters only. Diagnostic principles, procedures, and materials used in criterion-referenced assessment of individuals with communication disorders. Learners will perform speech and language screenings and diagnostic evaluations. Repeatable, maximum of 8 credits. Course fee required.

**ASLS 569 - Advanced Diagnostic Procedures (1- 2)**

Masters only. Diagnostic principles, procedures, and materials used in criterion-referenced assessment of individuals with communication disorders in a medical setting. Repeatable, up to four credits. Course fee required.

**ASLS 570 - Rehabilitative Audiology (2)**

Prerequisites: ASLS 478 or equivalent. Theory and procedures for rehabilitation of children and adults with hearing handicap.

**ASLS 571 - Speech and Hearing Science (1- 3)**

(3 lecture, 1 lab) Laboratory required. Models of speech production and perception, measurement techniques for simple and complex signals. Lab addresses application of models of speech production and perception to experimental and clinical situations. Course fee required.

**ASLS 574 - Clinical Practicum in Audiology (1)**

Prerequisites: 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. Course fee required.

**ASLS 580 - Practicum in Rehabilitative Audiology (1- 2)**

Habilitation/rehabilitation of individuals who are deaf or hard of hearing. Includes hearing aid and/or cochlear implant management. Repeatable, maximum of six credits. Course fee required.

**ASLS 582 - Educational Audiology (3)**

Explore services for hearing impaired children in the schools. Educational implications of auditory processing disorders are also covered.

**ASLS 583 - Clinical Practicum: Introduction (1- 2)**

Introduces students to issues related to treating individuals with speech and/or language disorders. Topics include writing treatment plans, evaluating clinical performance, working with supervisors, measuring outcomes, and risk management. S/U graded. Course fee required.

**ASLS 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.

**ASLS 585 - Clinical Practicum in Speech-Language Pathology: Intermediate (1- 2)**

Prerequisite: ASLS 583. Students improve clinical skills and learn about issues related to clinical practice, including ethics, counseling, self evaluation, treatment notes, efficacy, outcome measures, sharing information verbally and relating to diverse populations. Repeatable, maximum of eight credits. Course fee required.

**ASLS 586 - Clinical Practicum in Speech-Language Pathology: Intermediate/Advanced (2)**

Prerequisites: ASLS 585. Students improve their clinical skills and learn about issues related to clinical practice, including continuing education, conflict resolution, data keeping methods, technology, and clinical research. Repeatable, maximum of four credits. Course fee required.

**ASLS 587 - Advanced Audiology (3)**

Theory and practice of advanced techniques of audiometric assessment.

**ASLS 588 - Clinical Practicum in Speech-Language Pathology: Advanced (2)**

Prerequisites: ASLS 586. Students improve their clinical skills and learn about issues related to clinical practice in medical settings, including interviewing, professional liability, clinical fellowship year, leadership, and demonstrating clinical effectiveness. Course fee required.

**ASLS 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.

**ASLS 594 - Practicum and Advanced Topics in Audiology (1- 6)**

Prerequisite: ASLS 574. Perform the full range of clinical audiological services, including special testing, hearing aid evaluations and dispensing of hearing aids. Repeatable, maximum of fifteen credits. Course fee required.

**ASLS 596 - Comparative Hearing and Vocal Mechanisms (3)**

The study of bioacoustics and comparative anatomy and physiology of vocal and auditory mechanisms for various taxonomic classes.

**ASLS 615 - Research in Audiology and Speech-Language Pathology (1- 4)**

Students will engage in systematic inquiry in audiology and speech-language pathology. This may include evaluating current research, posing research questions, formulating research designs, and developing formal research proposals. Repeatable, maximum of 8 credits.

**ASLS 622 - Directed Studies (1- 4)**

Individualized investigation under the direct supervision of a faculty member. (Minimum of 37.5 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

**ASLS 655 - Acquired Disorders of Language & Cognition (3)**

Prerequisite: ASLS 555. This course describes signs and symptoms, evaluation approaches, differential diagnostic criteria, prevention, and management approaches to speech and language disorders resulting from acquired neurological dysfunction across the lifespan.

**ASLS 656 - Feeding and Swallowing Disorders: Lifespan (2)**

Prerequisite: ASLS 555. In-depth study of normal and disordered deglutition in adult and pediatric populations and dysphagia diagnosis and management.

**ASLS 657 - Motor Speech Disorders: Lifespan (2)**

Prerequisite: ASLS 555. Etiologies and characteristics of motor speech disorders. Differential diagnosis and treatment of the disorders will be explored with pediatric and adult populations.

**ASLS 658 - Assistive Technology for Communication Disorders (2)**

Describes assistive technology (AT) applications for individuals with limited/restricted verbal communication. Emphasis on multidisciplinary assessment selection and use of low and high assistive technologies for communication and learning.

**ASLS 661 - Articulation and Phonological Disorders in Children (3)**

Disorders of speech production in pediatric populations. Biological, cognitive, linguistic, and ethno cultural systems influencing speech production, contributing/causal factors, theories of acquisition, assessment and treatment issues.

**ASLS 664 - Fluency Disorders (3)**

Characteristics of fluency and fluency disorders; biological, developmental, and environmental factors contributing to fluency disorders; models of and research in fluency disorders; assessment of fluency; and, treatment of fluency disorders.

**ASLS 668 - Cochlear Implants (3)**

Advances in cochlear implant device circuitry, electrode design, speech processing strategies, candidacy, and rehabilitation are explored. The history and technological progression of cochlear implants are also reviewed.

**ASLS 681 - Advanced Speech Physiology (3)**

Undergraduate anatomy and physiology required. Advanced physiology of the speech production system, emphasizing normal aspects. Select pathophysiological conditions.

**ASLS 682 - Language Disorders in Early Childhood and Preschool (3)**

Language disorders and prelinguistic communication, infancy through preschool. Application of contemporary theory and legislative assessment/treatment for infants and children demonstrating or at-risk for social-communicative-linguistic impairments.

**ASLS 684 - Disorders of Language & Literacy: School-Age and Adolescent (3)**

In-depth study of impairments of oral language, reading, and written expression in school-age children and adolescents. Explores typical development, models of impairment, assessment and treatment.

**ASLS 686 - Capstone in Speech-Language Pathology (2)**

This seminar provides students the opportunity to complete in-depth study of an area of evidence-based practice, design a research study in that area, and present projects to faculty and peers.

**ASLS 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.

**ASLS 696 - Seminar in Animal Audiology (3)**

Study of audiologic evaluation of animals with a focus on canines. Anatomy, pathology, restraint, conditioning, and behavior will be explored.



**ASLS 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.

**ASLS 711 - Auditory Physiology (3)**

Undergraduate anatomy and physiology required. Advanced physiology of the human auditory system, emphasizing electrical potentials; processes of pathophysiology.

**ASLS 712 - Amplification I (3)**

Advanced study of the theory and use of hearing aids, other amplification devices and assistive listening devices.

**ASLS 715 - Applied Research in Audiology (1- 4)**

Prerequisite: ASLS 615, consent of instructor and successful completion of written comprehensive evaluation. Seminar to engage students in a capstone research project. Students will also explore multiple avenues for the presentation of professional quality scholarly projects in audiology. S/U graded. Repeatable, maximum of eight credits.

**ASLS 720 - Supervised Teaching in Audiology (1)**

Emphasis on teaching techniques and methods for college and university instruction. Repeatable, maximum of six credits. S/U graded.

**ASLS 721 - Psychoacoustics (2)**

Prerequisite: ASLS 711. Concepts of loudness, adaptation, auditory fatigue, masking and the critical band, pitch perception, localization, temporal order and perceptual organization.

**ASLS 723 - Amplification II (3)**

Prerequisite: ASLS 712. 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.

**ASLS 724 - Differential Diagnosis of Auditory Disorders (3)**

Prerequisite: ASLS 711. 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

**ASLS 731 - Auditory Processing Disorders (2)**

Theoretical overview, biologic bases, audiologic assessment, and management of adults and children with auditory processing disorders (APD). Emphasis on application of theoretical knowledge to practical clinical audiology methods and techniques.

**ASLS 741 - Hearing Loss Prevention (3)**

The study of noise as it pertains to the auditory system. Physical aspects of noise, instrumentation, measurement and reduction principles, hearing conservation management. Course fees required.

**ASLS 742 - Advanced Diagnosis of Auditory Disorders (2)**

Prerequisite: ASLS 724. Advanced study of auditory physiology, otoacoustic emissions, multi-frequency tympanometry and auditory evoked potentials.

**ASLS 743 - Medical Aspects of Audiology (3)**

Study of the medical correlates of hearing impairment including pathogenesis of auditory pathologies, medical/surgical intervention, congenital/genetic syndromes, and related radiology/imaging/surgical techniques.

**ASLS 744 - Vestibular Assessment and Management (2)**

Prerequisites: ASLS 711 and ASLS 742. Advanced study of vestibular physiology, assessment and rehabilitation.

**ASLS 751 - Otopharmacology (2)**

Prerequisites: ASLS 555 and ASLS 743. Pharmacology and ototoxicity as applied to clinical audiology. Basic mechanisms of pharmacodynamics, pharmacokinetics and pharmacotherapeutics and classes of drugs relative to otologic disorders.

**ASLS 772 - Audiology Practice Management (2)**

Introduction to issues and resources to manage an audiology practice. Topics of business planning, fiscal management, coding and third-party reimbursement, personnel management, marketing and professional communication, and working relationships

**ASLS 774 - Professional Issues in Audiology (2)**

Overview of professional responsibilities and intra-professional relationships in the hearing health care delivery system. Medical-legal issues, practice guidelines, licensure, intra-personal skills and ethics are addressed.

### **ASLS 775 - Advanced Electro-diagnosis (1- 3)**

(3 lecture, 2 lab) Prerequisites: ASLS 711 and ASLS 742. Laboratory required. Theory and practice of electrophysiologic assessment of the auditory system. Lab addresses clinical assessment using auditory evoked potentials testing. Evaluation, interpretation, and reporting of results will be included. Course fee required.

### **ASLS 782 - Pediatric Audiology (3)**

Philosophy, diagnosis, and management of hearing loss in children. Includes auditory development, appropriate hearing assessment techniques for infants and children, interpretation of results, administering follow-up, and effective caregiver counseling.

### **ASLS 792 - Externship in Audiology (3-12)**

Prerequisites: 16 credits of internship in any combination of ASLS 592 or ASLS 692, and consent of clinical coordinator. Full-time, broad-based clinical experience in the diagnosis, treatment, management and prevention of hearing loss in a supervised off-campus site. Enrollment is during the 4th year of the Au.D. program. S/U graded. Repeatable, maximum of 27 credits.

### **ASLS 794 - Practicum in Animal Awareness (2)**

Exploration of the unique aspects of working with animal owners and professionals in animal care and veterinary settings.

### **ASLS 794 - Practicum in Animal Awareness (2)**

Exploration of the unique aspects of working with animal owners and professionals in animal care and veterinary settings.

### **ASLS 796 - Practicum in Animal Audiology (2)**

Prerequisite: ASLS 696. Perform brainstem auditory evoked response screening and diagnostic testing with canines and equines. S/U graded. Repeatable, maximum of four credits.

### **ASLS 999 - Graduate School Continuous Registration (1)**

To permit a graduate student to continue making progress in a degree program. S/U graded. Repeatable, no limitations.

## **AST - Astronomy**

College of Natural and Health Sciences

Department of Physics and Astronomy

- Contact (970) 351.2961
- [www.unco.edu/nhs/physics](http://www.unco.edu/nhs/physics)

### **AST 622 - Directed Studies (1- 4)**

Individualized investigation under the direct supervision of a faculty member. (Minimum of 37.5 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

## **BAAC - Accounting**

### **Kenneth W. Monfort College of Business**

#### **Department of Accounting and Computer Information Systems**

- Contact (970) 351.2855
- <http://mcb.unco.edu/departments/Accounting.cfm>

### **BAAC 521 - Contemporary Issues in Financial Reporting Topics (3)**

Prerequisite: Master of Accounting students or consent of instructor. A theoretical and activity-based course which evaluates the conceptual development and application of current authoritative pronouncements, as well as examines some emerging issues in financial reporting.

### **BAAC 523 - Cost and Managerial Accounting II (3)**

Prerequisite: Master of Accounting students or consent of instructor. 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 523 for graduate credit will include a major research project and presentation.

### **BAAC 524 - Professional Accounting Research, Communications, and Ethics (3)**

Prerequisites: Master of Accounting students or consent of instructor. This course emphasizes professional accounting research and the communication of the research findings to a variety of audiences. Students will use a variety of accounting research tools and databases. Research projects will be conducted in a variety of accounting situations. Also, the course is designed to raise students' level of awareness of interpersonal and global communication skills. Additionally, the course will address the ethical issues related to accurately communicating accounting and business information.

### **BAAC 525 - Contemporary Issues in Auditing Topics (3)**

Prerequisite: Master of Accounting students or consent of instructor. This course builds on skills obtained in the beginning auditing (assurance) course. The primary goal is to further develop student ability to understand and apply audit planning, evidence gathering, and reporting procedures. Professional communication and research skills are emphasized. Topics vary, depending on issues, trends and developments in the area of study.

**BAAC 527 - Governmental and Institutional Accounting (3)**

Prerequisite: Master of Accounting students or consent of instructor. 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. This course addresses advanced topics of current interest in the evolving field of governmental and not-for-profit entities. This course will include a major research project and presentation.

**BAAC 528 - Contemporary Issues in Accounting Information Systems (3)**

Prerequisite: Master of Accounting students or consent of instructor. Advanced topics in accounting systems within an enterprise-wide framework including conceptual modeling, database design and implementation, controls, and emerging issues. Topics vary depending on trends and developments in area.

**BAAC 529 - Contemporary Issues in Tax (3)**

Prerequisite: Master of Accounting students or consent of instructor. This course examines current tax issues and integrates them in decision-making, asset prices, and the operational structure of firms. The course will integrate tax with financial accounting by emphasizing the differences and trade-offs between the taxation and financial reporting of a transaction. Topics vary, depending on issues, trends and developments in the area of study.

**BAAC 549 - Income Tax II (3)**

Prerequisites: Master of Accounting students or consent of instructor. An activity course beyond a foundation course. Emphasizes advanced topics in entities taxation. Includes a major research project and presentation. Students will produce and defend a business tax return from start to finish. Presentation will be to class and possibly other stakeholders. Presentations will be integral to the topics listed.

**BAAC 592 - Internship in Accounting (3)**

Prerequisite: Master of Accounting students and consent of instructor. Practical work experience allowing the intern the opportunity to utilize the material learned in accounting courses. S/U graded.

**BAAC 595 - Special Topics in Accounting (1-3)**

Prerequisites: Master of Accounting students or consent of instructor. This seminar course explores advanced topics in accounting. Special topics will be specified by the instructor. S/U or letter graded. Repeatable, under different subtitles.

**BAAC 622 - Independent Research Directed Studies (1-3)**

Prerequisite: Master of Accounting students and consent of instructor. This course is designed to allow the student to perform and complete a research project as an independent project. The research topic will be mutually agreed upon by the student and faculty. The course is individually supervised by a graduate faculty member. Letter graded. Repeatable.

**BACS - Computer Information System**

Kenneth W. Monfort College of Business

Department of Accounting and Computer Information Systems

- Contact (970) 351.2855
- <http://mcb.unco.edu/departments/CIS.cfm>

**BACS 500 - Information Technology for Accounting Controls and Information Security (3)**

Prerequisite: BACS 300 and BAAC 328 with a minimum grade of C- or consent of instructor. Seniors or above. Examines networking, databases, information security foundations, internet and web based data transactions, and other technologies used to support management and accounting controls in all types of organizations.

**BAMG - Management**

Kenneth W. Monfort College of Business

Department of Management and Marketing

- Contact (970) 351.2088
- <http://mcb.unco.edu/departments/Management.cfm>

**BAMG 554 - Managing and Developing People (3)**

Prerequisite: Non-business graduates or MAcc students only. This course covers both organizational behavior and human resource topics focused on describing, predicting, and understanding how people behave in organizations. It provides the knowledge underlying management practices, particularly those focused on the management of human resources.

**BIO - Biology**

College of Natural and Health Sciences

School of Biological Sciences

- Contact (970) 351.2921
- [www.unco.edu/nhs/biology](http://www.unco.edu/nhs/biology)

**BIO 501 - Current Issues in Biology (1- 6)**

Course varies in content, reviewing current issues of biology. S/U graded. Repeatable, under different subtitles, maximum of six credits.

**BIO 502 - Biomedicine and Careers (1)**

Prerequisite: Must be enrolled in the Masters in Biomedical Science program. This course will assist students in preparing for careers in biomedicine. Topics include biomedical ethics, interpersonal skill development, professionalism, the application process, interviewing skills and strategies to finance continued education.

**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.

**BIO 509 - Advanced Placement Biology (2)**

Consent of instructor. Topics in biological sciences and pedagogy related to establishment and maintenance of a biology advanced placement program. S/U graded. Repeatable, no limitations.

**BIO 512 - TA Development Seminar (1)**

Explores instructional strategies related to effective teaching of undergraduate laboratory learning environments. Intended to help develop teaching skills of graduate teaching assistants in the Biology 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 521 - Advanced Genetics (3)**

Prerequisites: BIO 220 and CHEM 331; 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 524 - Genomics (3)**

Fundamental concepts of genomics. Introduction to the tools and techniques in the field of genomics, including genetic transformation, DNA sequencing, cDNA library synthesis, microarray, bioinformatics and sequencing of model organisms.

**BIO 525 - Molecular Genetics (3)**

Prerequisites: BIO 220 and CHEM 481 or CHEM 381  
Examination of protein synthesis, DNA replication, gene expression, gene structure, and regulation of gene expression.

**BIO 526 - Population Genetics (3)**

Prerequisites: BIO 111, BIO 220, MATH 131.  
Investigation of empirical and theoretical population genetics. Topics will include: mutation, selection, migration, drift, genomics, quantitative genetics, human genetics, gene families, linkage disequilibrium, coalescence, and molecular clocks.

**BIO 527 - Bioinformatics (3)**

Prerequisite: BIO 111, BIO 220. An Introduction to the information technology of genomics and proteomics and their application to biological fields as diverse as evolution and medicine.

**BIO 528 - Developmental Biology (3)**

Prerequisite: BIO 220 or consent of instructor. Exploration of animal development. Emphasis on the genetic basis of cell organization and identity during embryogenesis and differentiation. Topics include fertilization, gastrulation, axis specification, patterning, organogenesis, stem cells.

**BIO 529 - Developmental Biology Lab (1)**

(3 laboratory) Corequisite: BIO 528. Classic model organisms such as sea urchin, fruit fly, chick, zebrafish, flat worm, and mouse will be used to observe and manipulate the events of animal development in living organisms. Course fee required.

**BIO 530 - Plant Systematics (4)**

(3 lecture, 3 laboratory) Prerequisite: BIO 111. History of plant taxonomy, phylogenetic systematics, family recognition, and identification of local flora using keys. Native plant collection and field trips required. Participation and course fee required.

**BIO 533 - General Parasitology (4)**

(3 lecture, 3 laboratory) Prerequisite: BIO 101 or BIO 111. Study of 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.

**BIO 534 - Mammalogy (4)**

(3 lecture, 3 laboratory) Prerequisite: BIO 111. Study of the functional biology, ecology and behaviors of mammals. Laboratory stresses the identification and ecology of Colorado species. Field work required. Participation and course fee required.

**BIO 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. Participation fee required.

**BIO 537 - Morphogenesis of Algae and Fungi (4)**

(3 lecture, 3 laboratory) Prerequisite: BIO 111. Study structure, morphogenesis and Phylogenetic relationships of organisms grouped with algae and fungi. Comparative study to explore multiple kingdom concepts. Ecological, medical and economic aspects of mycology and phycology explored. Participation and course fee required.

**BIO 538 - Ornithology (4)**

(3 lecture, 3 laboratory) Prerequisite: BIO 111. Study of the evolution, general biology, diversity, ecology and behaviors of birds. Laboratory emphasis will be on identification. Field trips required.

**BIO 539 - Molecular Ecology (3)**

Prerequisite: BIO 220. Co-requisite: BIO 539L. Investigation of the usage of molecular data to answer ecological questions. Topics include: marker selection, genetic characteristics of organisms, population analyses, phylogenetics conservation genetics, and phylogeography.

**BIO 539L - Molecular Ecology Lab (1)**

(3 Laboratory) Prerequisite: BIO 220. Co-requisite: BIO 539. Laboratory to accompany BIO 539. Study of the techniques used to collect molecular data for ecological and evolutionary studies. Course fee required.

**BIO 540 - Anatomy and Morphogenesis of Plants (4)**

(3 lecture, 3 laboratory) Prerequisites: BIO 111 and BIO 330. Study of the evolution of vascular plants as revealed by anatomy and morphology.

**BIO 541 - Advanced Human Anatomy (3)**

(1 lecture, 6 laboratory) Prerequisites: BIO 341 and BIO 350. An in depth regional study of the anatomical structures of the human body. Spatial relationships among structures are emphasized. Laboratory includes organ and virtual dissection.

**BIO 542 - Molecular and Cellular Laboratory (2)**

(2 Laboratory) Prerequisites: BIO 220 (Genetics) and concurrent or previous enrollment in either BIO 525 (Molecular Genetics) or BIO 550 (Cell Physiology) Study of the theory and techniques currently used to investigate cells and molecules. Development of the laboratory and problem solving skills to successfully conduct experiments. Course fee required.

**BIO 544 - Comparative Vertebrate Adaptations (4)**

(3 lecture, 3 laboratory) Prerequisites: BIO 345 or consent of instructor. Study of the diverse adaptations of vertebrates, from morphological to molecular levels of organization; includes significant overview of relevant primary literature. Participation fee required.

**BIO 545 - Pathogenic Microbiology (3)**

Prerequisite: BIO 351; BIO 381 recommended. This lecture course addresses medically-relevant microorganisms and disease. Particular emphasis is placed upon mechanisms of pathogenesis, including microbial virulence factors and immunopathology, epidemiology and public health.

**BIO 546 - Pathogenic Microbiology Laboratory (1)**

Prerequisite: BIO 351; BIO 381 recommended. Co-requisite 545. Students will learn techniques for the isolation, propagation and identification of pathogenic microorganisms.

**BIO 547 - Immunology and Disease (4)**

Prerequisites: BIO 210 required. BIO 350 and BIO 351 recommended. Study the disease process and immunological resistance to disease with major emphasis on initiation and regulation of adaptive immunity.

**BIO 548 - Virology (3)**

Prerequisites: BIO 351. Recommend BIO 381. Study of the principles of virology, including biochemistry, structure, taxonomy, transmission, isolation and identification strategies.

**BIO 549 - Virology Laboratory (1)**

(3 laboratory) Co-requisite: BIO 548. Study and development of laboratory skills in animal virology, including virus propagation, quantification, and detection assays.

**BIO 550 - Cell Physiology (3)**

Prerequisite: BIO 220 and CHEM 331, recommended CHEM 481 or CHEM 381. Study of the structural and functional relationships among biological macromolecules, cell organelles and cellular processes.

**BIO 552 - Mammalian Physiology I (3)**

Prerequisites: BIO 210 or BIO 345 and CHEM 381 or CHEM 481. In-depth examination of the physiological function of various organ systems of mammals.

**BIO 553 - Mammalian Physiology II (3)**

Prerequisites: BIO 210 or BIO 345 and CHEM 381 or CHEM 481. Continuation of BIO 552. In-depth examination of the physiological function of various organ systems of mammals.

**BIO 554 - General Plant Physiology (4)**

(3 lecture, 3 laboratory) Prerequisites: BIO 111 and CHEM 331. 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. Course fee required.

**BIO 555 - Reproductive and Biology (3)**

Prerequisites: BIO 110 and CHEM 331, recommend CHEM 481. Examination of the anatomy, physiology and mechanisms of reproduction and development with an emphasis on mammals.

**BIO 556 - Current Topics in Biomedical Research (2)**

Prerequisites: BIO 110 and CHEM 331; recommend BIO 450. Examine current biomedical research, molecular, cellular, and physiological studies of human and model systems. Mechanisms regulating normal function, effects of toxicants and drugs, and the role of genetic mutations. Repeatable, no limitations.

**BIO 557 - Mammalian Physiology I Laboratory (1)**

(3 laboratory) Co-requisite: BIO 552. Laboratory experimentation, small group discussion and active learning exercises to complement BIO 552.

**BIO 558 - Mammalian Physiology II Laboratory (1)**

(3 laboratory) Co-requisite: BIO 553. Laboratory experimentation, small group discussion and active learning exercises to compliment BIO 553.

**BIO 559 - Plant Reproductive Growth and Development (3)**

Prerequisite: BIO 354. Advanced study of the genetic, physiological and environmental factors that influence reproductive development in flowering plants.

**BIO 560 - Behavioral Ecology (3)**

Prerequisite: BIO 362. Study of the principles of behavioral ecology, including the evolutionary basis of behavior, economic models of behavior, interspecific interactions, and social behavior.

**BIO 561 - Plant Ecology (3)**

Prerequisites: BIO 110 and BIO 360. Examination of plant communities, effects of environmental factors on plants, as well as community measurement and evaluation, modeling techniques, energy flow through ecosystems, and community dynamics. Participation fee required.

**BIO 562 - Conservation Biology (3)**

Prerequisite: BIO 111. Examination of the fundamental principles of conservation biology (biodiversity, habitat degradation, extinction, restoration, planning) with discussion of current topics (climate change, conservation genetics, landscape vs. ecosystem conservation, sustainable development).

**BIO 563 - Animal Communication (3)**

Prerequisite: BIO 362. Study of the principles of animal communication, including signal modalities, signal design and signal evolution.

**BIO 564 - Plant Ecology Lab (1)**

Prerequisites: BIO 110, BIO 360. Examines methods of plant ecology including monitoring community structure and function, population dynamics, physiological tolerance, and data analysis. The lab will include both field and laboratory experiments.

**BIO 565 - Current Topics in Ecology and Evolutionary Research (2)**

Prerequisites: BIO 111, BIO 360 and BIO 465. Examine topics in current ecology and evolutionary biology research. Focus on speciation, microevolution, range shifts, species interactions, and ecosystems. Topics will include both applied and basic studies. Repeatable, maximum of 6 credits.

**BIO 566 - Animal Physiological Ecology (3)**

Prerequisites: BIO 110 and BIO 360. Study of animal function and how environmental conditions influence the physiology of animals. Emphasis will be on vertebrate systems but invertebrates will be included.

**BIO 567 - Animal Physiological Ecology Laboratory (1)**

(3 laboratory) Prerequisites: BIO 110 and BIO 360, BIO 566 concurrently. Laboratory to accompany BIO 566 - animal physiological ecology. Includes instruction on the theory behind and use of physiological equipment/instruments and an examination of how environmental conditions affect animal function.

**BIO 568 - Disturbance Ecology (3)**

Prerequisites: BIO 110 and BIO 360. Study of natural and anthropogenic disturbances (fire, flood, insects outbreaks) effects on populations, communities and ecosystem function.

**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 570 - Coevolution in Ecological Systems (3)**

Prerequisites: BIO 360, BIO 465 or consent of instructor. Survey of contemporary primary literature on coevolution and ecology, including symbiosis, mutualism, competition, pollination, mimicry, parasitism, seed dispersal, etc.

**BIO 572 - Species and Speciation (3)**

Prerequisite: BIO 465 Examination of the theoretical and pragmatic perspectives of species recognition and critical review of speciation. Includes considerations of species recognition in context of conservation biology.

**BIO 573 - Animal Communication Laboratory (1)**

Prerequisite: BIO 362. Co-requisite: BIO 563. Laboratory to accompany BIO 563 Animal Communication. Study and application of research techniques in the field of Animal Communication. Students will plan and conduct research.

**BIO 574 - Behavioral Ecology Laboratory (1)**

Prerequisite: BIO 362. Co-requisite: BIO 560. Laboratory to accompany BIO 560 Behavioral Ecology. Study and application of research techniques in the field of Behavioral Ecology. Students will plan and conduct research.

**BIO 576 - Pharmacology (3)**

Prerequisite: BIO 246 or BIO 350 or BIO 552. A mechanistic study of pharmacokinetics (absorption, distribution, metabolism and excretion of drugs) and pharmacodynamics (drug actions and interactions). Examples of important bioactive chemicals will be discussed.

**BIO 580 - Mammalian Endocrinology (3)**

Prerequisites: BIO 210 and BIO 350. Survey of endocrinology including neuroendocrine physiology, mechanisms of action, regulation of homeostasis, endocrine dysfunction, quantifying hormones.

**BIO 581 - Neurobiology (3)**

Prerequisite: BIO 350 or consent of instructor. Examination of the development, anatomy, and physiology of the nervous system, with an emphasis on humans. Topics will include mechanisms mediating behavior and major brain diseases.

**BIO 582 - Cancer Biology (3)**

Prerequisite: BIO 220. Study the principles of cancer biology including the mechanisms involved in its progression; the roles of DNA damage, heredity, and the environment; and treatment and prevention.

**BIO 584 - Current Topics in Biological Education Research (2)**

Prerequisite: None. Examine current topics in biological education research. Focus on teaching, learning, and assessment of biology as well as school policy and curriculum development. Repeatable, maximum of 6 credits.

**BIO 585 - Topics in Field Biology (1-10)**

After preparatory work, study biology in the field on a state, national or international basis.

**BIO 591 - Biology Roundtable (1)**

An intensive facilitated discussion on current and cutting-edge topics in the Biological Sciences taken from peer reviewed literature and input from visiting scholars. S/U graded. Repeatable, no limitations.

**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 594 - Foundations of Biological Research (2)**

Required for all incoming master's students in biological sciences. Introduction to the scientific method and experimental design, written and oral presentation skills, grantsmanship, ethics and responsible scientific conduct.

**BIO 595 - Special Topics in Biology (1- 6)**

Study of any biological topic at an advanced level. Repeatable, maximum of six credits.

**BIO 596 - Foundations of Clinical Research (2)**

Prerequisite: Must be enrolled in the Masters in Biomedical Science program. Required for students completing a Master's in Biomedical Science degree. This course examines the components of clinical research including design, conduct, analysis of trials, and dissemination of results.

**BIO 598 - Protein Structure and Function (1- 4)**

A comprehensive assessment of protein structure, folding, functional characteristics, enzyme kinetics, and structure determination technologies.

**BIO 622 - Directed Studies (1- 4)**

Individualized investigation under the direct supervision of a faculty member. (Minimum of 37.5 clock hours required per credit hour.) Repeatable under different subtitles, maximum concurrent enrollment is two times.

### **BIO 631 - Teaching College Biology (3)**

This course prepares students for everyday classroom teaching experiences in college biology including small and large classrooms and laboratory settings using a variety of best-practices teaching strategies.

### **BIO 632 - College Biology Course Development (3)**

This course prepares students to effectively design college biology course curriculum using backwards design to develop learning objectives, syllabi, student assessments, and evaluation of course effectiveness.

### **BIO 691 - Seminar in Biological Sciences (1)**

Invited speakers will present research topics in content biology and biology education. Graduate students will also present their research proposals and final defenses of their theses or dissertations. Repeatable, no limitations.

### **BIO 693 - Review of Biological Literature (3)**

This course teaches students how to conduct a thorough review of scientific literature on a focused biological topic and prepare a written comprehensive report following standard scientific format and style.

### **BIO 697 - Graduate Research (1- 6)**

Consent of instructor. Qualified graduate students spend a minimum of 38 clock hours per semester hour on a research problem. Before credit is given, a well written report must be submitted to the instructor.

### **BIO 699 - Thesis (1- 6)**

S/U graded. Repeatable, no limitations.

### **BIO 792 - Doctoral Supervised Teaching (1- 6)**

Experience supervised college level biological sciences teaching. Develop course outlines and effective teaching techniques. Students must have completed oral and written comprehensive exams prior to being eligible for this course.

### **BIO 797 - Doctoral Proposal Research (1- 4)**

Four credits required of all doctoral students before admission to candidacy. S/U graded.

### **BIO 799 - Doctoral Dissertation (1-12)**

Twelve credits required of all doctoral candidates. S/U graded.

## **CH - Community Health**

College of Natural and Health Sciences

School of Human Sciences

- Contact (970) 351.2755
- [www.unco.edu/nhs/publichealth](http://www.unco.edu/nhs/publichealth)

### **CH 500 - Stress Management (3)**

A holistic approach to stress management, with cognitive and theoretical knowledge and stress reduction techniques to prevent or alleviate physical symptoms of stress.

### **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 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 - Behavior Change Theories (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 will examine specific health problems, and the nature of health care delivery worldwide.

### **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 520 - Foundations in Public Health (2)**

Examines the historical and conceptual basis, key issues, advancements and the core functions of the public health system. This course is offered through CSPH as PUBH 6600.

### **CH 525 - Contemporary Issues in School Health (3)**

No prerequisite. This course examines the relationship between child/adolescent health and their school experience. The course will be organized around the eight components of the Coordinated School Health Program Model. Current issues and approaches to school health will also be presented.

### **CH 530 - Strategies for Community Health Promotion (3)**

This course examines the effectiveness of a wide range of community strategies used in health promotion/disease prevention programs.



**CH 532 - Physical Activity and Public Health (3)**

An examination of physical activity and the public health implications of physical inactivity. Emphasis will be placed on epidemiologic evidence of physical activity benefits and chronic disease prevention.

**CH 533 - Physical Activity Interventions in the Community (3)**

This course is designed to acquaint students with theory-based interventions to increase participation in physical activity. Interventions discussed will include evidence-based approaches targeting various sub-populations and settings within the community.

**CH 535 - Effective Community Health Engagement (3)**

Prerequisite: CH 530 or consent of instructor. This course will identify and apply strategies needed to effectively engage in communities.

**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 570 - Field School (3- 6)**

Consent of Instructor. Experience in rural health and human services related to working with marginalized populations. S/U Graded. Repeatable. Field trip fee required.

**CH 575 - Public Health Issues in Reproductive Health (3)**

No prerequisite. An extensive comprehensive elective designed to expose graduate students to the importance of reproductive health and the impact it has on public health issues.

**CH 598 - Public Health Issues in Reproductive Health (3)**

An extensive comprehensive elective designed to expose students to the importance of reproductive health and the impact it has on public health issues.

**CH 610 - Program Planning and Evaluation (3)**

Prerequisite: CH 509 or consent of instructor. Theories and practices of program planning and evaluation including needs assessment, planning approaches, election of strategies, data collection and analysis, evaluation design, program implementation and utilization of evaluation data.

**CH 612 - Statistical Applications in Public Health (3)**

Applied statistical methods for students in public health. Developing statistical literacy and an ability to perform basic statistics, data summarizations and hypothesis testing using statistical software will be emphasized.

**CH 615 - Methods in Public Health Research and Evaluation (3)**

Prerequisite: CH 612. Public health research methods, qualitative/quantitative research designs, data collection/analysis and program evaluation. Students will conduct an evaluation project with a local public health agency.

**CH 620 - Epidemiology (3)**

Prerequisite: CH612. 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)**

Prerequisite: Consent of instructor. Individualized investigation under the direct supervision of a faculty member. (Minimum of 37.5 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

**CH 635 - Policy, Advocacy, Leadership & Management in Community Health (3)**

Prerequisite: PUBH 6600 or consent of instructor. Health policy, advocacy, leadership and management is a multidisciplinary field of public health concerned with the delivery, quality and costs of public health services.

**CH 686 - MPH Masters Project (2)**

Prerequisite: CH 693 (or concurrent) and consent of instructor. Independent project in which student demonstrates public health competencies. Includes public presentation of capstone paper.

**CH 693 - MPH Practicum (2)**

Prerequisites: CH 610 and consent of instructor. MPH students must successfully demonstrate competencies and integrate knowledge. Through this practicum, theory and skills will be applied in a public health setting.

**CH 699 - Thesis (1- 6)**

Optional for Master of Public Health candidates in Health Education. Repeatable, no limitations.

**CH 999 - Graduate School Continuous Registration (1)**

To permit a graduate student to continue making progress in a degree program. S/U graded. Repeatable, no limitations.

## CHEM - Chemistry

College of Natural and Health Sciences

Department of Chemistry and Biochemistry

- Contact (970) 351.2559
- [www.unco.edu/nhs/chemistry](http://www.unco.edu/nhs/chemistry)

### CHEM 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.

### CHEM 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. Repeatable, no limitations.

### CHEM 510 - Green Chemistry for Secondary Educators (3)

(2 lecture, 3 laboratory) Applications of green chemistry principles to secondary science classrooms, techniques for recycling chemicals, reducing hazardous chemical use and waste. Must have completed 1 year of general chemistry.

### CHEM 522 - Advanced Analytical Chemistry (3)

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 332. Theory and application of IR, NMR, UV visible and mass spectroscopy.

### CHEM 525 - Forensic Chemistry (4)

(3 lecture, 3 laboratory) Prerequisite: Graduate standing or permission of instructor. Application of statistics and chemistry to the analysis of evidence gathered in criminal investigations such as drugs, fibers, gun shot residue, explosives, and accelerants. Course fee required.

### 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 452. An advanced treatment of organic reaction mechanisms and molecular orbital chemistry.

### CHEM 541 - Solid State Chemistry (3)

Prerequisite: CHEM 442 or equivalent. Bonding and crystal structure, crystallography, synthesis and characterization techniques, and structure-property relationships unique to solid-state materials

### 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. Co-requisites, CHEM 321. Chemical kinetics, quantum theory of atoms and molecules and statistical thermodynamics.

### CHEM 552 - Physical Chemistry II (4)

Prerequisite: CHEM 551. The properties of matter, thermodynamics, thermochemistry and kinetic molecular theory.

### CHEM 560 - Environmental Chemistry (2)

(1.5 lecture, 5 laboratory) Prerequisite: CHEM 331. The effect of chemicals on the environment.

### CHEM 581 - General Biochemistry I (4)

Prerequisite: CHEM 332 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 581. A continuation of CHEM 581. Bioenergetics, electron transport systems, metabolism of carbohydrates, lipids, nucleotides and amino acids.

### CHEM 587 - Toxicology (3)

Prerequisites: CHEM 482 or equivalent. 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 an advanced topic in chemistry or chemical education. Repeatable, may be taken three times.

**CHEM 622 - Directed Studies (1- 3)**

Individualized investigation under the direct supervision of a faculty member. (Minimum of 37.5 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

**CHEM 682 - Problems in Teaching Chemistry (3)**

Problems encountered in teaching chemistry and approaches to their resolutions will be considered. The formal nature of concepts, management of laboratories, safety, demonstrations are illustrative of areas of discussion.

**CHEM 693 - Chemical Research (1- 9)**

Develop, complete, and defend master's level research project in chemistry. S/U graded. Repeatable, no limitations.

**CHEM 695 - Thesis Proposal (1)**

The student will develop a committee approved research proposal based on current literature.

**CHEM 699 - Thesis (1- 6)**

Required of candidates in the MS programs in chemistry that are completing theses. Repeatable, maximum of 6 credits.

**CHEM 755 - Supervised Practicum in College Teaching (1- 4)**

Supervised practice in college teaching for doctoral candidates with observation used as a basis for analysis of learning experiences. Repeatable, maximum of four credits.

**CHEM 793 - Doctoral Research Practicum-Chemistry (1- 9)**

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, no limitations.

**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.

**COMM - Communication**

College of Humanities and Social Sciences

School of Communication Studies

- Contact (970) 351.2405
- <http://www.unco.edu/hss/communication-studies/programs/>

**COMM 502 - Teaching College SPCO Courses (1)**

Required of all graduate teaching assistantships in COMM. S/U graded. Repeatable, maximum of three credits.

**COMM 504 - Rhetorical Theory (3)**

Systematic review of the major contributions of rhetorical theorists for their probable impact on communication.

**COMM 512 - Persuasion (3)**

Investigate the implications of contemporary research and theory in the area of persuasion and attitude change.

**COMM 514 - Interpersonal Communication (3)**

An overview of current theoretical perspectives on interpersonal communication and representative supportive research.

**COMM 515 - Group Communication (3)**

Examine theories of group process, major group process research findings and how the principles derived from communication literature can be applied to small groups.

**COMM 517 - Organizational Communication (3)**

Examine theories of organizing, research findings on organizational communication and how the principles derived from communication impact institutions.

**COMM 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.

**COMM 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.

**COMM 542 - Seminar in Political Communication (3)**

Graduate students only. Analysis and criticism of political discourse using theories and methods from the discipline of communication.

**COMM 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.

**COMM 553 - Professional Speaking (3)**

Prerequisites: COMM 100, COMM 101. Theory and practice of advanced speech composition, presentational decisions and techniques in a variety of contexts.

**COMM 561 - Seminar in Speech Communication (1- 3)**

Investigate issues of current concern, for COMM professionals with subject varied according to faculty expertise. Repeatable, maximum of nine credits, under different subtitles.

**COMM 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 communication graduate program. Repeatable, maximum of six credits.

**COMM 600 - Graduate Study in Communication (3)**

Orientation to graduate study with emphasis on learning to conduct literature reviews using the major journals of the communication discipline. Introduction to research using quantitative, qualitative and rhetorical approaches.

**COMM 601 - Qualitative Methods in Communication Research (3)**

Orientation to the methods of qualitative research that are most frequently used in the communication discipline. Practical experience in data gathering and analysis procedures.

**COMM 602 - Quantitative Methods in Communication Research (3)**

Orientation to the methods of quantitative research that are most frequently used in the communication discipline. Practical experience in data gathering and analysis procedures.

**COMM 603 - Communication Theory (3)**

The study of current theories of human communication and the process of theory building.

**COMM 605 - Rhetorical Criticism (3)**

Systematic review of the major contributions of rhetorical criticism theorists for their probable impact on communication.

**COMM 610 - Communication & Technology (3)**

This course is designed to explore issues surrounding the emergence of new technologies and the evolution of the mediated communication process.

**COMM 622 - Directed Studies (1- 3)**

Individualized investigation under the direct supervision of a faculty member. (Minimum of 37.5 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

**COMM 699 - Thesis (1- 6)**

Optional for Master of Arts candidates on recommendation of major advisor. S/U graded. Repeatable, no limitations.

**CRJ - Criminology and Criminal Justice**

College of Humanities and Social Sciences

Department of Criminology and Criminal Justice

- Contact (970) 351.2186
- [www.unco.edu/criminaljustice](http://www.unco.edu/criminaljustice)

**CRJ 510 - Administration of Criminal Justice (3)**

Detailed overview and critical analysis of the three main components of the criminal justice system: police, courts, and corrections. Both historical development of the system and contemporary issues are discussed.

**CRJ 512 - Drugs and Drug Policy (3)**

Overview of the threats and risks of drugs, patterns of use, treatment and prevention, and drug policy in the U.S. Also investigates U.S. influence on policies in some foreign countries.

**CRJ 523 - Problem Oriented Policing & Problem Solving for the 21st Century (3)**

An in-depth examination of the relationship between law enforcement and social problems. Techniques for identifying and analyzing social problems from a law enforcement perspective.

**CRJ 532 - Problem Solving Courts (3)**

A critical evaluation of court innovations linked to the larger problem-solving justice philosophy, which emphasizes enhanced information and information sharing, community engagement, collaboration, individualized justice, offender accountability and outcomes.

**CRJ 542 - Prisoner Re-Entry (3)**

As the number of individuals leaving prison increased dramatically, prisoner re-entry became a focus for practitioners and policy makers. This course will critically evaluate strategies designed to improve re-entry outcomes.

**CRJ 550 - Leadership and Management in Criminal Justice (3)**

Explores the spectrum of criminal justice administration: law enforcement, corrections, and the courts. Topics include financial administration, employee supervision and discipline, civil liabilities, labor relations, professional ethics, and emerging technologies.

**CRJ 560 - Seminar in Criminological Theory (3)**

Advanced study of criminological theories using a broad interdisciplinary perspective. Explain and critique current crime control and crime prevention strategies as they relate to theory, policy and practice.

**CRJ 565 - Transnational Crime (3)**

Overview of transnational crimes with specific examples such as sea piracy, human trafficking, and terrorism. Addresses problems in defining these crimes, understanding their occurrence, and determining ways to combat them. Consent of Instructor.

**CRJ 570 - Seminar in Diversity in Criminal Justice (3)**

Provides an in-depth analysis of diversity issues in the criminal justice system, specifically focusing on the role race/ethnicity, gender, and social class play in the various arenas of criminal justice.

**CRJ 580 - Research Methods in Criminal Justice (3)**

Scientific method of inquiry applied to the study of crime. Emphasis on questions inherent in the study of contemporary issues in criminal justice programs and policies.

**CRJ 582 - Applied Analysis for Criminal Justice (3)**

Prerequisite: CRJ 580. Application of statistical methods for identifying and classifying data; determine appropriate statistical techniques for particular data, know why procedures give the results they do, and interpret output of statistical analyses.

**CRJ 595 - Special Topics in Criminology and Criminal Justice (3)**

Course designed to investigate specific aspects of criminology and criminal justice. Repeatable, under different subtitles, maximum of 9 credits.

**CRJ 610 - Planning and Evaluation in Criminal Justice (3)**

Prerequisite: CRJ 580. Focus on planning involving multiple stakeholders in environments of change. Includes logic models, strategic planning, traditional program evaluation designs, summative and formative evaluations, and participatory action research.

**CRJ 622 - Directed Study (1- 3)**

Individualized investigation under the direct supervision of a faculty member (minimum of 37.5 clock hours required per credit hour). Repeatable, maximum 3 credits.

**CRJ 697 - Capstone Project (1- 3)**

Prerequisite: CRJ 610. Option to CRJ 699 on recommendation of student's advisor. Students complete an advisor approved research project with practical implications relevant to the student's professional interests. S/U graded. Repeatable, maximum of 3 credits.

**CRJ 699 - Thesis (1- 6)**

Option to CRJ 697 on recommendations of student's advisor. Especially for students applying to doctoral programs. Individual original research aimed at acquisition of research skills and application of theory. S/U graded. Repeatable.

**CS - Computer Science****College of Natural and Health Sciences****School of Mathematical Sciences**

- Contact (970) 351.2820
- [www.unco.edu/nhs/mathsci](http://www.unco.edu/nhs/mathsci)

**CS 560 - Problem Solving with Supercomputers (3)**

Prerequisite: CS 101 with a grade of "B" or better (B- is not acceptable) or CG 120 with a grade of "B" or better (B- is not acceptable) or instructor's consent. Basics of Linux administration and scripting in an HPC environment. Utilizing an HPC cluster to carry out a significant research project.

**DNCE - Dance**

College of Performing and Visual Arts

School of Theatre Arts and Dance

- Contact (970) 351.2991
- [www.arts.unco.edu/theatredance](http://www.arts.unco.edu/theatredance)

**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 550 - Dance History - Tribal Cultures to Current Times (3)**

Masters only. Students learn to recognize links between early dance forms and those which are a part of the current cultural scene. Emphasis is placed on connections between dance forms and the accompanying culture, place and events found within a specific time frame along with developments in the other arts. Students will be expected to analyze historical dance forms.

**DNCE 560 - Dance Movement Skills & Pedagogical Approaches (3)**

Masters only. Class involves the study of the technique and performance qualities of Modern and Jazz Dance. The focus is on an in-depth discovery of the methods of pedagogy for dance technique classes.

**DNCE 565 - Interdisciplinary Teaching and Advocacy in Dance (3)**

Masters only. Class involves learning how to use creative movement and dance to teach non-dance concepts and ideas, including using movement and dance to teach multicultural content. Techniques for dance education advocacy will also be presented.

**DNCE 570 - Doing, Teaching & Appreciating Choreography & Creative Dance I (3)**

Masters only. Students learn about presenting creative movement/dance lessons for elementary age children and improvisation/choreography classes for older students. Techniques for appreciating choreography are also presented along with active participation in creative movement, improvisation, and dance making based on basic choreographic principles and forms.

**DNCE 575 - Dance Lesson, Curriculum and Assessment Design (3)**

Masters only. Class includes learning to give differentiated feedback to students in movement skills classes; designing various types of dance-based lessons and curricula (modern, jazz, creative dance, choreography & improvisation); and structuring dance assessment instruments and rubrics.

**DNCE 600 - Movement and Dance - Framing a Research Question (3)**

Masters only. Students learn how to frame a research question and effective research strategies for use in dance education contexts. In addition, students produce a protocol, requiring detailed preparatory research, testing of ideas, and presentation of theories and concepts in practice. Students work under faculty supervision and prepare a documented written report.

**DNCE 690 - Thesis I (3)**

Masters only. Course builds on the initial research class by helping students refine a thesis topic and determine appropriate research methods. The course also includes work to define the purpose of the thesis, its significance, and possible sources for the review of literature. In addition, students describe a potential population of students for their project, along with the steps to be taken to complete their project. Possible thesis projects are: a research-based dance performance, research-based dance curriculum, or qualitative study exploring a dance education question.

**DNCE 693 - Popular Dance Forms (3)**

Masters only. Students learn movements from a number of popular dance forms—salsa, ballroom, hip hop, krump, steppin', Bollywood, country western line dancing basic movements from yoga. Work on teaching progressions, pedagogical tips lesson planning are also included.

**DNCE 695 - Doing, Teaching and Appreciating Choreography II (3)**

Masters only. Class is an investigation of dance improvisation and choreography as it relates to dance pedagogy and philosophy. More advanced techniques for appreciating choreography are presented along with active participation in improvisation and dance making based on intermediate choreographic principles and forms. Learning to design choreographic experiences for students of different ages and ability levels is also part of this class.

**DNCE 697 - Dance Production Techniques (3)**

Masters only. Course covers dance production techniques to give students an overview and practical experience in all aspects of producing a dance concert or dance performance for primary level through college age students.

**DNCE 699 - Thesis II (3- 6)**

Masters only. Course involves step-by-step process of writing and defending candidate's thesis project. S/U graded.

**ECLD - Culturally & Linguistically Diverse Education**

**College of Education and Behavioral Sciences**

**School of Teacher Education**

- Contact (970) 351.2908
- [www.unco.edu/cebs/teachered](http://www.unco.edu/cebs/teachered)

**ECLD 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.

**ECLD 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.

**ECLD 589 - Language, Linguistics, and Education (3)**

Prerequisite: ECLD 594. Focusing on critical analysis of the use of language in a variety of teaching contexts, the course deepens the knowledge of systemic functional linguistics in L2 teaching and learning.

**ECLD 590 - Communication and Technologies for Multilingual Education (3)**

This course prepares teachers of English and other languages to use current technologies for language education in a variety of second or foreign language contexts.

**ECLD 591 - Multilingualism and Multilingual Education: Theories and Practices (3)**

This course provides historical and international perspectives on multilingualism, multilingual and multiliterate development, and current models of multilingual education including dual language program models.

**ECLD 592 - Second Language Acquisition Theory (3)**

Designed for educators who are preparing to teach or who are already teaching, English or another language as a second or an additional language. Introduces students to the existing body of theory related to second language.

**ECLD 593 - Language, School and Society (3)**

Designed for educators who are preparing to teach, or are already teaching, culturally and linguistically diverse learners. Primary focus is on the interactions and interrelationships between and among society, language, and institutions of schooling.

**ECLD 594 - Foundations of Language and Linguistics for ESL/Bilingual Educators (3)**

Provides teachers of English language learners with an introduction to linguistics and its application in the ESL classroom: linguistic concepts about oral and written language use and development.

**ECLD 596 - Effective Instruction in Culturally and Linguistically Diverse Education (3)**

This course examines methods of instruction and assessment that target systematic integration of language and content in specific curriculum content areas. Course readings and projects strengthen teachers' theoretical foundation while providing hands-on experience in implementing effective instruction and assessment that address the new Colorado English Language Proficiency Standards (WIDA) to enhance student learning. Topics include selection and effective use of resources and materials, instructional and assessment strategies, program planning and improvement, communicating results of assessments to stakeholders, emphasizing culturally and linguistically responsive pedagogies.

**ECLD 600 - Literacy and Content Area Instruction in Spanish Bilingual Classrooms (3)**

Prerequisite: Fluency in Spanish as indicated by the Spanish 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 and content area knowledge to be used in the bilingual classroom.

**ECLD 602 - Teaching Culturally & Linguistically Diverse Learners (3)**

This course will introduce future teachers to the theoretical, practical, and legal aspects of the education of culturally and linguistically diverse learners.

**ECLD 603 - Methods and Assessment in Culturally & Linguistically Diverse Education (3)**

Prepares teachers to apply research-based methods and assessments for culturally and linguistically diverse learners.

**ECLD 604 - Field Experience in Culturally & Linguistically Diverse Education (3)**

Prerequisites: ECLD 602 and ECLD 603. Provides teachers with the opportunity to observe and participate in instructional strategies for culturally and linguistically diverse learners.

**ECLD 605 - Seminar in Multilingual Teaching and Learning I (3)**

Prerequisites: 21 credits in the Culturally and Linguistically Diverse Education program. This course discusses research and practice topics relevant to the education of culturally and linguistically diverse students. It requires the design of a research project on one of the course areas.

**ECLD 606 - Culturally and Linguistically Diverse Learners in the U. S. Educational System (3)**

This course will introduce students to the history of major language minority groups attending school in the United States and will explore the influences of language and culture on schooling.

**ECLD 607 - Seminar in Multilingual Teaching and Learning II (3)**

Prerequisites: 21 credit hours in the MAT Culturally and Linguistically Diverse Education program to include SRM 600 and ECLD 605. Students will synthesize and integrate what has been learned in the content, pedagogy, and research methods coursework, with classroom teaching and other work-related experiences. Must complete a culminating research project.

**ECLD 610 - Practices in ESL/EFL Instruction and Assessment (3)**

Drawing upon recent developments in linguistics and socio-cultural theories of second language acquisition, this course prepares ESL/EFL instructors to work with either adult ESL learners in English speaking countries or EFL learners in different international settings. The course examines theory driven, research informed, and evidence-based classroom instructional and assessment strategies that enhance social and academic language development. Candidates will engage in planning for standards-based ESL/EFL content instruction and the design of assessments for a variety of purposes including placement of learners, program planning and improvement, and communicating results of assessments to stakeholders. The course should be taken with either EDFE 501 (1 credit) or ECLD 604 (3 credits) which provides students with opportunities for hands-on experiences that deepen understanding and strengthen competencies.

**ECLD 622 - Directed Studies (1- 3)**

Individualized investigation under the direct supervision of a faculty member. (Minimum of 37.5 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

**ECLD 746 - Sociocultural Theories and Culturally & Linguistically Diverse Education (3)**

Introduction to sociocultural theories of learning and development and their relevance for understanding and supporting effective teaching and learning among culturally and linguistically diverse students.

**ECLD 999 - Graduate School Continuous Registration (1)**

To permit a graduate student to continue making progress in a degree program. S/U graded. Repeatable, no limitations.

**EDEC - Early Childhood Education**

College of Education and Behavioral Sciences

School of Teacher Education

- Contact (970) 351.2908
- [www.unco.edu/cebs/teachered](http://www.unco.edu/cebs/teachered)

**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)**

Supervised professional activity in early childhood education, approximately two hours per day. A well-written paper must be filed 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. Acquisition of knowledge and skills to analyze classroom practice and to apply theory and research to best practice.

**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 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 sociodrama, therapy and cognition. Motor, emotional and psychosocial development explored. Play of successive development phases and individual meaning for each child emphasized.



**EDEC 999 - Graduate School Continuous Registration (1)**

To permit a graduate student to continue making progress in a degree program. S/U graded. Repeatable, no limitations.

**EDEL - Elementary Education**

College of Education and Behavioral Sciences

School of Teacher Education

- Contact (970) 351.2908
- [www.unco.edu/cebs/teachered](http://www.unco.edu/cebs/teachered)

**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)**

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)**

Integration of visual art, music and physical education. Students learn discipline specific instruction techniques, strategies, activities and content knowledge to effectively integrate these areas across the curriculum.

**EDEL 544 - Elementary Student Teaching and Capstone Seminar (8)**

Prerequisites: Full admittance to PTEP and 3.0 GPA. Meets student teaching requirement for certification. S/U graded. Supervision fee required.

**EDEL 550 - Effective Instruction in Elementary School Social Studies (3)**

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 555 - Effective Instruction in Elementary School Reading, Writing and Communicating (3)**

This course provides an introduction to teaching/learning strategies in reading, writing, speaking and listening including ways to plan, teach and assess student growth in literacy skills.

**EDEL 601 - Practicum and Capstone Seminar in Elementary Education (3)**

Provides opportunities for students to collaborate in the completion of a teacher research project, revise the curriculum development project, finalize the professional portfolio, prepare for and take the comprehensive examination.

**EDEL 602 - Elementary School Practicum (2)**

Prerequisite: EDFE 125. This practicum is designed to immerse students in the elementary school classroom. Opportunities for teacher candidates to inquire, analyze and reflect on classroom routines and practices. Supervision fee required.

**EDEL 612 - Elementary School Curriculum (3)**

A review and analysis of competing conceptualizations of the elementary-school curriculum. Teachers develop, implement, and evaluate curriculum in elementary classrooms. Current topics, trends and issues in curriculum are explored.

**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)**

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)**

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 37.5 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

**EDEL 640 - Instruction in Language Arts and Literacy in the Elementary School (3)**

Teachers develop their abilities as readers, writers and thinkers as they examine current research and practice in language arts and literacy instruction.

**EDEL 645 - Assessment of Language Arts and Literacy in the Elementary School (3)**

Prerequisite: EDEL 640 and teaching experience. A consideration of problems, trends, and issues in the assessment of language arts and literacy. Focus on reading and writing as integrated processes.

**EDEL 650 - Researched Application for Instruction in Social Studies, K-9 (3)**

Designed for experienced teachers, course focuses on strategies for improving social studies curriculum and instructions. Studies trends, issues and research affecting educating children for citizenship in a pluralistic/democratic society.

**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)**

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 level. 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.

**EDEL 999 - Graduate School Continuous Registration (1)**

To permit a graduate student to continue making progress in a degree program. S/U graded. Repeatable, no limitations.

**EDF - Foundations of Education**

College of Education and Behavioral Sciences

School of Teacher Education

- Contact (970) 351.2908
- [www.unco.edu/cebs/teachered](http://www.unco.edu/cebs/teachered)

**EDF 500 - Conceptions of Schooling (3)**

Co-requisite: EDFE 125. 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 601 - Discourse Analysis in Language and Literacy Research (3)**

Prerequisites: SRM 680. An introduction to the theory and methods of microethnographic discourse analysis approaches to the study of language and literacy events. Students will be encouraged to pursue their individual research interests in work for the course.

**EDF 610 - Teacher Research (3)**

Provides teachers with an analytic framework for understanding different types of teacher research as well as strategies and techniques for conducting research in K-12 schools.

**EDF 618 - Internship in Cultural Studies and Equity (1)**

Prerequisites: EDF 619 and ECLD 606. This course is designed to assist students in the completion of their internship for the Cultural Studies and Equity Graduate Certificate. The course will guide students in applying theoretical and empirical understandings of cultural diversity and equity in their selected field placement.

**EDF 619 - Pluralism in Education (3)**

Assists student in recognizing need for creating processes that enable children, educators and others to support and design a culturally and socially diverse curriculum.

**EDF 622 - Directed Studies (1- 3)**

Individualized investigation under the direct supervision of a faculty member. (Minimum of 37.5 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 (3)**

Examines nature and scope of curriculum planning, instructional design, decision making, and implementation. Delivery and instruction of a curriculum, the process for changing curriculum are investigated.

**EDF 664 - Instruction and Assessment (3)**

Examine current issues in instructional and assessment practices, from social and historical and political perspectives; focus on the research literature on instruction and assessment practices.

**EDF 670 - Introduction of Research Literature (3)**

Examines roots of educational research, its evolution in context of educational reform. Conceptual base in the interpretation, application, and dissemination of current and emerging literature.

**EDF 685 - Philosophical Foundations of Education (3)**

Examine leading contemporary and classical philosophical systems and how they culminate in practical educational goals, systems of justification and practices. Includes the study of educational aims and values.

**EDF 700 - Implementation and Evaluation of Curriculum (3)**

Analysis of major concepts as related to the implementation and evaluation of curriculum. Covers

models of curriculum design and strategies for implementing and evaluating curriculum.

**EDF 701 - Doctoral Seminar (1)**

Focus of the seminar changes. It helps doctoral students to identify research methods, dissertation topic and design, conceptual framework, hypothesis, research and writing strategies. Repeatable.

**EDF 720 - Foundations of Educational Research (3)**

Prerequisite: SRM 602 and SRM 680. An advanced study of modes of inquiry used to address educational issues. Students critically evaluate educational research and identify and study a problem of practice.

**EDF 773 - Literacy as Social Practice (3)**

Exploration of concepts of literacy as social construction; includes aspects of influence on status, power, and mobility within society.

**EDF 775 - History of Education Reform and Change (3)**

Analysis of research on History of American Education with respect to implications for contemporary educational curriculum, reform, and innovation.

**EDF 777 - Social Justice in Education Reform (3)**

Analysis of research and social justice leadership and reform in schools (past, present, future). Critical reflection of teaching and learning that define, support, or hinder social justice in education.

**EDF 778 - Social Theory of Learning and Change (3)**

Examination of individual and collective learning as developmental transformation within and across social organizations, such as schools. Explores concepts of identity, power, meaning, boundaries and interaction between individuals and systems.

**EDF 781 - Perspectives on Curriculum (3)**

Exploration of curriculum theory and practice. The course addresses current orientations and applications of curriculum and its community of scholars and practitioners.

**EDF 787 - Technology, Innovation , and Education (3)**

Analysis of theory and practice-based research relevant to thoughtful design, implementation, and assessment of educational media and technology initiatives.

**EDF 790 - Supervised Practicum in Professional Teacher Preparation (3)**

Course is designed for doctoral student who aspires to teach in teacher preparation programs. Practicum can not be counted for courses taught as a paid Teaching Assistant.

### **EDF 795 - Comprehensive Seminar (3)**

Prerequisite: Students have completed all or are concurrently enrolled in their last program courses. Doctoral students only. Application of education knowledge and research methods. Students independently write a research paper suitable for publication in an education research journal. S/U Graded.

### **EDF 797 - Doctoral Proposal Research (1- 4)**

Candidate must earn a minimum of 4 credit hours for doctoral proposal research in partial fulfillment of the requirements for the degree.

### **EDF 799 - Doctoral Dissertation (1-12)**

Candidates must earn a minimum of 12 credit hours for the dissertation in partial fulfillment of the requirements for the degree

## **EDFE - Educational Field Experiences**

College of Education and Behavioral Sciences

School of Teacher Education

- Contact (970) 351.2908
- [www.unco.edu/cebs/teachered](http://www.unco.edu/cebs/teachered)

### **EDFE 501 - Practicum (1- 4)**

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. S/U graded. Repeatable, no limitations.

### **EDFE 554 - Secondary Practicum (3)**

Prerequisites: EDFE 125 required. The course provides teacher candidates with opportunities to observe, participate in, analyze, and reflect on teaching and learning in secondary school and classroom settings.

### **EDFE 555 - Supervised Student Teaching (1- 9)**

Prerequisites: EDFE 130. Meets student teaching requirement for certification. Graduate students only. S/U graded. Supervision fee required.

## **EDI - Educational Interpreting**

College of Education and Behavioral Sciences

School of Special Education

- Contact (970) 351.2691
- [www.unco.edu/cebs/sped](http://www.unco.edu/cebs/sped)

### **EDI 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.

## **EDLD - Education of Linguistically Different**

College of Education and Behavioral Sciences

School of Teacher Education

- Contact (970) 351.2908
- [www.unco.edu/cebs/teachered](http://www.unco.edu/cebs/teachered)

### **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 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.

### **EDLD 622 - Directed Studies (1- 3)**

Individualized investigation under the direct supervision of a faculty member. (Minimum of 37.5 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

### **EDLD 746 - Sociocultural Theories and Linguistically Diverse Education (3)**

Introduction to sociocultural theories of learning and development and their relevance for understanding and supporting effective teaching and learning among culturally and linguistically diverse students.

### **EDLD 999 - Graduate School Continuous Registration (1)**

To permit a graduate student to continue making progress in a degree program. S/U graded. Repeatable, no limitations.

## **EDRD - Reading**

College of Education and Behavioral Sciences

School of Teacher Education

- Contact (970) 351.2908
- [www.unco.edu/cebs/teachered](http://www.unco.edu/cebs/teachered)

**EDRD 510 - Achieving Effective Instruction in Developmental Reading (3)**

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)**

3.00 GPA required. 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 515 - Content Literacy for Diverse Learners (3)**

Develop understanding of cognitive affective needs of elementary students in reading and writing to learn. Develop sensitivity to individual needs. Participate in related field experiences.

**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 611 - Language, Literacy and Cognitive Development (3)**

Students examine the developmental nature of language, literacy and cognition birth to adulthood by reading and studying classic and current research. The impact of nature and nurture will be examined.

**EDRD 612 - Reading in the Elementary Schools (3)**

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)**

Considers locating and evaluating children's, adolescent, and young adult literature and methods of organizing, teaching, and evaluating at literature program. Examine issues such as censorship, multicultural literature, and style analysis.

**EDRD 615 - Topical Seminar in Reading/ Literacy (3)**

Advanced study, and inquiry, in Reading/Literacy education. Address landmark research, analysis and synthesis of past and present trends and issues, and scholarly pursuit of scholarly topic. Repeatable, may be taken four times, under different subtitles.

**EDRD 617 - Evaluation and Improvements of Literacy Teaching and Learning (4)**

Prerequisites: EDRD 612 and EDRD 620 or equivalent for Reading Education majors. Develop an understanding of the educationally disabled reader and writer in elementary and secondary school. Explore diagnostic and instructional strategies. Required tutoring experiences.

**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 622 - Directed Studies (1- 3)**

Individualized investigation under the direct supervision of a faculty member. (Minimum of 37.5 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

**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 Research (3)**

Study research procedures and their application to reading education. Critique reading research and reading programs and practices. Develop and present a research project in the area of reading/literacy.

**EDRD 670 - Directing a School-Wide Reading/Literacy Program (3)**

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. Supervised clinical instruction of elementary/middle/secondary school disabled readers. Continued professional development, in the areas of collegial communications, reflective coaching, and leadership capacity. May be completed at each level. Repeatable for a maximum of 12 hrs.

**EDRD 693 - Capstone Reading Seminar (1)**

Prerequisites: Register final semester of coursework for MA in Reading. Explores major trends in reading education; synthesis and assimilation of information gleaned from all courses in the MA in Reading Program. 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 745 - Topical Seminar in Reading/ Literacy (2-4)**

Advanced study and inquiry, in Reading/Literacy education. Address landmark research, analysis and synthesis of past and present trends and issues, and scholarly pursuit of scholarly topic. Repeatable, may be taken four times, under different subtitles.

**EDRD 750 - The Contributing Professional in Reading (3)**

Designed for Reading/Literacy professional completing doctorate. Encourages and examines professional contributions encompassed within the reading/literacy field including scholarly activities, organizational memberships, and service roles.

**EDRD 795 - Supervised Practicum in College Teaching (3)**

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 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.

**EDRD 999 - Graduate School Continuous Registration (1)**

To permit a graduate student to continue making progress in a degree program. S/U graded. Repeatable, no limitations.

**EDS - Education of Diverse Students****College of Education and Behavioral Sciences****School of Special Education**

- Contact (970) 351.2691
- [www.unco.edu/cebs/sped](http://www.unco.edu/cebs/sped)

**EDS 581 - Basic Principles of CLD & SPED Education (3)**

This course is designed to provide the political, historical and legal foundations of special education and the education of culturally and linguistically diverse populations, and addresses the educational implications for the teacher and children with unique learning needs.

**EDS 582 - Assessment: Special Education and Culturally and Linguistically Diverse Students (3)**

Students gain knowledge and skills to select, adapt, and conduct assessments, develop Individualized Educational Programs, and use data from assessment to plan instruction within a continuum of service delivery models for diverse children and youth.

**EDS 600 - Field Based Experience - SPED (1)**

Prerequisites: EDS 581, EDS 582, ECLD 594, and EDSE 597. This course is designed for the SPED/CLD graduate student to be provided with opportunities to observe in a variety of special education settings, reflect on the observations and develop teaching related artifacts suitable for use in the specified field experience settings. S/U graded.

**EDS 601 - Field Based Experience - CLD (1)**

Prerequisites: EDS 581, EDS 582, ECLD 594, EDSE 597. Prerequisite or concurrent: ECLD 596. This course is designed so that the SPED/CLD graduate student is provided with opportunities to observe in a variety of second language settings, reflect on the observations and develop teaching related artifacts suitable for use when teaching culturally and linguistically diverse learners who are in the process of learning English. S/U graded.

**EDS 602 - Graduate Research with Diverse Learners (3)**

Consent of instructor. Students will be introduced to educational research, design, analysis and its applicability when reading, designing, or conducting educational research, particularly research that involves K-12 students with special education needs and those who are learning English as a new language.

**EDS 603 - Field Based Experience CLD/SPED (6)**

Consent of instructor. This course is designed for the CLD/SPED graduate student to be provided with opportunities to observe and participate in a variety of special education and second language acquisition settings; reflect on the observations and develop teaching related artifacts suitable for use in specified field experience settings (specifically serving students with special needs and/or those students with culturally/linguistically diverse needs).

**EDSE - Special Education**

College of Education and Behavioral Sciences

School of Special Education

- Contact (970) 351.2691
- [www.unco.edu/cebs/sped](http://www.unco.edu/cebs/sped)

**EDSE 506 - Teaching Students with Special Needs in Inclusive Settings (3)**

Introductory course designed for regular classroom teachers with information about various disabilities and the gifted/talented. Emphasis on identifying, accommodating and adapting for students in inclusive settings.

**EDSE 507 - Field-Based Experience (3)**

The special education teacher candidate will be provided opportunities to observe, analyze and reflect on issues including diversity, professionalism, best practices in teaching, rights and responsibilities, and instruction in a K-12 special education setting. EDSE 507 is a self-paced, module-based course, delivered through Blackboard. Assignments for EDSE 507 are described within eight modules. In addition to the eight modules, observations (70 hours) are required.

**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 509 - Strategies for Students with Exceptionalities (3)**

Provides effective strategies to education all students, particularly at secondary level. Overviews special education process and inclusive education models; characteristics, transitional needs, and culturally/linguistically different exceptional learners and their families.

**EDSE 510 - Foundations of Special Education (3)**

This course is designed to provide the historical and legal foundations of special education and the educational implications for educators of students with exceptionalities.

**EDSE 511 - Learning Environments and Cultural Considerations (3)**

This course provides an overview of learning environments, collaboration and consultation among teachers, related services professionals, and families, and emphasizes culturally appropriate communication strategies.

**EDSE 512 - Assessment, IEP Development and Instructional Planning (3)**

Students gain knowledge and skills for selecting, adapting, and using assessments, developing Individualized Education Programs, and planning instruction within a continuum of service delivery models.

**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 517 - Alternate Field Based Experience (3)**

The special education teacher candidate will be provided opportunities to observe, analyze and compare/contrast special education programming in the United States to that of the teacher candidate's home country. The teacher candidate will reflect on issues including diversity, professionalism, best practices in teaching, students' rights and responsibilities, and instruction as related to K-12 special education settings. EDSE 517 is a self-paced, module-based course. Classroom observation hours are required. Individual assistance is provided as needed.

**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.

**EDSE 530 - Family/Professional Partnerships (3)**

The course promotes in-depth reflection on collaboration with families of young children using a case method of instruction. Family systems perspectives and family centered approaches are emphasized.

**EDSE 531 - Assessment and Planning in Early Childhood Special Education (3)**

The course explores theory and application of assessment methods in Early Childhood Special Education. Cross-disciplinary approaches, matching assessment procedures to the intended purpose, and linked assessment/planning systems are emphasized.

**EDSE 532 - Typical and Atypical Early Child Development: Application to Early Childhood Special Education (3)**

The course will explore typical and atypical patterns of early child development; biological, cultural, and environmental influences; and implications for appropriate practice in Early Childhood Special Education.

**EDSE 533 - Curriculum and Instruction in Early Childhood Special Education (3)**

The course explores recommended practices for inclusive education of young children with developmental concerns. Developmentally appropriate, individually responsive, cross-disciplinary, and evidence-based practices are emphasized across developmental domains.

**EDSE 534 - Research, Policy, and Advocacy in Early Childhood Special Education (3)**

The course explores efficacy research, state and federal policies and systems, nationally recommended practices, and advocacy processes that support high quality services in Early Childhood Special Education (ECSE).

**EDSE 535 - Practicum in Early Childhood Special Education (2-15)**

Prerequisites: EDFE 130. Passed PLACE/PRAXIS text. In their practicum experience, students build on knowledge and competencies gained throughout their master's program to synthesize their knowledge and apply recommended practices in ECSE settings. Supervision fee required.

**EDSE 537 - Practicum in EC/ESCE: Infants and Toddlers (2)**

Prerequisites: Pass ECSE PLACE or PRAXIS II, Pass Elem Content PLACE or PRAXIS II or documented Elem Ed License, Completion of PTEP courses (if any), Instructor consent. Students build on knowledge and competencies gained throughout their master's program to synthesize their knowledge and apply recommended practices in EC/ECSE settings for children birth to 3 years of age. Repeatable, maximum of six hours. Supervision fee required.

**EDSE 538 - Practicum in EC/ECSE: 3-5 years (2)**

Prerequisites: Pass ECSE PLACE or PRAXIS II, Pass Elem Content PLACE or PRAXIS II or documented Elem Ed License, Completion of PTEP courses (if any), Instructor consent. Students build on knowledge and competencies gained throughout their master's program to synthesize their knowledge and apply recommended practices in EC/ECSE settings for children 3-5 years of age. Repeatable, maximum of 6 credits. Supervision fee required.

**EDSE 539 - Practicum in EC/ECSE: 5-8 years (2)**

Prerequisites: Pass ECSE PLACE or PRAXIS II, Pass Elem Content PLACE or PRAXIS II or documented Elem Ed License, Completion of PTEP courses (if any), Instructor consent. Students build on knowledge and competencies gained throughout their master's program to synthesize their knowledge and apply recommended practices in EC/ECSE settings for children 5-8 years of age. Repeatable, maximum of 6 credits. Supervision fee required.

**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 541 - Introduction to Visual Impairments and Deaf-Blindness (3)**

Historical perspectives and current educational services for student with visual impairment and deaf-blindness across the lifespan. Emphasis placed on growth and development and psychosocial effects of visual impairment.

**EDSE 542 - Assessment and Methods for Teaching Students with Visual/Multiple Disabilities (3)**

Prerequisite: EDFE 120 or EDFE 125 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 546 - Principles of Orientation and Mobility (3)**

Philosophy and history of cane instruction, dog guides and other methods of travel. Techniques in developing orientation skills and pre-cane mobility instruction. Gross motor and concept development are presented.

**EDSE 547 - Individual Instruction in Orientation and Mobility (3)**

Prerequisite: EDFE 120 or EDFE 125 and EDSE 546 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 548 - Medical and Educational Implications of Visual Impairments (3)**

Anatomy and 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.

**EDSE 549 - Assessment of Students with Visual Impairments (3)**

Prerequisites: EDSE 541 and EDSE 548. Assessment procedures related to learners with visual impairments. Determination of learning needs and appropriate learning media. Relationship of assessment, IEP development and placement.

**EDSE 550 - Foundations of Deaf Education (3)**

This course is designed to provide the historical, legal, and cultural foundations of deaf education and the educational implications for the teacher and student who is deaf or hard of hearing.

**EDSE 597 - Effective Instruction in Special Education (3)**

This course addresses how to provide curriculum access and effectively teach skills in literacy, math, and general education content areas for students with exceptionalities. Emphasis is placed on evidence-based practices for targeted and embedded instruction of discrete skills in reading and math, and evidence-based strategies for adapting lesson plan formats and delivery modes to assure content access and student progress.

**EDSE 613 - Applied Assessment (3)**

Prerequisites: EDFE 125 and EDSE 512 required. Students develop assessment skills related to students with disabilities focusing on principles, purposes, and the practice of assessment tools, including formal and informal measures. Assessment fee required.

**EDSE 614 - Behavioral Interventions (3)**

Prerequisites: EDFE 125. This course is designed to provide special educators with researched-based assessment and intervention strategies for working with individuals who have behavioral needs.

**EDSE 615 - Special Education Law: Cases and Trends (3)**

Enhances student's skills 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 616 - Scientifically Based Literacy Interventions (3)**

Prerequisites: EDFE 125. This course provides scientifically based literacy interventions for learners with exceptional needs including theoretical models related to interventions addressing the five reading components (i.e., phonemic awareness, phonics, vocabulary, comprehension, and fluency).

**EDSE 617 - Mathematics and Content Area Learning for Students with Disabilities (3)**

Prerequisites: EDFE 125. This course prepares teachers to teach mathematics and content areas to students with disabilities. Scientifically research-based and validated methods will be emphasized for effective instruction, technology use, and collaborative support.

**EDSE 618 - Educating Students with Significant Support Needs (3)**

Prerequisites: EDFE 125. This course addresses planning, managing, and collaboratively delivering educational plans and interventions for students with severe disabilities. It addresses academic, communication, behavioral, medical, and unique individual needs, K-12.

**EDSE 619 - Secondary Services (3)**

Prerequisites: EDFE 125. This course includes an overview of transition services, academic strategies, community-based instruction, and contextual learning in a standards-based framework. Student self-determination and interagency coordination is included.

**EDSE 622 - Directed Studies (1- 3)**

Individualized investigation under the direct supervision of a faculty member. (Minimum of 37.5 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

**EDSE 624 - Communication, Sensory, and Social Skills Strategies for Working with Students with Autism (3)**

This course provides strategies for assessing and planning for instruction in communication, assistive technology, sensory needs and social skills for students on the autism spectrum including service delivery options, developing and implementing communication skills using evidence-based practices settings.

**EDSE 625 - Applied Behavior Analysis for Teachers (3)**

Course content focuses on applied behavior analysis, target behaviors, functional behavior assessment and analysis procedures, recording behavior, interpreting and creating graphic displays, behavioral interventions, reinforcement schedules, self-management, and generalization and maintenance of behavioral change.

**EDSE 626 - Instructional and Behavioral Interventions for Students on the Autism Spectrum (3)**

This course will focus on evaluating current instructional and behavioral interventions for children who are on the autism spectrum. Content will also be designed to provide learners with thorough background knowledge about interventions that are effective and ineffective as evidenced by their outcome data.

**EDSE 630 - Applied Behavior Analysis I (3)**

Prerequisite: APCE 628. This course covers functional behavior assessment, functional assessment of academics, and selecting and prioritizing target behaviors.

**EDSE 632 - Ethics in Applied Behavior Analysis (3)**

Prerequisite: APCE 628. This course covers professional and ethical compliance for behavior analysis.

**EDSE 633 - Applications of Applied Behavior Analysis (4)**

Prerequisite: EDSE 628. This course addresses applied behavior analysis for individuals across the lifespan, including supervision, academic and cultural considerations, persons with autism and traumatic brain injury, and behavior change systems.

**EDSE 640 - Methods of Teaching Students with Visual Impairment (3)**

Prerequisites: EDFE 120 or EDFE 125 and EDSE 541, EDSE 548. Curriculum development, adaptations, and teaching methodology for individuals with visual impairments. Modification of general and functional curricular areas. Emphasis on methods of teaching skills and the core curriculum.

**EDSE 642 - Advanced Seminar in Education of Students with Visual Impairments (3)**

Prerequisites: Enrollment prior to or concurrent with EDSE 644, EDFE 120 or EDFE 125. Role and responsibilities of the teacher of students with visual impairments as an educational team member, professionalism, ethics, consultation and collaborative partnerships, and social skill development. Full PTEP Admittance.

**EDSE 643 - Psychosocial Needs of Individuals with Visual Handicaps (2)**

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 Impairments K-12, 6-12 (6-12)**

Prerequisites: EDFE 120 or EDFE 125; and EDSE 541, EDSE 543, EDSE 546, EDSE 548, EDSE 549, EDSE 640, EDSE 645 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 staffing's, IEP/ IFSP development and parent conferences. Repeatable, maximum of 12 credits.

**EDSE 645 - Advanced Braille Codes and Formats (3)**

Prerequisites: EDSE 543 or proof of mastery from an approved examination or other demonstration of basic literary braille skills. Instruction in Nemeth Code (braille math code). Introduction to advanced braille codes, formats and techniques for teaching skills in each code including music, foreign language, chemistry, and computer braille.

**EDSE 647 - Applied Methods in Orientation and Mobility (3)**

Prerequisites: EDSE 546. Consent of instructor required 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 (3-9)**

Prerequisites: EDFE 120 or EDFE 125 or certification at undergraduate level required. Orientation and Mobility Endorsement students only. 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. Repeatable, maximum of 9 credits.

**EDSE 651 - Collaboration: Deaf/Hard of Hearing (3)**

Prerequisite: Prerequisites: EDFE 120 or EDFE 125 and EDSE 550. Integration of theoretical and practical considerations involved in collaborating with families, service providers, and agencies.

**EDSE 652 - Auditory Skill Development: Deaf/Hard of Hearing (3)**

Develop the knowledge and skills to assess and to teach auditory skill development to individuals who are deaf or hard of hearing. Field experience required.

**EDSE 653 - Speech: Deaf/Hard of Hearing (3)**

Develop knowledge and skills to assess and to teach spoken language to individuals who are deaf or hard of hearing. Field experience required.

**EDSE 655 - Literacy: Deaf/Hard of Hearing (3)**

Develop knowledge and skills to assess and facilitate the development of literacy in individuals who are deaf or hard of hearing. Field experience required.

**EDSE 656 - Curriculum and Instruction: Deaf/Hard of Hearing (3)**

Develop the knowledge and skills to assess and to teach academic content to individuals who are deaf or hard of hearing. Field experience required.

**EDSE 657 - Practicum: Deaf/Hard of Hearing, 6-12 (3-6)**

Individual observation and supervised practice in the education of individuals who are deaf or hard of hearing. Repeatable, maximum of 6 credits.

**EDSE 670 - Legal and Policy Foundations of Special Education (3)**

This course is designed for school personnel who are impacted by special education law. The course focuses on federal and state special education statutes, regulations, and case law.

**EDSE 672 - Leadership in the School Community (3)**

Foundational grounding for prospective teacher leaders to function as highly facilitative special educators who demonstrate leadership necessary to effectively interact with diverse populations including students, teachers, administrators, and parents.

**EDSE 673 - Research and Reflective Practice (3)**

The role of inquiry in identifying promising practices is examined. Action research is highlighted, culminating in a work sample in which scientifically based interventions are designed, assessed, and described.

**EDSE 675 - Issues in Special Education Assessment (3)**

Provides a comprehensive perspective of assessment development, implementation, interpretation, and implications of results to inform educational practices including the practice of monitoring progress and collaborating with individuals, families and professionals.

**EDSE 676 - Assessment and Interventions for Students with Challenging Behaviors (3)**

Designed to provide learners with the knowledge and skills to supervise, coach, assess, and model a continuum of behavior support for teachers, paraprofessionals and other educators in the school, home, and community.

**EDSE 677 - Transition to Adulthood for Youth with Exceptionalities (3)**

This course includes in-depth investigation into the provision of transition services and secondary services. Topics include transition focused standards-based IEP development, self-determination, inter-agency coordination, career educational strategies, and content enhancement routines.

**EDSE 678 - Strategies for Students with Autism/Significant Needs (3)**

This course provides a historical perspective and an overview of assessment, planning and instructional strategies for working with students on the autism spectrum as well as students with significant support needs in K-12 settings.

**EDSE 679 - Interventions for Students with Cultural and Linguistic Differences (3)**

This course critically analyzes issues of equity through a culturally responsive lens as it applies to assessment, interventions, and education of all students including those with diverse backgrounds.

**EDSE 680 - Administration and Supervision of Special Education (3)**

Designed to review problems and strategic opportunities in the administration and supervision of special education programs and services. Emphases include leadership and management, organizational planning and change, and strategic thinking.

**EDSE 681 - Administrative Planning and Program Evaluation in Special Education (3)**

Prepares individuals to conduct program/service evaluations, organize data for decision-making purposes, understand resource utilization, develop collaborative partnerships, and integrate systems of accountability into other administrative functions.

**EDSE 682 - Foundations in Gifted Education (3)**

The purpose of this course is to address the foundational underpinnings of gifted and talented education, including the history of the field; pertinent theories and research in the area of intelligence, creativity, and human development; knowledge of public policy; current brain research; and how these concepts can be applied in educational settings.

**EDSE 683 - The Gifted Learner: Nature and Needs (3)**

The knowledge base of definitions, characteristics, traits and needs of diverse groups of learners with gifts and talents will be examined. Emphasis is placed on identification, assessment and appropriate placements.

**EDSE 684 - Assessment and Identification in Gifted Education (3)**

Prerequisites: EDSE 682 and EDSE 683. The content of this course includes procedures in the assessment of students for the purpose of selecting appropriate and relevant educational strategies, and identifying students for services and programs.

**EDSE 685 - Curriculum & Instructional Practice in Gifted Education (3)**

This course focuses on development of curriculum and implementation of teaching practices centered on discipline-based knowledge, learning styles, cultural variation, depth and complexity of content, and provisions for independent investigation.

**EDSE 686 - Emotional and Social Development of the Gifted and Talented (3)**

This course is designed for learners to develop a knowledge base of the affective, social and cognitive development and needs of the various types of gifted students.

**EDSE 687 - Program Strategies and Services for the Gifted and Talented (3)**

Prerequisite: EDSE 683. This course addresses the basic program models, strategies and services necessary for developing appropriate education for the gifted. Real-life scenarios are basic in determining appropriate strategies and services.

**EDSE 688 - Communication and Leadership in Gifted Education (3)**

Topics include communication, consultation and collaboration for the implementation of education for the gifted and talented. Teachers are a main source of leadership for school, district and state levels.

**EDSE 689 - Creativity in Gifted Education (3)**

The focus of this course is the examination of theories of creativity, research in creativity and the teaching of creative thinking skills in the context of gifted education programming.

**EDSE 690 - Highest Levels of Learning for the Gifted and Talented (3)**

Prerequisite: EDSE 682, EDSE 683, EDSE 685. This capstone seminar is designed for learners to synthesize knowledge and skills regarding cognitive needs of students who are gifted and talented. Emphasis is on enrichment/acceleration, inquiry, seminars, in depth studies.

**EDSE 691 - Practicum in Teaching the Gifted and Talented (1-12)**

Prerequisites: EDSE 683, EDSE 685, and EDSE 687. Emphasize actual teaching and facilitation of learners who are gifted, talented, creative in actual supervised teaching experiences. Repeatable, maximum of 12 credits. Supervision fee required.

**EDSE 693 - Practicum in Special Education (3-12)**

Prerequisites: EDFE 125 and EDSE 510, EDSE 511, EDSE 512, EDSE 613, EDSE 616, EDSE 617, EDSE 618, and EDSE 619.. This course includes an overview of transition services, academic strategies, community-based instruction, and contextual learning in a standards-based framework. Student self-determination and interagency coordination is included. Supervision fee required.

**EDSE 696 - Practicum in Instructional Coaching (1- 9)**

Prerequisites: Course is available to graduate students enrolled in the Intervention Specialist graduate degree program, and other graduate students as approved individually by their University program advisor. Supervised program of orientation, observation, and participation in an assigned placement to develop instructional coaching roles and responsibilities. 45 contact hours of supervised professional coaching and related experiences in a local school district or agency setting for each semester hour completed. Repeatable, maximum of 9 credits

**EDSE 697 - Externship in Special Education: Administration (1-12)**

Prerequisite: Consent of instructor. Supervised program of orientation, observation, and participation designed to provide linkages between theory and practice in leadership and management of special education. Director of Special Education endorsement (post-Masters) only. Repeatable, maximum of 12 credits.

**EDSE 701 - Introduction to Doctoral Study in Exceptionalities (1)**

Develop knowledge, skills, concepts, and attitudes necessary for special and gifted educators to effectively interact with diverse populations. Emphasis on development of individual goals/specific activities within program. S/U graded.

**EDSE 702 - Law of Exceptionalities (3)**

Doctoral level course that includes the analysis and interpretation of federal, state, and case law relevant to teaching students with exceptionalities in a variety of educational settings.

**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 721 - Theories of Exceptionality (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 727 - Seminar in Exceptionalities (3)**

Investigates current issues and trends in special and gifted education, with specific focus on policy, research, curriculum, and instructional strategies.

**EDSE 728 - Seminar in Professional Writing (3)**

Explores purposes, protocols, and processes for professional writing; critical review of student writing by students and faculty. Focus on research reports, practitioner articles, research reviews, and policy analysis.

**EDSE 730 - Externship in Exceptionalities (1- 9)**

Prerequisites: Consent of instructor and submission of an externship proposal prior to enrollment. This course should be taken prior to submission of dissertation proposal. The externship requires 180 hours of supervised activities outside of UNC to expand the learner's knowledge base in a setting related to services for students with exceptionalities. Variable credit (1-9) repeatable, maximum of 9 credits. Supervision fee required.

**EDSE 732 - Research in Exceptionalities (3)**

Examines research design and methods used in special and gifted education. Emphasis on developing skills necessary to understand the relationship between research strategies and problems in special and gifted education.

**EDSE 733 - Preparing Teachers of Students with Exceptionalities (3)**

Gain knowledge and skills to prepare teachers of students with exceptionalities. Content includes course syllabi development, application of research-based practices to course development, and mentoring and evaluating personnel.

**EDSE 744 - Grant Writing Seminar (3)**

Develops grant writing skills essential for doctoral level personnel in special and gifted education, including identifying federal and state funding sources, panel reviews, and development of proposals, budgets, and evaluation.

**EDSE 745 - Advanced Doctoral Seminar (3)**

Prerequisites: EDSE 702 and EDSE 732. Designed for third-year students, this course explores contemporary issues in exceptionality education and identifies strategies to address, ameliorate, and/or accommodate these issues within the greater context of education and society.

**EDSE 797 - Doctoral Proposal Research (1- 4)**

Explores dissertation research problems, theoretical frameworks, methodology, and data analysis procedures expected to develop an approved dissertation proposal. 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.

**EDSE 999 - Graduate School Continuous Registration (1)**

To permit a graduate student to continue making progress in a degree program. S/U graded. Repeatable, no limitations.

**EED - English Education**

College of Humanities and Social Sciences

Department of English

- Contact (970) 351.2971
- [www.unco.edu/english](http://www.unco.edu/english)

**EED 502 - Methods for Teaching Literature in Secondary Schools (3)**

Prerequisites: Enrollment as post baccalaureate student or a graduate student. Selection of literature, use of media, curriculum and classroom organization, standards-based education, assessment and evaluation in a secondary school program. In addition, students will address the introduction of critical theories of literature in the secondary classroom.

**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 - Methods for Teaching Composition in Secondary School (3)**

Prerequisites: Enrollment as post baccalaureate student or a graduate student. Content covers the writing process, composition theory, language and writing development in grades 7-12, with an emphasis on the teaching of writing.

**EED 610 - Interventions in Literacy (3)**

This course will help individuals effectively select and implement research-based literacy interventions as they relate to students' strengths and needs at individual student, classroom, and school-wide levels.

**EII - Education Innovation Institute****EII 604 - Introduction to Applied Causal Evaluation of Policy and Innovation (1)**

Majors Only. Introduction to the certificate program topics including the meaning of causal evaluation, how it can inform decision-making and continuous improvement processes, and a review of relevant math and statistical tools. S/U Graded.

**EII 606 - Methods in Causal Evaluation (2)**

Prerequisite: EII 604. Majors Only or permission of EII Executive Director. Survey of research methods facilitating causal inference. Includes basic introduction to randomized control trials and quasi-experimental methods that can be used when a randomized control trial is not feasible. S/U Graded.

**EII 607 - Ethical Data Management and Analysis I (2)**

Prerequisite: EII 606. Majors Only or permission of EII Executive Director. Use theory to drive analytic decisions and demonstrate how to estimate, interpret, and communicate impact of Randomized Control Trial. Emphasis is on using Ordinary Least Squares regression. S/U Graded.

**EII 608 - Ethical Data Management and Analysis II (2)**

Prerequisite: EII 607. Learn to program and interpret results of applied problems using the quasi-experimental techniques learned in EII 606, including propensity score matching, difference-in-differences, and regression discontinuity S/U Graded.

**EII 609 - Defining Interventions and Using Logic Models (1)**

Prerequisite: EII 604. Students will develop a logic model—a graphical representation that illustrates how the resources and strategies of an intervention are expected to translate into the desired outcomes. S/U Graded.

**EII 610 - Randomized Control Trials in Schools (2)**

Prerequisite: EII 607, EII 609. Majors Only. Determine strategies for conducting Randomized Control Trials within schools considering timing, context, generalizability, strengths, and barriers. If a local RTC is not plausible, make use of existing research and evaluations to inform decision-making. S/U Graded.

**EII 611 - Process Evaluation (1)**

Prerequisite: EII 606 and EII 609. Majors Only. Students will apply a practical process to a theory-based framework to plan, implement, and use evaluation to critically examine the implementation of local educational initiatives. S/U Graded.

**EII 612 - Data Visualization for Educators (1)**

Prerequisite: EII 604. Majors Only. Introduction to design principles and software for developing static and interactive data visualizations. Emphasis is on matching communication and data visualization strategies to target audiences. S/U Graded.

**EII 613 - Research-Practitioner Partnerships (1)**

Prerequisite: EII 604. Majors Only. Framework for developing partnerships among education agencies and research institutions to inform and evaluate policy and innovative practices. Emphasis is on building long-term, sustainable partnerships. S/U Graded.

**EII 614 - Introduction to Cost Studies (1)**

Prerequisite: EII 604. Majors Only. Introduction to identifying and understanding the costs of educational interventions. Overview of how to select the appropriate type of cost study: cost-analysis, cost-effectiveness, or cost-benefit. S/U Graded.

**EII 615 - Application of Cost Analyses to Decision-Making (2)**

Prerequisite: EII 614. Majors Only. A case study approach to identifying costs, calculating cost ratios, and translating the findings into recommendations for decision-making. S/U graded.

**EII 705 - Quasi-Experimental Methods in Education Research (3)**

Doctoral students only. Survey of research methods facilitating causal inference when a randomized control trial is not feasible. Includes regression discontinuity, difference-in-differences, instrumental variables, and propensity score matching. Familiarity with OLS regression required.

**EII 792 - Internship in Applied Quantitative Education Research (1- 3)**

Prerequisite: EII 705. Doctoral students only. Instructor consent required. Student will obtain placement on an applied quantitative education research project that builds on themes from EII 705 such as working with longitudinal data, statistical programming, or policy analysis. S/U graded. Repeatable, no limitations.

**EII 794 - Practicum in Quasi-Experimental Methods Applied to Education Research (1- 3)**

Prerequisite: EII 705. Doctoral students only. Instructor consent required. An in-depth application to an education policy area of one of four quasi-experimental methods (regression discontinuity, difference-in-differences, instrumental variables, or propensity score matching) or a comparison of multiple methods. S/U graded. Repeatable, no limitations.

**ELPS - Educational Leadership and Policy Studies****College of Education and Behavioral Sciences****Department of Leadership, Policy and Development: Higher Education and P-12 Education**

- Contact (970) 351.2861
- [www.unco.edu/cebs/elps](http://www.unco.edu/cebs/elps)

**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 (3)**

Introduces students to qualities of effective leadership and management; organizational skill development; organizational behavior; and change in organizations.

**ELPS 604 - Understanding People: Professional Development and Educational Leadership (3)**

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 (3)**

External influences on policies, curriculum and operations, including demographics, diversity, governance, partnerships, integrated service delivery for children and families, sources of revenue, budgeting and accountability.

**ELPS 606 - Internship in Educational Leadership (1- 9)**

Involves part-or full-time leadership assignments in educational organizations. S/U graded. Repeatable, no limitations. Supervision fee required.

**ELPS 608 - Issues in Educational Leadership: Implications for Practice (3)**

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 37.5 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

**ELPS 650 - School Finance and Budgeting (3)**

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)**

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 - Instructional Leadership and Supervision (3)**

Examine the school leader's role supervising the teaching and learning process. Focus on curriculum development, instructional improvement, and developing capacity of others to become curricular and instructional leaders.

**ELPS 660 - Law and the Administrator (3)**

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)**

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 665 - Policy Analysis and Development (3)**

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)**

Consent of instructor. Understand planning and change theories; strategic planning development; particular emphasis on restructuring educational environments.

**ELPS 667 - Leadership at the District Level (3)**

Study the leadership responsibilities of school district administrators, with special emphasis on the knowledge, skills, and values needed by effective superintendents.

**ELPS 670 - The Principalship: Leadership at the School Site Level (3)**

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 site. S/U graded. Repeatable, no limitations.

**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 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 (1-12)**

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.

**ELPS 999 - Graduate School Continuous Registration (1)**

To permit a graduate student to continue making progress in a degree program. S/U graded. Repeatable, no limitations.



## ENG - English

College of Humanities and Social Sciences

Department of English

- Contact (970) 351.2971
- [www.unco.edu/english](http://www.unco.edu/english)

### 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, no limitations.

### 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 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 writing consultants. Open to K-12 teachers in all disciplines. S/U graded. Repeatable, maximum of 12 credits.

### ENG 594 - Practicum in the Teaching of College Composition (3)

Consent of instructor. Train new teaching assistants in School 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 37.5 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

### ENG 623 - Old English (3)

Students will study the language and literature of Anglo-Saxon England, translating important historical and literary documents in prose and poetry, including works by Alfred, Aelfric, and others.

### ENG 624 - Middle English (3)

An introduction to Middle English literature. Authors considered may include Chaucer, Langland, Kempe, and the Pearl poet. Readings may include drama, narrative poetry, lyric poetry, narrative prose and devotional literature.

### ENG 625 - Studies in the Renaissance (3)

A survey of selected Renaissance texts, including works by Spenser, Shakespeare, Donne, and Milton. Emphasis on historical contexts and recent criticism, including new historicist, feminist, psychoanalytic, and queer approaches.

### ENG 626 - Studies in the Restoration and Eighteenth Century (3)

Representative poetry, prose, and/or drama in England from 1660-1789, including such writers as Dryden, Behn, Astel, Finch, Pope, Swift, Defoe, Fielding, Boswell, Johnson, Gray, Equiano, Barbauld, Wycherley, and Congreve.

### ENG 627 - British Romantic Literature (3)

British Literature, 1780-1835, with emphasis on poetry, the novel, and nonfiction prose. Central issues include the Romantic poetic, the French Revolution, and the growth of the English nation.

### ENG 628 - Studies in the Victorian Period (3)

British literature from 1832-1900, with primary focus on prose fiction, nonfiction, and poetry. emphasis on the intellectual currents of the period as reflected in the literature of the age.

### ENG 629 - 20th Century British Literature (3)

Studies in British literature of the twentieth century, with primary focus on diction, poetry, and non-fiction prose. Emphasis on cultural and intellectual influences on the literature of the era.

### ENG 630 - American Literature to the Civil War (3)

American literature from 1590-1865, with primary focus on prose fiction, nonfiction, and poetry. Emphasis on New and Old-World cultures and the contribution of writing in the creation of cultures.

**ENG 631 - Studies in American Literature Civil War to WW1 (3)**

Seminar in ideas and representative authors during the late 19th and early 20th centuries. An examination of both the intrinsic literary quality of selected texts and their sociopolitical, historical, and cultural contexts.

**ENG 632 - American Literature WW1 to Present (3)**

Studies in American literature 1914 to the present, with primary focus on fiction, poetry, and non-fiction prose. Emphasis on cultural and intellectual influences on the literature of the era.

**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 634 - Studies in World Literature (3)**

Seminars in writers or works in translation to illustrate generic, thematic, national, or cultural approaches to world literature. Repeatable, maximum of nine credits, under different subtitles.

**ENG 638 - Literary Criticism and Theory (3)**

Prerequisite: ENG 600. Historical survey of different theoretical approaches to literary and cultural criticism and pedagogy, including classical, renaissance, and eighteenth-century movements. Emphasis on twentieth-century schools.

**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 640 - History and Theory of Rhetoric (3)**

Readings in selected rhetoricians, including Plato, Aristotle, Augustine, Erasmus, Ramus, Bacon, Montaigne, Campbell, Blair, Bakhtin, Richards, Gates, Cixous, Kristeva.

**ENG 641 - Studies in Composition Research and Pedagogy (3)**

Reading in composition theory and pedagogy, including expressivist, cognitive, historical, rhetorical, social epistemic, discourse, and cultural studies.

**ENG 642 - Film Theory and Analysis (3)**

This seminar explores major debates and developments in film theory from the 1920s to recent decades. Theories are illustrated with the technical and aesthetic analysis of specific films.

**ENG 697 - MA or Creative Project (3)**

Consent of Instructor. Select MA project, a journal-appropriate research paper of 30-50 pages., or creative project (collection of poems, short stories, or novel chapters). Proposal approval by advisor and public presentation (faculty/students) required.

**ENST - Environmental Studies**

University College

- Contact (970) 351.2220
- <http://www.unco.edu/environmental-sustainability-studies/>

**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 509 - Advanced Placement Environmental Sciences/Studies (2)**

Consent of Instructor. Topics in Environmental Sciences/Studies and pedagogy related to establishment and maintenance of an environmental science advanced placement program. S/U graded. Repeatable, no limitations.

**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 - Sustainable Solutions to Environmental Problems (3)**

Examine the structural and functional relationships of the environment with emphasis on present and long-term problems, and understand the validity of solutions for environmental sustainability.

**ENST 595 - Special Topics in Environmental Studies/Sustainability (1- 3)**

Study for undergraduate and graduate students in various topics of sustainability (junior or above, or consent of instructor). Repeatable under different subtitles, maximum of nine credits.

## ESCI - Earth Science

College of Natural and Health Sciences

Department of Earth and Atmospheric Sciences

- Contact (970) 351.2647
- [esci.unco.edu](http://esci.unco.edu)

### ESCI 572 - Industrial Safety (3)

Consent of Instructor. Industrial safety covers the theory of historical occupational hazards, current safety issues, agencies that regulate workplace hazards, accident causation and prevention, and training needed for the workplace.

### ESCI 574 - Principles of Hydrology (3)

Consent of instructor required. Students will explore, quantify and model the movement of water within the hydrologic cycle, focusing on the surface water component. The course will consist of field projects, lectures, and presentations.

### 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 594 - Contemporary Field Issues (1- 6)

Analysis and investigation of contemporary issues and development of research skills in the fields of earth sciences, atmospheric sciences, environmental sciences, or geosciences. The course may include extensive field work. Repeatable, maximum of 15 credits. Course fee 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 605 - Global Change (3)

Prerequisite: 8 hours graduate level science. An online, problem-based course in which students conduct data analysis on climate variability, modeling, and Earth system impacts and apply results to societal issues.

### ESCI 692 - Earth Science Internship (1-15)

Consent of instructor required. Graduates only. 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 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.

## ET - Educational Technology

College of Education and Behavioral Sciences

Department of Educational Technology

- Contact (970) 351.2816
- [www.unco.edu/cebs/edtech](http://www.unco.edu/cebs/edtech)

### ET 500 - Introduction to Instructional Design and Technology (3)

An examination of the field of instructional design and technology in various environments such as K-12, higher education, and business. The focus is on the application of theory and research to practice.

### ET 501 - Introduction to Applications of Educational Technology in PK-12 Education (3)

An application of technology tools in teaching practices to promote technology integration that is seamless and adds significant value to student learning of K-12 curriculum. An investigation of theoretical and practical issues and methods.

### ET 502 - Instructional Design (3)

Covers a design process for determining instructional content and creating effective, efficient, and appealing instruction.

**ET 503 - Instructional Materials Design I (3)**

An introduction to technologies and theories used in the creation of various instructional materials. An emphasis is placed on skill development.

**ET 504 - Instructional Materials Design II (3)**

Prerequisite: ET 503. A continuation of ET 503 with advanced work in technologies and theories used in the creation of various instructional materials. A greater emphasis is placed on effective uses of instructional materials.

**ET 524 - Design of Computer-Assisted Instruction (3)**

Prerequisite: ET 503. A study of the design and development of computer-assisted instruction. The primary goal is to introduce students to the established standards of technology-based, self-paced, individualized learning.

**ET 533 - Information Literacy & Reference (3)**

Study research-based instructional strategies and process models to teach information literacy and information skills in elementary and secondary school libraries.

**ET 535 - School Library Administration and Leadership (3)**

Learn the essentials of organizing and administrating school libraries in elementary and secondary schools.

**ET 538 - Selection, Evaluation and Utilization of Library Materials and Cataloging (3)**

Designed to provide an overview of the processes and procedures required to successfully develop, maintain, and evaluate a collection program of print and non-print materials in a school library.

**ET 601 - Managing People, Projects, and Technology Systems (3)**

An introduction to project management principles within the framework of educational projects. The focus is on planning the design and development of instructional materials.

**ET 602 - Performance Technology for Instructional Environments (3)**

Prerequisite: ET 502. An examination of barriers to effective workplace performance and possible interventions. Topics include motivation, information and educational design, organizational issues, ethical behavior, etc.

**ET 604 - Computer Graphics and Visual Literacy (3)**

In this course you will apply principles of human learning, perception, and motivation to the design and production of visual materials to support learning and performance.

**ET 613 - Teaching in an Online Environment (3)**

Provides students with knowledge and experiences in designing, developing and delivering e-learning courses. Using instructional design principles as a foundation, the course covers the fundamental elements that make web based instruction effective.

**ET 615 - Distance Education: Theories and Practice (3)**

Includes an overview of distance education foundations (design and assessment), application and implementation (interactivity and hypermedia design), and management issues (copyright, course management systems, and policy).

**ET 617 - Development of Online Applications (3)**

An examination of advanced topics in online education. The focus is on the design, development, and implementation of interactive educational systems within a client/server framework.

**ET 622 - Directed Study (1- 3)**

Individualized investigation under the direct supervision of a faculty member. (Minimum of 37.5 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

**ET 627 - Design of Games and Simulations (3)**

Prerequisites: ET 503, ET 524 Design and development of computer-based games and simulations for education. In addition to exploring various tools, this course also will examine research and implementation issues related to various educational settings.

**ET 628 - Design of Multimedia Learning Environments (3)**

Prerequisites: ET 503, ET 524. Investigation of the theory and use of multimedia in educational and training environments. Current tools and related concepts are also examined.

**ET 650 - Case Studies in Performance and Instructional Technology (3)**

This course uses a case study approach to the analysis, design, and evaluation of performance and educational environments. A background in the study of human performance technology is also provided.

**ET 692 - Internship (3)**

Advisor's 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 694 - K-12 School Library Internship (1)**

Advisor's recommendation and permission. Individual field experience in secondary school libraries. Field experience and summative report format must be approved by advisor. 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. Repeatable.

**ET 696 - Secondary School Library Internship (1)**

Advisor's recommendation and permission. Individual field experience in secondary school libraries. Field experience and summative report format must be approved by advisor. S/U graded. Repeatable, no limitations.

**ET 702 - Instructional Design Theory and Research (3)**

Prerequisite: ET 502. An advanced examination of instructional design theories and methods. Both directive and guided learning architectures are discussed.

**ET 782 - Doctoral Seminar in Educational Technology I (3)**

Prerequisite: ET 500. Investigation of the development, theory, and research bases of the field of Educational Technology.

**ET 784 - Doctoral Seminar in Educational Technology II (3)**

Prerequisite: ET 782. Investigation of the development, theory, and research bases of the field of Educational Technology.

**ET 797 - Doctoral Proposal Seminar (1- 4)**

Permission of research advisor. Selection of an appropriate research topic in the field of instructional design and technology. Summarize related literature, identify a researchable problem within that topic, and develop appropriate methodology. Develop an approved research proposal. S/U graded. Repeatable, maximum of four credits.

**ET 799 - Doctoral Dissertation (1-12)**

Permission of research advisor required. After receiving approval for the proposal, the doctoral candidate must register for dissertation hours while conducting the research and writing the final report in the form of a dissertation. Doctoral candidates must earn 12 hours of dissertation credit towards the doctoral degree. Repeatable.

**ET 999 - Graduate School Continuous Registration (1)**

To permit a graduate student to continue making progress in a degree program. S/U graded. Repeatable, no limitations.

**FL - Foreign Language**

College of Humanities and Social Sciences

Department of Modern Languages

- Contact (970) 351.2685
- <http://www.unco.edu/hss/modern-languages/>

**FL 531 - Teaching of Foreign Languages (2)**

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 541 - Methods of Teaching World Languages (3)**

Prerequisite: EDFE 125. Prerequisite to student teaching. Emphasize standards-based teaching and learning methods, curriculum and classroom organization and design, testing and evaluation, procedures and materials, in relationship to subject area in a K-12 teaching program.

**FL 622 - Directed Studies (1- 4)**

Individualized investigation under the direct supervision of a faculty member. (Minimum of 37.5 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

**FND - Food Nutrition Dietetics**

College of Natural and Health Sciences

School of Human Sciences

- Contact (970) 351.2755
- [www.unco.edu/nhs/dietetics](http://www.unco.edu/nhs/dietetics)

**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 510 - Foodservice Management (2)**

Intensive review course for students beginning their dietetic internship. Overview of relevant issues and critical problems concerning all levels of systems management and dietetic foodservice administration.

**FND 512 - Medical Nutrition Therapy Skills (2)**

An overview with case practice of medical nutrition therapy for dietetic interns. Several topics are covered with an emphasis on clinical skills.

**FND 513 - Professional Renewal (1- 3)**

Update skills and knowledge of professionals in the discipline. Goals and objectives will be specifically directed at individual professional enhancement rather than the acquisition of general discipline knowledge or methodologies. S/U or letter graded. Repeatable, under different subtitles.

**FND 520 - Maternal and Child Nutrition (3)**

Consent of Instructor. Developmental stages, nutrient requirements, appropriate diet and eating behaviors for children from conception through school age. Nutrition related conditions of children and nutrition for the pregnant and lactating woman.

**FND 530 - Nutrition Assessment and Intervention Methods (3)**

MS Dietetics graduate students only. Course covers critical analysis of nutrition assessment methods involving clinical judgment for their application as well as study of physiological bases for medical nutrition therapy (MNT) and MNT development.

**FND 551 - Nutritional Biochemistry and Metabolism - Macronutrients (3)**

MS Dietetics graduate students only. Focuses on macronutrient metabolism and the biochemical molecules and metabolic pathways that are essential for nutritional homeostasis.

**FND 553 - Nutritional Biochemistry and Metabolism - Micronutrients (3)**

MS Dietetics students only. Prerequisites: FND 530 and FND 551. Investigation of the biochemical and clinical aspects of micronutrient metabolism. Vitamins, minerals and selected phytonutrients will be explored. Topical controversies regarding supplementation, optimal intake and status indicators will be examined.

**FND 555 - Nutrition for Fitness and Athletic Performance (3)**

Prerequisite: FND 250 or FND 251 or FND 357. Consent of instructor. 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 570 - Nutrition Counseling Methods (3)**

MS Dietetics graduate students only. The application of behavioral change theories in nutrition counseling. First person reflection using evidenced based research in working with the behavior modification process through self-directed behavior techniques.

**FND 592 - Dietetics Supervised Practice (1-10)**

Prerequisite: FND 510 and FND 512, and consent of Dietetic Internship Coordinator. Field experience in supervised practice sites within clinical, community, food service management, and specialized concentrations. S/U graded. Repeatable, maximum of 20 credits.

**FND 610 - Nutrition Communication (3)**

MS Dietetics graduate students only. Prerequisites: FND 570 and RCS 610 or SRM 600. Provide students with effective oral and written communication skills in order to provide science-based nutrition information to various audiences.

**FND 620 - Current Topics in Nutrition and Dietetics (3)**

MS Dietetics graduate students only. Prerequisites: RCS 610 or SRM 600. Analyze, critique, and communicate current topics in nutrition. Compare and contrast headline news to evidence based research.

**FND 652 - Public Health Nutrition (3)**

MS Dietetics graduate students only. Prerequisites: RCS 610 or SRM 600. Advanced study of the socioecological framework, examining multi-factorial levels of influence on food choices, dietary intake, public policy and health outcomes and how these are inter-related to public health nutrition.

**FND 686 - Dietetics Capstone (5)**

Prerequisites: Consent of instructor. MS Dietetics graduate students only. Capstone course provides students the opportunity to complete an in-depth study of an area of evidence-based research/practice, write a comprehensive paper and present the project results.

## **GEOG - Geography**

College of Humanities and Social Sciences

Department of Geography & GIS

- Contact (970) 351.2715
- <http://www.unco.edu/hss/geography-gis/>

### **GEOG 507 - Geographic Information Science (3)**

Prerequisite: GEOG 307 or consent of instructor. A rigorous study of fundamental GIS principles, including the nature of spatial data, vector and raster data models, and key GIS analysis operations.

### **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 509 - Advanced Placement Institute in Human Geography (2)**

Graduates only. Intensive course for teachers planning to teach or currently teaching AP Human Geography. Topics include both content and pedagogy for establishment, development and maintenance of an AP program. S/U graded. Repeatable, no limitations.

### **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 514 - Web GIS Development and Management (3)**

Prerequisite: GEOG 307 or consent of instructor. Web GIS development using ArcGIS Online, JavaScript, and html. Management of IIS websites for the delivery of REST and related GIS web services. Geog. 412 or previous experience with Web GIS recommended.

### **GEOG 515 - Geospatial Statistics (3)**

Examine statistical techniques useful to the analysis of geographical data. Covers descriptive statistics, probability, statistical inference, hypothesis testing, statistical modeling and spatial statistics.

### **GEOG 520 - Topics in Systematic Geography (3)**

Graduates only or consent of instructor. Examine a selected area of systematic geography; consider appropriate pedagogical approaches in teaching about that geographic topic. Repeatable, under different subtitles.

### **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. Repeatable, under different subtitles.

### **GEOG 527 - GIS Programing & Automation (3)**

Prerequisite: GEOG 327, or consent of instructor. This course will develop advanced skills for geospatial programing. Topics include applying programing to automate processing tasks, interact with map elements, manipulate batches of GIS data, and create basic user interfaces.

### **GEOG 540 - Biogeography (3)**

Identify meaningful patterns in the distributions of plants and animals and explain how/why those patterns developed. Includes an examination of the role humans have played in shaping those patterns.

### **GEOG 580 - Enterprise Database Development and Management for GIS (3)**

Prerequisite or Co-requisite: GEOG 307 or consent of instructor. This course covers the principles, structure, development, and application of geodatabases. It provides hands-on training in the design, development, and operation of enterprise geodatabases.

### **GEOG 592 - Field Course in Geography (1- 6)**

Study and apply techniques used, solve geographic problems in the field and effectively present results of such studies. Unlimited repeatability.

### **GEOG 622 - Directed Studies (1- 3)**

Individualized investigation under the direct supervision of a faculty member. (Minimum of 37.5 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

## **GEOL - Geology**

College of Natural and Health Sciences

Department of Earth and Atmospheric Sciences

- Contact (970) 351.2647
- [esci.unco.edu](http://esci.unco.edu)

**GEOL 510 - Groundwater Geology (3)**

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 515 - Ore Geology (3)**

Prerequisite: GEOL 202 and GEOL 320. Overview of what ore is and how it is formed, techniques of finding and extracting ore, plus environmental impacts of extracting ore. Case studies of well known mines.

**GEOL 521 - Igneous and Metamorphic Petrology (4)**

(3 lecture, 3 laboratory) Prerequisite: GEOL 320. Description and classification of igneous and metamorphic rocks in hand sample and in thin section. Includes a study of the genesis of igneous and metamorphic rocks via phase diagrams and chemical reactions.

**GEOL 535 - Tectonics (4)**

(3 lecture, 2 laboratory) Prerequisite: GEOL 421 and GEOL 470. Integration of, for example, structural geology, petrology, and geochronology, to understand past and present mountain belts and plate tectonics.

**GEOL 540 - Paleontology (4)**

(3 lecture, 3 laboratory) Prerequisite: GEOL 202. Study of fossils including taxonomy, systematics, taphonomy, functional morphology, paleoecology, biostratigraphy, extinction, evolutionary trends and major events in the history of life. Labs review major fossil groups. Field trips required.

**GEOL 545 - Vertebrate Paleontology (3)**

GEOL 202 or permission of instructor. A survey of the evolution of vertebrates through geologic time, emphasizing major events in the history of vertebrates. Includes field trips and methods of fossil collection, preparation, and curation.

**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 emphasizing 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 202 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 202. 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 450, GEOL 470. Techniques of obtaining and recording geological data in the field and constructing geological maps. Includes use of Brunton compass, topographic maps, aerial photographs, geographic information systems, and the preparation of geological reports.

**GEOL 583 - Soils (3)**

Prerequisites: GEOL 201 and CHEM 111. Explore, examine, and interpret classification, genesis and processes (physical, chemical, biological) that drive soil formation. Use soils data from various ecosystems to determine nutritional and toxic aspects for land management.

**GEOL 585 - Tectonics (3)**

Prerequisite: GEOL 470. Overview of the processes driving and resulting from plate tectonics. Detailed study of some of the earth's past and present mountain belts.

**GEOL 586 - Petroleum and Energy (3)**

Prerequisites: GEOL 201 and CHEM 111. Petroleum and energy geology includes integrated exploration and development methods and understanding technological advancements that have led to the dynamic energy industry. Case studies and applied problems are emphasized.

**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 622 - Directed Studies (1- 4)**

Individualized investigation under the direct supervision of a faculty member. (Minimum of 37.5 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

**GER - German**

College of Humanities and Social Sciences

Department of Modern Languages

- Contact (970) 351.2685
- <http://www.unco.edu/hss/modern-languages/>

**GER 622 - Directed Studies (1- 4)**

Individualized investigation under the direct supervision of a faculty member. (Minimum of 37.5 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

**GERO - Gerontology**

College of Natural and Health Sciences

School of Human Sciences

- Contact (970) 351.2403
- [www.unco.edu/nhs/gerontology](http://www.unco.edu/nhs/gerontology)

**GERO 560 - Community Resources for Older Adults (3)**

Leadership/managerial community based learning required. Review needs of older persons in the community and evaluate the continuum of long-term care resources available, service gaps, program models, 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 620 - Individual Development and Aging (3)**

Applies developmental theories to explain concepts of aging. Examines developmental and psychological theories and frameworks, with emphasis on current research in exploration of issues of individual development facing older adults.

**GERO 622 - Directed Study in Gerontology (1- 4)**

Individualized investigation under the direct supervision of a faculty member. (Minimum of 37.5 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

**GERO 625 - Psychosocial Aspects of Aging (3)**

Later life issues are explored using an ecological approach that highlights the benefits and consequences of aging for the individual, family and society.

**GERO 630 - Intervention Strategies with Older Adults (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 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 (2)**

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 - Research Application and Grant Development (3)**

Application of skill in research for funding options, program planning, proposal writing, budgeting and establishing controls for grant administration.

**GERO 692 - Graduate Internship in Gerontology (1-12)**

Only 9 credits may be counted towards degree program. S/U graded. Repeatable, maximum of 12 credits. There shall be 40 contact hours per credit hour.

### **GERO 694 - Practicum in Gerontology (1- 3)**

Make application to the department before registration. Repeatable, maximum of six credits.

### **GERO 699 - Thesis (1- 6)**

S/U graded. Repeatable, no limitations.

### **GERO 999 - Graduate School Continuous Registration (1)**

To permit a graduate student to continue making progress in a degree program. S/U graded. Repeatable, no limitations.

## **HESA - High Education and Student Affairs Leadership**

College of Education and Behavioral Sciences

Department of Leadership, Policy and Development:  
Higher Education and P-12 Education

- Contact (970) 351.2861
- [www.unco.edu/cebs/hesal](http://www.unco.edu/cebs/hesal)

### **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. Repeatable, under different subtitles.

### **HESA 601 - Introduction to Higher Education & Student Affairs (3)**

Introduction to the higher education and student affairs profession. Examined through organizational lenses, ethics, social values, historical documents, and social justice. Emphasis on theory to practice, philosophy, and diversity.

### **HESA 611 - Organization and Administration (3)**

Develop an understanding of contemporary post-secondary education organizational and administrative theories. Emphasis on theories related to power, multicultural work environments, and other pluralistic models.

### **HESA 612 - Higher Education Assessment and Evaluation (3)**

Introduction to the philosophy and evolution of social program evaluation and assessment specific to higher education environments. Students will consider political, social, and ethical contexts of evaluation and assessment processes with emphasis on equity and social justice. Substantive emphasis on research design, data collection and analysis techniques, and report writing.

### **HESA 622 - Directed Studies (1- 4)**

Individualized investigation under the direct supervision of a faculty member. (Minimum of 37.5 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

### **HESA 650 - College Student Development: Foundational Theory (3)**

Examines foundational and life span theories of college student development and applies them to students' lives and higher education and student affairs practice.

### **HESA 651 - Philosophical, Historical and Cultural Foundations of Student Affairs in Higher Education (3)**

Philosophies of education and epistemology. History of U.S. higher education. Origin/history 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 655 - Multiculturalism in Higher Education and Student Affairs (3)**

Exploration of meaning making from individual cultural lenses to the application of theory to practice in higher education settings. Assessment of multicultural competence within HESAL.

### **HESA 658 - Helping Skills for Practitioners (3)**

Exploration of intervention models and helping relationships for professionals working with diverse college students including: student needs assessment, intervention strategies, conflict coaching, restorative models of accountability.

### **HESA 660 - Women in Higher Education and Student Affairs (3)**

An overview of women and women's issues in higher education and student affairs in the U.S.. Topics include: feminist theories; the division of labor for women faculty and administration; identity and experiences of undergraduate and graduate women; intersectionality of race, class, and gender.

### **HESA 661 - Practicum in College Teaching for Student Development (3)**

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 665 - International Higher Education and Student Affairs (3)**

An overview of international higher education and student affairs by global regions. The globalization and internationalization of higher education in the U.S. International students, student affairs, faculty, including study abroad.

**HESA 668 - College Students: Culture, Characteristics, Campus Life (3)**

Investigates diverse college student cultures, subcultures, student development, and student engagement. Considers effect on students' progress and success, social media, parental involvement, and ethnic, socio-economic, gender, sexual identity of students.

**HESA 669 - Culturally Responsive Aspects of Transformative Learning (3)**

Develop understanding of learner centered approaches examining theories of culturally responsive pedagogy and transformative learning.

**HESA 670 - Internship in Higher Education and Student Affairs Leadership (6)**

Consent of instructor. Field-based experience, applying theoretical and conceptual knowledge in higher education setting. Minimum 20 hours per week. In-depth experience with overall functions of office/agency. Develop skills in specific professional role. S/U graded. Repeatable, maximum of 18 credits.

**HESA 671 - Introduction to Leadership in Higher Education and Student Affairs Leadership (3)**

Course focuses on leadership theory to assist ethical scholar/leaders prepare for leadership roles in diverse organizations.

**HESA 675 - Field Experience in Student Affairs (1- 3)**

Consent of instructor. Application of theoretical/conceptual knowledge in field-based experience. Overview of role, function of higher education office/ agency, with focus on specific projects or responsibilities. Requires 4 hours per week per credit hour. S/U graded. Repeatable, maximum of 12 credits.

**HESA 680 - Law and Higher Education (3)**

Relate statutory provisions, court decisions, common law principles and constitutional requirements to legal problems affecting public and private higher education institutions and systems.

**HESA 683 - Finance and Resource Management in Higher Education (3)**

Analyze issues of financing public and private higher education; examine alternative financing sources and methods; develop skill in resource allocation and management.

**HESA 685 - Human Resources in Higher Education (3)**

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 690 - Public Policy in Higher Education (3)**

An examination of public policy issues in higher education. Study of role of state and federal policy as it impacts public and private institutions of higher education.

**HESA 695 - Current Issues in Higher Education and Student Affairs Leadership (3)**

In this seminar students will examine and analyze current issues and trends in higher education. Specific content will vary, dependent upon the nature of contemporary issues and trends and student interests.

**HESA 696 - Special Topics in Higher Education and Student Affairs Leadership (1- 4)**

Study of special topics in higher education and student affairs leadership. Topics vary. Repeatable, maximum two times, under different subtitles.

**HESA 751 - Advanced College Student Development: Social Identity (3)**

Prerequisite: HESA 650 or consent of instructor. Second of two student development theory courses. Examines the social identity of college students, including privilege and oppression, multiple identities and diversity development. Racial identity, ethnic identity, multiracial/multicultural identity, sexual identity, and additional dimensions of identity (class, gender, ability/disability) are also discussed.

**HESA 761 - Scholarly Writing for Scholar/Leaders (3)**

Seminar focusing on scholarly writing skills and examination of the macro perspective of leadership.

**HESA 765 - Advanced Multiculturalism (3)**

This course focuses on system of privilege, pluralism, and advanced multiculturalism in higher education and student affairs.

### **HESA 771 - Advanced Leadership in Higher Education and Student Affairs Leadership (3)**

Prerequisite: HESA 671 or consent of instructor. Courses focuses on advanced leadership theory to assist ethical scholar/leaders prepare for leadership roles in diverse organizations. Emphasis is on advanced leadership theory and its application to diverse high education and student affairs organizations.

### **HESA 781 - Collaborative Inquiry for Scholar/Leaders (3)**

Prerequisites: HESA 761. Continued doctoral study in higher education and student affairs leadership focusing on collaborative research. Explores research framework and design through a collaborative research project.

### **HESA 782 - Research Capstone in Higher Ed (3)**

Prerequisites: HESA 761 and HESA 781. This course focuses on three themes, data analysis and representation of findings, writing for publication, and navigating the comprehensive exam and dissertation processes.

### **HESA 797 - Doctoral Proposal Research (1- 4)**

Permission of major advisor. Required dissertation proposal experience for all doctoral students. Four hours of credit must be earned in this course in partial fulfillment of requirements for 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.

### **HESA 999 - Graduate School Continuous Registration (1)**

To permit a graduate student to continue making progress in a degree program. S/U graded. Repeatable, no limitations.

## **HHS - Health Human Sciences**

College of Natural and Health Sciences

- Contact (970) 351.2877
- <http://www.unco.edu/natural-health-sciences/>

### **HHS 508 - Workshop in Health and Human Sciences (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.

### **HHS 555 - International Perspectives on Health and Human Services across the Lifespan (3)**

An interdisciplinary course designed to introduce students to different aspects of health and human services across the lifespan. It will prepare students for a dynamic, diverse and global society.

## **HIST - History**

College of Humanities and Social Sciences

Department of History

- Contact (970) 351.2905
- <http://www.unco.edu/history>

### **HIST 510 - Seminar in Chinese History (3)**

Masters only. An analysis of the topics in Chinese history from earliest times to the present. Repeatable, maximum of six credits, under different subtitles.

### **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)**

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 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 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 - Seminar in European History (3)**

Graduates only. A consideration in depth of European historical development focusing on key issues in European history. Repeatable, maximum of 15 credits, under different subtitles.

**HIST 590 - Writing Seminar (3)**

Graduates only. Focuses on the writing of an article-length research paper grounded in primary sources of publication quality. History MA students are required to take 6 credits of HIST 590 and earn at least a B on the research project to pass the course. Repeatable, maximum of 9 credits.

**HIST 600 - Historiography (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 37.5 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.

**ID - Interdisciplinary Studies**

University College

- Contact (970) 351.2647
- [www.unco.edu/universitycollege](http://www.unco.edu/universitycollege)

**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.

**INTR - Interpreter**

College of Education and Behavioral Sciences

Department of ASL & Interpreting Studies

- Contact (970) 351-1117
- [www.unco.edu/cebs/asl-interpreting/](http://www.unco.edu/cebs/asl-interpreting/)

**INTR 505 - Supervision of Interpreting Systems (3)**

This course focuses on supervision of interpreting systems. Students examine core skills shared by supervisors and analyze strategies that promote effective communication and resolve conflict in the workplace.

**INTR 506 - Leadership in Interpreting (3)**

This course introduces the major theories and concepts of leadership and their application to the field of interpreting. It will explore the link between leadership, ethics, and values.

**INTR 560 - Ethics in Leadership (3)**

This course addresses central issues of moral philosophy, seeking to identify and understand moral challenges peculiar to leadership. Ethical problems taking on a particular guise in leadership contexts are explored.

**INTR 561 - Conducting Diagnostic Assessments for ASL-English Interpreters (3)**

This course provides supervisors of interpreters, lead interpreters and/or mentors with a common system, along with the tools and resources needed to effectively conduct skills-based diagnostic assessments.

**INTR 580 - Overview of Legal Interpreting in the American Legal System (4)**

This course introduces students to the American Judicial System including the scope and jurisdiction of federal and state courts and an overview of the civil and criminal court process.

**INTR 581 - Civil Litigation (3)**

This course provides students with a foundation in civil law, procedures and systems that is essential to understanding the legal meaning of civil law proceedings to be interpreted.

**INTR 582 - Criminal Law (4)**

This course examines criminal law and its associated procedures, as well as the implications of the criminal procedure and legal language on the interpreting process.

**INTR 583 - Internship: Skill Development for Legal Interpreters (3)**

This course provides the student with a firm foundation in the tasks of interpreting legal texts and guides the practicum experience.

**INTR 585 - Internship for Legal Interpreters (1)**

Prerequisites: INTR 580, INTR 581, INTR 582, and INTR 583. Placement by advisement only. This course provides the student with supervised internship in legal interpreting. This course will engage the student in a 55-hour, field-based, supervised experience that provides for the application of the skills, knowledge and attitudes that constitute interpreting in the American Judicial System.

**LIB - Libraries University**

University Libraries

- Contact (970) 351.2671
- <http://www.unco.edu/library/>

**LIB 550 - Library Research in Criminal Justice (1)**

Active learning experience in managing information in a dynamic research environment. Skills include identifying, retrieving, organizing, and evaluating information necessary for graduate level research in Criminology and Criminal Justice.

**MAS - Mexican American Studies**

College of Humanities and Social Sciences

Department of Hispanic Studies

- Contact (970) 351.2811
- <http://www.unco.edu/hss/hispanic-studies>

**MAS 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.

**MAS 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.

**MAS 622 - Directed Studies (1- 3)**

Individualized investigation under the direct supervision of a faculty member. (Minimum of 37.5 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

**MATH - Mathematics**

College of Natural and Health Sciences

School of Mathematical Sciences

- Contact (970) 351.2820
- [www.unco.edu/NHS/mathsci](http://www.unco.edu/NHS/mathsci)

**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 522 - Directed Studies (1- 3)**

Individualized investigation under the direct supervision of faculty member. (Minimum of 37.5 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

**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. Broad, deep, survey of topics in combinatorics, graph theory addressing existence, enumeration, optimization. Blend of mathematics, applications and development of mathematical reasoning skills, guided by the NCTM standards.

**MATH 529 - Mathematical Problem Solving (3)**

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 531 - Basic Analysis I (3)**

Prerequisite: MATH 233 with a grade of C or better (C- is not acceptable), and permission of instructor. 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 532 - Basic Analysis II (3)**

Prerequisite: MATH 531. Continuation of MATH 531.

**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 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. Concepts include history, counting techniques, distributions and inference (confidence intervals, point estimation, testing, ANOVA, regression, non-parametric). The Context focus is secondary level 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 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 595 - Topics in Mathematics (1- 3)**

Topics from various fields of mathematics which reflect specific interests of instructors and students. Repeatable, under different subtitles.

**MATH 599 - Mathematics Action Research Project Seminar (3)**

Graduates only. Students research a mathematical problem relevant to their own teaching and write an expository paper on that topic. Repeatable, no limitations.

**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 37.5 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

**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, 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 709 - Abstract Algebra I (3)**

Prerequisite MATH 523 or equivalent. Groups and rings and their structure. Sylow theorems. Modules. History and applications.

**MATH 723 - Abstract Algebra II (3)**

Prerequisite MATH 709. Polynomial Noetherian rings and ideals. Fields and Galois theory. Structure of fields. History and applications.

**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 732 - Complex Variables (3)**

Prerequisite: A course in complex analysis. Analytic and meromorphic functions in the complex plane. Integration, conformal mapping and advanced topics.

**MATH 733 - 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 735 - Real Analysis (3)**

Abstract spaces, Lebesgue measure, continuity, integration and differentiation theorems, Baire category.

**MATH 736 - Real Analysis II (3)**

Prerequisite: MATH 735. Topics from real and functional analysis such as: measure theory, distributions, metric spaces and other topics of the instructor's choice.

**MATH 744 - 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 764 - Difference Equations and Chaos (3)**

Applications of difference equations in problem solving and modeling, especially in the area of chaos.

**MATH 778 - 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 791 - Number Theory (3)**

Prerequisite: MATH 732. 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 795 - Special Topics (3)**

Topics from various fields of mathematics, for example, algebraic topology, functional analysis, Lie groups and algebras or nonlinear analysis. Repeatable, under different subtitles.

**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 graded. Repeatable, no limitations.

## MBA - Master of Business Administration Kenneth W. Monfort College of Business

- Contact: (970) 351.2411
- Website:  
<http://mcb.unco.edu/programs/mba/index.aspx>

**MBA 510 - Financial & Managerial Accounting Concepts (2)**

Graduates only. A concept course introducing accounting as the language of business. Topics include the environment, methods and uses of accounting information, financial statement development and analysis, and cost information development and analysis.

**MBA 550 - Foundations of Economic Analysis (2)**

Graduates only. This course describes the basic principles of market economics and also introduces the students to macroeconomic analysis.

**MBA 565 - Business Statistics (2)**

Graduates only. The course deals with the most commonly used statistical techniques in finance, marketing, human resources management and other functional areas of business. These techniques are explained by discussing and solving word problems in class.



**MBA 570 - Fundamentals of Business Finance (2)**

Prerequisites: MBA 510 and MBA 565. Graduates only. Provide the necessary foundations to understand risk principles used in valuation analysis, along with essential financial management techniques such as capital structure and capital budgeting and working capital management.

**MBA 610 - Managerial Accounting (3)**

Prerequisite: MBA 510. Graduates only. This course examines the concepts, applications, and uses of managerial accounting in managerial decision-making for managers and other internal users.

**MBA 622 - Directed Studies (1- 3)**

Prerequisite: Instructor consent. Graduates only. Individualized investigation under the direct supervision of a faculty member. (Minimum of 37.5 clock hours required per credit hour.) Letter graded. Repeatable, maximum concurrent enrollment is two times.

**MBA 625 - Information Technology Strategies for Managers (3)**

Graduates only. This course informs students how IT transforms organizations. Focus is on the analysis, modeling, and technologies that managers can use to analyze and utilize data to derive business value.

**MBA 632 - Business Law (3)**

Graduates only. Provides an understanding of the law of business transactions as part of the decision-making process. Topics will include the law of agency, contracts, bankruptcy (debtor/creditor relationships), formation of business entities, secured transactions, negotiable instruments, and the regulation of the accounting profession. The course will utilize topical analysis and a case study approach focusing on analysis, synthesis, and evaluation of complex legal problems.

**MBA 650 - Economics of Managerial Decisions (3)**

Prerequisite: MBA 550. Graduates only. Examines application of microeconomic analysis used in managerial decision-making. Topics include demand analysis, cost and production functions, and behavior of competitive and non-competitive markets with applications to various business decisions.

**MBA 654 - Leadership and Organizational Behavior (3)**

Graduates only. Examines organizational behavior topics such as motivation, team dynamics, perception, power, politics, conflict, and culture, as well as an in-depth view of leadership.

**MBA 656 - Strategic Management (3)**

Prerequisites: MBA 632, MBA 650, MBA 654, MBA 660 and MBA 670. Graduates only. This course provides a capstone experience through techniques and tools needed for effective strategy. Students integrate concepts, theories, and tools to develop comprehensive strategies in a variety of business environments.

**MBA 660 - Marketing Management (3)**

Graduates only. This seminar course involves the analysis of the marketing concepts, functions and principles involved in planning, implementing and evaluating the total marketing programs of various organizations. Elements of the marketing process, including environmental impacts, building and managing brands and analyzing marketing strategies in delivering the best customer value will be the focus in this course.

**MBA 665 - Business Quantitative Methods (3)**

Prerequisite: MBA 565. Graduates only. Acquaints the business student with techniques to analyze business and economic data and develop models for forecasting, and variable screening. Topics include linear models, regression, time series analysis, multivariate and univariate ANOVA and Non-parametric analysis. Focus will be on applying these techniques to interesting business and policy questions.

**MBA 670 - Advanced Financial Management (3)**

Prerequisites: BAFN 370 or MBA 570. Graduates only. Course topics include time value of money, risk and return, capital budgeting, financial analysis and modeling, capital structure, working capital management, and international corporate finance. Advanced topics make use of case studies and/or simulation.

**MBA 671 - Current Issues in Healthcare Policy & Management (2)**

Prerequisites: MBA 610 and MBA 654. Graduates only. This course provides a broad overview for understanding national health reform policy, management issues and current topics.

**MBA 672 - Managing Healthcare Organizations (2)**

Graduates only. This course will provide students with an overview of the various healthcare delivery services across the full continuum of care as explained by operational executives from each of these services.

**MBA 673 - Managing Healthcare Quality and Compliance (2)**

Prerequisites MBA 610 and MBA 654. Graduates only. This course will provide students with the ability to apply performance improvement techniques and tools in order to improve patient care quality, safety, efficiency and regulatory compliance.

**MBA 674 - Healthcare Managerial Accounting & Reimbursement (3)**

Prerequisites: MBA 610 and MBA 654.. Graduates only. The goal of this course is to provide non-financial healthcare managers with the practical knowledge of healthcare finance, budgeting and reimbursement models and how to utilize this information in executive decision-making.

**MBA 681 - Talent Management (2)**

Prerequisites MBA 632 and MBA 654. Graduates only. Focuses on the creation of a competitive advantage through strategic human resources planning and staffing. Topics include job analysis, recruiting, assessment, succession planning, and retention. Also covers laws and regulations relative to the recruiting process.

**MBA 682 - Training and Organization Development (2)**

Prerequisites MBA 632 and MBA 654. Graduates only. Examines key principles of an effective training and development strategy. Topics include the role of training, adult learning theory, needs assessment, training methodologies, and effective evaluation methods for training.

**MBA 683 - Compensation, Rewards, and Performance Management (2)**

Prerequisites: MBA 632 and MBA 654. Graduates only. Focuses on the effective design of an organization's compensation, total rewards, and performance management systems. Topics include total compensation systems that attract and retain talent, employee benefits and performance management.

**MBA 684 - Managing Organizational Change (2)**

Prerequisites: MBA 632 and MBA 654. Graduates only. Introduces students to the major approaches used for managing both planned and unplanned organizational change. Reviews diagnostic techniques for identifying organizational problems and examines how strategic organizational change can achieve increased quality, productivity, and employee engagement.

**MBA 685 - Strategic Human Resources Management (1)**

Prerequisites: MBA 632 and MBA 654. Graduates only. This course focuses on the strategic human resource practices that help organizations achieve a competitive advantage using their human capital effectively. The topics covered include: the strategic impact of employee turnover, employee engagement, performance management, and the successful use of HR metrics.

**MBA 699 - Thesis (1- 6)**

Prerequisites: SRM 600 and instructor consent. Graduates only. The thesis must be approved by the supervising committee and meet all requirements of the Graduate School. S/U graded. Repeatable, no limitations.

**MED - Mathematics Education**

College of Natural and Health Sciences

School of Mathematical Sciences

- Contact (970) 351.2820
- [www.unco.edu/NHS/mathsci](http://www.unco.edu/NHS/mathsci)

**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 510 - Advanced Placement Statistics (1- 3)**

Topics in the content and pedagogy related to teaching and maintaining an Advanced Placement Statistics 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 522 - Topics in Mathematics Teaching at the Middle Level (1- 3)**

A mathematics education course for current middle school teachers. Content includes mathematics education topics appropriate for teachers of middle level mathematics. Repeatable for a maximum of 6 credits.

**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 search 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 555 - Teaching Secondary Math for Understanding (3)**

Graduates only. This course explores the knowledge and skills to elicit, understand, build on, and respond to student thinking. It provides expertise to support student learning and teach secondary mathematics for understanding.

**MED 560 - Culture in the Math Classroom (3)**

Graduates only. This course examines ways to integrate knowledge of the role of culture in mathematics teaching and learning into mathematics instruction with the goal of developing students' internal motivation.

**MED 565 - Quantitative Reasoning in Secondary Mathematics (3)**

Graduates only. We will analyze the mathematical and conceptual structure of quantities and relationships between quantities in secondary mathematics courses and explore pedagogy for teaching quantitative reasoning.

**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 588 - Implementation of Mathematics Standards in Instruction (1- 3)**

A mathematics education internship course for current middle school teachers. Content includes mathematics and mathematics education topics appropriate for teachers of middle level mathematics, but is focused on participants' implementation and integration of program and course content in their own instruction. Repeatable for a maximum of 3 credits.

**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 598 - Teaching Secondary Math for Understanding (3)**

The purpose of this course is to explore the theory and practices that support teaching secondary mathematics for understanding. The specific topics for this course are assessment and motivation.

**MED 599 - Action Research Project Seminar (1- 3)**

Graduates only. Students research a current problem in secondary mathematics education relevant to their teaching situation, developing goals, reviewing relevant literature and planning the project as they progress through the program. Repeatable without limit.

**MED 600 - Introduction to Research in Mathematics Education (3)**

For graduate students only. Examination and critique of current research in mathematics education. A focus on research design, analysis and reporting of both qualitative and quantitative research.

**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 37.5 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

**MED 645 - Interventions in Mathematics (3)**

Students will develop knowledge and skills needed to be effective in providing interventions in mathematics for students with learning disabilities and in helping other teachers and paraprofessionals do the same.

**MED 654 - Seminar in College Mathematics Teaching (1)**

Improvement of undergraduate mathematics teaching 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 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 680 - Teaching Math for Understanding I (3)**

Prerequisite: Approval of instructor. Must be an in-service math teacher or math teacher leader. Classroom and teacher leadership issues related to 1) variation in beliefs and practices underlying teaching math for understanding and 2) motivation, status, and affect in the mathematics classroom

**MED 681 - Teaching Math for Understanding II (3)**

Prerequisite: Approval of instructor. Must be an in-service math teacher or math teacher leader. Classroom and teacher leadership issues related to 1) using assessment to support teaching math for understanding and 2) providing all students with the opportunity to learn mathematics with understanding

**MED 682 - Implementing Mathematics Curriculum (3)**

Graduates only. Consent of instructor. A course for developing the knowledge and skills needed to be an effective mathematics teacher leader with an emphasis on implementing a high-quality mathematics curriculum.

**MED 683 - Seminar in Equity and Diversity Issues in Mathematics Education (1- 3)**

Consent of instructor. Addresses cultural issues related to generating equity in K-12 mathematics. Each seminar focuses on a particular cultural issue, such as gender, ethnicity, race, and class. S/U graded. Repeatable under different subtitles.

**MED 684 - Mathematics Coaching (3)**

Approval of instructor. Must be an in-service teacher or math teacher leader. Develop the knowledge and skills needed to be an effective mathematics coach.

**MED 685 - Math Teacher Leadership I (2)**

Prerequisites: Graduates only. Must be an in-service math teacher or math teacher leader. Knowledge and skills for mathematics teacher leadership including: leading change initiatives, managing conflict, designing math professional development, supporting cultural responsible teaching, and deepening pedagogical content knowledge for teaching mathematics.

**MED 686 - Math Teacher Leadership II (2)**

Prerequisites: MED 685. Graduates only. Must be an in-service math teacher or teacher leader. This course focuses on the knowledge and skills to be an effective mathematics teacher leader by building and expanding on the content of MED 685.

**MED 687 - Math Teacher Leadership III (2)**

Graduates only. Consent of instructor. Knowledge and skills for mathematics teacher leadership including: exploring general leadership, working with teachers, analyzing the interactions among culture, mathematics, teaching and learning, and deepening mathematics knowledge for teaching.

**MED 688 - Math Teacher Leadership IV (2)**

Prerequisite: MED 687 and instructor consent. Graduates only. This course focuses on the knowledge and skills to be an effective mathematics teacher leader by building on the content of MED 687.

**MED 700 - Cognitive Processes in Mathematics (3)**

Prerequisite: MED 610. Analyze research concerning cognitive science in mathematics education. Conduct case study on cognition in mathematics.

**MED 701 - Quantitative Research in Mathematics Education (3)**

Prerequisites: MED 610 and SRM 502 or equivalent. 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)**

Prerequisite: MED 610. A focus on paradigms, issues and methods of qualitative research in mathematics education. This includes critical analysis of literature and of data collected from mathematics learning environments.

**MED 703 - Teaching and Learning K-12 Mathematics (3)**

Prerequisite: MED 610. A focus on issues relevant to working with pre-service and in service K-12 mathematics teachers, and in promoting standards-based content, curriculum, pedagogy and assessment.

**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. An exploration of the underpinnings of current K-16 mathematics education by examining the historical development, perspectives and schools of thought that have influenced the teaching of mathematics.

**MET - Meteorology**

College of Natural and Health Sciences

Department of Earth and Atmospheric Sciences

- Contact (970) 351.2647
- [esci.unco.edu](http://esci.unco.edu)

**MET 501 - Dynamic Meteorology I (3)**

Prerequisite: MATH 233, MET 315, MET 320, PHYS 240. Majors only. The physical laws governing planetary and synoptic-scale atmospheric motions are developed mathematically based on conservation of mass, momentum, and energy.

**MET 502 - Synoptic Meteorology (4)**

(3 lecture, 2 laboratory) Prerequisite: MET 501. Majors only. Use of weather data, manual analyses, and meteorological software tools in weather forecasting and case studies. Practice includes review of theory, student weather briefing, daily forecast, and statistical forecast verification.

**MET 520 - Advanced Weather Prediction (4)**

(3 lecture, 2 lab) Prerequisites: CS 101 and MET 502. Majors only. Describes the principles of numerical weather prediction, modern forecast models, and their uses. Emphasis is placed on weather analysis, the advantages and limitations of numerical models, and advanced forecasting applications.

**MET 521 - Climatology (3)**

Prerequisite: MET 205, STAT 150 or take concurrently. 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. 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 551 - Climatology (3)**

Prerequisite: MET 320. Factors affecting climate; analytical methods used to study climatology, general circulation of the atmosphere, oceans, and the global energy balance. Introduction to global climate models, projects of climate change.

**MET 552 - Paleoclimatology (3)**

Prerequisites: MET 205 or consent of instructor. Juniors or above. Survey of climate history and methods of interpreting geological, paleontological, and paleobotanical climate proxies. Introduction to modeling, utility of using models to reconstruct past climate, and current research in paleoclimate.

**MET 562 - Extreme Mountain Weather (3)**

Principles of extreme weather over complex terrain, Rocky Mountains, and Colorado Front Range. Fire weather, windstorms, air pollution, blizzards and snow avalanches, monsoon circulations, and forecast applications.

**MET 565 - Radar Meteorology (3)**

Prerequisites: MATH 132 and PHYS 241. Majors only. Principles of radar operation and radar remote sensing techniques. Types of radar and their applications in meteorology.

**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 37.5 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

**MFT - Mathematics for Teachers****College of Natural and Health Sciences****School of Mathematical Sciences**

- Contact (970) 351.2820
- [www.unco.edu/NHS/mathsci](http://www.unco.edu/NHS/mathsci)

**MFT 514 - Geometry in Middle School Mathematics Teaching (3)**

A combined mathematics/mathematics education course for current middle school teachers. Content includes measurement, symmetry, properties of figures, proof, and pedagogical content knowledge for teaching geometry at the middle grades.

**MFT 515 - Number and Operations in Middle Level Mathematics Teaching (3)**

A combined mathematics/mathematics education course for current middle school teachers. Content includes topics in number theory, arithmetic operations and their representations (algebraic and geometric), problem-solving, numerical patterns and formulas, and pedagogical content knowledge for teaching these topics in the middle grades, with particular emphasis on preparing students to enter algebra.

**MFT 516 - Algebra in Middle Level Mathematics Teaching (3)**

A combined mathematics/mathematics education course for current middle school teachers. Content includes algebraic representations of patterns, numbers, and functions and pedagogical content knowledge for teaching algebra at the middle grades.

**MFT 517 - Data Analysis & Probability in Middle Level Mathematics Teaching (3)**

A combined mathematics/mathematics education course for current middle school teachers. Content includes introductory notions of probability and basic descriptive statistics appropriate for teachers of middle level mathematics.

**MFT 518 - Proportional Reasoning for Middle Level Mathematics Teachers (3)**

Prerequisite: Graduates only. Students must be professional teachers who have taught either elementary or secondary school mathematics. Combined mathematics/mathematics education course for current

middle school teachers. Content includes proportional reasoning; conceptual understanding of fractions, ratios, percents; structure of real numbers; pedagogical content knowledge for teaching these topics.

**MFT 520 - Survey of Mathematics (3)**

A mathematics course for current middle school teachers. Content includes history and development of various aspects of mathematics from a problem-solving perspective. Course provides breadth in mathematics while connecting the topics covered to the middle school curriculum. Topics are chosen from: fractals, cardinality of sets, ethnomathematics, number theory, abstract algebra, combinatorics, and graph theory.

**MFT 522 - Topics in Middle Level Mathematics Teaching (3)**

A combined mathematics/mathematics education course for current middle school teachers. Content includes mathematics topics appropriate for teachers of middle level mathematics. Repeatable, under different subtitles.

**MFT 530 - Conceptions of Analytic Geometry and Calculus (3)**

A mathematics course for current middle school teachers. Content includes history and development of various aspects of analytic geometry and calculus from a problem-solving perspective. Topics include: functions, basic concepts of trigonometry and basic concepts of calculus (rates of change, limits, finding area under curves). Topics will be approached from multiple perspectives and their connections to the middle school curriculum will be highlighted.

**MFT 540 - Mathematical Modeling and Problem Solving In Middle Level Mathematics Teaching (3)**

Mathematics content course for current middle school teachers focusing on using mathematics to model real world problems using algebra content from the middle grades and technology.

**MUS - Music**

College of Performing and Visual Arts

School of Music

- Contact (970) 351.2993
- [www.arts.unco.edu/music](http://www.arts.unco.edu/music)

**MUS 501 - 18th Century Counterpoint (3)**

Prerequisites: MUS 401 and MUS 402, or passing grade on the Graduate Theory Placement Exam. Study through analysis and composition of counterpoint as found in the invention, canon, fugue and choral prelude.

**MUS 502 - Harmony and Form (3)**

Study 18th and early 19th century harmonic practice and tonality concepts.

**MUS 503 - Post-Tonal Music (3)**

An overview of compositional approaches found in post-tonal music after 1900, and a survey of the standard analytical tools used for that body of music.

**MUS 504 - Music Theory Pedagogy (3)**

Become familiar with methods and materials available for teaching AP and undergraduate music theory. Receive practical experience through observation and practice teaching under the guidance of qualified instructors.

**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. Specific, supervised string teaching assignments. 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- 4)**

A variety of workshops on special topics within the discipline. Goals and objectives will emphasize the acquisition of general knowledge and skills in the discipline. Repeatable, under different subtitles.

**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. Study of the skeletal system, muscles involved in breathing and phonation, vocal acoustics, and learning theories, past and present.

**MUS 511 - Wind Band Literature and Techniques (2)**

A survey of the origins, development and historical significance of the wind band, including an overview of its

literature, instrumentation and specific considerations for conducting this repertoire.

**MUS 512 - Symphonic Repertoire (2)**

Historical overview of the symphony, opera, and ballet orchestras and their literature. Addresses questions of style, performance practice, and programming. Includes specific study of conducting considerations for this repertoire and 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, under different subtitles.

**MUS 514 - String Chamber Music Literature, Styles, and Techniques (2)**

Surveys the extensive range of string chamber music from Haydn to the present day, focusing on the canon. It is designed to inform string graduate students of the wealth of repertoire available, its technical and musical challenges, styles of performance, and programming considerations. Includes specific study of technical considerations for this repertoire and programming for college and pre-college chamber music programs.

**MUS 515 - Keyboard Literature I (2)**

Sight reading 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)**

Sight reading 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 517 - Comprehensive String Pedagogy for String Players (3)**

Graduate majors in violin, viola, cello or double bass (including graduate music education students) will enroll in this course upon consultation with their advisor. Pedagogy and practical application of technical literature from beginning through college preparatory for bowed stringed instruments (violin, viola, cello and bass). Teaching practicum is an integral part of the course.

**MUS 519 - Foundations of Music Education (3)**

Study historical, philosophical and psychological issues and principles that provide the context for contemporary music education.

**MUS 520 - Music Theory for Educators (2)**

Consent of Instructor. This course covers diatonic and chromatic common-practice harmony, form, and 20th-century topics relevant to repertoire typically encountered by K–12 certified music teachers. Includes a unit on incorporating music theory pedagogy into the K–12 classroom. Only for students in the Music Educators Intensive program. Course Fee Required.

**MUS 523 - Body Mapping (1)**

Designed to help participants correct and refine their body map in order to sing and play music with healthy, efficient movement. This course will not provide information about technique but will give students the information they need to put their technique on a firm somatic foundation.

**MUS 526 - Jazz Rhythm Section Workshop (1)**

A listening workshop in jazz and commercial music for all instrumentalists. Topics will include important players, group communication, performance styles and classic rhythm sections.

**MUS 527 - Advanced Jazz Theory (2)**

Advanced harmonic concepts in jazz including non-functional harmony, multi-tonic systems, advanced modal concepts, chord-scale relationships, and other aspects of contemporary harmonic practice in jazz music. Course Fee Required.

**MUS 532 - Beyond Talent: Career Development for Musicians (2)**

This course will help prepare students for their professional careers by familiarizing them with a broad skill set necessary to succeed in the fast-changing music profession. Students will be guided to acquire the essential skills beyond musicianship by covering relevant topics through lectures, required reading, guest presentations, and the final project.

**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 (2)**

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 540 - Techniques of Vocal Coaching for Pianists (2)**

Prerequisite: Consent of Instructor. Acquaint piano students with musical style, performance practice, and interpretations appropriate to song literature, oratorio and opera.

**MUS 541 - Chamber Music Literature for Keyboard (2)**

Prerequisite: Consent of Instructor. This course will acquaint students with literature for keyboard with other instruments, both in duos and larger ensembles.

**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 544 - Seminar in Jazz History (3)**

An in-depth study of the history, historiography, and literature of jazz from its precursors to the present. Research, listening, and critical writing skills are stressed.

**MUS 546 - Arranging (2)**

Prerequisite: MUS 218 or consent of instructor. Fundamental considerations in arranging music for small instrumental jazz ensembles and vocal jazz groups. Stylistic elements of melody, harmony, rhythm, texture, and form. Details of notation, score preparation and layout. Course fee required.

**MUS 547 - Advanced Arranging (2)**

Prerequisite: MUS 546 or consent of instructor. Discussion of common techniques used by great arrangers. Prepares students to write arrangements for large jazz ensemble and studio orchestra.



**MUS 548 - Accompanying and Coaching I (2)**

Consent of instructor. Acquaint students with necessary skills for collaborative performance through the study of listening, rhythm, sight reading, 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)**

Analysis of wind/orchestral/choral literature. Relates analysis techniques to preparation and performance. Literature studied varies from semester to semester. Repeatable, may be taken four times.

**MUS 551 - Individual Instruction in Conducting (1)**

Study of advanced problems in instrumental conducting. Regular conducting experience with University ensembles is an integral part of the course. Repeatable, may be taken four times.

**MUS 552 - Piano Pedagogy I (2)**

Consent of Instructor. A one semester course concentrating on beginning piano and elementary musicianship. The course will provide a thorough introduction to methods, materials, resources, and techniques for teaching at the elementary level. Students will also survey a substantial amount of elementary to early intermediate piano repertoire.

**MUS 553 - Piano Pedagogy II (2)**

Prerequisite: MUS 352/552 or consent of instructor. A one semester course focusing on the intermediate to early advanced piano student curriculum. The course will provide a thorough overview of the technical and musical requirements needed to develop students at the intermediate to early advanced level. Students will also survey a substantial amount of intermediate to early advanced piano repertoire.

**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 555 - Seminar in Jazz Composition (2)**

Prerequisite: Consent of Instructor. Examination of compositional techniques in jazz styles. Analysis of works by important representative songwriters and composers.

**MUS 558 - Choral Literature and Techniques (2)**

Examines selected choral orchestral works from the Baroque to the present. Includes specific study of conducting considerations for this repertoire.

**MUS 559 - Opera History and Literature (2)**

Examine the historical significance and literature of the opera form from its precursors through the present time.

**MUS 560 - Opera Directing Seminar (1- 3)**

Prerequisites: Previous opera or music theatre performance experience. Consent of instructor. Study repertoire, floor plans, stage properties, hand properties, costume needs, make-up needs, and staging. Repeatable, No Limitations.

**MUS 561 - Vocal Coaching for Singers (1)**

Prerequisite: Consent of instructor. Instruction for graduate voice students in a studio class setting to deepen their understanding of the many elements that combine to make a successful performance of vocal music from a vocal coach's perspective: musical style, performance practice, language and interpretation appropriate to song literature, oratorio and opera.

**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. Study advanced jazz theory principles and apply to keyboard and other instrumental and vocal disciplines. Course content will change each semester. Repeatable, no limitations.

**MUS 595 - Music Theory Seminar (3)**

Prerequisites: Graduate students must have a passing grade on the Graduate Music Theory and Aural Skills Placement Exams, or have successfully completed MUS 401 and/or MUS 402. Undergraduate students eligible to take 500-level courses must have successfully completed MUS 302 Form and Analysis and have instructor approval. Graduate level seminar on a specified topic in music theory. Repeatable under different subtitles.

**MUS 600 - Introduction to Musical Scholarship (2)**

Examines attitudes and aims of the music scholar, studies in bibliography reference materials, sources, and editions. Required of all Master's of Music candidates. Must be taken as early as possible.

**MUS 603 - Analytical Studies in Music (3)**

Mastery of traditional harmony required. Students analyze the structure of music.

**MUS 604 - Schenkerian Analysis (3)**

A study of the application of the ideas of Heinrich Schenker to music analysis, performance and music theory.

**MUS 605 - English Diction (1)**

Designed to increase proficiency in singing in English (British and American). Review the International Phonetic Alphabet (IPA), its rules and applications, and to strengthen the performance of choral, art song, oratorio and operatic repertoire. This course will focus on an intensified, systematic study of phonetics as it applies to singing and will increase the student's clarity of expression in those languages.

**MUS 606 - German Diction (1)**

This course is designed for the graduate level, pre-professional singer who is ready to fine-tune their performance of operatic and art song repertoire by acquiring additional tools for correctly using the articulators, the International Phonetic Alphabet and the speech sounds of the different vowels and consonants.

**MUS 607 - French Diction (1)**

This course is designed for the graduate level, pre-professional singer who is ready to fine-tune their performance of operatic and art song repertoire by acquiring additional tools for correctly using the articulators, the International Phonetic Alphabet and the speech sounds of the different vowels and consonants.

**MUS 608 - Italian Diction (1)**

Designed to increase proficiency in singing in Italian using the International Phonetic Alphabet (IPA), its rules and applications, and to strengthen the performance of Italian repertoire. This course will focus on an intensified, systematic study of phonetics as it applies to singing and will increase the student's clarity of expression in those languages. Repertoire will be assigned by the instructor from the 26 Italian Art Songs text and from Italian operas to be determined.

**MUS 610 - Research in Music Education (3)**

Develop concepts and skills for understanding and evaluating research in music education. Study the design and techniques of empirical research in music education. Complete research study to submit for publication.

**MUS 612 - Psychology of Music Teaching and Learning (3)**

Introduces concepts of psychology in the acquisition and development of musical cognition, affect, and physiological response. Combines study of empirical research and practical approaches for use in the classroom.

**MUS 619 - Latin Jazz Ensemble (1)**

Audition required. The Latin Jazz Ensemble studies and performs music exclusively from the Latin Jazz tradition. The repertoire reflects both Afro-Cuban and Brazilian influences fused with jazz performance practices. Repeatable with no limitations.

**MUS 620 - Jazz Guitar Ensemble (1)**

Auditions required. Comprised of several guitarists and a rhythm section, the jazz Guitar Ensemble studies and performs music from diverse jazz styles arranged for this specific combination of instruments. Repeatable with no limitations.

**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 37.5 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. 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 626 - Orchestral Excerpts (1)**

Consent of instructor. Emphasis is on professional level performance of standard orchestral literature at the graduate level. Repeatable, no limitations.

**MUS 628 - UNC Early Music Ensemble (1)**

Consent of Instructor. UNC Early Music Ensemble performs pre-Classical Era music in a historically informed style, on period instruments whenever possible. Repeatable, no limitations.

**MUS 629 - UNC Contemporary Music Ensemble (1)**

Consent of Instructor. The UNC Contemporary Music Ensemble performs music of our time, including modern masterpieces as well as commissioned works, in collaboration with composers whenever possible. Repeatable, no limitations. Course Fee Required.

**MUS 630 - Small Ensembles and Chamber Music (1)**

Small chamber groups that rehearse regularly and are coached by a faculty member. Repeatable, no limitations.

**MUS 631 - Applied Music Instruction (1)**

Consent of instructor. Individual instruction on technique, performance practice, and literature. Repeatable, no limitations.

**MUS 632 - Music Composition Instruction (1)**

Consent of instructor. Individual instruction in music composition. Repeatable, no limitations.

**MUS 634 - UNC Tablet-Laptop Band (1)**

UNC Tablet and Laptop Band composes, rehearses, and performs music on electronic devices including tablets and laptops. Repeatable, no limitations.

**MUS 636 - Individual Instruction in Jazz (2)**

Consent of instructor. Private instruction in performance practice, technical study, and literature relevant to jazz. Repeatable, No limitations.

**MUS 637 - Individual Instruction in Jazz Composition (2)**

Consent of Instructor. Individual instruction in jazz composition. Repeatable, No limitations.

**MUS 641 - The Standard Jazz Repertoire (1)**

Students will become familiar with the large body of compositions that comprise the standard jazz repertoire. Course will include the study of composers, melodies, lyrics, chord progressions and recordings. Students will also learn techniques for song memorization.

**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. Investigates opera from Florentine beginnings through Venetian, Neapolitan and French styles to 1750; growth of chamber, orchestral and solo instrumental music, and religious vocal music.

**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 649 - Music History Pedagogy (3)**

Surveys philosophical approaches and methods to the teaching of Music Appreciation, Music History, and more specialized courses.

**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 651 - Seminar in Music History: Debussy to 1945 (3)**

This course studies the major trends in music from Debussy to 1945, accompanied by investigations into their social and cultural bases. Particular attention is devoted to the technical aspects of this music.

**MUS 652 - Seminar in Music History: 1945 to the Present (3)**

This course is presented in three simultaneous components—history, analysis, and literature—and explores styles and development of a variety of movement that led directly to today’s concert music. Surveys of serialism, minimalism, neo-Romanticism, and the influence of pop on music of today are included in this course emphasizing history, analysis, and literature.

**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 654 - UNC Alternative Styles Ensemble (1)**

Consent of Instructor. The UNC Alternative Styles Ensemble will explore non-classical styles and performance techniques through regular rehearsals and performances. Repeatable, no limitations.

**MUS 655 - Health in Piano Playing and Teaching (3)**

Consent of Instructor. This seminar will sensitize students to issues of health pertinent to piano pedagogy. Students will learn to teach in ways that support the long-term physical and psychological health of their piano students. Topics such as anatomy for the pianist, injury avoidance, and motivation will be considered. Course fee required.

**MUS 656 - UNC European Summer Opera Program (1- 6)**

Audition Required. Practical experience in the production and performance of a complete operatic works in professional productions in Europe. Techniques of acting, singing, character analysis and stage direction will be studied. Repeatable, No limitations.

**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. Examines brass teaching problems encountered by teachers at the K-12 and college levels.

**MUS 659 - College Piano Teaching (3)**

Consent of Instructor. This seminar will prepare students to teach applied piano at the college level. It will be concerned primarily with pedagogical approaches to advanced repertoire typical for the undergraduate piano major. In-class teaching opportunities with real undergraduates will assist in honing teaching skills and gaining confidence teaching at the college level. Course fee required.

**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.

**MUS 663 - Trumpet Literature and Pedagogy (2)**

In depth study of literature and pedagogical techniques as related to the trumpet.

**MUS 664 - Seminar in Piano Pedagogy: Language, Culture and Piano Teaching (3)**

Consent of instructor. This seminar will explore the many intersections of language, culture and piano teaching to enhance students’ ability to teach effectively both within their native cultural context and outside it. The class is conceived for both native English speakers and students for whom English is a foreign language. No foreign language skills are required.

**MUS 665 - Individual Instruction in Collaborative Piano (2)**

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 - Chamber Choir (1)**

Audition Required. The UNC Chamber Choir is a highly select auditioned vocal ensemble typically comprised of 16 to 32 performers. The group performs a wide variety of choral chamber works in concerts throughout the year and may tour regularly. Repeatable, no limitations.

**MUS 667 - University Symphony Orchestra (1- 3)**

Audition required. Comprised of the best string, wind, brass, and percussion players. Reads and performs standard orchestra repertoire. Performs on and off campus. Repeatable, no limitations.

**MUS 668 - UNC Campus String Orchestra (1)**

This course is open to all Graduate bowed string instrument players on campus (violin, viola, cello, bass). Players are expected to have several years of experience in order to be successful with the required repertoire. Each semester the Orchestra will rehearse and prepare for concerts on campus and/or in the community. \*\*String majors are expected to audition for the UNC Symphony Orchestra each year before enrolling in Campus Orchestra (on their primary instrument).

**MUS 670 - Individual Instruction in Voice (2)**

Consent of instructor. Individual instruction on technique, performance practice and literature. Repeatable, no limitations.

**MUS 671 - Individual Instruction in Piano (2)**

Consent of instructor. Individual instruction on technique, performance practice and literature. Repeatable, no limitations.

**MUS 672 - Individual Instruction in Folk and Bluegrass (2)**

Consent of instructor. Individual instruction on technique, performance practice, and literature for performance majors. Repeatable, no limitations. Course fee required.

**MUS 673 - Individual Instruction in Strings, Harp or Guitar (2)**

Consent of instructor. Individual instruction on technique, performance practice and literature. Repeatable, no limitations.

**MUS 674 - Individual Instruction in Woodwinds (2)**

Consent of instructor. Individual instruction on technique, performance practice and literature. Repeatable, no limitations.

**MUS 675 - Individual Instruction in Brass or Percussion (2)**

Consent of instructor. Individual instruction on technique, performance practice and literature. Repeatable, no limitations.

**MUS 677 - Individual Instruction in Composition (2)**

Consent of instructor. Individual instruction in music composition. 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: 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. Open to all female students. Performs on campus and joins with the Concert Choir in large masterworks with orchestra. Repeatable, no limitations.

**MUS 682 - University Singers (1)**

No audition required. The University Singers is open to all the university community and performs a wide variety of choral repertoire, from Renaissance motets to contemporary works. Repeatable, no limitations.

**MUS 684 - Men's Glee Club (1)**

Audition required. Open to all male students. Performs on campus and in the community. Sings a wide variety of literature. 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 deportment through the staging and performing of selected opera scenes and arias. 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 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 694 - Master's Recital (2)**

Student will prepare and present a public recital of suitable repertoire under the guidance of the applied studio professor.

**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 699 - Thesis (1- 6)**

Consult respective area 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**

College of Natural and Health Sciences

School of Nursing

- Contact (970) 351.2293
- [www.unco.edu/nhs/nursing](http://www.unco.edu/nhs/nursing)

**NURS 504 - Quality and Safety in Health Care Systems (3)**

Majors Only. Application of quality of care and patient safety standards, performance measures, improvement methods and tools, and culture of safety principles within a healthcare organization/system

**NURS 507 - Policy, Leadership and Nursing Issues (3)**

Majors Only. Comprehensive investigation and analysis of health care issues and policy, organizational and leadership theory and skills which are imperative in today's health care environment.

**NURS 508 - Workshop (1- 3)**

A variety of workshops on special topics within the discipline. Goals and objectives will emphasize the acquisition of general knowledge and skills in the discipline. Repeatable, under different subtitles.

**NURS 513 - Professional Renewal (1- 3)**

Update skills and knowledge of professionals in the discipline. Goals and objectives will be specifically directed at individual professional enhancement rather than the acquisition of general knowledge or methodologies. S/U or letter grades. Repeatable, under different subtitles.

**NURS 601 - Theoretical Foundations for Advanced Nursing (3)**

Majors Only. Introduction to interdisciplinary theoretical foundations for advanced nursing practice. Emphasis on the development, application, and critique of theories from nursing, social science, business and health care.

**NURS 606 - Research and Evidence-based Practice in Nursing (3)**

Majors Only. Development of knowledge and skills for reviewing and ethically generating evidence as a basis for evidence-based clinical practice, nursing research, and quality improvement.

**NURS 608 - Advanced Health Care Concepts (3)**

Majors only. Application of quality and patient safety standards, performance measures, use of informatics, collaborative/interdisciplinary care, improvement methods and tools, health care finance and culture of safety within a healthcare organization.

**NURS 609 - Foundations in Public Health for Advanced Practice Nurses (3)**

Majors Only. This course examines the historical and conceptual basis of public health, key issues, advancements and the core functions of the public health system to advance the public's health.

**NURS 610 - Health Assessment (3)**

Emphasis in health history taking, physical assessment and interviewing of individuals across the life span. 45 practicum hours required. Assessment and course fees required.

**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 613 - Advanced Health Assessment (4)**

(3 lecture, 1 laboratory) Prerequisite: NURS 612 and NURS 614. Emphasis is in health history taking, physical assessment and interviewing of individuals across the lifespan.

**NURS 614 - Advanced Pathophysiology (3)**

Focus on pathophysiology, symptomology and etiology of commonly encountered acute and chronic clinical entities of children and adults.

**NURS 615 - Advanced Seminar in Transcultural Theories and Methods (3)**

Consent of Instructor. This course is a survey of theories and research methods used in transcultural health care and other disciplines.

**NURS 616 - Measurement of Clinical Outcomes for Advanced Nursing Practice (3)**

Graduate Nursing majors only. Introduction to the measurement, interpretation and presentation of healthcare outcomes with focus on quality, effectiveness, and organizational performance. Integrates the application and integration of statistical tools to identify relevant outcomes.

**NURS 618 - Epidemiology in Advance Nursing Practice (3)**

Majors only. Principles of epidemiology and understanding of biostatistics will be applied to population management of disease and intervention strategies.

**NURS 620 - Clinical Nurse Leader: Managing Clinical Outcome (3)**

Majors Only. Development and practice of CNL roles for management and improvement of clinical outcomes for individuals, families and populations within the care delivery system.

**NURS 621 - Management of Clinical Outcomes (4)**

Graduate Nursing majors only. Introduction to the management and improvement of clinical outcomes for individuals, families and populations within the care delivery system.

**NURS 622 - Directed Studies (1- 3)**

Graduate students only. Individualized investigation under the direct supervision of a faculty member. (Minimum of 37.5 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

**NURS 624 - Health Promotion and Disease Prevention in Advanced Practice of Nursing (3)**

Majors Only. Prepares the APN student to plan and implement health promotion and disease prevention strategies to assist in maintaining and improving the health of patients, families and communities.

**NURS 625 - Clinical Nurse Leader: Managing the Care Environment (3)**

Majors only. Development and practice of CNL roles for management and improvement of care environment for individuals, families and populations within the care delivery system. 45 practicum hours required.

**NURS 626 - Management of Care Environment (4)**

Graduate Nursing majors only. Introduction to the management and improvement of the care environment for individuals, families and populations within the care delivery system.

**NURS 628 - Information Technology in Health Care (3)**

Majors only. Use and application of computerized systems to clinical decision strategies for advanced practice nurses in the areas of quality management.

**NURS 631 - Teaching Strategies for Practice and Academic Settings (3)**

Prerequisite: Consent of School of Nursing. Development of knowledge about teaching students, staff and clients in academic and practice settings.

**NURS 632 - Clinical Instruction and Precepting in Nursing (3)**

Prerequisite: Consent from School of Nursing. Development of theoretical and practical knowledge to support successful transition from a clinical expert role to that of a clinical instructor/preceptor.

**NURS 635 - Clinical Nurse Leader: Developing Leadership Roles (4)**

(3 lecture, 3 practicum) 45 practicum hours. Majors only. Prerequisites: All CNL program courses except final practicum. Development and practice of CNL leadership roles for management and improvement of client outcomes at the point of care and across the healthcare system.

**NURS 638 - Concepts in Advanced Evidence-Based Practice (3)**

Majors only. Emphasis is on the systematic evaluation and use of current best evidence to make decisions about clinical practice and health care systems.

**NURS 640 - Health Care of Families I (4)**

(2 lecture, 6 practicum) 90 practicum hours. Majors only. Application of theoretical and research based developmental approaches to primary health care of families with particular emphasis on care of obstetrical patients and families through childhood/adolescence. Course fee required.

**NURS 645 - Health Care of Families II (4)**

(2 lecture, 6 practicum) 90 hours applied practicum arranged. Majors only. Application of theoretical and research based developmental approaches to primary health care of families with particular emphasis on women's health and adult episodic care. Assessment and course fees required.

**NURS 646 - Integrative Clinical Concepts (4)**

Graduate Nursing majors only. Introduction and overview of the integrative concepts of pathophysiology, pharmacology, and health assessment within the context of individual, family, and populations.

**NURS 650 - Health Care of Families III (4)**

(2 lecture, 6 practicum) 90 hours applied practicum arranged. Majors only. Application of theoretical and research based developmental approaches to primary health care of families with particular emphasis on chronically ill and older adults and psychosocial adjustment disorders. Assessment and course fees required.

**NURS 651 - Adult Gerontology Acute Care I (3)**

Majors Only. Develops the foundation for advanced nursing practice including management of adults with acute and chronic health problems through the lifespan focusing on cardiovascular, pulmonary, gastrointestinal and neurological systems.

**NURS 652 - Adult Gerontology Acute Care II (3)**

Prerequisite: NURS 651. Majors Only. Develops the foundation for advanced nursing practice including management of adults with acute and chronic health problems through the lifespan including genitourinary, endocrine, musculoskeletal, hematological, immunological, an integumentary systems.

**NURS 653 - Adult Gerontology Acute Care III (3)**

Prerequisite: NURS 652. Majors Only. Prepares students to assess, diagnose, and manage adult patients with complex-acute and complex-critical health care alterations. Diagnostic test interpretation, including EKG and radiologic evaluation, is integrated to enhance clinical decision-making.

**NURS 654 - Acute Care of Adults (3)**

Prerequisite: NURS 613. Majors only. Application of theoretical and research based developmental approaches to primary care of adults with acute episodic conditions.

**NURS 656 - Care of Chronic Illness in Adults (3)**

Prerequisite: NURS 610 or NURS 613. Majors only. Application of theoretical and research based developmental approaches to primary health care of adults with chronic illness.

**NURS 658 - Applied Nursing Genomics (3)**

Majors only. A genomics focus on concepts of prevention, screening, diagnostics, prognostics, selection of treatment, and monitoring of treatment effectiveness for individuals and aggregates within cultural and ethical care contexts.

**NURS 661 - Planning and Evaluating Education in Practice and Academic Settings (3)**

Prerequisite: Consent of School of Nursing. Focus on development of education programs in health care settings and academic nursing. Includes evaluation of teaching and learning.

**NURS 668 - Population Centered Health Care (3)**

Majors Only. Examines perspectives of population based health care across the life span from a community and global perspective.

**NURS 670 - Special Topics in Nursing (1)**

Prerequisite: Permission of course faculty. This seminar course explores advanced topics in nursing. Special topics will be listed by the instructor. Repeatable, under different subtitles.

**NURS 674 - Care of Women and Pediatric Populations (3)**

Prerequisites: NURS 654 and NURS 656. Majors only. Application of theoretical and research-based developmental approaches to primary health care of families with particular emphasis on care of women, obstetric, and pediatric populations.

**NURS 675 - FNP Clinical I (2)**

Prerequisite: NURS 654 and NURS 656. The focus of this course is application of didactic and simulated learning in FNP diagnosis and management courses to the live clinical setting. S/U graded.



**NURS 676 - FNP Advanced Clinical Topics (2)**

Prerequisites: NURS 654 and NURS 656. Majors Only. Application of theoretical and research based developmental approaches to complex, advanced clinical topics seen in the primary care setting. S/U graded.

**NURS 677 - FNP Clinical II (4)**

Prerequisites: NURS 654, NURS 656 and NURS 674. Majors only. The focus of this course is application of didactic and simulated learning FNP diagnosis and management courses to the live clinical setting. S/U graded.

**NURS 678 - Professional Practice and Healthcare Finance Seminar (3)**

(2 lecture, 3 practicum) Forty-five hours applied practicum arranged. Majors only. Comprehensive economic investigation of health planning, organization, personnel, payment systems and care cost effectiveness in health care delivery systems.

**NURS 680 - Advanced Practice Role Practicum (1- 9)**

Majors only. Final clinical experience provides students an opportunity to practice advanced roles intervention in underserved and/or rural areas. S/U graded. Repeatable, maximum of 9 credits for a total of 405 practicum hours.

**NURS 681 - Advanced Role Practicum for Clinical Nurse Leaders (1- 7)**

315 total required contact hours. Majors only. Final clinical experience provides students the opportunity to practice Clinical Nurse Leader roles. If divided, must be taken in consecutive semesters. S/U graded. Repeatable, maximum of seven hours.

**NURS 682 - AGACNP Practicum I (3)**

Prerequisite: NURS 651. Majors Only. Clinical experience focusing on assessment, diagnosis, and management of illness/injury states in adult healthcare settings integrating evidence-based practice to improve quality of care and health outcomes. Supervision fee required.

**NURS 683 - AGACNP Practicum II (2)**

Prerequisite: NURS 652 and NURS 682. Majors Only. Clinical experience focusing on management of patients through transitions of care with an emphasis on underserved, rural, vulnerable and elder populations.

**NURS 684 - AGACNP Acute Care Skills (1)**

Prerequisite: NURS 652 and NURS 682. Majors Only. Critical skills intensive focusing on advanced practice skills for the acute care environment including: airway management, chest tube insertion, central line insertion and management, ultrasound, lumbar puncture, and suturing. Supervision, assessment, participations and course fee required.

**NURS 685 - DNP Practicum (1- 7)**

Applied practicum arranged (45 hours = 1 credit). Majors only. Practicum in hospital, community, and primary care settings focusing on clinical prevention and population based health care. S/U graded. Repeatable, no limitations.

**NURS 686 - AGACNP Practicum III (3)**

Prerequisite: NURS 653, NURS 683 and NURS 684. Majors Only. Clinical experience designed to enhance clinical decision making in the management of unstable chronic, complex acute, and critical conditions in adults across the lifespan. Supervision fee required.

**NURS 687 - Advanced Role Practicum and Capstone (1- 6)**

Majors only. Clinical experiences and capstone project provide the student the opportunity to translate and integrate scholarship into best practice and begin evidence based advanced nursing practice. Repeatable, maximum of 6 credits.

**NURS 688 - Advanced Nursing Leadership in Health Care Systems (3)**

45 hours applied practicum arranged. Majors only. Analyzes the structure and organization of health care delivery systems including population-based, acute and ambulatory health care. The roles of the DNP in organizational and systems policy are addressed.

**NURS 689 - FNP Clinical Synthesis (6)**

Prerequisites: NURS 654, NURS 656, NURS 674, NURS 675, NURS 676, and NURS 677. Concurrent Prerequisite: NURS 690. Majors only. Application of didactic and simulated learning of FNP coursework to the live clinical setting. Repeatable, two times. S/U graded.

**NURS 690 - Advanced Professional Role (2)**

Majors only. Advanced practice role development in health maintenance and illness management is examined from several perspectives.

**NURS 693 - AGACNP Synthesis Practicum (4)**

Prerequisite: NURS 653 and NURS 686. Majors Only. Culminating synthesis practicum emphasizing the role of the AGACNP in an inter-professional environment selected with the student's clinical expertise and career goals in mind. Supervision fee required.

**NURS 695 - Advanced Academic Nursing Roles (3)**

Prerequisite: Consent of School of Nursing. Focuses on developing knowledge about faculty, leader and administrator roles in academic nursing education.

**NURS 699 - Thesis (1- 6)**

Terminal program course. All other courses should be taken before or concurrently. 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 700 - Advanced Nursing Theory (3)**

Majors only or consent of instructor. The focus of this course is nursing knowledge development and the underpinnings of nursing science, practice and education.

**NURS 702 - Advanced Concepts of Vulnerable Underserved Populations (3)**

Majors only or consent of instructor. Examines contextual contributors to development of vulnerable populations and public response. Implications for nursing research and practice are explored.

**NURS 703 - Philosophical Underpinnings of Nursing Science (3)**

Majors only. This course provides a history of philosophical and scientific thinking and its impact on the discipline of nursing, knowledge development in nursing and nursing science.

**NURS 707 - Leadership in Health Policy (3)**

Majors only or consent of instructor. Integrates theory and empirical research about leadership and health policy. Participates in the policy development process.

**NURS 710 - Measurement of Nursing Student Outcomes (3)**

Majors only. Emphasis on needs assessment, instrument analysis, measurement, analysis and evaluation of student outcomes in nursing education.

**NURS 711 - Advanced Theory and Knowledge Development in Nursing (3)**

Majors Only. This course explores theoretical elements and their impact on nursing knowledge development and the translation of nursing research to pedagogy and practice.

**NURS 723 - Design, Methods and Analysis in Health Care Research, Part I (3)**

Majors Only. Introduction to doctoral level in-depth study of the integrated principles of design, methods and analysis in the conduct of quantitative health care research.

**NURS 724 - Design, Methods and Analysis in Health Care Research, Part II (3)**

Majors Only. Prerequisite: NURS 723 or equivalent course. Provides in-depth study of the integrated principles of design, methods and analysis in the conduct of quantitative health care research.

**NURS 725 - Translational Research Methods (3)**

Prerequisite: NURS 723 and NURS 724. Majors only. In-depth application of the integrated principles of both quantitative and qualitative design, methods and analysis as they relate to the translation of evidence into practice.

**NURS 730 - The Scholarship of Teaching and Practice in Nursing Education (2)**

Majors only. This course is designed to prepare the learner for scholarship in nursing education, publication, presentation and grant writing activities.

**NURS 740 - Intensive Teaching Practicum (3)**

Majors only or consent of instructor. Discussion and guided experiences in teaching of nursing, including planning, developing, implementing and evaluating classroom and clinical instruction.

**NURS 741 - Evidence-Based Teaching (3)**

Majors Only. Builds knowledge and skill with instructional planning, development, delivery, and evaluation in classroom and clinical settings. Focus on existing and developing evidence for teaching strategies.

**NURS 760 - Advanced Nursing Curriculum Design and Program Evaluation (3)**

Majors only. Examines a range of contextual and professional influences on curriculum development and program evaluation in nursing education.

**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 - Doctoral Research Colloquium (3)**

Majors Only. Exploring the nature of doctoral research in nursing and nursing scholarship. Examination of phenomena of interest for dissertation proposals begins.

**NURS 791 - DNP Seminar I (1)**

Co-requisite: NURS 703. DNP Majors only. Engage students in discussion surrounding DNP essential concepts, development of research knowledge and trajectory, and acculturation to the DNP role with special emphasis on developing the concept of interest.

**NURS 792 - DNP Seminar II (1)**

Prerequisite: NURS 791. DNP majors only. Engage students in discussion surrounding DNP essential concepts, development of research knowledge and trajectory, and acculturation to the DNP role with special emphasis on developing evidence for practice change.

**NURS 793 - DNP Seminar III (1)**

Prerequisite: NURS 792. DNP majors only. Engage students in discussion surrounding DNP essential concepts, development of research knowledge and trajectory, and acculturation to the DNP role with special emphasis on research design and methods.

**NURS 795 - DNP Capstone Project Proposal Seminar (2)**

Majors only. The Capstone project reflects synthesis and application of evidence-based practice in advanced nursing practice and health care. The course facilitates the development of the Capstone and launches the project.

**NURS 796 - DNP Capstone Project (1- 4)**

For a total of 180 contact hours. Majors Only. The Capstone project reflects synthesis and application of evidence-based practice in advanced nursing practice and health care. The Capstone project must be approved by and defended to the capstone committee. Repeatable, maximum of 4 credits.

**NURS 797 - Doctoral Proposal Research (1- 4)**

Majors only. All doctoral students must earn 4 hours as partial fulfillment of requirements for the doctorate. Supports development of dissertation research proposal. S/U graded. Repeatable, maximum of 4 credits.

**NURS 798 - DNP Project Practicum (1-12)**

Prerequisite: NURS 793. Majors Only. The DNP project reflects synthesis and application of evidence-based practice and translational research. Repeatable, maximum of 12 credits.

**NURS 799 - Doctoral Dissertation (1-12)**

Majors only. All doctoral students must earn 12 hours as partial fulfillment of requirements for the doctorate. Dissertation must be approved by and defended to the dissertation committee. S/U graded. Repeatable, maximum of 12 credits.

**NURS 999 - Graduate School Continuous Registration (1)**

To permit a graduate student to continue making progress in a degree program. S/U graded. Repeatable, no limitations.

**OCN - Oceanography**

College of Natural and Health Sciences

Department of Earth and Atmospheric Sciences

- Contact (970) 351.2647
- [esci.unco.edu](http://esci.unco.edu)

**OCN 622 - Directed Studies (1- 4)**

Individualized investigation under the direct supervision of a faculty member. (Minimum of 37.5 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

**PHYS - Physics**

College of Natural and Health Sciences

Department of Physics and Astronomy

- Contact (970) 351.2961
- [www.unco.edu/nhs/physics](http://www.unco.edu/nhs/physics)

**PHYS 508 - Physics Workshop (1- 4)**

A physics subject matter workshop course designed to improve the physics content background of teachers. Repeatable, under different subtitles.

**PHYS 509 - Advanced Placement Institute in Physics (2)**

Consent of instructor. Topics in physics content and pedagogy appropriate to the establishment, development and maintenance of an advanced placement program in physics. S/U graded. Repeatable, no limitations.

**PSY - Psychology**

College of Education and Behavioral Sciences

School of Psychological Sciences

- Contact (970) 351.2957
- [www.unco.edu/cebs/psychsci](http://www.unco.edu/cebs/psychsci)

**PSY 500 - Educational Psychology for Teachers (3)**

This course is designed to be an in-depth overview of research and theory on learning and cognition, social and personal development, individual differences, motivation and assessment of student learning. Particular attention will be given to the application of these topics to classroom settings.

**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 and knowledge or methodologies. S/U or letter graded. Repeatable under different subtitles.

**PSY 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.

**PSY 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.

**PSY 550 - Cognitive Development (3)**

Examine classic and contemporary research and theory on cognitive development of children, and specific topics such as attention, memory, and intelligence. Undergraduates may not register without permission of instructor.

**PSY 575 - Educational Assessment (3)**

The course will provide educators with the skills needed to evaluate, explain, and apply assessment and testing data to inform classroom instruction and education decisions.

**PSY 580 - Psychopharmacology (3)**

Intended to educate clinicians about the various medications that are often used in the treatment of mental illness and the mechanisms that allow them to work.

**PSY 581 - Brain and Education (3)**

Prerequisites: Graduate status or junior or senior with a cumulative GPA over 3.0. This course offers an overview of neuroscience research targeted at educators. Topics covered will include background on brain structure and function, neural communication and drug effects, attention, emotion, motivation, learning, language. Disorders commonly found in the classroom will be highlighted throughout.

**PSY 582 - Behavioral Genetics (3)**

Prerequisite: PSY 120. Majors only. Juniors and above. 3.0 GPA and above. Introductory genetics course recommended. Consider genetic basis of behavior in humans and animals; contemporary issues include heritability, cognitive disabilities, psychopathology, personality disorders, and pharmacogenomics.

**PSY 585 - Psychology of Addiction (3)**

Prerequisite: Graduate status; Undergraduates must be Junior or Senior with GPA of 3.0 or above. This course is designed to conduct an in-depth introduction into the scientific literature across a range of contemporary subtopics in the field of addiction. It is intended to give students a broad, yet comprehensive, overview of the research and theoretical perspectives on drug and alcohol addiction. Students will have an opportunity to learn about the diagnostic criteria used to classify substance disorders, and will apply this information to journal article readings and projects. The course is taught as a seminar, with interactive dialogue, presentations, mini-lectures, and videos.

**PSY 587 - Social Cognitive Neuroscience (3)**

Prerequisite: Graduate Status; Junior or Senior with GPA of 3.0 or above. Social cognitive neuroscience (SCN) studies the implicit and explicit cognitive and emotional processes and their underlying brain mechanisms that contribute to our understanding of others' mental states (and our own as well). This course will examine a set of core Social Cognitive Neuroscience subtopics in order to gain a graduate level introduction to this burgeoning field.

**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)**

Prerequisite: 3.0 GPA or higher. 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, non-experimental methods, statistical analysis and researchers' ethical responsibilities. Overview of ongoing research in Psychology Department.

**PSY 622 - Directed Studies (1- 3)**

Individualized investigation under the direct supervision of a faculty member. (Minimum of 37.5 clock hour 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 630 - Advanced Child and Adolescent Psychology (3)**

Prerequisite: PSY 530 or equivalent. Physical, social and emotional development of children from conception through puberty, stressing normal development and major development theories.

**PSY 631 - Psychology of Youth, Adulthood and Aging (3)**

Prerequisite: PSY 530 or equivalent. Cognitive, social and physical developments that affect transitions in youth, adulthood and senescence.

**PSY 635 - Individual Differences in Cognition (3)**

Prerequisite: PSY 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.

**PSY 640 - Cultural Issues in Education Psychology (3)**

Prerequisite: PSY 500 or PSY 540 or PSY 681. This course covers research and theory on culture and its relationships with and applications to areas of educational psychology including development, cognition, assessment and school achievement, motivation, and individual differences.

**PSY 644 - Motivation in Education (3)**

Students will investigate what it means to be properly motivated, why individuals often develop problematic motivational patterns, and how proper motivation can be fostered.

**PSY 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.

**PSY 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.

**PSY 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.

**PSY 664 - Advanced Social Psychology (3)**

Examine major areas of social psychology e.g., aggression, altruism, cooperation, attitude change, and impression management; learn about observation and other data-collection techniques. Possible laboratory observations.

**PSY 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.

**PSY 675 - Measurement II: Advanced Techniques (3)**

Prerequisite: PSY 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.

**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 681 - Cognition and Instruction I (3)**

An introductory overview of various theoretical and applied perspectives on cognition and instruction, including behavioral, cognitive, meaningful learning, and situated cognition. Includes significant classroom-based observational and clinical interview experiences.

**PSY 682 - Cognition and Instruction II (3)**

Prerequisite: PSY 681 or PSY 540. Assumes basic knowledge of cognitive and instructional theory. Focuses on research in development, cognition and instruction, subject matter, and social and cultural contexts of learning.

**PSY 683 - Research Issues in Cognition and Development (3)**

Course will consist of an overview of a range of formal to semi-formal educational research models. It includes philosophical ideas and assumptions, qualitative quantitative research models and ethical issues.

**PSY 684 - Advanced Seminar in Human Development (3)**

Prerequisite: PSY 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.

**PSY 685 - Advanced Seminar in Learning and Cognition (3)**

Prerequisite: PSY 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.

**PSY 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.

**PSY 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.

**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 695 - Special Topics in Educational Psychology (1- 3)**

Specialized topics or contemporary issues. Topics vary. Repeatable, maximum of two times, under different subtitles.

**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.

**PSY 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.

**PSY 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.

**PSY 999 - Graduate School Continuous Registration (1)**

To permit a graduate student to continue making progress in a degree program. S/U graded. Repeatable, no limitations.

**RCS-Rehabilitation Counseling Sciences****College of Natural and Health Sciences****School of Human Sciences**

- Contact (970) 351.2403
- [www.unco.edu/nhs/rehabilitation](http://www.unco.edu/nhs/rehabilitation)

**RCS 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.

**RCS 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.

**RCS 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.

**RCS 595 - Special Topics in Rehabilitation (1- 4)**

Course designed to investigate a specific aspect of rehabilitation. Repeatable, maximum of nine credits, under different subtitles.

**RCS 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.

**RCS 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.

**RCS 604 - Family, Cultural and Psychological Aspects of Disability (3)**

Develop an understanding of and sensitivity to the psychological, social, interpersonal, family and cultural aspects of and adjustments to disability, including successful vocational outcomes.

**RCS 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.

**RCS 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.

**RCS 622 - Directed Studies in Human Rehabilitation (1- 4)**

Individualized investigation under the direct supervision of a faculty member. Minimum of 37.5 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

**RCS 630 - Human Services Counseling Theories and Techniques (3)**

Analyze counseling theories as they are applied to human services. Develop basic counseling skills.

**RCS 631 - Group Processes in Rehabilitation (3)**

An integrated perspective of the stages of groups, basic concepts and goals of groups with rehabilitation clients.

**RCS 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.

**RCS 659 - Seminar in Rehabilitation Counseling Supervision (3)**

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.

**RCS 692 - Clinical Internship in Rehabilitation**

Prerequisites: RCS 630, RCS 694. Consent of instructor. Field experience for qualified Rehabilitation Counseling majors at approved locations. Written application to faculty internship supervisor at least one semester before registration. S/U graded. Repeatable, maximum of 18 credits.

**RCS 694 - Supervised Counseling in Human Services (6)**

Prerequisite: RCS 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.

**RCS 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.

**RCS 696 - Advanced Rehabilitation Counseling Theories and Approaches (3)**

Prerequisite: RCS 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.

**RCS 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.

**RCS 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.

**RCS 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.

**RCS 758 - Seminar in Collaborative Research in Human Sciences (3)**

Doctoral students only. Supervised experience in conducting collaborative research in human sciences. Students gain experience in research methods, design, statistical analyses and submit their research paper to an academic journal of their choice. Repeatable, maximum of six credits.

**RCS 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.

**RCS 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.

**RCS 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

**RCS 999 - Graduate School Continuous Registration (1)**

To permit a graduate student to continue making progress in a degree program. S/U graded. Repeatable, no limitations.

**SCED - Science Education**

College of Natural and Health Sciences

School of Biological Sciences

- Contact (970) 351.2921
- [www.unco.edu/nhs/biology](http://www.unco.edu/nhs/biology)

Department of Chemistry and Biochemistry

- Contact (970) 351.2559
- [www.unco.edu/nhs/chemistry](http://www.unco.edu/nhs/chemistry)

School of Earth Sciences and Physics

- Contact (970) 351.2961
- <http://www.unco.edu/nhs/esci/>

**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 521 - Physics in Modern Medicine (3)**

Apply and use physics concepts and laws to understand modern medical techniques. Develop lessons to integrate physics, as it relates to medicine, into other courses.

**SCED 530 - Laboratory, Field, and Studio Safety (1)**

Emphasizes formation of a "safety culture" in science and/or art. Federal and state regulations are covered. Course product is a safety manual for the laboratory or studio.

**SCED 531 - Teaching Chemistry for the Future (3)**

Graduates only. Understanding of general chemistry is highly recommended. Examination of chemistry topics with real-world applications. Methods for the use of skills and themes in chemistry to encourage higher-level thinking in students in the high-school setting.



**SCED 535 - Context-based Conceptual Chemistry (3)**

(3 lecture, 2 laboratory) Prerequisite: CHEM 111 & CHEM 112 or consent of instructor. The emphasis of this course is on how to teach chemistry concepts within the context of the kitchen, medicine cabinet, household cleaning, and the garden. No credit for Chemistry M.S. or Chemical Education Ph.D.

**SCED 540 - Secondary Science Methods I (2)**

(Laboratory). Become familiar with professional responsibilities of teaching science and provide entry level operational knowledge of instructional strategies, techniques, materials, and technology available along with required science content. Students lead discussions and teaching situations.

**SCED 541 - Secondary Science Methods II (3)**

Co-requisite: EDFE 554. 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 and of technology use. Students will lead discussions and teaching situations.

**SCED 551 - History and Theory of Environmental Education (3)**

Students will explore historical and theoretical aspects of environmental education which creates a context to inform their development as practicing environmental educators.

**SCED 553 - Program Design and Planning in Environmental Education (3)**

Prepares students to use best practices in planning and designing environmental education programs and curricula. Students revise and/or develop an environmental education program for their final project.

**SCED 555 - Science Education for Adults and Communities (3)**

Provides an overview of the principles and skills required to teach non-formal and informal education with an adult/community education perspective.

**SCED 561 - Using Controversial Biological Topics to Teach Nature of Science (3)**

Prerequisite: BIO 110. Explores use of scientific "controversies" as a teaching strategy to understand the nature of science. Empirical evidences supporting major biological concepts are integrated with pedagogical strategies.

**SCED 562 - Principles and Teaching of Cell Biology (3)**

This course is an in-depth study of cell biology. Emphasis will be placed on cell structure, cell signaling/regulation, and cellular division/growth. In addition, students will explore effective teaching strategies to facilitate the learning of cell biology at secondary school level.

**SCED 565 - Teaching 21st Century Biology: Ecology and Evolution (3)**

Prerequisite: BIO 100 or BIO 110 or consent of instructor. Masters only. Teachers understand evidence that supports ecology and evolution as unifying concepts in biology. Biological concepts are integrated with pedagogical strategies appropriate for teaching at secondary level.

**SCED 566 - Genetics (3)**

Designed for teachers. Study laws of heredity, molecular structure and function of genes, and emerging genetic technologies. Genetic concepts are integrated with pedagogical strategies appropriate for teaching genetic principles.

**SCED 570 - Teaching Science in the Elementary School (3)**

(2 lecture, 2 laboratory) Prerequisite: EDFE 125. Develop a knowledge of objectives, methods and materials needed for teaching a functional elementary science program. Laboratory activities included. Course fee required.

**SCED 578 - K-12 Science Inquiry (3)**

Students will explore and define the elements of inquiry in P-16 science education from the perspective of teaching with inquiry, ability to do inquiry, and as part of science content.

**SCED 581 - Earth Systems: WATER (3)**

An online course focusing on Colorado water resources and environmental issues in an Earth Systems context. Applications to societal issues and inquiry learning are emphasized.

**SCED 600 - Science Education Research for K-12 Teachers (3)**

This course will provide practicing teachers an introduction to science education research with a focus on research design development, qualitative and quantitative research and data analysis techniques.

**SCED 605 - Global Change (3)**

Prerequisite: 8 credit hours of graduate science coursework. Graduates only. An online, problem-based course in which students conduct data analysis on climate variability, modeling, and Earth system impacts and apply results to societal issues.

**SCED 622 - Directed Studies (1- 4)**

Individualized investigation under the direct supervision of a faculty member. (Minimum of 37.5 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

**SCED 671 - Elementary and Middle School Science Curriculum (3)**

Analyze elementary and middle level science programs regarding learning theory, research and the new Colorado Model Content Standards for science. Applications include strategies, management, and science technology and society.

**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.

**SCED 695 - Action Research in Science Education I (1)**

Prerequisite: SCED 600. Research a problem in K-12 science education relevant to students' teaching situations. Develop goals, review literature, and plan an action research project. This course is the first of three courses.

**SCED 696 - Action Research in Science Education II (1)**

Prerequisite: SCED 695. Conduct the action research plan developed and approved in SCED 695. An approved Action Research Plan Project is required to take this course. Second of three course series.

**SCED 697 - Action Research in Science Education III (1)**

Prerequisite: SCED 696. Complete the action research project by developing a summary and discussion. The final project must be presented to the action research committee. Final of a three course series.

**SCED 699 - Thesis (1- 6)**

Prerequisite: SCED 600 or equivalent. For majors in the Graduate Interdisciplinary Degree Program M.A. Natural Science K-12 Teaching Emphasis. and wish to complete a thesis. S/U Graded. Repeatable, maximum of 6 credits.

**SCI - Science**

College of Natural and Health Sciences

School of Biological Sciences

- Contact (970) 351.2921
- [www.unco.edu/nhs/biology](http://www.unco.edu/nhs/biology)

Department of Chemistry and Biochemistry

- Contact (970) 351.2559
- [www.unco.edu/nhs/chemistry](http://www.unco.edu/nhs/chemistry)

School of Earth Sciences and Physics

- Contact (970) 351.2961
- <http://www.unco.edu/nhs/esci/>

**SCI 532 - ENERGY for Today & Tomorrow (3)**

This course will familiarize students with fundamental energy concepts and physics laws along with common problems associated with and applications of energy use. Renewable energy and energy production will be discussed.

**SCI 536 - Principles of Physics II (3)**

Investigation of basic principles of energy related to thermodynamics and wave motion with technological applications. For certified teachers interested in improving understanding and pedagogic delivery of physics concepts.

**SES - Sport Exercise Science**

College of Natural and Health Sciences

School of Sport and Exercise Science

- Contact (970) 351.2535
- [www.unco.edu/nhs/ses](http://www.unco.edu/nhs/ses)

**SES 500 - Wilderness First Responder/CPR (3)**

Designed to provide outdoor practitioners with the knowledge needed to deal with emergencies in remote settings. 80-hour curriculum. Successful completion provides Wilderness First Responder certification.

**SES 503 - Teaching Fitness Concepts (3)**

Study of research and advanced techniques in teaching health-related fitness concepts to children and adolescents.

**SES 505 - Ex Program Cancer Patient (3)**

Prerequisite: SES 322 or equivalent. Majors only. This course will prepare individuals to design and conduct exercise intervention programs for cancer patients.

**SES 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.

**SES 510 - Electrocardiography (3)**

Graduates only. Study basic electrocardiography and ECG interpretation. Emphasis is placed on interpretation of resting and exercise ECG's along with monitoring procedures, interpretation of abnormalities and drugs that may affect ECG interpretation.

**SES 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.

**SES 530 - Challenge Course Programming (3)**

Study the procedures, techniques, and responsibilities for challenge course supervision, including operational guidelines and processes, maintenance and general inspection, equipment, safety procedures, and rescue.

**SES 550 - Neural Aspects of Kinesiology (3)**

Advanced study of 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.

**SES 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.

**SES 560 - Issues and Ethics in Sport Management (3)**

SES: Sport Administration graduate students only. 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.

**SES 570 - Program Management (3)**

SES: Sport Administration graduate students only. Develop an understanding of theories and principles involved in managing a program in the sport industry.

**SES 576 - Sport Promotion and Marketing (3)**

SES: Sport Administration graduate students only. Develop skill and understanding in the marketing process relating to the sport industry, athletics and commercial sport operations. Primary focus: application of marketing principles to specific sport scenarios.

**SES 580 - Advanced Prevention, Care and Rehabilitation of Athletic Injuries (3)**

Prerequisite: SES 380 or equivalent. Analyze, evaluate and apply current techniques and practices to injuries in the school physical activity and sports programs.

**SES 582 - Psychology for Sports Coaches (3)**

Understanding and applying psychological principles as they relate to sports coaching and athletic performance.

**SES 583 - International Perspectives of Sports Coaching (3)**

Examine international perspectives of sport and sports coaching. Emphasis is placed on developing and enhancing students' knowledge and understanding of international coaching perspectives.

**SES 584 - Sport Administration for Sports Coaches (3)**

Develop an understanding of theories and principles involved in the management of sport and athletics from a coaching perspective.

**SES 585 - Introduction to Sports Injuries for Coaches (2)**

Introductory athletic training principles and techniques for coaches/students. Emphasis on the prevention and treatment of athletic injuries. CPR/first aid certification recommended. Not acceptable for SES majors.

**SES 586 - Training and Conditioning Principles for Sports Coaches (3)**

Application of the physiological principles of human movement as they relate to the response to exercise training, training for sport performance, sport nutrition, and ergogenic aids.

**SES 587 - Sports Coaching Principles and Perspectives (3)**

Provide a comprehensive introduction to the coaching profession. Emphasis is placed on developing and enhancing students' knowledge and understanding of concepts, principles and techniques of coaching.

**SES 588 - Evaluation of Coaching using Technology (3)**

Emphasis is placed on the use of technology to evaluate skill, tactics, and technical components of coaching. Evaluation of effective coaching in game and practice settings are incorporated.

**SES 589 - Bridging Theory and Practice in Sports Coaching (3)**

Examination of theoretical and applied concepts of sports coaching. Emphasis is placed on practical experience of coaching sport that concentrates on coach education theory and effective coaching practices.

**SES 594 - Practicum in Outdoor Leadership (1- 6)**

A field based, advanced course in wilderness-based teaching and leadership. Students develop skills and knowledge in group development, planning, and safe leadership of ethical and effective wilderness travel. Repeatable, maximum of 12 credits.

**SES 602 - Introduction to Research in Sport and Exercise Science (3)**

Receive an introduction and some application of strategy and methods of research to problem solving in physical education, sport management and exercise science.

**SES 603 - Professional Development Seminar (3)**

This seminar will provide a cross disciplinary knowledge of the sport and exercise science field while simultaneously preparing students to disseminate scholarly work.

**SES 604 - Teacher and Coach Action Research (3)**

Provides introduction to self-inquiry and pedagogical reflection through action research. Focuses on historical background, purpose, instruction and guidance for teachers and coaches to conduct action research.

**SES 605 - Youth Development and Physical Activity (3)**

Advanced theoretical and applied understanding of youth development programs. Emphasis is on service learning experience with physical activity programs that concentrate on the goals of personal and social responsibility.

**SES 606 - Scholarship in Youth Development (3)**

The intent of this course is to critically examine scholarly efforts concerning programs and issues in youth development.

**SES 612 - Assessment in Sport Pedagogy (3)**

Disseminate knowledge that contributes to quality professional practice. Students will experience new ways of thinking about assessment. Alternative ways of determining student learning, evaluation, grading and reporting will be explored.

**SES 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.

**SES 615 - Qualitative Research in Sport and Exercise Science (3)**

SRM 680 or consent of instructor. The epistemological and practical underpinning 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.

**SES 618 - Biomechanics of Locomotion (3)**

By exploring research literature, collecting and analyzing gait data, students will be introduced to one of the largest research areas in biomechanics: the study of locomotion.

**SES 619 - Advanced Biomechanics (3)**

Prerequisite: SES 331 or equivalent. Make an advanced study of the mechanical components of human movement, stressing the analysis of movement problems.

**SES 620 - Neuromuscular Structure and Function (3)**

Prerequisite: SES 220 or equivalent. Make an advanced study of the structural components of human movement, with special attention to the analysis of movement problems.

**SES 622 - Directed Studies (1- 4)**

Individualized investigation under the direct supervision of a faculty member. (Minimum of 37.5 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

**SES 624 - Advanced Developmental Kinesiology (3)**

Graduates only. Advanced study of the influence of developmental and aging processes upon movement across the lifespan.

**SES 625 - Laboratory Techniques in Exercise Science Research (3)**

Consent of instructor. Titles: Laboratory Techniques in Biomechanics; Laboratory Techniques in Exercise Physiology; and Laboratory Techniques in Social Psychology of Sport and Physical Activity. Repeatable, under different subtitles.

**SES 626 - Metabolism (3)**

Advanced study of energy metabolism and exercise nutrition involved with human movement.

**SES 627 - Muscle Physiology (3)**

Advanced study of the muscular and endocrine systems involved with human movement.

**SES 628 - Adventure Education (3)**

Planning and implementing adventure activities that provide challenge, choice, and opportunities for personal and group growth. Emphasis on program development, facilitation techniques, and direct application of adventure activities and principles.

**SES 629 - Concepts in Kinesiology (3)**

Experiences provided are: Biomechanics of Locomotion, Cardiopulmonary Physiology and Motivation. Repeatable, under different subtitles.

**SES 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.

**SES 632 - Cardiovascular Physiology (3)**

Advanced study of the cardiovascular system as it relates to human movement.

**SES 635 - Exercise and Sports Psychology (3)**

Application of psychological concepts, principles and empirical findings to exercise programs and organized sport settings.

**SES 636 - Motivation (3)**

Examination and application of motivational theories and concepts relevant to sport, physical activity, and exercise behavior.

**SES 640 - Curriculum in Physical Education (3)**

Consider the principles underlying curriculum instruction, various curriculum elements and build a curriculum in physical education.

**SES 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.

**SES 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.

**SES 643 - Instructional Strategies for K-12 Physical Education (3)**

Prerequisites: SES 614 Analysis of Teaching. Exploration, participation, and analysis of a broad-based variety of physical activities, appropriate curriculum, and teaching skills that contribute to quality K-12 physical education.

**SES 645 - Supervision in K-12 Physical Education (3)**

To provide a functional understanding and critique of the nature and scope of teacher supervision in physical education.

**SES 646 - Comprehensive School Physical Activity Programming (3)**

Physical Education Physical Activity Leadership graduate students only. This course examines principles and evidence-based practices associated with comprehensive school physical activity programming. Emphasis placed on strategies for developing, implementing, and evaluating school programs to make a health impact.

**SES 647 - School Physical Activity Policy, Advocacy, and Leadership (3)**

Physical Education Physical Activity Leadership graduate students only. This course explores current perspectives and trends in policy, advocacy, and leadership development that influence the implementation of successful comprehensive school physical activity programs.

**SES 648 - Theories of Health Behavior (3)**

Physical Education Physical Activity Leadership graduate students only. Examination and application of theories and concepts of health behavior relevant to comprehensive school physical activity programming.

**SES 649 - School-Based Nutrition & Wellness (3)**

Physical Education Physical Activity Leadership graduate students only. Introduction to the topics incorporated in children's wellness including nutrition, health, and safety as they relate to the school-based context.

**SES 650 - Financial Management for Sport Organizations (3)**

SES: Sport Administration graduate students only. Develop an understanding of and skill in financial resource management for the operation of programs in sport, physical education, fitness, athletics and recreation.

**SES 655 - The Olympic Games (3)**

An overview of the nature and significance of the modern Olympic Games from historical, sociological and business perspectives. Participation fee required.

**SES 656 - Sponsorship Management (3)**

Develop advanced understanding and skill in management of sport sponsorships. Emphasis will be on the application of marketing principles and exchange theory relating to managing sport sponsorship in specific scenarios

**SES 660 - Sport Personnel Management (3)**

SES: Sport Administration graduate students only. Develop understanding of and skill in human resource management for the operation of programs in sport, physical education, fitness and athletics.

**SES 665 - Advanced Sociological Kinesiology (3)**

Advanced study of the application of sociological concepts and theories to current issues in kinesiology.

**SES 670 - Sport and Higher Education (3)**

SES: Sport Administration graduate students only. Identification and examination of the contemporary issues and problems in sport in American higher education, their historical foundation, and propose methods for their resolution.

**SES 671 - Fundraising & Development in Sport (3)**

This class will explore current problems, trends, and research in the field of Fundraising and Development. This class will provide students the opportunity to gain experience in the fundraising industry.

**SES 672 - Advanced Sport Law (3)**

Prerequisite: SES 688. Advanced study of employment law, intellectual property, labor law, antitrust, and contract law in sport business.

**SES 675 - Management of Sports Facilities and Equipment (3)**

SES: Sport Administration graduate students only. An examination of the functions of planning, management, evaluation, maintenance operations and situational analysis as they relate to management of sport facilities and equipment.

**SES 676 - Sport Public Relations and Information Systems (3)**

SES: Sport Administration graduate students only. Presentation of principles, standards and guidelines in sport public relations and information systems involved in sport information management.

**SES 678 - Event Development and Management (3)**

SES: Sport Administration graduate students only. Provide student with the skills necessary to develop, propose and conduct sport related contests and special events including game management and facility management.

**SES 679 - Advanced Sport Marketing and Consumer Behavior (3)**

Focus is on sport consumers' actions in the marketplace. A broad and contemporary view of consumer behavior and its relationship to marketing action in the sport sector is used.

**SES 680 - Perspectives in Sport Pedagogy (3)**

Philosophical perspectives of issues in physical education and sport, which are influenced by contemporary trends in American education.

**SES 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.

**SES 688 - Legal Aspects of Sport (3)**

SES: Sport Administration graduate students only. Study the law and implications relative to physical education and sport. Emphasis on legal theory and responsibilities and risk management.

**SES 690 - Graduate Seminar in Sport and Exercise Science (1)**

Consent of advisor. Examine professional and scholarly issues in exercise science, physical education and sport administration through readings, discussions, laboratory tutorials and presentations of current research topics. S/U graded. Repeatable, maximum of three credits.

**SES 692 - Graduate Internship in Sport and Exercise Science (1- 6)**

Consent of instructor. Supervised experience structured to the special focus and functions of the student's graduate program. S/U graded. Repeatable, maximum of six credits.

**SES 694 - Special Topics in Sport & Exercise Science (1- 3)**

Engage in a course of study designed to investigate a special topic. Repeatable.

**SES 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.

**SES 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.

**SES 699 - Thesis (1- 6)**

Optional for Master of Science students on recommendation of major advisor. S/U graded. Repeatable, no limitations.

**SES 703 - Research Seminar in Sport and Exercise Science (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.

**SES 705 - Seminar in Sport Administration (3)**

Student will undertake an in-depth study of current topics related to the administration and management of sport, physical education, fitness and athletic programs.

**SES 755 - Supervised Practicum in College Teaching (1- 6)**

Provide a supervised college teaching experience. Qualified doctoral students only. S/U graded. Repeatable, maximum of six credits.

**SES 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.

**SES 799 - Doctoral Dissertation (1-12)**

Doctoral students must earn at least 12 hours of credit for the dissertation as a requirement of the student's doctoral program. S/U graded. Repeatable, no limitations.

**SES 999 - Graduate School Continuous Registration (1)**

To permit a graduate student to continue making progress in a degree program. S/U graded. Repeatable, no limitations.

**SOC - Sociology**

College of Humanities and Social Sciences

Department of Sociology

- Contact (970) 351.2315
- [www.unco.edu/sociology](http://www.unco.edu/sociology)

**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 514 - Masculinities (3)**

A sociological analysis not just of men, but of masculinities. We will address debates about meanings of masculinity, historical variations, and how these definitions involve both male and female bodies.

**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 education, health, criminal justice, business and media. Application of theories in structures of organizations, behaviors of individuals within organizations and interorganizational relationships.

**SOC 532 - Social Psychology of Group Dynamics (3)**

Evaluate how group processes enhance, limit and define social interaction. Study the major theories of group dynamics. Analyze and discuss issues, trends, paradigms and applications.

**SOC 539 - Seminar in Sociological Practice (3)**

Examine important issues and activities related to practicing sociology, survey research methods and intervention techniques used by sociologists, consider ethics of sociology, emphasize critical thinking, research and writing.

**SOC 544 - Sociology of Law (3)**

Graduates only. Study of the social origins, functions and administration of law in society. Focus on the social organization of law, inequality in the legal system, and how civil and criminal law structure society.

**SOC 550 - Family Theories (3)**

Course examines theories of family development, interaction and change. Students apply theoretical frameworks to current research, and consider the explanatory value of theory for research methods and real-world application.

**SOC 551 - Classical Social Theory (3)**

Study the major pioneering classical social theorists who established 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 562 - Social Statistics (3)**

Prerequisite: 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 - chi square.

**SOC 563 - Qualitative Methods (3)**

Epistemological foundations of qualitative research: field observation, ethnography, interviews, focus groups; project design, research ethics, site selection, interviewing and observation techniques, coding and analysis, and interpretation/presentation of findings.

**SOC 571 - Sociology of Aging (3)**

Survey theories and research on the social aspects of aging with emphasis on later maturity and old age.

**SOC 574 - Sociology of Sport (3)**

Introduction to the sociological study of sport. Focusing on sports as social and cultural phenomena, we use sociological concepts and critical thinking to examine the impact of sports on social structure and institutions.

**SOC 579 - The Community (3)**

This course focuses on local, national and international communities. Major theories and empirical evidence will guide understanding of how communities work, their impact on individuals, and how they are constructed.

**SOC 580 - Social Policy Analysis (3)**

Examines social policy and society. Socio-cultural historical conditions, social institutions which affect policy formation. Social change and social policy and utilization of sociological concepts and methods are examined.

**SOC 590 - Proseminar (0)**

This course includes an overview of the field of sociology, career paths as well as orientation to graduate education, research approaches and possibilities. Ethical issues in the field today are discussed. Course meets one hour per week. Must be taken the first available semester after being admitted to the graduate program. Repeatable. S/U graded.

**SOC 593 - Practicum in College Teaching in Sociology (3)**

Prerequisites: Seniors and above. Majors only. Students contact the Sociology department and fill out an application to take the course. As part of the coursework, students assist instructors in a sociology course and will receive experience in observation and supervised practice. A-F Graded. Application required.

**SOC 595 - Special Topics in Inequality (3)**

Students will examine a specific topic developed by the faculty member teaching the course. This course will examine inequality and its implications for various contemporary issues. Students will apply research methods training and theoretical analysis to a research project culminating in a written paper and presentation. Repeatable under different subtitles, maximum 3 times.

**SOC 622 - Directed Studies (1- 3)**

Individualized investigation under the direct supervision of a faculty member. (Minimum of 37.5 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

**SOC 660 - Applied Social Research (3)**

Students will learn the basics of sociological study design and data collection techniques and employ the applied sociological approach toward development of an approved research project.

**SOC 691 - Research Internship (1- 9)**

Prerequisites: Nine hours of graduate credit in sociology, a GPA of 3.0 and consent of the instructor. S/U graded. Put classroom learning into practice with research in an organizational setting. Repeatable, maximum of 9 credits.

**SOC 699 - Thesis (1- 6)**

Optional for Master of Arts students upon recommendation of major advisor. S/U graded. Repeatable.

**SOC 999 - Graduate School Continuous Registration (1)**

To permit a graduate student to continue making progress in a degree program. S/U graded. Repeatable, no limitations.

**SOSC - Social Science**

College of Humanities and Social Sciences

Program of Social Sciences

- Contact (970) 351.2929
- [www.unco.edu/social\\_sciences](http://www.unco.edu/social_sciences)



**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**

College of Humanities and Social Sciences

Department of Hispanic Studies

- Contact (970) 351.2811
- <http://www.unco.edu/hss/hispanic-studies>

**SPAN 502 - Spanish Composition (3)**

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)**

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)**

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- 3)**

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. Variable credit functions as follows: Summer course is offered for 2 credits; Academic Year is for 3 credits.

**SPAN 507 - Spanish for Oral Proficiency (3)**

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 521 - Spanish Civilization and Culture (3)**

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)**

Designed to examine the historical and cultural development of the Latin American countries. Surveys the major historical events from the pre- Colombian period to the present.

**SPAN 550 - Masterpieces of Spanish Literature (3)**

Chronological study of Spanish literary movements, schools and their literary masterpieces from Middle Ages to XXI Century. *Celestina*, 'el pizaro', Don Juan, and Don Quijote will be presented.

**SPAN 551 - Masterpieces of Latin American Literature (3)**

Chronological study of Spanish American literary movements, schools and their literary masterpieces from Pre- Colombian texts to XXI Century authors. Includes poetry, novel, essay and drama.

**SPAN 555 - Literature for Children and Adolescents (3)**

A study of award-winning works of literature. Emphasis on multi-cultural books for children and adolescent literature of acculturation and assimilation.

**SPAN 560 - Spanish Civilization and Culture (2)**

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)**

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)**

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- 6)**

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 six credits.

**SPAN 570 - Readings in United States Hispanic Literature (1- 6)**

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 six credits.

**SPAN 571 - Readings in Spanish Literature (1- 3)**

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)**

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 575 - Masterpieces of 20th and 21st Century Latin America (2)**

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 (1- 3)**

Provides a basic understanding of Mexican 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- 6)**

An in-depth study of difficult 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 six credits.

**SPAN 581 - Advanced Spanish Grammar (2)**

An intensive study of the more complex theories and forms of Spanish grammar, with emphasis in mood, tense and voice.

**SPAN 582 - Spanish for Oral Proficiency (2)**

A course designed to develop oral proficiency by exposing students to superior linguistic functions.

**SPAN 583 - Oral and Written Discourse (2)**

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 600 - Introduction to Graduate Study and Research Methods (3)**

Orientation to graduate study in the MA in Foreign Languages: Spanish Teaching Emphasis, presents principles of design, analysis, and methodology of graduate-level research and writing the areas of pedagogy, linguistics, literature and cultural studies.

**SPAN 622 - Directed Studies (1- 3)**

Individualized investigation under the direct supervision of a faculty member. (Minimum of 37.5 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

## SRM - Statistics and Research Methods College of Education and Behavioral Sciences

**Department of Applied Statistics and Research Methods**

- Contact (970) 351.2807
- <http://www.unco.edu/cebs/applied-statistics-research-methods/about-us.aspx>

**SRM 502 - Applied Statistics (3)**

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.

**SRM 519 - Qualitative Analysis Software (1)**

An overview and basic understanding of qualitative analysis software including preparation of data files, managing text and images, creating codes, memos, queries models and reports.

**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 521 - Statistical Computing with SPSS (1)**

Prerequisites: Completion of or concurrent enrollment in SRM 602; familiar with basic Windows commands and features, including use of pull-down menus, basic text editing features, etc. Course will acquaint students with the data management, data transformation and statistical analysis procedures available in SPSS for Windows.

**SRM 522 - Introduction to R (1)**

The R programming language is an important and current research tool for statisticians. Students will receive an introduction to data manipulation, graphical techniques, model building and some programming using R.

**SRM 531 - Research and Statistical Consulting I (1)**

Consent of Instructor. This course is intended to present an introduction to the concepts and issues surrounding statistical consulting. Students will learn and practice the process of consulting and communicating with clients.

**SRM 551 - Mathematical Statistics with Applications I (4)**

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 595 - Special Topics in Applied Statistics and Research Methods (1- 4)**

Specialized topics or contemporary issues. Topics vary. Repeatable, maximum two times, under different subtitles.

**SRM 600 - Introduction to Graduate Research (3)**

Principles of research, design and analysis. Read and critique published research. Required of all first year graduate students except in those departments with substitutes. Taught every semester.

**SRM 602 - Statistical Methods I (3)**

Prerequisite: SRM 600. Brief review of descriptive statistics. Covers probability, inference and sampling, correlation, hypothesis testing one-way ANOVA and an introduction to computer statistics packages.

**SRM 603 - Statistical Methods II (3)**

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. Matrix approach to continuous and categorical variables, polynomial Selected non-linear models; formulation of ANOVA and ANCOVA designs and collinearity; regression methods; backward elimination, forward selection, stepwise regression.

**SRM 607 - Non-Parametric Statistics (3)**

Prerequisite: SRM 502 or Consent of instructor. Study non-parametric tests; the rationale underlying the tests; examples of application of the tests in behavioral research; and comparison of the tests with their parametric equivalents.

**SRM 608 - Experimental Design (3)**

Prerequisite: SRM 502 or SRM 603. Topics include factorial designs, crossed/nested designs, repeated measurements, blocking, analysis of covariance, pre- and post-multiple comparisons, trend analysis, power and use of computer software.

**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 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. Student deals 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.

**SRM 614 - Linear Models (3)**

Prerequisite: SRM 502, SRM 551. Advanced topics in matrix algebra with applications to statistics. Development of the theory of linear models as a structure for handling problems in regression, analysis of variance, and experimental design.

**SRM 617 - Biostatistics and Health Data Analysis (3)**

Prerequisite: SRM 600 or equivalent. Students will gain an understanding of biostatistical methods. This course enables students to develop the skills and knowledge necessary to manage and analyze health care and biomedical data.

**SRM 620 - Advanced Statistical Programming (3)**

Prerequisites: SRM 520, SRM 502 or SRM 603, and SAS programming competence with data steps and basic data manipulation and statistical procedures. Introduces advanced programming tools using the SAS System. Designed to better qualify students for jobs in statistical data analysis.

**SRM 622 - Directed Studies (1- 3)**

Consent of instructor. Individualized investigation under the direct supervision of a faculty member. (Minimum of 37.5 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

**SRM 625 - Applied Multiple Regression Analysis (3)**

Prerequisites: SRM 602 and SRM 603 or equivalent. Acquaint students with the major applications of and issues related to multiple regression analysis. Gain the skills necessary for conducting and interpreting studies involving multiple regression analysis.

**SRM 626 - Applied Multilevel Modeling (3)**

Prerequisite: SRM 602, SRM 603, and SRM 625. Acquaint students with the major applications and issues related to multilevel modeling. Gain the skills necessary for conducting and interpreting studies involving multilevel modeling.

**SRM 627 - Survey Research Methods (3)**

Prerequisites: SRM 600, SRM 602 and PSY 674 or equivalent. Covers the uses of surveys, the process involved in designing and implementing a survey study, and general issues related to survey research.

**SRM 629 - Structural Equation Modeling (3)**

Prerequisites: SRM 610 and SRM 625 or equivalent or permission of instructor. Applications of and issues related to covariance structure modeling. Students will gain skills needed for designing, conducting, and interpreting studies involving confirmatory factor analysis and latent variable path modeling.

**SRM 635 - Categorical Data Analysis (3)**

Principles of Categorical Data Analysis. Emphasis on log-linear and logit modeling techniques, which parallel many features of the general linear model in the continuous case. Taught alternate years.

**SRM 636 - Applied Bayesian Statistics (3)**

Prerequisites: SRM 502 and consent of instructor. This course provides an introduction to Bayesian statistical methods for inference. Topics include prior, likelihood, posterior, and predictive distributions, Bayesian analysis of single parameter models and simple multi-parameter models using conjugate, non-informative and informative priors, hierarchical modeling, and simulation of posterior distributions and posterior summaries using statistical packages.

**SRM 637 - Applied Time Series Analysis (3)**

Prerequisites: SRM 606 or SRM 625 and consent of instructor. Covers, the principles of analyzing time series data; descriptive techniques, time series models; ARIMA,

SARIMA, fitting time series models in time domain, forecasting, model selection and diagnostic checking.

**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 645 - Statistical Process Control (3)**

Prerequisites: SRM 502. Introduction to the use of statistical methods for quality improvement. Provides a comprehensive coverage of material from basic principles to state-of-the-art concepts and applications to both product and non-product situations.

**SRM 650 - Research and Statistics Colloquium (1)**

Required of all Master's 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 660 - Mixed Methods Research (3)**

Prerequisites: SRM 602 and SRM 680. Prerequisite or concurrent: SRM 603. Topics will include the historical background, 'paradigm wars', design, theory, advantages/disadvantages, writing and defending proposals, validity/reliability and data analysis of mixed methods or complimentary research.

**SRM 670 - Evaluation: Models and Designs (3)**

Prerequisite: SRM 600. Theories and methods of program evaluation, models of evaluation and the social context of evaluation. Nature and types of evaluation, planning, proposal writing and measurements.

**SRM 671 - Grant Writing for Evaluators (3)**

Prerequisite or concurrent: SRM 670. Emphasis on application of advanced skills in research and evaluation to the pre-proposal, proposal and post-proposal phases of the grant writing process. Students will develop an applied project with stakeholders.

**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 683 - Visual and Virtual Inquiry (3)**

Prerequisites: SRM 680. Students will explore research topics in visual and virtual inquiry including: history, contemporary relationship to critical research, ethical dilemmas, and current use in their own discipline. Visual and virtual products will be developed as demonstrations of students' increased methodological understandings.

**SRM 684 - Research Ethics (1)**

Study of ethics in human research including history, theory, disciplines' codes, IRB, distinctive respondents. Students receive an IRB training certificate, learn to prepare IRB application, and develop an ethical stance.

**SRM 685 - Educational Ethnography (3)**

Prerequisite: SRM 680 or equivalent. Provides in-depth study of ethnography as related to educational research including issues of ethics, politics, diversity, and the researcher's role. Students will propose and conduct a mini-educational ethnography.

**SRM 686 - Qualitative Case Study Research (3)**

Prerequisite: SRM 680 or equivalent. In depth examination of qualitative case study research. Characteristics of general case studies along with specific types of case studies will be covered. Students will propose and conduct a mini-case study.

**SRM 687 - Narrative Inquiry (3)**

Prerequisites: SRM 680 or equivalent. In depth study of narrative research including life history, oral history, biography, and auto-ethnography. Group and individual narrative inquiries will be conducted. Interviewing, ethics and research benefiting participants will be emphasized.

**SRM 688 - Writing Qualitative Research (3)**

Prerequisites: SRM 680 or equivalent and one of the following SRM 685, SRM 686 or SRM 687 or equivalent. An in-depth study of the role writing plays in quantitative research data collection, analysis and representation. Students will use data they collected in a variety of analysis and writing activities.

**SRM 689 - Internship in Applied Statistics (1-10)**

Experiential learning in an on-campus setting, such as the Research Consulting Lab. Students work a minimum of 3 hours per week for each hour of credit. 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 697 - Master's Project (3)**

Prerequisites: SRM 600, SRM 502. This course is intended to facilitate a capstone project at or near the completion of all other required courses for the MS Applied Statistics and Research Methods degrees.

**SRM 700 - Advanced Research Methods (3)**

Prerequisites: Either SRM 502 or SRM 602. Advanced research designs, concepts and methods. Required of all specialist and doctoral candidates.

**SRM 705 - Advanced Issues in Research Methods (3)**

Prerequisites: SRM 602, SRM 603, SRM 610, and PSY 674 or equivalent; additional course work in research design, measurement and statistics is recommended. Seminar is designed to acquaint advanced doctoral students with selected current issues in the field of research methodology. Topics will vary based on instructor and student interest.

**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, MANOVA, and profile analysis.

**SRM 732 - Research and Statistical Consulting II (2)**

Prerequisites: SRM 502 and either concurrent enrollment in or completion of SRM 700. Skills and strategies for effective consulting in research, statistics, and evaluation. Students will learn about good consulting practice and will gain hands-on experience in oral and written communication with clients.

**SRM 752 - Statistical Inference (4)**

Prerequisite: SRM 552. The theoretical fundamentals of mathematical statistics and inference including: limiting distributions, statistics and sampling distributions, point estimation, sufficiency and completeness, interval estimation, and tests of hypotheses.

**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 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.

## **TASL - Teaching American Sign Language**

### **College of Education and Behavioral Sciences**

#### **Department of American Sign Language & Interpreting Studies**

- Contact (720) 216.2662
- [www.unco.edu/cebs/asl-interpreting/teaching-asl/](http://www.unco.edu/cebs/asl-interpreting/teaching-asl/)

### **TASL 501 - First and Second Language Acquisition in ASL (3)**

The course will introduce major theories of acquisition, and similarities and differences between first language and second language acquisition and learning for teaching ASL as L1 and L2.

### **TASL 502 - ASL Teaching Methods (3)**

This course will introduce theories and methods for teaching ASL as L1 and L2 across multiple instructional settings: elementary, secondary and post-secondary.

### **TASL 503 - ASL Assessment and Testing (3)**

The course will discuss classroom assessment tools and evaluation techniques to assess L1 and L2 ASL students' receptive, expressive and conversational skills and socio-cultural knowledge across multiple instruction settings.

### **TASL 504 - ASL Curriculum Development and Design (3)**

This course will examine curriculum development in ASL education across multiple educational settings. Development and models of syllabi, including instructional technology and materials, along with lesson plans will be explored.

### **TASL 505 - Teaching Deaf Community, Culture, and ASL Literature (3)**

The course will focus on methods of teaching Deaf community and culture, and ASL literature in ASL classes. Appropriate cultural, community and literature contents will be explored.

### **TASL 506 - Contemporary Professional Issues in Teaching ASL (3)**

The course will explore and address the contemporary issues in the profession of teaching ASL including language policy, state and national credentialing issues.

### **TASL 507 - ASL Research Methods (3)**

The purposes, values, designs and methods of research in educational setting will be introduced. The students will conduct research on a topic related to ASL teaching.

### **TASL 593 - Practicum for ASL Teaching I (3)**

Students will have observational learning experiences with other ASL teachers in ASL as first language or second language instruction in various education settings.

### **TASL 594 - Practicum for ASL Teaching II (3)**

Prerequisites: TASL 593. Students will have in-depth teaching and learning experiences in teaching ASL as a first language or second language in an educational setting.

### **TASL 622 - Directed Studies (1- 3)**

Individualized investigation under the direct supervision of a faculty member. (Minimum of 37.5 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

## **TED - Teacher Education**

### **College of Education and Behavioral Sciences**

#### **School of Teacher Education**

- Contact (970) 351.2908
- [www.unco.edu/cebs/teachered](http://www.unco.edu/cebs/teachered)

### **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 605 - Professional Seminar II (2)**

Prerequisites: SRM 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.

## **THEA - Theatre Arts**

### **College of Performing and Visual Arts**

#### **School of Theatre Arts and Dance**

- Contact (970) 351.2991
- [www.arts.unco.edu/theatredance](http://www.arts.unco.edu/theatredance)

### **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 fieldwork course involves theory and methodology in practice. Copies of written evaluation must be filed with instructor and department. Repeatable, maximum of four credits.

**THEA 622 - Graduate Directed Research in Theatre (1- 4)**

Individualized investigation under the direct supervision of a faculty member. (Minimum of 37.5 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. Repeatable, maximum of 30 credits.

**THED - Theatre Education****College of Performing and Visual Arts****School of Theatre and Dance**

- Contact (970) 351.2991
- [www.arts.unco.edu/theatredance/theatreedu.html](http://www.arts.unco.edu/theatredance/theatreedu.html)

**THED 530 - Theatrical Production I (3)**

Prerequisites: THED 600 and THED 670. Students will gain a solid working overview in design, including but not limited to the following: costuming, stage make-up, scenery, sound, and lighting.

**THED 531 - Theatrical Production II (3)**

Prerequisites: THED 600, THED 670, THED 530, THED 540, THED 560, THED 680; and THED 690 or THED 696. This course is a continuation of the ideals and concepts offered in THED 530 with emphasis placed upon those areas not addressed in Technical Production I.

**THED 540 - Directing/Acting: Realism and Non-Realism/Period Styles (3)**

Prerequisites: THED 600 and THED 670. Masters only. This course will include advanced studies in the approaches and techniques of directing and acting in realism, as well as explore the styles and theatrical periods of non-realism.

**THED 541 - Directing/Acting: Musical Theatre (3)**

Prerequisites: THED 600, THED 670, THED 530, THED 540, THED 560, THED 680; and THED 690 or THED 696. This course will explore the tasks of acting in, directing, choreographing, and mounting a musical theatre production.

**THED 560 - Innovative Strategies in Drama Education (3)**

Prerequisites: B.A. or B.S. degree, Teaching Certificate recommended not required. Students will research theatre education strategies practiced in the US and internationally. Focus will be paid to investigating methods which break the mold of traditional practices in most secondary school settings.

**THED 561 - Voice and Movement (3)**

Prerequisites: B.A. or B.S. degree, Teaching Certificate recommended not required. This course is designed to provide an advanced working knowledge of the voice using fundamental through advanced exercises. The movement section of this course will provide working knowledge of the actor's body and its connection to vocal work.

**THED 600 - Dramaturgy/Research Methodology (3)**

Prerequisites: B.A. or B.S. degree, Teaching Certificate is recommended, yet not required. Students learn effective research strategies for the field of theatre arts. Students will produce a dramaturgical protocol, requiring detailed preparatory research, testing of ideas, and public presentation of theory and concepts in practice.

**THED 670 - Advocacy, History, and Philosophy of Theatre Education (3)**

Prerequisites: B.A. or B.S. degree, Teaching Certificate is recommended yet not required. This course will explore the history and philosophy of theatre education in the U.S. Participants will investigate the guiding question: why is theatre education essential for every school?

### **THED 680 - Theatre Education Curriculum Development (3)**

Prerequisites: B.A. or B.S. degree, Teaching Certificate recommended not required. The purpose of this course is for students to apply the techniques and strategies acquired from previous courses into creating actual curriculum for their classrooms. Students will conduct interviews with experienced teachers in the field, research national theatre curriculum, and analyze and develop new curriculum.

### **THED 690 - Thesis I (3)**

Prerequisites: B.A. or B.S. degree, Teaching Certificate is recommended yet not required, THED 530, THED 540, THED 560. In this course, students will prepare a prospectus proposal and a portion of the prompt book for their Master's thesis project.

### **THED 696 - Action Research I (3)**

Prerequisites: THED 530, THED 540, THED 560, THED 600, THED 670, and THED 680. In this course, students will begin an action research plan developed and approved in THED 680: Theatre Education Curriculum Development.

### **THED 697 - Action Research II (3)**

Prerequisites: THED 530, THED 531, THED 540, THED 541, THED 560, THED 561, THED 600, THED 670, THED 680; and THED 690 or THED 696. In this course, students will complete an action research project begun in THED 696 by drawing conclusions and discussing implications. They will submit final reports to graduate committees.

### **THED 699 - Thesis II (3)**

Prerequisites: B.A. or B.S. degree, Teaching Certificate is recommended, yet not required, 33 credit hours of program completed. In this course, students will finish the dramaturgical protocol and prompt book for their Master's thesis project and produce the show that accompanies them both.

## **TIP - Technology Innovation and Pedagogy**

### **College of Education and Behavioral Sciences**

#### **School of Teacher Education**

- Contact (970) 351.2908
- [www.unco.edu/cebs/teachered](http://www.unco.edu/cebs/teachered)

### **TIP 523 - Innovative Pedagogy and Assessment (3)**

Graduates only. Explore paradigms establishing educational innovations that challenge traditional norms in pedagogical and assessment practices. Investigate theories

and practice of creativity and change in the processes of innovating teaching and learning.

### **TIP 525 - Learners and Curriculum in the Digital Age (3)**

Graduates only. Examine, critically assess and develop curriculum that aims to build students' creativity, collaboration, critical thinking, and communication skills to prepare them for an increasingly complex, demanding, and competitive workplace.

### **TIP 527 - Social Justice in the Digital Age (3)**

Graduates only. Explore social justice concepts, issues and reforms particularly associated with digital/global contexts. Develop necessary analytical tools and knowledge to assess inequity and injustice in ever-changing global communities.

### **TIP 529 - Instructional Design (3)**

Graduates only. The purpose of this course is to discover the creative process that uses instructional design frameworks (analysis, design, development, implementation, and evaluation) to create effective, efficient, and appealing instruction.

### **TIP 622 - Directed Study (3)**

Individualized investigation under the direct supervision of a faculty member. (Minimum of 37.5 clock hours required per credit hour.) Letter graded. Repeatable: maximum concurrent enrollment is two times.

### **TIP 630 - Trends and Issues in Instructional Design and Technology (3)**

The purpose of this course is to provide an overview of the field of instructional design and technology and its impact on education and training. Current trends and issues in the application of instructional design and technology will be explored.

### **TIP 631 - Distance Education (3)**

The purpose of this course is to provide an overview of distance education foundations (design and development), application and implementation (interactivity and interactions), and management issues (policy and evaluation).

### **TIP 633 - Instructional Design Applications (3)**

This course enables participants to apply research findings in a systematic instructional design process, with emphasis on applied learning theories, practical instructional strategies, and appropriate use of educational technologies.



**TIP 635 - Instructional Materials Development for Online Learning (3)**

Investigate research and best practices related to the development of instructional activities and materials for online instruction. Develop materials to work within a learning management system environment.

**TIP 640 - Applications of Multiliteracies (3)**

Explore theoretical perspectives of the changing ways society communicates in digital and live contexts. Create and apply multimodal communication in our evolving social contexts.

**TIP 641 - Designing, Playing, and Learning (3)**

Explore opportunities for creating, designing, tinkering and making in learning contexts. Develop an understanding of theory and practice for creating environments for learners to design using available resources and modes.

**TIP 643 - Alternative Instructional Formats (3)**

Investigate options for implementing alternative methodologies in the classroom. This course will explore Flipped Learning/Flipped Classrooms, Gamification, Blended Learning, BYOD, 1:1 environments and other emerging instructional strategies.

**TIP 645 - Children's Engineering and STEM (3)**

Develop foundational knowledge about trans-disciplinary approaches to learning where rigorous academic concepts are coupled with real-world problem-based and performance-based lessons. Engage in and develop integrated STEM learning activities across disciplines.

**TIP 675 - Innovating Education Culture: Research and Practice (3)**

Concurrent prerequisite: SRM 600. Explore innovative practices in learning and explore processes for transforming ideas into practical applications. Critically consider how social contexts share educational experiences through reviewing research and practices.

**TIP 695 - Special Topics in Technology, Innovation and Pedagogy (3)**

Scheduled on irregular basis. Explore special topics in Technology, Innovation and Pedagogy. An appropriate subtitle will explain each course.

**TIP 700 - Methods of Research in Instructional Design and Educational Technology I (3)**

Investigate research methodologies for the fields of instructional design and educational technology including theoretical and practical approaches. Explore current research problems and directions for future research.

**TIP 701 - Methods of Research in Instructional Design and Educational Technology II (3)**

Extends content of TIP 700. Investigate research methodologies for fields of instructional design and educational technology including theoretical and practical approaches. Explore current research problems and directions for future research.

**TIP 720 - Doctoral Seminar (3)**

Orients students to doctoral program by exploring topics related to research, teaching in higher education, and professional engagement. Engage in readings and discussions and field related projects.

**TIP 721 - Learning Theories and Technology Integration (3)**

Review established learning theory, adult learning theory, educational identity, and philosophy; investigate theoretical substructures in technology-rich teaching and learning and explore their impact on educational change.

**TIP 723 - Global & Cultural Perspectives in Educational Technology (3)**

Explore implementations and implications of educational technology in a global context. Examine promises and challenges of technology integration in both developed and developing countries as impacted by different socioeconomic contexts.

**TIP 725 - Critical Theory and Research in Educational Technology (3)**

Establish foundational knowledge about critical theory; examine key texts, issues, and methodologies within critical educational research from cultural studies, action research, critical ethnography, narrative inquiry, critical pedagogy, and feminist research.

**TIP 730 - Performance Technology for Instructional Environments (3)**

Explore concepts about performance technology and conduct performance evaluations and assessments in K12, higher education, and business settings. Focus on identifying gaps in employee performance and select appropriate intervention strategies.

**TIP 731 - Advanced Instructional Design Theory, Research and Practice (3)**

Investigate various theoretical positions recognized as instrumental in shaping instructional design practice. Explore underlying philosophical positions that contribute to the application of these theories in a variety of design settings.

**TIP 733 - Case Studies in Instructional Design and Performance Technology (3)**

Establish foundational knowledge about human performance technology. Examine instructional uses of case studies for analysis, design, and evaluation of performance and educational environments.

**TIP 735 - Online Theory and Management (3)**

Study distance-learning concepts: design, assessment, application, implementation, and management issues (copyright, CMS, policy). Explore theoretical principles, models, and trends for future research and application in administration of distance education contexts.

**TIP 737 - Technology Leadership & Managing Educational Projects (3)**

Prepare as educational administrators to address theoretical and practical considerations for planning/implementing technology. Build foundational knowledge for leadership and technology project management; explore research shaping educational technology at institutional levels.

**TIP 740 - Innovations in Technology & Education (3)**

Explore what it means to be innovative. Critically examine trends and issues in educational technology as well the processes that enabled them. Study emerging and open source technology applications.

**TIP 741 - Design Thinking (3)**

Contextualize and analyze designs and systems for learning. Apply methodologies of design to envision, explain, and evaluate solutions to a wide range of human problems involving learning, information and interaction.

**TIP 742 - Multimedia & Computer Graphics (3)**

Explore multimedia concepts and applications utilizing text, graphics, animation, sound, video, and various multimedia applications in the design of multimedia presentations and products within an interactive environment.

**TIP 743 - Visual and New Media Literacy (3)**

Unpack ways of understanding visual images in multiple modes and genres. Study aesthetics and production of visual images for education, analyze visual communications, and review and apply visual learning research.

**TIP 745 - Multimodal Composing (3)**

Compose and communicate in all forms, media, modes, and genres. Employ rhetorical strategies from placement of texts to consideration of audience to the media used to write and present meaning.

**TIP 747 - Simulations in Education (3)**

Critically assess and develop curriculum and simulations that aim to build students' creativity, collaboration, critical thinking, and communication skills to prepare them for an increasingly complex, demanding, and competitive workplace.

**TIP 749 - Gaming and Application Design (3)**

Design and develop computer-based games and mobile applications for educational contexts. Explore various design tools and examine research and implementation issues related to gaming in various educational settings.

**TIP 770 - Visual Methods for Educational Research in Digital Contexts (3)**

Engage with visual methods in digital contexts: 1) incorporating them for data gathering/analysis, 2) studying visual products of culture (production, consumption, meaning), and 3) communicating meaning through multimodal presentation.

**TIP 797 - Dissertation Proposal Research (1- 4)**

Permission of research advisor required. Selection of an appropriate research topic in the field of instructional design and technology. Summarize related literature, identify a researchable problem within that topic, and develop appropriate methodology. Develop an approved research proposal. S/U graded. Repeatable, maximum of four credits.

**TIP 799 - Dissertation Research (1-12)**

After receiving approval for the proposal, the doctoral candidate must register for dissertation hours while conducting the research and writing the final report in the form of a dissertation. Doctoral candidates must earn 12 hours of dissertation credit towards the doctoral degree. S/U graded. Repeatable, no limitations.

## ADMINISTRATION

### Board of Trustees

In parentheses: the first year is the date of the first appointment; the second year is the expiration of the present term.

#### Chair, Richard Monfort (1999-2017)

- Vice Chair, Paul Washington (2012-2019)
- Kevin Ahern (2014-2019)
- S. Kato Crews (2015-2018)
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### President and General Administration

#### Kay Norton, J.D.

(1998), President — B.A., Wellesley College; J.D., University of Denver

#### General Administration

The UNC administration is listed with their name followed by their highest degree. The year in parentheses is the first year of employment at UNC followed by all degrees conferred.

#### Vice Presidents

##### Robbyn R. Wacker, Ph.D.

(1990), Provost and Senior Vice President — B.A., B.S., M.S., University of Northern Colorado; Ph.D., Iowa State University

##### Michelle F. Quinn, M.A., C.P.A.

(2001), Senior Vice President for Finance & Administration and Chief Financial Officer — B.S., George Mason University; M.A., West Virginia University

##### Daniel R. Satriana, Jr., J.D.

(2010), Vice President and General Counsel — A.B., Lafayette College; J.D., Villanova University School of Law

##### Daniel Weaver

(2003), Vice President for External and University Relations — B.A., Mesa State College; M.B.A., University of Denver

##### Wayne Webster, Ed.D

(2015), Vice President for Development and Alumni Relations — B.A., M.A., Doane College, Ed.D., The George Washington University.

#### Assistant Vice Presidents and Associate Provosts

##### Teresa M. McDevitt, Ph.D.

(1985), Associate Provost for Academic Affairs — B.A., University of California; M.A., Ed.S., Ph.D., Stanford University.

##### Thomas A. Smith, Ph.D.

(2006), Associate Provost and Dean of University College — B.A., University of Washington; Dip.C.S., M.C.S., Regent College; M.A., Ph.D., University of Notre Dame

##### Linda Black, Ed.D.

(2000), Associate Provost and Dean of the Graduate School and International Admissions — B.A., B.S., University of Iowa; M.A., Lesley College; Ed.D., University of Northern Colorado

##### Tobias J. Guzmán, Ed.D.

(2000), Assistant Vice President for Enrollment Management and Student Access — B.A., University of Northern Colorado; M.A., Plymouth State University; Ed.D., Northeastern University.

##### Bret Naber

(2001), Assistant Vice President for Information Management & Technology/CIO — B.S., M.A., University of Northern Colorado

##### Kirk Lechlitter, B.S.

(1990), Assistant Vice President Facilities Management — B.S., University of Wyoming

##### Katrina Rodriguez, Ph.D.

(2004), Assistant Vice President for Student Engagement and Dean of Students—B.A., M.A., Northern Arizona University; Ph.D., University of Northern Colorado

##### Susan L. Simmers, M.B.A.

(2008), Assistant Vice President Finance and Budget — B.S.B.A., St. Louis University; M.B.A., Creighton University

##### Lyndsey Crum, J.D.

(2014), Assistant Vice President for Alumni Relations - B.A., University of Northern Colorado, J.D., University of Denver.

##### Allie Steg Haskett, M.N.M.

(2005), Assistant Vice President for Development - B.A., University of Northern Colorado, M.N.M., Regis University.

## Internal Auditor

### **Bradley A. Hoffner, B.A.**

(1995), Internal Auditor — B.A., University of Northern Colorado

## College Administration

### College of Education and Behavioral Sciences

#### **Eugene P. Sheehan, Ph.D., Dean**

(1987), 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)

#### **Jingzi (Ginny) Huang, Ph.D., Associate Dean**

(2011), B.A., M.Ed., Beijing Normal University; M.A., Ph.D., University of British Columbia

#### **Nancy Sileo, Ed.D., Assistant Dean**

(2012), B.A., National University; M.Ed. University of Hawaii, Manoa; Ed.D. University of Northern Colorado

### College of Humanities and Social Sciences

#### **Laura Connolly, Ph.D., Dean**

(2000), B.A., University of Colorado; M.A., Ph.D., Northwestern University

### Kenneth W. Monfort College of Business

#### **Paul M. Bobrowski, Ph.D., Dean**

(2016), B.S., US Air Force Academy; M.S., Purdue University; Ph.D., Indiana University

### College of Natural and Health Sciences

#### **Ellen Meyer Gregg, Ph.D., Dean**

(1987), B.S., M.A., Northwestern University; Ph.D., University of Colorado

### College of Performing and Visual Arts

#### **Leo Welch, D.M., Dean**

(2013), B.M., Potsdam State University; M.M., D.M., Florida State University

#### **Kiki Gilderhus, Ph.D., Associate Dean**

(2015), B.A., Gustavus Adolphus College; M.A., Ph.D., University of Wisconsin-Madison

## Graduate School

### **Linda Black, Ed.D.**

(2000), Associate Provost and Dean of the Graduate School and International Admissions — B.A., B.S., University of Iowa; M.A., Lesley College; Ed.D., University of Northern Colorado

## University College

### **Thomas A. Smith, Ph.D.**

(2006), Associate Provost and Dean of University College — B.A., University of Washington; Dip.C.S., M.C.S., Regent College; M.A., Ph.D., University of Notre Dame

## University Libraries

### **Helen I. Reed, A.M.L.S., Dean**

(1990), A.B., Allegheny College; A.M.L.S., University of Michigan

### **Gregory T. Heald, M.L.I.S. Associate Dean**

(2000), Associate Professor of University Libraries — B.A., St. John's College; M.L.I.S., University of Rhode Island

### **Jayne R. Blodgett, M.L.I.S., Assistant Dean**

(2016), Associate Professor of University Libraries - B.A., University of Wisconsin - Eau Claire; M.A., University of Wisconsin; M.L.I.S., Dominican University

## UNC FACULTY

## A

**Donald K. Adams, Ed.D.**

(1993), Professor Emeritus of Educational Field Experiences — B.S., M.A., Ed.D.; Appointed 1971

**Rick Adams, Ph.D.**

(2002), Professor of Biological Sciences — B.A., M.A., Ph.D., University of Colorado (G, DR)

**Wendy K. Adams, Ph.D.**

(2011), Associate Professor of Physics — B.A., University of Northern Colorado; M.S., University of Colorado; Ph.D., University of Colorado (G)

**John Adler, D.M.A.**

(2010), Associate Professor of Music — B.M., University of Nevada-Reno; M.M., University of Oregon; D.M.A., University of Miami (G, DR)

**Dennis Aguirre, Ph.D.**

(2017), Assistant Professor of Hispanic Studies - B.A., The University of New Mexico; M.A., Ph.D., The University of Texas at El Paso

**Jonathan Alcantar, Ph.D.**

(2016), Assistant Professor of Hispanic Studies - B.A., San Jose State University; M.A., San Jose State University; Ph.D., University of California, Davis

**Janet K. Alcorn, Ed.D.**

(2001), Director of Tointon Institute for Educational Change — B.A., Occidental College; M.A., Ed.D., University of Northern Colorado

**Mark B. Alcorn, Ph.D.**

(1986), Associate Professor of Psychological Sciences — B.A., Occidental College; M.A., Ph.D., University of Southern California (G)

**Garth H. Allen, J.D.**

(1973), Associate Professor of Finance — B.S., J.D., University of Iowa (G)

**Linda S. Allen, Ph.D.**

(1992), Professor of Communication — B.A., Idaho State University; M.A., University of Wisconsin; Ph.D., University of Oregon (G)

**Michael Todd Allen, Ph.D.**

(2003), Associate Professor of Psychological Sciences — B.A., North Carolina State University; Ph.D., Indiana University (G, DR)

**Dean E. Allison, Ph.D.**

(1993), Professor of Mathematical Sciences — B.S., M.A., Ph.D., University of Missouri (G, DR)

**Michael Alexander, D.M.A.**

(2015) Director, School of Music — D.M.A., University of Wisconsin-Madison; M.M., University of Wisconsin-Milwaukee; B.M.E., University of Georgia

**Euridice Alvarez, D.M.A.**

(2013), Assistant Professor of Music — B.A., University of Southern Mississippi; M.M., Baylor University; D.M.A., Eastman School of Music (G)

**Mark A. Anderson, M.L.I.S.,**

(1994), Associate Professor of University Libraries — B.A., M.L.I.S., University of Iowa

**Mark W. Anderson, Ed.D.**

(2001), Assistant Professor Emeritus of Mathematics and Master Teacher in the Laboratory School — B.A., M.A., Ed.S.; Appointed 1975

**Steven Anderson, Ph.D.**

(2007), Professor of Geology — B.S., Cornell College; M.S., Ph.D., Arizona State University (G, DR)

**Erik Applegate, M.M.**

(2007), Professor of Jazz Studies — B.M., Berklee College; M.M., University of Northern Colorado (G, DR)

**Anthony D. Armenta, Ed.D.**

(2009), Professor of Educational Leadership and Policy Studies — B.S., M.A., Ed.D., Northern Arizona University (G, DR)

**David R. Aske, Ph.D.**

(1997), Professor of Economics — B.S., Mankato State University; Ph.D., University of Nebraska (G)

**Michelle S. Athanasiou, Ph.D.**

(1996), Chair, Department of School Psychology, Professor of School Psychology — B.A., Southeast Missouri State University; M.A., University of Memphis; Ph.D., University of Nebraska-Lincoln (G, DR)

## B

**Spencer Bagley, Ph.D.**

(2015), Assistant Professor of Mathematical Sciences - B.S., M.S., University of Utah; Ph.D., San Diego State University and UC San Diego (G, DR)

**Stacy R. Bailey, M.A.**

(2012), Clinical Faculty Lecturer in English Education — B.A., M.A., University of Northern Colorado

**Graham B. Baird, Ph.D.**

(2007), Assistant Professor of Earth Sciences — B.S., St. Lawrence University; M.A., State University of New York at Binghamton; Ph.D., University of Minnesota (G)

**Sandra C. Baird, Ed.D.**

(2003), Professor Emerita of Nursing — B.S., M.S., Ed.D.; Appointed 1973

**Clifford D. Baker, Ed.D.**

(2003), Professor Emeritus of Exceptionalities and Bilingual/ESL Education — B.S., M.S., Ed.D.; Appointed 1974

**Eileen Balcerak, M.A.**

(2006), Assistant Professor of Special Education — B.A., M.A., University of Northern Colorado

**Rashida Banerjee, Ph.D.**

(2008), Associate Professor of Special Education — B.Com, Calcutta University; PG Dip. Spl. Ed., Jadavpur University; M.S., Ph.D., University of Kansas (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.**

(2002), Professor Emeritus of Psychology — B.A., M.A.; Appointed 1972

**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)

**Karen S. Barton, Ph.D.**

(2006), Associate Professor of Geography — B.A., University of California; M.A., Ph.D., University of Arizona

**Theodore R. Bashore, Ph.D.**

(2013), Professor Emeritus of Psychological Sciences — B.S., M.A., Ph.D.; Appointed 1991.

**Jeffrey W. Bauer, Ph.D.**

(2015), Professor Emeritus of Educational Technology — B.A., University of Wyoming; M.B.A., California State University-San Bernardino; Ph.D., University of Wyoming (G); Appointed 1990

**Rebecca A. Beals**

(2017), Assistant Professor of Sociology - B.A., University of Nebraska; M.A, Ph.D., University of New Mexico

**Nancy Quinn Beardslee, Ed.D.**

(1996), Associate Professor Emerita of Nursing — B.S., M.S., Ed.D.; Appointed 1984

**Mary A. Behling, Ph.D.**

(1988), Professor Emerita of Physical Education — B.S., M.A., Ph.D.; Appointed 1959

**Jonathan Bellman, D.M.A.**

(1993), Professor of Music — B.A., University of California-Santa Barbara; M.M., University of Illinois-Urbana-Champaign; D.M.A., Stanford University (G, DR)

**Lauryn Benedict, Ph.D.**

(2010) Associate Professor of Biological Sciences — B.A., Cornell University; Ph.D., University of California, Berkeley (G, DR)

**Ann T. Bentz, Ph.D.**

(2002), Special Assistant to the Dean, College of Natural and Health Sciences — B.S., Southeastern Louisiana University; M.Ed., Colorado State University; Ph.D., University of Northern Colorado (G)

**Margaret Berg, Ph.D.**

(2009), Associate Professor Reading Education — M.A., University of Northern Arizona; Ph.D., University of Kansas (G, DR)

**Cassandra M.R. Bergstrom, Ph.D.**

(2015), Assistant Professor of Psychological Sciences — B.S., Baker University; M.S., Emporia State University; Ph.D., University of Northern Colorado (G)

**Jill Bezyak, Ph.D.**

(2008), Associate Professor of Human Rehabilitative Services — B.A., Miami University; M.S., Ph.D., University of Wisconsin-Madison (G, DR)

**Agnes Biegel, M.S.N.**

(1990), Associate Professor Emerita of Nursing — B.S.N., M.S.N.; Appointed 1969

**Matthew Birnbaum, Ph.D.**

(2008), Associate Professor of Higher Education and Student Affairs Leadership — B.A., Colorado College; M.A., Ph.D., University of Arizona (G, DR)

**James A. Bitter, Ed.D.**

(2003), Professor Emeritus of Human Rehabilitative Services — B.A., M.S., Ed.D.; Appointed 1970

**Linda L. Black, Ed.D.**

(2000), Professor of Counseling Psychology — B.A., B.S., University of Iowa; M.A., Lesley College; Ed.D., University of Northern Colorado (G, DR)

**Monte Black, M.F.A.**

(2000), Professor of Dance — B.S., University of Wyoming; M.F.A., University of Illinois

**Brook Blair, Ph.D.**

(1998), Professor of Political Science — B.A., Colorado College; M.S., London School of Economics; Ph.D., University of Newcastle upon Tyne - United Kingdom

**Margaret T. Blake, Ph.D.**

(1989), Professor Emerita of Counseling Psychology — B.S., M.S., Ph.D.; Appointed 1968

**Lisa Blankenship, M.A.**

(2009), Associate Professor Emerita of University Libraries — B.S., Oklahoma State University; M.A., University of Denver; Appointed 1989

**Robert Blasi, M.A.**

(1988), Professor Emeritus of Physical Education — B.S., M.A.; Appointed 1955

**Jerald David Blatt, M.F.A.**

(2010), Assistant Professor Theatre Design Generalist — A.A., Casper College; B.F.A., M.F.A., University of Utah

**Jayne R. Blodgett, M.L.I.S.**

(2016), Assistant Dean and Associate Professor of University Libraries - B.A., M.A., University of Wisconsin; M.L.I.S., Dominican University

**William L. Blubaugh, Ph.D.**

(1987), Professor of Mathematics — B.S., M.Ed., Kent State University; Ph.D., University of Colorado (G, DR)

**Paul M. Bobrowski, Ph.D.**

(2016), Dean Kenneth Monfort College of Business - B.S., US Air Force Academy; M.S. Purdue University; Ph.D., Indiana University

**Diane Bolden – Taylor, D.M.A.**

(1993), Professor of Music — B.M., Milliken University; M.M., Indiana University; D.M.A., University of Texas at Austin (G)

**Kyle A. Bolen, M.S.**

(2014), Lecturer of Sport and Exercise Science — B.S., M.S., Central Michigan University

**Audrey J. Bopp, M.S.**

(2006), Assistant Professor Emerita of Nursing — B.S.N., Berea College; M.S., University of Kentucky, Lexington

**Mary Green Borg, M.A.**

(2000), Lecturer in History and Social Science — B.A., Sweet Briar College; M.A., University of Northern Colorado

**William W. Bosch, Ph.D.**

(1998), Professor Emeritus of Mathematical Sciences — B.S., M.S., Ph.D.; Appointed 1970

**Adah Bossart, M.S.**

(1984), Associate Professor Emerita of Nursing — B.S., M.S.; Appointed 1968

**Donna J. Bottenberg, Ph.D.**

(1976), Professor Emerita of Audiology and Speech-Language Sciences — B.A., M.A., Ph.D.; Appointed 2007

**Kristin Bovaird-Abbo, Ph.D.**

(2008), Associate Professor of English — B.A., Baker University; M.A., Ph.D., University of Kansas (G)

**Jack A. Bowen , Ph.D.**

(1984), Professor Emeritus of Human Services — B.S., M.S., Ph.D.; Appointed 1968

**James K. Bowen, Ed.D.**

(1994), Professor Emeritus of College Student Personnel Administration — B.S., M.S., Ed.D.; Appointed 1966

**Sandra K. Bowen, Ph.D.**

(1997), Professor of Special Education — B.S., M.A., Utah State University; Ph.D., University of Arizona (G, DR)

**Richard Bownas, Ph.D.**

(2010), Assistant Professor of Political Science — B.A., Cambridge University; M.Sc., London School of Economics; Ph.D., Cornell University

**Travis D. Boyce, Ph.D.**

(2009), Associate Professor of Africana Studies — B.A., Claflin University, M.A., Ph.D., Ohio University

**Daniel Brannon, Ph.D.**

(2016), Assistant Professor of Marketing - MBA, Ph.D., Arizona State University

**Robin D. Brewer, Ed.D.**

(2000), Associate Professor of Special Education — B.S., University of Oklahoma; M.A., Ed.D., University of Northern Colorado (G, DR)

**Kathryn E. Bright, Ph.D.**

(1991), Professor of Audiology and Speech-Language Sciences — B.A., Michigan State University; M.S., Florida State University; Ph.D., University of Arizona (G)

**Danielle R. Brittain, Ph.D.**

(2011), Associate Professor of Community Health — B.S., Montana Tech of the University of Montana; M.S., Kansas State University; Ph.D., Kansas State University (G, DR)

**Bruce W. Broderius, Ed.D.**

(1995), Professor Emeritus of Elementary Education and Reading — B.S., M.A., Ed.D.; Appointed 1966

**Susan P. Bromley, Psy.D.**

(2002), Associate Professor Emerita of Psychology — B.A., M.A., Psy.D.; Appointed 1985

**Emily Brownell, Ph.D.**

(2012), Assistant Professor of History — B.A., Connecticut College; M.A., University of Delaware; Ph.D., University of Texas at Austin

**Crystal Brothe, M.A.**

(2005), Lecturer of English — B.A., M.A., University of Northern Colorado

**Robert Brunswig, Ph.D.**

(2012), Professor Emeritus of Anthropology — B.A., M.A., Ph.D., Appointed in 1999

**Robert J. Brustad, Ph.D.**

(1992), Professor of Sport and Exercise Science — B.A., University of California-San Diego; M.A., Ph.D., University of Oregon (G, DR)

**Jill Burleson Burgett, D.A.**

(2009), Associate Professor of Music — B.M., Heidelberg College; M.M., D.A., Ball State University (G)

**Gerald N. Burns, Ed.D.**

(1983), Associate Professor Emeritus of Education — B.A., M.A., Ed.D.; Appointed 1965

**Patrick Burns, Ph.D.**

(2004), Associate Professor of Biological Sciences — B.S., West Virginia University; M.S., Ph.D., Clemson University (G, DR)

**Arnold Burrton, Ed.D.**

(1998), Professor Emeritus of Elementary Education and Reading — B.S., M.A., Ed.D.; Appointed 1969

**Warren R. Buss, Ph.D.**

(1967), Professor Emeritus of Botany — B.S., Brigham Young University; Ph.D., Iowa State University

**Jason Byrnes, D.M.**

(2003), Professor of Music — B.M., Tennessee Technological University; M.M., Pennsylvania State University; D.M., Indiana University (G)

**D****Andrew Dahlke, D.M.A.**

(2004), Professor of Music — B.A., Indiana University; B.M.A., M.M., University of Michigan; D.M.A., University of North Texas (G, DR)

**Thelma D. Damgaard, Ed.D.**

(1973), Professor Emerita of Education — B.A., M.A., Ed.D.; Appointed 1968

**Galen Darrough, D.M.A.**

(1990), Professor of Music — B.A., California State University, Fullerton; M.M., Brigham Young University; D.M.A., Arizona State University (G, DR)

**Brian D. Dauenhauer, Ph.D.**

(2013), Assistant Professor of Sport and Exercise Science — B.S., University of Illinois, Urbana-Champaign; M.Ed., Ph.D.; University of Texas at Austin (G)

**Karla Del Carpio-Ovando, Ph.D.**

(2014), BA., Autonomous University of Chiapas, Mexico; MA., University of Alberta, Edmonton, Alberta Canada; Ph.D., University of Alberta, Edmonton Alberta Canada (G)

**Gregory K. DeKrey, Ph.D.**

(2001), Associate Professor of Biological Sciences — B.A., University of California-Santa Cruz; Ph.D., Oregon State University (G, DR)

**Cris de la Torre, Ph.D., J.D.**

(2000), Professor of Finance — B.S., University of Notre Dame; M.B.A., University of Texas-El Paso; Ph.D., University of Texas-Austin; J.D., University of Colorado (G)

**Carolyn Ann Dennehy, Ph.D.**

(2003), Professor Emerita of Sport and Exercise Science — B.A., M.S.S.E., Ph.D.; Appointed 1997

**James A. DeRuiter, Ph.D.**

(1997), Professor Emeritus of Special Education — B.A., M.A., Ph.D.; Appointed 1974

**Molly Desjardins, Ph.D.**

(2009), Assistant Professor of English — B.A., Sarah Lawrence College; M.A., Ph.D., University of California, Irvine (G)

**Julie Deters, M.S.N.**

(2016), Lecturer of Nursing - B.S.N., University of Northern Colorado; B.S., College Station; M.S., University of Northern Colorado

**Hedy Red Dexter, Ph.D.**

(2013), Associate Professor Emerita of Sociology — B.S., M.S., M.A., Ph.D., Appointed 1993

**Ricardo L. Diaz, Ph.D.**

(1992), Professor of Mathematical Sciences — B.A., Rice University; Ph.D., Princeton University (G, DR)

**Janice Dickensheets, D.A.**

(2013), Assistant Professor of Music — B.A., Mesa College; M.M., D.A., University of Northern Colorado (G)

**Gabriel Dickey, B.A.**

(2015), Monfort Executive Professor of Accounting - B.A., University of Northern Iowa

**Barbara Dickinson, Ph.D.**

(1988), Professor Emerita of English — B.S., M.S., Ph.D.

**John L. Dietz, Ph.D.**

(2001), Professor Emeritus of Geography — B.S., M.A., Ph.D.; Appointed 1967

**Richard D. Dietz, Ph.D.**

(2015), Professor Emeritus of Astronomy — B.S., Ph.D., Appointed 1969

**David M. Diggs, Ph.D.**

(2001), Professor of Geography — B.A., University of Missouri; M.A., University of Northern Colorado; Ph.D., University of Colorado (G)

**Rachel Dineen, M.L.I.S.**

(2016), Assistant Professor of University Libraries - B.A., M.L.I.S., University of Illinois at Urbana-Champaign

**Mary K. Dinger, Ph.D.**

(2011), Professor of Community Health - B.S., Southeast Missouri State University; M.Ed., University of Missouri; Ph.D., University of Missouri (G, DR)

**James P. Doerner, Ph.D.**

(1994), Professor of Geography — B.S., Oklahoma State University; M.A., Ph.D., University of Denver (G)

**Aichun Dong, Ph.D.**

(1995), Professor of Chemistry — M.D., Guangxi Medical University of China; Ph.D., Colorado State University (G, DR)



**Melissa Donley, M.A.**

(2009) Lecturer of Communications Studies - B.A., Western State College; M.A., University of Northern Colorado

**Richard Donnelly, Ph.D.**

(2016), Assistant Professor of Recreation, Tourism and Hospitality - B.S., M.S., Florida International University; Ph.D., Colorado State University

**Scott Douglas, Ph.D.**

(2011), Assistant Professor of Sport and Exercise Science — B.S., The University of Utah; M.Ed., University of Montevallo; Ph.D., University of Alabama (G)

**Matthew T. Downey, Ph.D.**

(2013), Emeritus Professor of History — B.A., M.A., M.A., Ph.D.; Appointed 1996

**Ludek Drizhal, M.M.**

(2016), Assistant Professor of Music- B.A. University of Texas at Austin, M.M. University of Southern California.

**Whitney L. Duncan Ph.D.**

(2012), Assistant Professor of Anthropology – B.A., Columbia University; M.A., University of California-San Diego; Ph.D., University of California-San Diego (G)

**Kathleen Dunem, Ph.D.**

(2011), Associate Professor of Nursing - B.S., University of Northern Colorado; M.S., University of Colorado; M.S., San Jose State University; Ph.D., University of Illinois (G, DR)

**James M. Dunn, Ph.D.**

(2001), Professor of Geography — B.A., M.A., Ph.D., University of Colorado (G)

**Thomas N. Dunn, Ph.D.**

(2001), Professor of Psychological Sciences — B.S., Allegheny College; M.A., Ph.D., University of Cincinnati (G, DR)

**Anton Dzhamay, Ph.D.**

(2005), Professor of Mathematical Sciences — B.A. equivalent, MIEM, Moscow (Russia); M.A., M.Phil., Ph.D., Columbia University (G)

**E****Carolyn W. Edwards, Ed.D.**

(2011), Associate Professor Emeritus of Reading — B.A., University of Kansas-Lawrence; M.A., Ed.D., University of Northern Colorado (G); Appointed 1999.

**Dale Edwards, Ph.D.**

(2006), Professor of Journalism and Mass Communications — B.A., M.L.I.S., Brigham Young University; M.S., Utah State University; Ph.D., 2005, University of North Carolina -Chapel Hill. (G)

**Norma E. Egeness, M.A.**

(1983), Associate Professor Emerita of Home Economics — B.S., M.A.; Appointed 1968

**Katrina S. Einhellig, Ph.D.**

(2006), Assistant Professor of Nursing — B.S.N., College of Saint Benedict; M.S.N., University of Northern Colorado (G)

**Lauren Eisen, M.F.A.**

(2006), Associate Professor of Art & Design — B.F.A., Columbus College of Art & Design; M.F.A., Tulane University (G)

**Mark Eiswerth, Ph.D.**

(2009), Professor of Economics — B.A., Colorado College; M.A., Ph.D., University of Maryland (G)

**Garth M. Eldredge, Ph.D.**

(1991), Professor Emeritus of Rehabilitation Counseling — B.S., M.S., Ph.D.; Appointed 1966

**Nathaniel Eldredge, Ph.D.**

(2013), Assistant Professor of Mathematical Sciences — B.S., Harvey Mudd College; M.A., Ph.D., University of California - San Diego (G)

**Joe T. Elkins, Ph.D.**

(2007), Associate Professor of Earth Sciences — B.S., M.Ed., State University of West Georgia; Ph.D., University of Georgia (G)

**Donald D. Elliott, Ph.D.**

(1998), Professor Emeritus of Mathematical Sciences — B.S., M.A., Ph.D.; Appointed 1966

**Paul Elwood, Ph.D.**

(2008), Associate Professor of Music — B.M.E., Wichita State University; M.M., Southern Methodist; Ph.D., State University of New York at Buffalo (G, DR)

**Marcus E. Embry, Ph.D.**

(1995), Professor of English — B.A., Ph.D., Duke University (G)

**Thomas G. Endres, Ph.D.**

(2003), Professor of Communication — B.S., St. Cloud State University; M.A., University of Illinois; M.A., St. Paul Seminary School of Divinity; Ph.D., University of Minnesota (G)

**Rosann Englebretson, Ph.D.**

(2010), Associate Professor of Teacher Education — B.A., University of California Los Angeles, M.A., University of Colorado at Colorado Springs; Ph.D., Nova Southeastern University.

**Annie Epperson, M.S.L.S.**

(2004), Associate Professor of University Libraries — B.S., Colorado State University; M.A., Colorado State University; M.S.L.S., University of North Texas.

**Diane Erdbruegger, Au.D.**

(1988), Instructor in Audiology and Speech-Language Sciences — B.S., Colorado State University; M.A., University of Northern Colorado; Au.D., Pennsylvania College of Optometry, School of Audiology (G)

**James A. Erikson, Ph.D.**

(2007), Associate Professor School of Teacher Education — B.A., Brigham Young University; Ph.D., Michigan State University (G, DR)

**Carl O. Erickson, Ed.D.**

(1983), Associate Professor Emeritus of Education — B.A., M.A., Ed.D.; Appointed 1970

**Jamie M. Erskine, Ph.D., R.D.**

(1995), Professor of Nutrition and Dietetics — B.A., San Diego State University; M.S., Oregon State University; Ph.D., Colorado State University (G)

**Emmett Evanoff, Ph.D.**

(2005), Assistant Professor of Earth Sciences — B.S., University of Wyoming; M.S., Ph.D., University of Colorado (G)

**Mary Evans, Ph.D.**

(2014), Assistant Professor of Criminal Justice — B.S., Northern Arizona University; M.A., Ph.D., University of Nebraska at Omaha (G)

**Margaret E. Everett, M.A.**

(1981), Professor Emerita of Physical Education — B.A., M.A.; Appointed 1951

**Stephanie Evers, M.L.S.**

(2015), Lecturer of University Libraries - B.A., University of Colorado; M.L.S., Simmons College

**Lahcen E. Ezzaher, Ph.D.**

(1997), Professor of English — B.A., University Mohamed V. Morocco; M.A., University of Bath, U.K.; Ph.D., University of Arizona (G)

**F****Gal Faganel, D.M.A**

(2010), Associate Professor of Music — B.M., M.M., D.M.A., University of Southern California (G, DR)

**Kathleen R. Fahey, Ph.D.**

(1993), Professor Emerita of Audiology and Speech-Language Sciences — B.S., Bowling Green State University; M.A., Kent State University; Ph.D., Michigan State University (G, DR)

**Priscilla L. Falcon, Ph.D.**

(1995), Professor of Hispanic Studies — B.A., Adams State College; M.A., Ph.D., University of Denver (G)

**Jeffrey D. Farmer, Ph.D.**

(2007), Professor Emeritus of Mathematical Sciences — B.S., M.S., Ph.D.

**Priscilla A. Faulkner, M.S.**

(2000), Assistant Professor Emerita — B.S.N., University of North Dakota; M.A., M.S.N., University of Northern Colorado

**Kay A. Ferrell, Ph.D.**

(1992), Professor of Special Education — B.A., George Washington University; M.A., Columbia University; Ph.D., University of Pittsburgh (G, DR)

**Abbie Ferris, Ph.D.**

(2015) Instructor of Sports and Exercise Science- B.S., M.S., California State Polytechnic University, Pomona; M.S., University of Southern California, Ph.D., University of Northern Colorado (G)

**Gary Fertig, Ph.D.**

(1995), Professor of Elementary Education — B.A., M.A., Ph.D., University of Wyoming (G, DR)

**Mark Fetkewicz, M.F.A**

(2000), Professor of Art & Design — B.F.A., Colorado State University; M.F.A, University of Illinois-Urbana-Champaign (G)

**Edgar E. Fielder**

(1985), Professor Emeritus of Education — B.A., M.Ed., Ed.D.; Appointed 1964

**Clark L. Fields, Ph.D.**

(1964), Professor Emeritus of Chemistry — B.A., M.S., Ph.D.

**Donald S. Finan, Ph.D.**

(2009), Associate Professor of Audiology and Speech-Language Sciences — B.S., Eastern Illinois University; M.S., Eastern Illinois University; Ph.D., Indiana University (G, DR)

**Fritz Fischer, Ph.D.**

(1995), Professor of History — B.A., M.A., Stanford University; Ph.D., Northwestern University (G)

**Ginger Fisher, Ph.D.**

(2009), Associate Professor — B.A., B.S., Indiana University of Pennsylvania; M.S., Ph.D., Wake Forest University (G)

**Colleen Fitzpatrick, Ph.D.**

(1997), Professor of Criminal Justice — B.A., M.A., California State University; Ph.D., Colorado State University (G)

**Wendilyn Flynn, Ph.D.**

(2012), Assistant Professor of Meteorology — B.S., St. Cloud University; M.S., Ph.D., University of Illinois-Urbana(G)

**Augusta M. Fox , Ed.D.**

(1985), Professor Emeritus of Education — B.S., M.Ed., Ed.D.; Appointed 1968

**John W. Fox, Ph.D.**

(1977), Professor Emeritus of Sociology — B.S., M.A., Ph.D.; Appointed 2004

**Constance C. Francis, Ph.D., R.D.**

(2010), Assistant Professor of Nutrition and Dietetics — B.A., California State University, Fresno; M.S., San Jose State University; Ph.D., Texas Woman's University

**Elizabeth Anne Franklin, Ph.D.**

(2001), Professor of Hispanic Studies and Director of Center for Language Arts Education — B.A., Purdue University; M.A., Ph.D., Indiana University (G)

**Scott B. Franklin, Ph.D.**

(2008), Assistant Professor of Biological Sciences — B.S., Upper Iowa University; M.S., Ph.D., Southern Illinois University; Ph.D., University of Joensuu, Finland; Ph.D. (G, DR)

**Joseph J. French, Ph.D.**

(2007), Associate Professor of Finance—B.S., Wingate University; M.B.A., Clemson University; M.S., Ph.D., University of New Orleans

**Juliet H. Fried, Ed.D.**

(1985), Professor of Human Rehabilitative Services — B.A., New England College; M.S., University of Wisconsin, Stout; Ed.D., University of Northern Colorado (G, DR)

**Sherrie L. Frye, Ph.D.**

Associate Professor Emerita of Food, Nutrition and Dietetics — B.S., M.S., Ph.D.

**Fumiko Fukuta, Ph.D.**

(2012), Interim Chair Modern Languages — B.A., M.A., Ph.D., University of Hawaii

**Lindsay Fulcher, M.M.**

(2016) Assistant Professor of Music - B.A., Baldwin Wallace University; M.M., Pennsylvania State University

**Nathan Fulks, D.M.A.**

(2013), Associate Professor of Music — B.A., M.A., North Carolina School of the Arts; D.M.A., State University of New York at Stony Brook (G, DR)

**Jarae Fulton, M.A.**

(2008), Lecturer in Communication — B.A., M.A., University of Northern Colorado

**Clara E. Funderburk, M.A.**

(1973), Associate Professor Emerita of Home Economics — B.S., M.A.; Appointed 1964

**G****Diane B. Gaede, Ph.D.**

(1999), Associate Professor Emerita of Recreation and Tourism — B.A., MS.Ed., Indiana University; Ph.D., Colorado State University (G)

**James E. Gall, Ph.D.**

(1998), Professor Emeritus of Educational Technology — B.S., Edinboro University of Pennsylvania; M.S., Pennsylvania State University; Ph.D., Florida State University (G, DR)

**Cynthia S. Galovich, Ph.D.**

(1989), Professor of Physics — B.S., M.S., Ph.D., Stanford University (G)

**Socrates Garcia, D.A.**

(2013), Assistant Professor of Music — B.A., Luther College; M.A., Middle Tennessee State University; D.A., University of Northern Colorado (G)

**Barbara Garrett, Ph.D.**

(2016), Director of American Sign Language & Interpreting Studies — B.A., World Evangelism Bible College, M.A., Missouri State University, Ph.D., Biola University

**Barbara Garrity, M.S.N**

(2014), Lecturer of Nursing - B.S.N., Bob Jones University; M.S.N., West Chester University of Pennsylvania

**Efrain Garza, Ph.D.**

(2004), Professor of Spanish — B.S., Escuela Normal Superior de Tamaulipas, Mexico; B.A., University of Texas and Texas Southmost College; M.A., Ph.D., Texas Tech University (G)

**Thomas J. Gavin, Ph.D .**

(1984), Assistant Professor Emeritus of Educational Leadership and Policy Studies — B.S., M.A., Ph.D.

**Dennis A. Gay, Ph.D.**

(2004), Professor Emeritus of Human Rehabilitative Services — B.S., M.S., Ph.D.; Appointed 1970

**Michelle Gaza, M.F.A.**

(2011), Assistant Professor of Theatre - B.F.A., Millikin University; M.F.A., Wayne State University (G)

**Carol J. Gearhart, Ed.D.**

(1993), Professor Emerita of Special Education — B.S., M.A., Ed.D.; Appointed 1972

**Nancy Geisendorfer, M.A.**

(2006), Lecturer of Mathematical Sciences — B.A., M.A., University of Northern Colorado

**Catherine A. Gerweck, D.M.D., M.S., R.D.N.**

(2015), B.A., Hartwick College; D.M.D., University of Pennsylvania School of Dental Medicine; M.S., University of New Hampshire

**Sumiko Gibson, M.A.**

(2013), Lecturer in Japanese — A.A., Central Wyoming College; B.A., University of Northern Colorado; M.A., Osaka University

**Elizabeth A. Gilbert, Ed.D.**

(2008), Associate Professor of Community Health — B.S., Texas A&M University; M.Ed., Ed.D., Vanderbilt University (G)

**Judith S. Gilbert, Ed.D.**

(1992), Associate Professor Emerita of Special Education — B.S., M.A., Ed.D.; Appointed 1972

**Kiki Gilderhus, Ph.D.**

(2015), Associate Dean — B.A., Gustavus Adolphus College; M.A., Ph.D., University of Wisconsin-Madison (G)

**David M. Gilliam, Ph.D.**

(1990), Professor of Psychological Sciences — B.S., Emory University; M.A., Ph.D., University of Colorado (G, DR)

**Nancy Glen, D.A.**

(2011), Associate Professor of Music - B.S., Kent State University; M.M., D.A., University of Northern Colorado (G)

**Emily B. Golson, Ph.D.**

(1993), Professor of English — B.A., M.A., University of California; M.A., Ph.D., Brandeis University (G, DR)

**Susana Karen Gomez, Ph.D.**

(2012), Assistant Professor of Biological Sciences — B.S., University Autonoma Gabriel Rene Moreno, Santa Cruz, Bolivia; M.S., Ph.D., University of Arkansas (G, DR)

**David M. Gonzalez, Ph.D.**

(2011), Professor Emeritus of Counseling Psychology — B.A., M.A., Ph.D., Appointed 1988

**R. Robert Gonzales, Ed.D.**

(1997), Professor Emeritus of Special Education — B.S., M.S., Ed.D.; Appointed 1966

**Sarah Goodrum, Ph.D.**

(2014), Associate Professor of Criminal Justice — B.A., Texas A&M University; M.A., Ph.D., University of Texas at Austin (G)

**Donna Goodwin, Ph.D.**

(2017), Assistant Professor of Art & Design - B.F.A., University of North Texas; M.A., University of Phoenix, Denver; Ph.D., University of Denver

**James Gould, Ph.D.**

(2007), Associate Professor of Recreation, Tourism and Hospitality — B.I.S., M.S., Georgia Southern University; Ph.D., Clemson University (G)

**Susan M. Gould, Ph.D., R.D.**

(2010), Assistant Professor of Nutrition and Dietetics — B.S., Montana State University; M.S., Colorado State University; Ph.D., Colorado State University (G)

**Patricia E. Graham, Ph.D.**

(1988), Associate Professor Emerita of Economics — B.A., University of Denver; M.S., Ph.D., Colorado State University (G)

**David Gene Grapes II, M.F.A.**

(2004), Professor of Theatre — B.A., Glenville State College; M.F.A., University of North Carolina at Greensboro (G)

**Carl E. Granrud, Ph.D.**

(1994), Professor of Psychological Sciences — B.A., Luther College; Ph.D., University of Minnesota (G)

**Richard M. Grassl, Ph.D.**

(2011), Professor Emeritus of Mathematical Sciences — B.A., Santa Clara University; M.A., University of Oregon; Ph.D., University of New Mexico (G, DR); Appointed 1991

**Dianna P. Gray, Ph.D.**

(1995), Professor Emeritus of Sport and Exercise Science — B.S., James Madison University; M.S., Ph.D., Ohio State University (G, DR)

**Leroy A. Green, Ed.D.**

(1984), Professor Emeritus of Educational Media — B.A., M.S., Ed.D.; Appointed 1971

**Ellen Meyer Gregg, Ph.D.**

(1987), Dean, College of Natural and Health Sciences and Professor of Audiology and Speech-Language Sciences — B.S., M.A., Northwestern University; Ph.D., University of Colorado (G)

**Janel Greiman, M.T., C.P.A.**

(2010), Associate Professor of Accounting — B.S.N., University of Colorado; B.S./B.A., University of Northern Colorado; M.T., University of Denver (G)

**Francis A. Griffith, Ph.D.**

(2001), Professor Emeritus of Communication Disorders — B.S., M.S., Ph.D.; Appointed 1984

**Thomas A. Griggs, Ph.D.**

(2000), Associate Professor of Foundations of Education — M.A., M.Ed., University of California; Ph.D., Ontario Institute for Studies in Education (G)

**Courtney Gryskiewicz, M.S.N.**

(2016) Lecturer of Nursing - A.D.N, Riverland Community College; B.S., Colorado State University; B.S.N., M.S.N., University of Northern Colorado;

**Don Gudmundson, Ph.D.**

(2008), Professor of Management — B.A., University of Wisconsin, Madison; M.B.A., University of Wisconsin, Oshkosh; Ph.D., University of Kentucky

**Florence M. Guido, Ph.D.**

(1997), Professor of Higher Education and Student Affairs Leadership — B.A., Briarcliff College; M.A., Ball State University; Ph.D., Texas A & M University (G, DR)

**Lelloine Gunning, M.A.**

(1983), Associate Professor Emerita of Elementary Education — B.S., M.A.; Appointed 1961

**Russell Guyver, D.M.A.**

(1997), Professor of Music — B.M., M.M., Guildhall School of Music-London, England; D.M.A., University of Kansas (G, DR)

**Tobias J. Guzmán, M.A.**

(2008), Assistant Vice President, Enrollment Management and Student Access — B.A., University of Northern Colorado; M.A., Plymouth State University

**H****Aaron Haberman, Ph.D.**

(2006), Associate Professor of History — B.A., Washington and Lee University; M.A., Ph.D., University of South Carolina (G)

**Jay K. Hackett, Ph.D.**

(1998), Professor Emeritus of Earth Sciences — B.S., University of Nebraska, Lincoln; M.N.S., Arizona State University; Ed.D., University of Northern Colorado

**James Hall, D.M.A.**

(2009), Associate Professor Music — B.A., Seattle Pacific University; M.M., D.M.A., University of Missouri, Kansas City (G, DR)

**Rhonda Foss Hall, M.A.**

(1967), Professor Emerita of Home Economics — B.S., M.A.; Appointed 1945

**Julie A. Hanks, Ed.D.**

(1993), Associate Professor of Audiology and Speech-Language Sciences — B.A., University of California-Santa Barbara; M.A., Ed.D., University of Northern Colorado (G)

**Charles A. Hansen, D.M.A.**

(1992), Professor of Music — B.S., Hofstra University; M.M., D.M.A., Eastman School of Music (G)

**Brian Hapcic, M.F.A.**

(2007), Associate Professor, Theatre Arts — B.A., Ohio University; M.F.A., University of Montana (G)

**Jenni L. Harding, Ed.D.**

(2005), Associate Professor and Master of Arts in Teaching: Elementary Education Licensure Program, School of Teacher Education — B.A., M.Ed., Ed.D., University of Northern Colorado (G, DR)

**Randall Harmon, Ph.D.**

(2017), Assistant Professor of Theatre Arts - B.A., Centre College; M.F.A., The University of Texas at Austin; Ph.D., University of Colorado Boulder

**Sandra Harmon, M.S.**

(2014), Lecturer of Sociology — B.A., University of Northern Colorado; M.S., North Carolina State University

**Abe Harraf, Ph.D.**

(2007), Professor of Management — B.A., Higher College of Translation; M.Ed., M.B.A., Sul Ross State University; Ph.D., Utah State University (G)

**Tabandeh Harraf, M.S.**

(2007), Lecturer of CIS — B.S., M.S., Utah State University; M.S.E., Embry-Riddle University

**Larry R. Harrison, M.S.**

Associate Professor Emeritus of Community Health — B.S., M.S.; Appointed 1972

**Sieger Hartgers, M.A.**

(2002), Professor of Art & Design — B.A., University of Colorado; M.A., University of Northern Colorado (G)

**James M. Haughian, Ph.D.**

(2012), Instructor of Biological Sciences — B.S., M.S., University of Wisconsin-Madison; Ph.D., University of Colorado (G)

**J. Gilbert Hause, Ed.D.**

(1989), Professor Emeritus of Higher Education — B.A., M.A., Ed.D.; Appointed 1951

**Ann Hawkinson, Ph.D.**

(2012), Instructor of Biological Sciences — B.S., Mesa State College; Ph.D., University of Northern Colorado (G, DR)

**Jessica Hayden, M.L.S.**

(2010), Assistant Professor of University Libraries — B.A., University of Kentucky; B.S., University of Kentucky; M.L.S., University of Kentucky

**J. Reid Hayward, Ph.D.**

(1998), Professor of Sport and Exercise Science — B.A., Harding University; M.S., University of Kansas; Ph.D., University of Arkansas (G, DR)

**Derek Headley, Ph.D.**

(2013), Assistant Professor of Audiology and Speech-Language Sciences — B.A., University of Pittsburgh; M.S., West Virginia University; Ph.D., Florida State University (G)

**Gregory T. Heald, M.L.I.S.**

(2000), Associate Professor of University Libraries — B.A., St. John's College; M.L.I.S., University of Rhode Island

**Jean A. Hedberg, M.A.**

(1992), Assistant Professor Emerita of Physical Education — B.S., M.A.; Appointed 1968

**Henry W. Heikkinen, Ph.D.**(2001), Professor Emeritus of Chemistry and Biochemistry — B.E., M.A., Ph.D.; Appointed 1987

**Margaret E. Heimbrook, Ph.D.**

(1974), Professor Emerita of Biological Sciences — B.S., Muskingum College; M.A., Lehigh University; M.S., University of Wisconsin; Ph.D., Colorado State University

**Kris Heintz-Nelson, M.A.**

(2008), Associate Professor, Art and Design — B.F.A., University of Wisconsin; M.A., University of Northern Colorado

**Gary D. Heise, Ph.D.**

(1995), Professor of Sport and Exercise Science — B.S., Pennsylvania State University; M.S., Arizona State University; Ph.D., Pennsylvania State University (G, DR)

**William C. Heiss, Jr., M.A.**

(1979), Associate Professor Emeritus of Health and Physical Education — B.S., M.A.; Appointed 1959

**Laura Henson, M.S.N.**

(2016), Lecturer of Nursing - B.S.N., University of North Carolina; M.S., Regis University

**Heather Helm, Ph.D.**

(2004), Chair, Department of Applied Psychology and Counselor Education, Professor of Counselor Education — B.S. Washington State University; M.Ed.; Ph.D., University of Mississippi (G, DR)

**Angela Henderson, Ph.D.**

(2007), Associate Professor of Sociology — B.A., University of Sioux Falls; M.S., Ph.D., Purdue University (G)

**Melissa L. Henry, Ph.D.**

(2007), Associate Professor of Nursing — B.S., University of Minnesota; M.S.N., Ph.D., University of Arizona, Tuscon, AZ (G, DR)

**Peggy E. Henry, Ph.D.**

(1984), Professor Emerita of Elementary Education — B.S., M.A., Ph.D.; Appointed 1969

**Matthew Herrick, M.F.A.**

(2010), Assistant Professor of Theatre Arts — B.F.A., Brigham Young University; M.F.A., University of Texas, Austin

**Robyn S. Hess, Ph.D.**

(2003), Professor of School Psychology — B.A., M.S., Central Washington University; Ph.D., University of Northern Colorado (G, DR)

**Marian K. Hesse, M.M.**

(2002), Professor of Music — B.M., University of Northern Colorado; M.M., Yale University (G)

**Karen Hessler, Ph.D.**

(2007), Associate Professor of Nursing — B.S.N., M.S.N. University of Nebraska Medical Center; Ph.D., University of Colorado (G, DR)

**Pamela Hewitt, Ph.D.**

(1982), Professor Emerita of Sociology — B.A., M.A., Ph.D., University of New Hampshire; Appointed 2004

**Wendy F. Highby, M.L.I.S.**

(2003), Associate Professor of University Libraries — B.A., University of Colorado-Denver; M.L.S., Emporia State University

**Teresa M. Higgins, Ph.D.**

(2003), Assistant Professor of Biological Sciences — B.S., Saint Francis College; M.Ed., Clarion University of Pennsylvania; Ph.D., University of Georgia (G, DR)

**Burke Hilsabeck, Ph.D.**

(2016), Assistant Professor of English - B.A., Kenyon College; M.A., University of Chicago; Ph.D., University of Chicago

**Krystal M. Hinerman, Ph.D.**

(2014), Assistant Professor of Applied Statistics and Research Methods — B.A., Texas Tech University; M.A., Texas Tech University; Ph.D., University of North Texas (G)

**Nancy Hinrichs, M.A.**

(2014), Assistant Professor Emerita of Sport and Exercise Science — B.A., M.A., Western Illinois University; Appointed 1988

**Paul F. Hodapp, Ph.D.**

(1972), Professor Emeritus of Philosophy — B.A., Ph.D., J.D.; Appointed 2015

**Emily Holt, Ph.D.**

(2016) Associate Professor of Biological Sciences - B.A., Colorado College; M.S., University of Wyoming; Ph.D., Oregon State University

**Janice Hoot, Ph.D.**

(2004), Professor Emerita of Nursing — B.S.N., M.S., Ph.D.; Appointed 1985

**Kenneth D. Hopkins, Ph.D.**

Professor Emeritus of Earth Sciences: Geology - B.A., M.S., Ph.D.; Appointed 1969

**Robert P. Houser, Ph.D.**

(2012), Professor of Chemistry — B.S., Colorado State University; Ph.D., University of Minnesota (G, DR)

**Samuel R. Houston, Ph.D.**

(1992), Professor and Chair Emeritus of Mathematics and Applied Statistics — B.A., M.A., M.S., Ph.D.; Appointed 1968

**Christy A. Howard, M.S.**

(2000), Assistant Professor Emerita of Kinesiology and Physical Education — B.A., M.S.; Appointed 1973

**William H. Hoyt, Ph.D.**

(1981), Professor of Oceanography — B.A., Middlebury College; M.S., State University of New York; Ph.D., University of Delaware (G)

**Allen Huang, Ed.D.**

(1978), Professor Emeritus of Special Education — B.A., M.A., Ed.D.

**Jingzi (Ginny) Huang, Ph.D.**

(2011), Associate Dean, College of Education and Behavioral Sciences, Professor and Director, School of Teacher Education — B.A., M.Ed., Beijing Normal University; M.A., Ph.D., University of British Columbia (G, DR)

**David M. Hulac, Ph.D.**

(2015), Assistant Professor of School Psychology - B.S., A.B. Lafayette College; M.A., University of Denver; Ph.D., University of Northern Colorado (G, DR)

**Faye I. Hummel, Ph.D.**

(1987), Professor of Nursing — B.S.N., Metropolitan State College; M.S., University of Colorado; Ph.D., Colorado State University (G, DR)

**Joan T. Hurlock, M.S.**

(1984), Associate Professor Emerita of Nursing — B.S., M.S.; Appointed 1970

**Susan R. Hutchinson, Ph.D.**

(2000), Professor of Applied Statistics and Research Methods — B.A., University of Florida; M.P.H., University of Tennessee; Ph.D., University of Georgia (G, DR)

**David S. Hydock, Ph.D.**

(2009), Associate Professor of Sport and Exercise Science — B.A., Adams State College; M.A.T., Northern State University; Ph.D., University of Northern Colorado (G, DR)

**Richard M. Hyslop, Ph.D.**

(1984), Professor of Chemistry — B.S., Indiana State University; Ph.D., University of Texas (G, DR)

|

**Brian Iannocchione, Ph.D.**

(2012), Assistant Professor of Criminal Justice — B.A., Pennsylvania State University; M.A., Boise State University; Ph.D., Indiana University of Pennsylvania (G)

**Charles H. Ingold, Ph.D.**

(1983), Professor of Journalism and Mass Communication — B.A., University of Akron; M.A., Colorado State University; Ph.D., University of Colorado (G)

**R. “Vish” Vishwanathan Iyer, Ph.D.**

(1985), Professor of Marketing — B.S., New Mexico State University; M.A., Western New Mexico University; Ph.D., Texas A&M University (G, DR)

**J****Lewis B. Jackson, Ed.D.**

(1989), Professor of Special Education — B.A., University of North Carolina; M.S., Ed.D., Johns Hopkins University (G, DR)

**Lynne Jackowiak, M.S.**

(2013), Lecturer of Audiology and Speech-Language Sciences — B.S., M.S., Kearney State College (G)

**Michael L. Jacobs, Ed.D.**

(1970), Professor Emeritus of Educational Foundations — B.A., M.A., Ed.D., University of Rochester (G)

**Lauren Jacobson, M.M.**

(2012), Assistant Professor Music, Clarinet - B.M.E., University of Northern Colorado; M.M., Eastman School of Music (G)

**Andrea James, Ph.D.**

(2016) Assistant Professor of Biological Sciences - B.S., San Francisco State University; Ph.D., Stanford University

**Larry James, M.A.**

(2003), Assistant Professor Emeritus of Recreation — B.S., M.A.; Appointed 1970

**Marlynn R. James, Ph.D.**

(1999), Professor Emeritus of Chemistry — B.S., M.S., Ph.D.; Appointed 1966

**Timothy E. Jares, Ph.D.**

(2001), Professor of Finance — B.S., University of South Dakota; M.B.A., Ph.D., University of Nebraska (G)

**David L. Jelden, Ed.D.**

(1988), Professor Emeritus of Educational Technology — B.A., M.A., Ed.D.; Appointed 1962

**Karen M. Jennison, Ph.D.**

(1972), Professor Emerita of Sociology — B.A., M.A., Ph.D., Appointed 2015

**Erinn M. Jimmerson, M.A.**

(2013), Lecturer of Audiology and Speech-Language Sciences — B.A., M.A., University of Northern Colorado (G)

**Brian D. Johnson, Ph.D.**

(1998), Professor of Counseling Psychology — B.S., Ph.D., University of Iowa (G, DR)

**Germaine Johnson**

(2000), Master Teacher Emerita of the Laboratory School — B.S., M.M.; Appointed 1984

**J. M. Johnson, Ed.D.**

(1984), Professor Emeritus of Educational Field Experiences — B.A., M.A., Ed.D.; Appointed 1965

**Katherine M. Johnson, Ph.D.**

(2002), Associate Professor of Geography — B.A., Muhlenberg College; M.A., Tufts University; Ph.D., University of California-Berkeley

**Patricia Jolly M.A.**

(2006), Senior Lecturer of Anthropology – B.A., University of Northern Colorado; M.A., Regis University

**Kathleen S. Jones, Ph.D.**

(1997), Lecturer Emeritus in Biological Sciences — B.S., Marian College; Ph.D., Saint Bonaventure University

**Loretta L. Jones, Ph.D.**

(1992), Professor Emerita of Chemistry — B.S., M.S., D.A., Ph.D.

**Willard Jones, Ed.D.**

(1995), Professor Emeritus of Special Education — B.A., M.S., Ed.D.; Appointed 1969

**Rebecca Joy, M.F.A.**

(2017), Assistant Professor of Theatre Arts - B. F. A., Ithaca College; M.F.A., Temple University

**George H. Junne, Jr., Ph.D.**

(1992), Associate Professor of Africana Studies — B.F.A., M.A., Ph.D., University of Michigan (G)

**Richard Robert Jurin, Ph.D.**

(2000), Associate Professor of Biological Science — B.A., M.A., Chartered Biologist and Member of the Institute of Biology; M.S., Ph.D., Ohio State University (G, DR)

**K****Katie J. Kage, Ph.D., R.D.**

(2015), Assistant Professor of Nutrition and Dietetics - B.S., Kansas State University; M.S., Ph.D., University of Nebraska-Lincoln (G)

**Danielle M. Kahlo, Ph.D.**

(2009), Assistant Professor of Applied Psychology and Counselor Education — B.A., M.A., University of Mississippi; Ph.D., University of Northern Colorado (G)

**Kelfala M. Kallon, Ph.D.**

(1993), Professor of Economics - B.A., Methodist College; Ph.D., University of Virginia

**Hyun (Hannah) Kang, Ph.D.**

(2013), Assistant Professor of Teacher Education — B.A., Duksung Women's University, M.Ed., Ph.D., Arizona State University (G)

**Gulden Karakok, Ph.D.**

(2010), Assistant Professor of Mathematical Sciences — B.A., Middle East Technical University; M.S., University of Oregon; Ph.D., Oregon State University (G, DR)

**Nancy J. Karlin, Ph.D.**

(1990), Professor of Psychological Sciences — B.A., Evangel College; M.S., Fort Hays State University; Ph.D., Colorado State University (G, DR)

**Peter Kastner, Ph.D.**

(2013), Emeritus Professor of German — B.A., M.A., Ph.D.; Appointed 1990

**Deborah Kauffman, D.M.A.**

(1999), Professor of Music — B.M., University of California-Santa Barbara; M.M., University of Illinois-Urbana-Champaign; D.M.A., Stanford University (G, DR)

**Kevin C. Kearns, Ph.D.**

(1996), Professor Emeritus of Geography — B.S., M.A., Ph.D.; Appointed 1966

**James A. Keaten, Ph.D.**

(1991), Professor of Communication — B.A., Montclair State College; M.A., Ph.D., Pennsylvania State University (G)

**Susan M. Keenan, Ph.D.**

(2006), Professor of Biological Sciences — B.A., University of Missouri St. Louis; Ph.D., St. Louis Medical School (G, DR)

**LeRoy Kerns, Ed.D.**

(1974), Professor Emeritus of Education — B.A., M.A., Ed.D.; Appointed 1949

**Jung Eun Kim, Ph.D.**

(2013), Assistant Professor of Recreation, Tourism and Hospitality — B.A., Daksung Women University; M.S., Ph.D., University of Florida

**Youb Kim, Ph.D.**

(2013), Associate Professor in Reading — B.S., Yonsei University, M.A., Ph.D., Michigan State University (G)

**Michael Kimball Ph.D.**

(2013), Associate Professor of Anthropology – B.A., College of the Atlantic Bar Harbor ME; M.A., Ph.D., University of Wisconsin-Madison (G)

**Bernard C. Kinnick, Ed.D.**

(1997), Professor Emeritus of College Student Personnel Administration — B.A., M.A., Ed.D.; Appointed 1966

**Virginia Kinnick, Ed.D.**

(1998), Professor Emerita of Nursing — B.S., M.S.N., Ed.D.; Appointed 1978

**Rena A. Kirkland, Ph.D.**

(2014), Assistant Professor of Psychological Sciences — B.A. University of California at San Diego; M.A., Ph.D., University of Northern Colorado (G)

**Paul Klaczynski, Ph.D.**

(2007), Associate Professor of Psychological Sciences — B.A., St. Bonaventure University; M.A., West Virginia University; Ph.D., West Virginia University (G, DR)



**Phil Klein, Ph.D.**

(1997), Professor of Geography — B.A., University of California-Santa Cruz; M.A., UCLA; Ph.D., University of Colorado-Boulder (G)

**Joyce C. Kliewer, Ed.D.**

(1984), Assistant Professor Emerita of Food, Nutrition and Dietetics — B.A., M.A., Ed.D.; Appointed 1970

**Nathan D. Kling, Ph.D.**

(2015), Professor Emeritus of Marketing — B.B.A., M.B.A., Ph.D.; Appointed 1991

**Lynn Klyde-Silverstein, Ph.D.**

(2000), Assistant Professor of Journalism and Mass Communication — B.A., Indiana University; M.A., University of North Carolina; Ph.D., Ohio University

**Greta Knigga-Daugherty, Ph.D.**

(2013), Associate Professor of Teaching American Sign Language — B.A., Bowling Green State University; M.S., Rochester Institute of Technology; Ph.D., Purdue University

**Jane E. Koeckeritz, Ph.D.**

(1985), Professor Emerita of Nursing — B.S.N., M.S.N., Ph.D.

**William G. Koch, Ph. D.**

(1984), Professor Emeritus of Chemistry — B.S., M.A., Ph.D.; Appointed 1955

**James A. Kole, Ph.D.**

(2013), Associate Professor of Psychological Sciences — B.A., M.A., Ph.D., University of Colorado-Boulder (G, DR)

**Betty J. Kolstoe, Ed.D.**

(1984), Professor Emerita of Special Education — B.A., M.A., Ed.D.; Appointed 1969

**Oliver P. Kolstoe, Ph.D.**

(1984), Professor Emeritus of Special Education — B.A., M.S., Ph.D.; Appointed 1965

**Eugene Koplitz, Ph.D.**

(1988), Professor Emeritus of Educational Psychology — B.S., M.A., Ph.D.; Appointed 1958

**Steven Kovalcheck, D.M.A.**

(2013), Assistant Professor of Music — B.M., University of Tennessee; M.M., University of Northern Colorado (G)

**Roger A. Kovar, Ph.D.**

(1998), Dean Emeritus of Arts and Sciences and Professor Emeritus of Chemistry — B.A., Ph.D.; Appointed 1970

**Edward Krafft, M.A.**

(1984), Assistant Professor Emeritus of Elementary Education in the Laboratory School — B.S., M.A.; Appointed 1967

**Keiko Krahnke, Ph.D.**

(1999), Associate Professor of Management — B.A., Doshisha Women's College; M.A., Ph.D., Colorado State University (G, DR)

**Jennifer M. Krause, Ph.D.**

(2013), Assistant Professor of Sport and Exercise Science — B.S., Edinboro University of Pennsylvania; M.Ed., George Mason University; Ph.D., University of Virginia (G)

**Jeraldine Kraver, Ph.D.**

(2002), Professor of English — B.A., Georgetown University; M.A., Southern Connecticut State University; Ph.D., University of Kentucky (G)

**Justin Krawitz, D.M.A.**

(2014), Assistant Professor of Music — B.M., M.M., University of Cape Town; D.M.A., University of Wisconsin-Madison (G, DR)

**Heng-Yu Ku, Ph.D.**

(2001), Professor of Teacher Education — B.A., M.A.T., Ph.D., Arizona State University (G, DR)

**Charles A. Kuehn, Ph.D.**

(2015), B.S., Ohio State University; M.S., Ph.D., Michigan State University

**Britney Kyle, Ph.D.**

(2012), Assistant Professor of Anthropology — B.A., University of Colorado; M.A., Ph.D., The Ohio State University

**L****Jack LaBonde, M.A.**

(1984), Assistant Professor Emeritus of Health and Safety — B.A., M.A.; Appointed 1959

**Maria K. E. Lahman, Ph.D.**

(2001), Professor of Applied Statistics and Research Methods — B.S., Eastern Mennonite University; M.S., James Madison University; Ph.D., Virginia Polytechnic Institute and State University (G, DR)

**Frank P. Lakin, Ed.D.**

(1985), Professor Emeritus of Higher Education — B.A., M.A., Ed.D.; Appointed 1957

**Trent L. Lalonde, Ph.D.**

(2009), Associate Professor of Applied Statistics and Research Methods — B.S., Clarkson University; M.A., University of Wisconsin-Madison; Ph.D., Arizona State University (G, DR)

**Corinne Lampert, Ph.D.**

(2010), Assistant Professor of History — B.A., University of California, Davis; M.A., Ph.D., University of California, Santa Barbara

**Dana B. Landry, M.M.**

(2002), Professor of Music — B.M., Berklee College of Music; M.M., University of Northern Colorado (G, DR)

**J. Melvin Lane, Ed.D.**

(2004), Professor Emeritus of Special Education — B.A., M.A., Ed.D.; Appointed 1967

**Anne Lanzilotti, D.M.A.**

(2017), Assistant Professor of Music - B.A., Oberlin Conservatory of Music; M.M., Yale School of Music; D.M.A., Manhattan School of Music

**Milan D. Larson, Ph.D.**

(2005), Associate Professor of Management — B.A., Concordia College; M.B.A., University of Colorado; Ph.D., University of Nebraska-Lincoln (G)

**Jody K. Lawrence, Ph.D.**

(2006), Associate Professor of Elementary Education — B.A., M.A., University of Colorado; Ph.D., University of Virginia (G)

**Judith Leatherman, Ph.D.**

(2010), Associate Professor of Biological Sciences — B.S., Eastern Mennonite University; Ph.D., University of Pennsylvania School of Medicine (G, DR)

**Fong-Yun Lee, Ph.D.**

(1990), Professor Emeritus of Elementary Education — M.Ed., University of Pittsburg; Ph.D., Arizona State University; Appointed 2009

**Patricia A. Lee, Ed.D.**

(2003), Associate Professor Emerita of Exceptionalities and Bilingual/ESL Education — B.A., M.S., Ed.D.; Appointed 1990

**Cliff Leek, Ph.D.**

(2017), Assistant Professor of Sociology - B.A., Willamette University, M.A., Ph.D., Stony Brook University

**Jennifer J. Leffler, M.A.**

(2005), Associate Professor of University Libraries — B.A., Midland Lutheran College; M.A., University of Missouri-Columbia

**Michael Lemke M.F.A.**

(2005), Associate Professor of Art & Design — B.A. University of Northern Colorado; M.F.A., Kansas State University

**Debra Leners, Ph.D.**

(2010), Emerita Professor of Nursing — B.S.N., M.A.N., University of Iowa; Ph.D., University of Colorado (G)

**Linda Leon, M.A.**

(2008), Instructor of Reading — M.A., University of Northern Colorado

**John R. Leonard, M.F.A.**

(1998), Professor of Theatre Arts — B.S., Southern Illinois University; M.F.A., University of California-Davis

**David G. Lerach, Ph.D.**

(2013), Assistant Professor of Meteorology — B.S., Saint Cloud State University; M.S., Ph.D., Colorado State University (G)

**Steven C. Leth, Ph.D.**

(1988), Professor of Mathematical Sciences — B.A., University of Colorado; M.S., Stanford University; Ph.D., University of Colorado (G)

**Oscar Levin, Ph.D.**

(2011), Assistant Professor of Mathematical Sciences - B.A., B.S., University of Northern Colorado; M.S., Ph.D., University of Connecticut (G)

**Martha Shaw Levine, Ph.D.**

(2016), Assistant Professor of Nursing - B.S.N., Berea College; M.S.N., Ph.D., University of Colorado (G)

**A. Juanita Lewis, Ph.D.**

(1982), Professor Emerita of Elementary Education — B.S., M.A., Ph.D.; Appointed 1959

**Andrew Liccardo, M.F.A.**

(2013), Director School of Art & Design - B.A., Loyola University of Chicago; M.F.A., Texas Tech University

**Jay M. Lightfoot, Ph.D.**

(1991), Associate Dean and Professor of Computer Information Systems — B.S., East Texas State University; M.B.A., Ph.D., University of Colorado (G)

**Jeanne Lipman, B.S.**

(2001), Assistant Professor Emerita of Vocational Business and Master Teacher in the Laboratory School — A.A., B.S.; Appointed 1975

**Jiacheng Liu, Ph.D.**

(2015), Assistant Professor in History - B.A., Wuhan University; M.A., Xiamen University, M.A., Carnegie Mellon University; Ph.D., Carnegie Mellon University (G)

**Marie L. Livingston, Ph.D.**

(1985), Professor Emerita of Economics — B.S., M.S., Ph.D.

**Linda L. Lohr, Ed.D.**

(1997), Professor Emeritus of Educational Technology — B.S., Colorado State University; M.S., Texas Women's University; Ed.D., University of Memphis (G, DR)

**Robert Longwell, Ph.D.**

(1986), Professor Emeritus of Education — B.A., M.A., Ph.D.; Appointed 1962

**Michelle Low, Ph.D.**

(2006), Assistant Professor of Modern Languages — B.A., University of California-Santa Cruz; M.A., University of Colorado-Boulder; Ph.D., University of Colorado-Boulder (G)

**John L. Luckner, Ed.D.**

(1991), Professor of Special Education — B.S., M.Ed., Trenton State College; Ed.D., University of Northern Colorado (G, DR)

**Brian Clay Luedloff, M.F.A.**

(2005), Professor of Music — B.A., University of Missouri, Kansas City; M.F.A., Boston University (G)

**Stan Luger, Ph.D.**

(1990), Professor of Political Science — B.A., State University of New York-Oswego; M.A., University of Toronto; Ph.D., City University of New York (G)

**Carol L. Lutey, Ph.D.**

(1981), Professor Emerita of Psychology — B.S., M.A., Ph.D.; Appointed 1959

**Stephen Luttmann, M.L.S.**

(1999), Professor of University Libraries — B.A., B.M., University of Memphis; M.A., University of Louisville; M.A., M.L.S., Indiana University (G)

**Robert M. Lynch, Ph.D.**

(1973), Professor of Business Statistics — B.A., State University of New York; Ph.D., University of Northern Colorado

**M****Stephen P. Mackessy, Ph.D.**

(1994), Professor of Biological Sciences — B.A., M.A., University of California; Ph.D., Washington State University (G, DR)

**Melissa Malde, D.M.A.**

(2000), Professor of Music — B.A., B.M., Oberlin College and Conservatory; M.M., C.P., Northwestern University; M.D., Hochschule für Musik; D.M.A., University of Cincinnati-College Conservatory of Music (G, DR)

**Jani Malkiewicz, M.A.**

(2002), Senior Lecturer Emerita of Sport and Exercise Science — B.A., Colorado State University; M.A., University of Northern Colorado

**Judith A. Malkiewicz, Ph.D.**

(2004), Professor Emerita of Nursing — B.S., M.S., Ph.D.; Appointed 1975

**Christie Malnati, M.A.**

(2001), Assistant Professor Emerita of Foreign Languages and Master Teacher in the Laboratory School — B.S., M.A.; Appointed 1973

**Theresa M. Malumphy, Ph.D.**

(1989), Professor Emerita of Kinesiology and Women's Studies — B.S., M.S., Ph.D.; Appointed 1967

**Brianne Markowski, M.A.**

(2014), Assistant Professor of University Libraries — B.A., University of Chicago; M.A., University of Wisconsin-Madison

**Sherilyn R. Marrow, Ph.D.**

(1995), Professor of Communication — B.S., M.A., University of Nebraska; Ph.D., University of Denver (G)

**James P. Marshall, Ph.D.**

(1973), Professor Emeritus of Sociology — B.A., MA., Ph.D.; Appointed 2009

**Christine E. Marston, Ph.D.**

(1999), Professor of Economics — B.S., M.S., University of Nevada-Reno; Ph.D., Colorado State University (G)

**Janice Hoot Martin, Ph.D.**

(2004), Professor Emerita of Nursing — B.S.N., M.S., Ph.D.; Appointed 1985

**Michael W. Martin, J.D., LL.M.**

(2007), Associate Professor of Business Law — B.A., M.B.A., J.D., Creighton University; LL.M., University of Washington (G)

**Rutilio Martinez, Ph.D.**

(1993), Professor of Business Statistics — B.A., Universidad Iberoamericana; M.S., Colorado State University; Ph.D., Vanderbilt University (G)

**Nancy J. Matchett, Ph.D.**

(2007), Associate Professor of Philosophy — A.B., Brown University; M.A., American University; Ph.D., University of Maryland

**Jennifer Mayer, M.L.I.S.**

(2016), Assistant Professor of University Libraries — B.A., University of Wyoming; M.A., University of Wyoming; M.L.I.S. University of Oklahoma

**Richard G. Mayne, Ph.D.**

(1992), Professor of Music — B.M., M.M., Arizona State University; Ph.D., Ohio State University (G)

**Sally McBeth, Ph.D.**

(1990), Professor of Anthropology — B.A., Michigan State University; M.A., Ph.D., Washington State University (G)

**Lyda F. McCartin, M.L.I.S.**

(2006), Associate Professor of University Libraries — B.A., Meredith College; M.A., M.L.I.S., University of Alabama

**Christine A. McClatchey, Ph.D.**

(1996), Professor of Finance — B.S., M.S., Ph.D., University of Nebraska (G, DR)

**Allen W. McConnell, M.S., C.P.A.**

(1968), Professor of Accounting — B.S., M.S., University of North Dakota; C.P.A.

**Denny McCorkle, D.B.A.**

(2005), Professor of Marketing — B.B.A., Southern Arkansas University; M.B.A., Louisiana Tech University; D.B.A., University of Memphis (G)

**Teresa M. McDevitt, Ph.D.**

(1985), Professor of Psychological Sciences and Affiliate Assistant Professor of Applied Statistics and Research Methods — B.A., University of California; M.A., Ed.S., Ph.D., Stanford University (G, DR)

**Mitchell McGlaughlin, Ph.D.**

(2008), Assistant Professor of Biological Sciences — B.A., Reed College; Ph.D., Claremont Graduate University/Rancho Santa Ana Botanic Gardens (G, DR)

**Harold L. McKain, Jr., Ph.D.**

(1989), Professor Emeritus of Physical Education — B.S., M.Ed., Ph.D.; Appointed 1966

**Jaimie McMullen, Ph.D.**

(2016) Assistant Professor of Sport and Exercise Science - B. Ed. University of Hawaii, M.A., University of Northern Iowa, Ph.D., Arizona State University

**Gillian McNally, M.F.A.**

(2006), Associate Professor of Theatre Education — B.F.A., Webster University Conservatory of the Arts; M.F.A., University of Texas at Austin (G)

**Jeanette McNeill, DrPH**

(2014), B.S.N., Louisiana State University; M.S.N., N.P., DrPH, University of Texas, Houston (G, DR)

**Marcus K. Meilahn, Ph.D.**

(1968), Professor Emeritus of Chemistry — B.S., Ph.D.

**Deanna K. Meinke, Ph.D.**

(2004), Professor of Audiology and Speech-Language Sciences — B.S., Colorado State University; M.A., Northern Illinois University; Ph.D., University of Colorado (G, DR)

**Wayne W. Melanson, Ph.D.**

(1975), Professor Emeritus of Journalism and Mass Communication — B.A.; Ed.S.; Ph.D.

**Jacob Melish, Ph.D.**

(2011), Assistant Professor of History- B.A., Tulane University; D.E.A., École des Hautes Études en Sciences Sociales; Ph.D., University of Michigan (G)

**Alison S. Merrill, Ph.D.**

(1998), Associate Professor in Nursing — B.S.N., University of Rhode Island; M.S.N., University of Michigan; Ph.D., Colorado State University (G, DR)

**Robert P. Merz, Ed.D.**

(2002), Professor Emeritus of Higher Education and Student Affairs Leadership — B.A., M.A., M.Ed., Ed.D.; Appointed 1972

**Valerie Middleton, Ph.D.**

(2006), Professor of Educational Foundations and Curriculum Studies — B.S., Illinois State University; M.Ed., Ph.D., Colorado State University (G, DR)

**Gwyneth Milbrath, M.S.N.**

(2015), Instructor of Nursing - B.S.N., University of Florida; B.S., M.P.H, M.S.N, University of Virginia

**Madeline Milian, Ed.D.**

(1993), Professor of Bilingual Education — B.S., Florida International University; M.A., California State University-Los Angeles; Ed.D., Teachers College, Columbia University (G, DR)

**Nathaniel G. Miller, Ph.D.**

(2001), Professor of Mathematical Sciences — B.A., Princeton University; M.S., Ph.D., Cornell University (G, DR)

**Wilbur G. Millslagle, Ed.D.**

(1989), Professor Emeritus of Special Education — B.S., M.A., Ed.D.; Appointed 1967

**Claudia Milstead, Ph.D.**

(2014), Instructor of English — B.A., University of Colorado at Denver; M.A., University of Tennessee; Ph.D., University of Tennessee

**Jane Monson, M.A.**

(2012), Assistant Professor of University Libraries — B.A., M.A., University of Iowa

**Mark Montemayor, Ph.D.**

(2005), Professor of Music — B.M., University of Texas at Austin; M.A., University of Washington (G, DR)

**Donald B. Montgomery, Ed.D.**

(1993), Professor Emeritus of Educational Administration — B.A., M.S., Ed.D.; Appointed 1969

**Andrea Moon, Ph.D.**

(2010), Assistant Professor of Theatre Arts and Dance — B.A., University of Washington; M.F.A., University of Texas, Austin; Ph.D., University of Colorado

**Melanie Moore, Ph.D.**

(1994), Professor of Sociology — B.A., Pennsylvania State University; M.A., University of Georgia; Ph.D., University of Washington (G)

**Christine Moritz, Ph.D.**

(2005), Assistant Professor of French — B.A., Whitman College; M.A., Ph.D., Cornell University.

**Christy Moroye, Ph.D.**

(2013), Associate Professor — B.A., University of New Mexico; M.A., Ph.D., University of Denver (G, DR)

**Grant L. Morris, Ph.D.**

(2002), Professor Emeritus of Psychology — B.A., M.S., Ph.D.; Appointed 1972

**Gaylord D. Morrison, Ed.D.**

(1979), Professor Emeritus of Education — B.S., M.A., Ed.D.; Appointed 1951

**Katherine Morrison, Ph.D.**

(2012), Assistant Professor of Mathematical Sciences — B.A., Swarthmore College; M.S., Ph.D., University of Nebraska-Lincoln (G)

**Alan Morse, Ph.D.**

(2015), Associate Professor of Sports and Exercise Science - B.A., Wayne State College; M.S., Illinois State University; Ph.D., University of Northern Colorado (G, DR)

**Michael D. Mosher, Ph.D.**

(2011), Professor of Chemistry - B.S., University of Idaho; M.S., Dartmouth College; Ph.D., Texas Tech University (G)

**Mehrgan Mostowfi, Ph.D.**

(2013), Assistant Professor of Computer Information Systems — B.S., Beheshti University-Iran; M.S., Ph.D., University of South Florida (G, DR)

**Matthew Mott, M.F.A.**

(2017), Assistant Professor of Theatre Arts - B.A., University of Northern Colorado; M.F.A., University of Missouri- Kansas City

**Tracy Mueller, Ph.D.**

(2004), Professor of Special Education — B.S., Syracuse University; M.A., Chapman University; M.A., Ph.D., University of California (G, DR)

**Jo-Ann Mullen, Ed.D.**

(2001), Professor Emerita of Elementary Education and Reading — B.S., Ed.M., Ed.D.; Appointed 1977

**Heidi Muller, Ph.D.**

(2002), Assistant Professor in Communication — B.A., Carleton College; M.Ed., Harvard Graduate School of Education; Ph.D., University of Colorado (G)

**Daniel J. Mundfrom, Ph.D.**

(1995), Professor Emeritus of Applied Statistics and Research Methods — B.S., M.S., University of North Dakota; Ph.D., Iowa State University (G, DR)

**Jennifer L. Murdock, Ph.D.**

(2007), Associate Professor of Counselor Education — B.A., M.A., Chadron State College; Ph.D., University of Wyoming (G, DR)

**Francie R. Murry, Ph.D.**

(1991), Professor of Special Education — B.A., M.Ed., Central Washington University; Ph.D., University of Virginia (G, DR)

**Kim A. Murza, Ph.D.**

(2012), Assistant Professor of Audiology and Speech Language Sciences — B.A., M.A., Ph.D., University of Central Florida (G)

**David W. Musick, Ph.D.**

(1980), Professor Emeritus of Sociology — B.A., M.A., Ph.D., Appointed 2015

**N****Grace Napier, Ph.D.**

(1986), Professor Emerita of Special Education — B.A., M.A., Ph.D.; Appointed 1966

**Kyle Anne Nelson, Ph.D.**

(2009), Associate Professor of Sociology — B.A., Colgate University; M.P.H., George Washington University; M.A., Ph.D., University of Maryland (G)

**Raymond E. Nelson, Ph.D.**

(2004), Professor Emeritus of Human Rehabilitative Services — B.A., M.S., Ph.D.; Appointed 1984

**William D. Nesse, Ph.D.**

(2007), Professor Emeritus of Geology — B.S., Washington State University; Ph.D., University of Colorado; Appointed 1977

**Harmony Newman, Ph.D.**

(2013), Assistant Professor of Sociology & Gender Studies — B.A., Centenary College of Louisiana; Ph.D., Vanderbilt University (G)

**Richard I. Newmark, Ph.D.**

(2001), Professor of Accounting — B.S., University of Florida; M.S., Ph.D., University of Miami (G)

**Brett Nichols, Ph.D.**

(2016), Lecturer of Sport and Exercise Science - B.A., Hamline University; M.A., Kent State University; Ph.D., University of Northern Colorado

**Jodie Dawn Novak, Ph.D.**

(1996), Professor of Mathematical Sciences — B.A., Hendrix College; M.A., Ph.D., Oklahoma State University (G, DR)

**P–Q****Josh R. Packard, Ph.D.**

(2012), Assistant Professor of Sociology — B.A., Texas Lutheran University; M.A., Ph.D., Vanderbilt University (G)

**David L. Palmer, Ph.D.**

(1999), Associate Professor of Communication — B.A., Wheaton College; M.A., Ohio University; Ph.D., Bowling Green State University (G)

**Carlo Parker, Ph.D.**

(2012), Assistant Professor of Nursing — B.S., Long Island University; B.S.N., M.S.N., Ph.D., Florida Atlantic University (G, DR)

**Catherine "Frieda" Parker, Ph.D.**

(2013), Assistant Professor of Mathematical Sciences, Research Faculty — B.A., Knox College; M.B.A., University of California-Berkeley; Ph.D., University of Northern Colorado (G, DR)

**Melissa A. Parker, Ph.D.**

(1999), Professor Emerita of Sport and Exercise Science — B.S., M.A., Ph.D.,

**William Parkos, Ph.D.**

(1998), Professor Emeritus of Community Health — B.S., M.S., Ph.D.; Appointed 1970

**Elizabeth Pascoe, Ph.D.**

(2009), Assistant Professor of Psychological Sciences — B.A., University of Notre Dame; M.A., University of Chicago; M.A., Ph.D., Duke University (G)

**Marcia Patterson, D.N.P**

(2014), Assistant Professor of Nursing - B.S.N., Houston Baptist University; M.S.N, University of Texas; D.N.P., University of Northern Colorado

**Cheryl Pawlowski, Ph.D.**

(1998), Professor of Communication — B.A., Western Connecticut University; M.A., Fairfield University; Ph.D., University of North Carolina

**Janice M. Payan, Ph.D.**

(2003), Professor of Marketing — B.S., M.P.A., M.B.A., University of Colorado-Denver; Ph.D., University of Wisconsin-Madison (G)

**Rita Payton, M.S.**

(1984), Professor Emerita of Nursing — B.S., M.S.; Appointed 1965

**Lee Anne Peck, Ph.D.**

(2003), Associate Professor of Journalism and Mass Communication — B.A., M.A., Colorado State University; M.S., University of South Florida; M.A., Ph.D., Ohio University

**Norman L. Peercy, Ph.D.**

(1969), Professor of English — B.S.E., M.A., University of Northern Colorado; M.Ph., Ph.D., University of Kansas (G)

**Melanie Peffer, Ph.D**

(2016) Assistant Professor of Biological Sciences - B.S., Ph.D., University of Pittsburgh

**Eleanor M. Peiffer, Ed.D.**

(1981), Associate Professor Emerita of Home Economics/Vocational Teacher Education — B.S., M.Ed., Ed.D.; Appointed 1972

**Diane Peters, Ph.D.**

(1984), Professor Emerita of Nursing — B.S.N., M.N., Ph.D.

**Bridgette Bailie Peterson, Ph.D.**

(2016), Assistant Professor of Philosophy - B.A., University of Colorado, M.A., Ph.D., University of Massachusetts

**Lori Peterson, Ph.D.**

(2007), Assistant Professor of Special Education — B.A., University of Northern Colorado; M.A., University of Colorado; Ph.D., University of Oklahoma (G, DR)

**Phillip E. Peterson, Ph.D.**

(2006), Associate Professor of Psychological Sciences — B.A., University of Massachusetts; Ph.D., Harvard University (G, DR)

**Michael K. Petrie, M.A.**

(1999), Lecturer in Mathematical Sciences — B.A., M.A., University of Northern Colorado

**D. Allen Phillips, Ed.D.**

(2002), Professor Emeritus of Physical Education — B.S., M.Ed., Ed.D.; Appointed 1968

**Kristina Phillips, Ph.D.**

(2007), Associate Professor of Psychological Sciences — B.S., University of Nebraska at Omaha; M.A., Ph.D., Bowling Green State University (G)

**Michael Phillips, Ph.D.**

(2008), Associate Professor of Psychological Sciences — B.S., University of Nebraska at Omaha; Ph.D., Michigan State University (G, DR)

**Corey D. Pierce, Ph.D.**

(2005), Professor of Special Education — B.S., University of South Dakota; M.Ed., Ph.D., University of Nebraska-Lincoln (G, GR)

**William D. Popejoy, Ed.D.**

(1988), Professor Emeritus of Mathematics and Applied Statistics — B.S., M.A., Ed.D.; Appointed 1959

**Sheila Postiglione, M.S.N.**

(2009), Assistant Professor of Nursing - B.S.N., University of Minnesota; M.S.N., University of Northern Colorado

**Charles S. L. Poston, Ph.D.**

(2004), Professor Emeritus of Psychology — B.A., M.S., Ph.D.; Appointed 1967

**Robert A. Powers, Ed.D.**

(2001), Professor of Mathematical Sciences — B.S., M.S., Colorado State University; Ed.D., University of Houston (G, DR)

**Judith Praul, Ed.D.**

(1998), Professor Emerita of Counseling Psychology — B.A., M.A., Ed.D.; Appointed 1967

**Andrew Prelog, Ph.D.**

(2015), Assistant Professor of Sociology - B.S., Northern Arizona University; M.A., Ph.D., Colorado State University(G)

**Alan Price, M.A.**

(2013), Lecturer of Criminal Justice — B.S. California State University, Fresno; M.A. Idaho State University

**Kenneth Price, M.A.**

(2003), Associate Professor of Art & Design — B.A., State University of New York at Geneseo; B.A., State University of New York at Brockport; M.A., State University of New York at Stony Brook; M.A., University of Iowa

**David L. Pringle, Ph.D.**

(1968), Professor of Chemistry — B.S., Wayne State University; M.S., Ph.D., Iowa State University (G)

**Kevin Pugh, Ph.D.**

(2006), Professor of Psychological Sciences — B.S., Brigham Young University; Ph.D., Michigan State University (G, DR)

**Nicholas Pullen Ph.D.**

(2016) Assistant Professor of Biological Sciences - B.S., James Madison University; Ph.D., Virginia Commonwealth University

**Steven M. Pulos, Ph.D.**

(1990), Professor of Psychological Sciences — B.A., M.A., San Francisco State University; Ph.D., York University-Toronto (G, DR)

**R****Stuart R. Rabinowitz, Ph.D.**

(2006), Instructor of English — B.A., SUNY at Stony Brook, NY; M.A., Colorado State University; Ph.D., University of Colorado

**Enayetur Raheem, Ph.D.**

(2013), Assistant Professor of Applied Statistics and Research Methods — B.Sc. M.Sc., University of Dhaka; M.Sc., McMaster University; Ph.D., University of Windsor (G)

**Kelly Scott Raisley, M.A.**

(2006), Senior Lecture of Journalism and Media Studies - B.A., M.A., University of Northern Colorado

**John M. Ramsey, Ph.D.**

(2017), Assistant Professor of Philosophy - B.A., Ursinus College; M.A., Ph.D., University of California - Riverside

**Tim B. Ramsey, M.A.**

(2001), Lecturer Emeritus of Sport and Exercise Science — B.S., M.S., State University College at Cortland

**Elizabeth J. Rave, Ed.D.**

(1991), Professor Emerita of School Psychology — B.S., M.A., Ed.D.; Appointed 1967

**James Reardon, Ph.D.**

(1997), Professor of Marketing — B.S., M.B.A., University of Montana; Ph.D., University of North Texas (G, DR)

**Carissa Reddick, Ph.D.**

(2010), Associate Professor of Music — B.M., Texas Christian University; M.M., University of Hartford; Ph.D., University of Connecticut (G)

**Helen I. Reed, A.M.L.S.**

(1990), Dean of University Libraries — A.B., Allegheny College; A.M.L.S., University of Michigan

**Ronald O. Reed, Ph.D., C.P.A.**

(2016), Professor Emeritus of Accounting — B.S., M.A.S., Ph.D., C.P.A. Appointed 1988

**Philip L. Reichel, Ph.D.**

(2013), Professor Emeritus of Criminal Justice & Sociology — B.S., M.A., Ph.D.; Appointed 1983

**Robert Reinsvold, Ph.D.**

(1989-02, 2004), Assistant Professor of Biological Sciences — B.A., Humboldt State University; M.S., Colorado State University; Ph.D., Purdue (G)

**Paul D. Retzlaff, Ph.D.**

(1989), Professor Emeritus of Psychology — B.A., M.A., Ph.D.

**Paul W. Richard, M.A.**

(1984), Professor Emeritus of Biology in the Laboratory School — B.A., M.A.; Appointed 1967

**Robert C. Richardson, Ph.D.**

(1988), Professor Emeritus of Educational Field Experiences — B.A., M.A., Ph.D.; Appointed 1967

**Judith Richter, Ph.D.**

(2004), Professor Emerita of Nursing — B.S., M.S.N., Ph.D.; Appointed 1978

**Jeffrey A. Rings, Ph.D.**

(2011), Assistant Professor of Counseling Psychology - B.A., Pepperdine University; M.A., Northwestern University; Ph.D., University of Denver (G, DR)

**Jennifer A. Richotte, Ph.D.**

(2013), Assistant Professor of Special Education — B.A., M.A.T., University of Pittsburgh; Ph.D., University of North Carolina-Charlotte (G, DR)

**David H. Roat, Ph.D.**

(1996), Professor Emeritus of Foundations of Education — B.A., M.A., Ph.D.; Appointed 1968

**Katrina Rodriguez, Ph.D.**

(2004), Assistant Professor of Higher Education and Student Affairs Leadership — B.A., M.A., Northern Arizona University; Ph.D., University of Northern Colorado (G)

**Carol Roehrs, Ph.D.**

(1989), Associate Professor of Nursing — B.S., M.S., Ph.D., University of Colorado (G, DR)

**Deborah Rojas, M.S.N.**

(2007), Assistant Professor of Nursing - B.S.N., M.S.N., University of Northern Colorado

**Sarah Romano, Ph.D.**

(2013), Assistant Professor of Political Science & International Affairs — B.A., University of Puget Sound; PhD, University of California, Santa Cruz

**Deborah Romero, Ph.D.**

(2006), Associate Professor of Hispanic Studies - B.A., Ealing College of Higher Education, U.K; M.A., Autonomous University, Queretaro, Mexico; Ph.D., University of California, Santa Barbara ( G, DR)

**Michaela Romero, D.N.P.**

(2013), Assistant Professor of Nursing - B.S.N., Regis University; B.S., College of St. Francis; R.N.; Universitaet Wuerzburg Germany; M.S.N., D.N.P., University of Northern Colorado (G)

**Brian Rose, Ph.D.**

(2013), Assistant Professor of Teacher Education — B.A., University of California at Irvine; M.S., Ph.D., Vanderbilt University (G)

**Rosann Ross, M.A.**

(1997), Lecturer in Psychological Sciences — B.A., M.A., University of Northern Colorado

**Anthony M. Rossi, M.A.**

(1984), Professor Emeritus of Physical Education — B.S., M.A.; Appointed 1949

**Barry Rothaus, Ph.D.**

(1966), Professor Emeritus of History — B.A., M.S., Ph.D.

**Harvey Rude, Ed.D.**

(1982), Professor of Special Education — B.S., Moorhead State University; M.A., Ed.D., University of Northern Colorado (G, DR)

**Daniel Rush, Ph.D.**

(2015), Assistant Professor of Computer Information Systems - B.S., University of Idaho; Ph.D., University of Michigan

**John M. Ryan, Ph.D.**

(2011), Associate Professor of Hispanic Studies B.A., Georgetown University; M.A., Ph.D. Arizona State University (G)

**S****George H. Sage, Ed.D.**

(1992), Professor Emeritus of Kinesiology and Sociology — B.A., M.A., Ed.D.; Appointed 1963

**Jessica Salo, Ph.D.**

(2013), Assistant Professor of Geography & GIS — Ph.D., Colorado State University (G)

**Marc C. Santos Ph.D.**

(2016), Assistant Professor of English- B.A., Clark University; M.S., Boston University; Ph.D., Purdue University

**Tomas N. Santos, Ph.D.**

(1973), Professor Emeritus of English — B.A., M.A., Ph.D., University of Iowa (G)

**Erin Satterlee, M.A.**

(2014), Lecturer of English — B.A., University of Northern Colorado; M.A., University of Northern Colorado

**Lorie Sauble-Otto, Ph.D.**

(2003), Associate Professor of Modern Languages — B.A., Wichita State University; M.A., Ph.D., University of Arizona

**Gerald W. Saunders, Ph.D.**

(1995), Associate Professor Emeritus of Biological Sciences — B.A., University of Northern Colorado; M.S., University of Idaho; Ph.D., University of Nebraska

**Jay R. Schaffer, Ph.D.**

(1998), Professor of Applied Statistics and Research Methods — B.S., M.S., South Dakota State University; Ph.D., University of Northern Colorado (G, DR)

**Kristin Schams, D.N.P.**

(2013), Assistant Professor of Nursing - B.S.N., M.S.N., Viterbo University; D.N.P., St. Catherine University (G)

**Walter A. Schenkman, D.M.**

(1984), Professor Emeritus of Music — B.A., M.M., D.M.; Appointed 1956

**Charles “Gil” Schmidt, Ph.D.**

(2011), Professor Emeritus of Geography — B.A., M.A., Ph.D.; Appointed 1991

**Donald L. Schmidt, Ph.D.**

(1988), Professor Emeritus of Mathematics and Applied Statistics — B.A., M.S., Ph.D.; Appointed 1966

**Diane L. Schott, M.A.**

(1999), Lecturer in Sociology — B.A., M.A., University of Northern Colorado

**James O. Schreck, Ph.D.**

(1966), Professor Emeritus of Chemistry — B.A., M.S., Ph.D. Appointed 1966

**Melissa Gurney Schultz, M.L.I.S.**

(2015), Lecturer of University Libraries - B.A., University of Northern Colorado; M.L.I.S., University of Denver

**Mary Schuttler, Ph.D.**

(1994), Professor of Theatre Arts — B.A., University of Michigan; M.A., Wayne State University; Ph.D., University of Colorado (G)



**Richard W. Schwenz, Ph.D.**

(1984), Professor of Chemistry — B.A., University of Colorado; Ph.D., Ohio State University (G, DR)

**Steven L. Scott, D.A.**

(2001), Professor Emeritus of Geography — B.A., M.A., D.A.; Appointed 1968

**Terry A. Scott, Ph.D.**

(2011), Professor Emeritus of Mathematical Sciences — B.S., M.S., Ph.D.; Appointed 1985

**Sonja Scullion, M.A.**

(2004), Lecturer of English — B.A., M.A., University of Northern Colorado

**Donald T. Searls, Ph.D.**

(1996), Professor Emeritus of Mathematics and Applied Statistics — B.S., M.S., Ph.D.; Appointed 1983

**Lloyd "Pat" Seaton, Ph.D., C.P.A.**

(2007), Associate Professor of Accounting — B.S., M.B.A., University of Arkansas; Ph.D., University of Nebraska (G)

**Tod A. Sedbrook, Ph.D.**

(2016), Professor Emeritus of Computer Information Systems — B.S., M.S., M.B.A., Ph.D., Appointed 1989

**Tracey A. Sedinger, Ph.D.**

(1995), Professor of English — B.A., Chatham College; M.A., Ph.D., State University of New York (G)

**Steven Seegel, Ph.D.**

(2008), Associate Professor of History — B.A., Canisius College; M.A., Ph.D., Brown University (G)

**Teresa Sellmer, M.A.**

(2007), Lecturer of English — B.A., M.A., University of Northern Colorado

**Matthew Semak, Ph.D.**

(2000), Assistant Professor of Physics — B.S., M.S., Clarkson University; Ph.D., University of New Mexico

**Dawit Senbet, Ph.D.**

(2011), Associate Professor of Economics - B.A., Addis Ababa University; M.A., Ph.D., Western Michigan University

**Gabriel R. Serna, Ph.D.**

(2012), Assistant Professor of Higher Education and Student Affairs Leadership — B.B.A., New Mexico State University; M.P.P. University of Kentucky; Ph.D., Indiana University Bloomington (G, DR)

**Cody Shaffer, M.A.**

(2008), Lecturer of English — B.A., Colorado State University; M.A. University of Northern Colorado

**Khalil Shafie, Ph.D.**

(2007), Associate Professor of Applied Statistics and Research Methods — B.Sc., Shahid Chamran University; M.Sc., Shahid Chamran University; Ph.D., McGill University (G, DR)

**Linda A. Sharp, B.A., J.D.**

(1997), Professor Emerita of Sport and Exercise Science — B.A., Baldwin –Wallace College; J.D., Cleveland–Marshall College of Law (G, DR)

**Teresa A. Sharp, Ph.D.**

(2011), Assistant Professor of Community Health - B.S., Middle Tennessee State University; M.Ed., George Peabody College of Vanderbilt University; Ph.D. University of Colorado-Denver (G)

**Dale Shaw, Ph.D.**

(1973), Professor Emeritus of Applied Statistics and Research Methods — A.B., M.A., Ph.D.

**Eugene P. Sheehan, Ph.D.**

(1987), Dean, College of Education and Behavioral Sciences, Professor of Psychology — B.A., University of Dublin; M.S., Queen's University of Belfast; M.S., University of Dublin; Ph.D., University of California-Santa Cruz (G, DR)

**Lucinda Shellito, Ph.D.**

(2005), Associate Professor of Meteorology — B.S., M.S., University of California, Davis; Ph.D. University of California, Santa Cruz (G)

**K. Lee Shropshire, Ph. D.**

(1998), Professor Emeritus of Geology — B.A., Miami University (Ohio); Ph.D., University of Colorado; Appointed 1965

**Katherine Shull, M.L.I.S**

(2015), Lecturer of University Libraries - B.A., University of Colorado; M.L.I.S., University of Denver

**Nancy Sileo, Ed.D.**

(2012), Professor of Special Education — B.A., National University; M.Ed. University of Hawaii, Manoa; Ed.D. University of Northern Colorado (G, DR)

**Fredrick L. Silverman, Ed.D.**

(1984), Professor Emeritus of Elementary Education — B.A., Southern Methodist University; M.A., University of Chicago; Ed.D., University of Houston (G, DR)

**Kenneth Singleton, D.M.A.**

(1985), Professor of Music — B.A., University of Southern Florida; M.M., M.M.A., D.M.A., Yale University (G, DR)

**Robert O. Singer, Ed.D.**

(1985), Professor Emeritus of Education — B.A., M.A., Ed.D.; Appointed 1966

**Yvonne Siu-Runyan, Ph.D.**

(2001), Professor Emerita of Elementary Education and Reading — B.Ed., M.A., Ph.D.; Appointed 1989

**Frank A. Skufca, M.S.**

(2003), Lecturer in Biological Sciences — B.A., M.S., University of Northern Colorado

**Brian Smith, M.A., J.D.**

(2011), Lecturer of Criminal Justice - B.A., University of Colorado; M.A., University of Colorado; J.D., University of Colorado

**Jennifer A. Smith, Ph.D.**

(2016), Assistant Professor of Counselor Education - B.F.A., Art Institute of Atlanta, M.S., Ed.S., Ph.D., Georgia State University (G)

**Jeremy D. Smith, Ph.D.**

(2007), Associate Professor in Sport and Exercise Science — B.A., University of Northern Colorado; M.S., Texas Woman's University, Ph.D., Pennsylvania State University (G, DR)

**Mark A. Smith, Ph.D.**

(2004), Professor of Sport and Exercise Science — B.S., Brunel University College; M.S., Western Carolina University; Ph.D., University of Georgia (G, DR)

**Thomas A. Smith, Ph.D.**

(2006), Professor of Philosophy; Assistant Vice President for Undergraduate Studies and Dean of University College — B.A., University of Washington; Dip.C.S., M.C.S., Regent College; M.A., Ph.D., University of Notre Dame (G)

**Audrey Snyder, Ph.D.**

(2014), Associate Professor of Nursing - B.S.N., M.S.N., N.P., Ph.D., University of Virginia (G, DR)

**Basilia (Lia) C. Softas-Nall, Ph.D.**

(1992), Professor of Counseling Psychology — B.A., University of Ioannina-Greece; M.A., Ph.D., Ball State University (G, DR)

**Brandon William Soltwisch, Ph.D.**

(2013), Assistant Professor of Management — B.S., M.B.A., Ph.D., Southern Illinois University (G)

**Youngjin Song, Ph.D.**

(2008), Associate Professor of Science Education — B.S., M.S., Ewha Womans University, Seoul, Republic of Korea; Ph.D., University of Georgia (G, DR)

**Hortensia Soto-Johnson, Ph.D.**

(2005), Professor of Mathematical Sciences — B.S., M.S., Chadron State College; M.S., University of Arizona; Ph.D., University of Northern Colorado (G, DR)

**Charles E. Soukup, Ph.D.**

(2001), Associate Professor of Communication — B.S., Minnesota State University; M.A., University of Northern Iowa; Ph.D., University of Nebraska (G)

**Susan E. Spooner, Ph.D.**

(2000), Professor Emerita of College Student Personnel Administration — B.S., M.S., Ph.D.; Appointed 1983

**Jacqueline Bloom Stanfield, Ph.D.**

(2007), Professor Emerita of Sociology — B.A., M.S., Ph.D.; Appointed 1991

**David Staton, Ph.D.**

(2016), Assistant Professor of Journalism and Media Studies - B.A., University of New Mexico, M.A., State University of New York, Purchase; Ph.D., University of Oregon

**Judith Stauter, M.S., R.D.**

(2002), Lecturer of Nutrition and Dietetics — B.S., M.S., Iowa State University

**Angela (Tisi) Steele, M.A.**

(2003), Lecturer of Mathematical Sciences — B.S., Dickinson State University; M.A., University of Northern Colorado

**Doris C. Steffy, M.A.**

(1981), Professor Emerita of Physical Education — B.A., M.A.; Appointed 1950

**Megan Babkes Stellino, Ed.D.**

(2001), Professor of Sport and Exercise Science — B.A., University of Washington; M.S., University of Oregon; Ed.D., University of Northern Colorado (G, DR)

**Connie K. Stelljes, Ph.D.**

(1984), Professor Emerita of Spanish in the Laboratory School — B.S., M.A., Ph.D.; Appointed 1967

**Thomas Stephens, M.F.A.**

(1990), Professor of Art & Design — B.A., University of Northern Colorado; M.F.A., Pratt Institute (G)

**Connie Stewart, Ph.D.**

(1998), Professor of Art & Design — B.A., M.A., University of Northern Colorado; Ph.D., Union Institute and University (G)

**Laura K. Stewart, Ph.D.**

(2015), Associate Professor of Sport and Exercise Science — B.S., University of Mary; B.S., Colorado State University; M.S., Ph.D., Purdue University (G, DR)

**Jim Stiehl, Ph.D.**

(1988), Professor Emeritus of Sport and Exercise Science— B.S., M.S., Ph.D.

**Natalie R. Stipanovic, Ph.D.**

(2016), Assistant Professor of Counselor Education - B.S., M.S., Ed.S., Pittsburg State University; Ph.D., University of Wyoming. (G)

**Tina M. Stody, Ph.D.**

(2005), Associate Professor of Audiology and Speech-Language Sciences — B.S., Binghamton University; M.S., Washington University; Ph.D., University of Memphis (G, DR)

**David K. Stotlar, Ed.D.**

(1988), Professor Emeritus of Sport and Exercise Science — B.S., Eastern Illinois University; M.Ed., Slippery Rock State College; Ed.D., University of Utah (G, DR)

**Douglas L. Stutler, Ph.D.**

(1996), Professor Emeritus of Counseling Psychology — B.A., M.A., Ph.D.; Appointed 1964

**Jose I. Suarez, Ph.D.**

(1999), Professor of Hispanic Studies — B.A., M.A., University of South Florida; Ph.D., University of New Mexico (G)

**Jerry P. Suits, Ph.D.**

(2003), Associate Professor of Chemistry and Biochemistry — B.S., New Mexico State University; M.S., Southwest Texas State University; Ph.D., University of Texas-Austin (G, DR)

**Katherine Sullivan, Ph.D.**

(2015), Assistant Professor of Nursing - B.S.N., Jersey City State College; M.S.N., Rutgers University, Ph.D., University of Northern Colorado (G)

**Todd H. Sundeen, Ph.D.**

(2008), Assistant Professor Special Education — B.S., M.A., Ph.D., University of Central Florida (G, DR)

**Ruwang Sung, Ph.D.**

(1992), Professor of Physics — B.S., Wuhan University-China; M.S., Ph.D., New York University (G)

**Yoon Tae Sung, Ph.D.**

(2016) Assistant Professor of Sport and Exercise Science - B.S., Yonsei University, South Korea; M.S., University of Illinois at Urban-Champaign; Ph.D., Florida State University

**Andrew Jay Svedlow, Ph.D.**

(2005), Professor of Art & Design — B.A., George Washington University; M.S., Bank Street College; Ph.D., Pennsylvania State University (G)

**John Swaim, Ed.D.**

(1995), Professor Emeritus of Elementary Education and Reading — B.S.E., M.S., Ed.D.; Appointed 1969

**Nicholas Syrett, Ph.D.**

(2005), Associate Professor of History — A.B., Columbia University; M.A., Ph.D., University of Michigan (G)

**Igor N. Szczyrba, Ph.D.**

(1986), Professor of Mathematical Sciences — M.S., Ph.D., University of Warsaw (G, DR)

**T****Christine Talbot, Ph.D.**

(2008), Assistant Professor of Gender Studies — B.A., B.S., University of Utah; M.A., Ph.D., University of Michigan (G)

**Gerald E. Tanner, Ph.D.**

(1996), Associate Professor Emeritus of College Student Personnel Administration — B.A., M.A., Ph.D.; Appointed 1959

**George Tate, Th.D**

(1988), Professor Emeritus of Counseling Psychology — B.A., M.A., M. Div., Th.D.; Appointed 1974

**JoAnn Taylor, Ed.D.**

(1983), Professor Emerita of Home Economics and Women's Studies — B.S., M.A., Ed.D.; Appointed 1965

**Jack Temkin, Ph.D.**

(1983), Professor Emeritus of Philosophy — B.A., Ph.D.; Appointed 2015

**Victoria Terranova, Ph.D.**

(2016), Assistant Professor of Criminal Justice - B.S., M.S., Ph.D., Texas State University (G)

**Ann M. Thomas, Ph.D.**

(2004), Professor Emerita of Applied Statistics and Research Methods — B.A., M.A., Ph.D.; Appointed 1984

**George Thomas, Ph.D.**

(2017), Professor of Hispanic Studies - B.A., University of Texas Austin; M.A.T., Kent State University; M.A., University of Wisconsin; Ph.D., Emory University

**Mark P. Thomas, Ph.D.**

(2006), Assistant Professor of Biological Sciences — B.S., Ph.D., University of California, Davis (G, DR)

**Susan A. Thompson, Ed.D.**

(2003), Professor of Elementary Education — B.A., Black Hills State College; M.Ed., Ed.D., University of Wyoming (G, DR)

**Lu Tian, Ph.D.**

(2015), Assistant Professor of Counseling Psychology - B.S., M.E., Beijing Normal Univeristy; Ph.D., University of Missouri (G)

**Anne Toewe, Ph.D**

(2003), Professor of Theatre Arts — B.S., College of William and Mary; M.F.A., Tulane University; Ph.D., University of Colorado - Boulder

**Robert A. Tolar, Ph.D.**

(2001), Professor Emeritus of Mathematical Sciences — B.S., M.A., Ph.D.; Appointed 1965

**Gordon E. Tomasi, Ph.D.**

(1995), Professor of Emeritus of Chemistry — B.A., M.A., Ph.D.; Appointed 1962

**T.J. Tomlin, Ph.D.**

(2009), Associate Professor of History — B.S., Kansas State University; M.A., Gordon-Conwell Theological Seminary; Ph.D., University of Missouri-Columbia (G)

**John Tonai, M.F.A.**

(2009), Associate Professor of Art & Design — B.A., University of Sioux Falls; M.A., University of Northern Colorado; M.F.A., University of Minnesota, Minneapolis

**Richard Trahan, Ph.D.**

(1974), Professor Emeritus of Sociology — B.A., M.A., Ph.D.; Appointed 2004

**Wayne Trainor, Ed.D.**

(1998), Instructor in Foundations of Education — B.A., M.A., Bowling Green University; Ed.D., University of Northern Colorado

**Jay Trask, M.L.I.S.**

(2009), Associate Professor of University Libraries — B.A., M.A., Colorado State University; M.L.I.S., University of Wisconsin-Milwaukee

**Thomas K. Trelogan, B.A.**

(1976), Associate Professor of Philosophy — B.A., Northwestern University

**Stan Trembach, Ph.D.**

(2016) B.A./M.A., Samara State Pedagogical University, M.A., Clemson University; M.L.S., University of North Carolina; Ph.D., University of South Carolina

**Michael Truesdell, M.M.**

(2016) Assistant Professor of Music - B.M., Lawrence University; M.M., The Juilliard School

**James V. Turk, M.S.**

(2006), Senior Lecturer of Sport and Exercise Science — B.S., Ohio State University, Columbus; M.S., University of Illinois, Urbana-Champaign

**Dean Turner, Ph.D.**

(1995), Professor Emeritus of Foundations of Education — B.A., M.Ed., Ph.D.; Appointed 1966

**Karen F. Turner, Ph.D., C.P.A.**

(2005), Professor of Accounting — B.S., M.A., Texas A & M University; M.S., Ph.D., University of Texas at Arlington (G)

**Dean W. Tuttle, Ph.D.**

(1991), Professor Emeritus of Special Education — B.S., M.A., Ph.D.; Appointed 1971

**U****R. Elaine Uhrig, Ed.D.**

(1988), Associate Professor Emerita of Special Education — B.A., M.A., Ed.D.; Appointed 1970

**Jennifer Urbach, Ph.D.**

(2006), Associate Professor of Special Education—B.A., Saint Mary's College; M.A., Indiana University; Ph.D., University of Colorado (G, DR)

**Anna Ursyn, Ph.D.**

(1993), Professor of Art & Design — M.F.A., University of Fine Arts–Warsaw, Poland; M.F.A., Ph.D., University of Wyoming (G, DR)

**V****Nancy Van Anne, Ph.D.**

(1985), Professor Emerita of Physical Education — B.A., M.A., Ph.D.; Appointed 1955

**Willem van Schalkwyk, D.M.A.**

(2014), Assistant Professor of Music — B.M., Brigham Young University; M.M., D.M.A., University of North Texas (G, DR)

**Leo (Ben) Varner, Ph.D.**

(2016) Professor Emeritus of English - B.A. University of California; M.A. San Francisco State University; Ph.D. University of Illinois (G). Appointed 1969.

**Valentino Vasquez, M.A.**

(2004), Instructor in Special Education — B.A., M.A., University of Northern Colorado

**Christopher J. Vegter, M.B.A.**

(2007), Instructor of Computer Information Systems — B.S., University of Northern Colorado; M B.A., Colorado State University

**Elaine C. Vilscek, Ph.D.**

(2002), Professor Emerita of Elementary Education and Reading — B.S., M.A., Ph.D.; Appointed 1969

**Linda R. Vogel, Ph.D.**

(2003), Professor of Educational Leadership and Policy Studies — B.A., Eureka College; M.A., Ph.D. Illinois State University (G, DR)

**John A. Vonk, Ph.D.**

(1972), Professor Emeritus of Sociology — B.A., M.A., Ph.D.; Appointed 2004

**Timothy Vowles, Ph.D.**

(2008), Visiting Assistant Professor of Geography — B.A., University of San Diego; M.A., Ohio State University; Ph.D., University of Denver (G)

**W****Robbyn R. Wacker, Ph.D.**

(1990), Professor of Gerontology — B.S., B.A., M.S., University of Northern Colorado; Ph.D., Iowa State University (G, DR)

**Melitta Wagner-Heaston, Ph.D.**

(2005), Assistant Professor, French and German — B.A., California State University-Northridge; M.A., Colorado Christian University; Ph.D., Colorado State University (G)

**Robert A. Walch, Ph.D.**

(1988), Professor of Physics — B.S., Florida Institute of Technology; M.A., Indiana University; M.S., Ph.D., Ohio State University (G)

**Dana Walker, Ph.D.**

(2004), Associate Professor of Bilingual Education — B.A., University of California; M.A., University of Texas; Ph.D., University of Boulder (G, DR)

**Laurie Walker, M.S.**

(2002), Sr.Lecturer of Nursing — B.S.N., University of Wyoming; M.S. University of California-San Francisco

**Doris O. Walters, M.Ed.**

(1979), Associate Professor Emerita of Home Economics — B.S., M.Ed.; Appointed 1970

**Isaac Wanasika, Ph.D.**

(2009), Associate Professor of Management — B.A., M.B.A., University of Nairobi; M.B.A., Alfred University, NY; Ph.D., New Mexico State University (G)

**James A. Wanner, Ph.D.**

(2012), Professor Emeritus of Anthropology — B.S., M.S., Ph.D., Appointed in 1970

**Kyle C. Ward Ph.D.**

(2015), Assistant Professor of Criminal Justice - B.A., Lebanon Valley College; M.A., John Jay College of Criminal Justice; Ph.D., Indiana University of Pennsylvania (G)

**Thomas E. Warner, Ph.D.**

(1984), Professor Emeritus of Educational Field Experiences — B.S., M.Ed., Ph.D.; Appointed 1970

**Murielle Watzky, Ph.D.**

(2014), Assistant Professor of Chemistry and Biochemistry - Diplome d'Ingenieur, Ecole Superieure de Chimie Industrielle de Lyon, France; Ph.D., Wayne State University (G, DR)

**Nicole Webber, M.L.I.S.**

(2015), Assistant Professor of University Libraries - B.A., Hope College; M.L.I.S., University of Illinois at Urbana-Champaign

**Jennifer E. Weber, Au.D.**

(1989), Professor of Audiology and Speech-Language Sciences — B.S., M.S., Colorado State University; Au.D., Pennsylvania College of Audiology (G, DR)

**Joyce Weil, Ph.D.**

(2009), Assistant Professor of Gerontology — B.S., Hunter College; M.P.H., Columbia University; Ph.D., Fordham University (G)

**Spencer Weiler, Ph.D.**

(2007), Associate Professor of Educational Leadership and Policy Studies — Ph.D., Virginia Tech University (G, DR)

**Robert G. Weis, Ph.D.**

(2008), Associate Professor of History — B.A., New College of California; M.A., Universidad Nacional Autonoma de Mexico; Ph.D., University of California (G)

**Mel W. Weishahn, Ed.D.**

(1990), Professor Emeritus of Special Education — B.A., M.A., Ed.D.; Appointed 1963

**I. David Welch, Ed.D.**

(1998), Professor Emeritus of Counseling Psychology — B.A., M.A., Ed.D.; Appointed 1970

**Marilyn C. Welsh, Ph.D.**

(1992), Professor of Psychological Sciences — B.A., M.A., Ph.D., University of California (G, DR)

**Michael Welsh, Ph.D.**

(1990), Professor of History — B.A., M.A., University of Dayton; Ph.D., University of New Mexico (G)

**Lei Weng, M.M.**

(2007), Associate Professor of Music — B.M., Central Conservatory of Music, Beijing; M.M., University of Cincinnati (G, DR)

**Mary West-Smith, Ph.D.**

(2006), Assistant Professor of Criminal Justice — B.A., University of Colorado, Boulder; M.C.J., Ph.D., University of Colorado, Denver (G)

**Barbara L. Whinery, Ph.D.**

(1989), Associate Professor Emerita of Foundations of Education — B.S., M.A., Ph.D.

**Kathryn S. Whitaker, Ph.D.**

(1987), Professor of Educational Leadership and Policy Studies — B.S., University of Tennessee; M.S., George Peabody College; Ph.D., Vanderbilt University (G, DR)

**James White, M.A.**

(2005), Professor of Music — B.M., University of North Texas; M.A., Middle Tennessee State University (G)

**Nancy E. White, Ph.D.**

(1988), Professor Emerita of Nursing — B.S.N., M.S.N., Ph.D.

**Nathaniel G. Wickham, D.M.A.**

(1998), Professor of Music — B.A., M.A., University of Northern Colorado; D.M.A., University of Rochester (G, DR)

**Corinne Wieben, Ph.D.**

(2010), Assistant Professor of History — B.A., University of California, Davis; M.A., University of California, Santa Barbara; Ph.D., University of California, Santa Barbara (G)

**Stephanie Wiegand, M.L.S.**

(2003), Associate Professor of University Libraries — B.A., University of Wyoming; B.A., University of Wyoming; M.L.S., University of Missouri-Columbia

**William E. Wilcox, Ph.D., C.P.A.**

(2009), Associate Professor of Accounting — B.S., Iowa State University; M.S., University of South Dakota; Ph.D., University of Lincoln-Nebraska (G)

**Gregory Williams, Ph.D.**

(2011), Lecturer of Political Science & International Affairs — B.A., University of Maine; M.A., Ph.D., University of Connecticut

**Mia K. Williams, Ph.D.**

(2009), Associate Professor of Educational Technology and Teacher Education — B.A., Northern Arizona University; M.E.D., Arizona State University West; Ph.D., Arizona State University (G, DR)

**Courtney W. Willis, Ph.D.**

(2010), Professor Emeritus of Physics — B.A., M.S.T., Ph.D., Appointed 1993

**Sharon R. Wilson, Ph.D.**

(2013), Professor Emerita of English — B.A., M.A., Ph.D.; Appointed 1970

**Vicki W. Wilson, Ph.D.**

(1998), Professor of Nursing — B.S.N., M.S., Ph.D., University of North Dakota (G, DR)

**William Wilson, M.M.**

(2005), Professor of Music — B.A., M.B.A., University of Nevada-Reno; M.M., University of Southern California (G)

**Elisabeth P. Wirick, M.A.**

(1988), Associate Professor Emerita of Food, Nutrition and Dietetics — B.S., M.A.; Appointed 1971

**Nicole A. Withrow, Ph.D, R.D.**

(2015), Assistant Professor of Nutrition and Dietetics - B.A., Purdue University, M.S., Ph.D., Colorado State University (G)

**Richard Wolfe, Ph.D.**

(1998), Professor Emeritus of Rehabilitation Counseling — B.S., M.S., Ph.D.; Appointed 1965

**Ken Womble, M.F.A .**

(2005), Professor of Theatre Arts — B.F.A., Florida State University; M.F.A., Southern Methodist University

**William Douglas Woody, Ph.D.**

(2002), Professor of Psychological Sciences — B.A., M.S., Ph.D., Colorado State University (G, DR)

**Stephen L. Wright, Ph.D.**

(2008), Associate Professor of Counseling Psychology — B.A., Asbury College; M.A., Ph.D., Ball State University (G, DR)

**Thurman Wright, D.P.E.**

(1986), Professor Emeritus of Physical Education — B.A., M.A., D.P.E.; Appointed 1965

**X–Z****Tamara Yakaboski, Ph.D.**

(2011), Associate Professor of Higher Education and Student Affairs Leadership - B.A., Louisiana Tech University; M.A., University of Arizona; Ph.D., University of Arizona (G, DR)

**Jittapim Yamprai, D.A.**

(2016), Assistant Professor of Music - B.A., Assumption University; M.A., Mahidol University, Thailand; M.S., University of North Texas; D.A., University of Northern Colorado

**Nicholas D. Young, Ph.D.**

(2015), Assistant Professor of School Psychology - B.A., University of Wisconsin-Madison; M.A, Ph.D., University of Nebraska-Lincoln (G, DR)

**Suzette Youngs, Ph.D.**

(2009), Associate Professor of Elementary Reading — B.A., M.Ed., Ed.D., State University of New York (G, DR)

**Hasan Y. Zaghawan, Ph.D.**

(2013), Assistant Professor of Special Education — B.A., M.A., University of Jordan; Ph.D., University of Illinois - Urbana/Champaign (G, DR)

**Kathleen J. Zavela, Ph.D.**

(1988), Professor Emerita of Community Health — A.B., M.P.H., Ph.D.

**Dean Zeller, M.S.**

(2014), Lecturer CS, B.S., M.S., Bowling Green State University

**Ather Zia, Ph.D.**

(2014), Assistant Professor of Anthropology and Gender Studies — B.Sc., University of Kashmir, Srinagar, Kashmir, India; M.A., University of Kashmir, India; M.A., Cal State University-Fullerton; Ph.D., University of California-Irvine

**Lisa H. Zimmerman, M.F.A.**

(2009), Associate Professor of English — B.A., Colorado State University; M.F.A., Washington University (G)

**Robyn Ziolkowski, Ph.D.**

(2014), Assistant Professor — B.S., Colorado State University at Pueblo; M.A., University of Northern Colorado; Ph.D. Florida State University (G)

**Adam Żukiewicz, D.M.A.**

(2015), Assistant Professor of Music — International Baccalaureate Diploma, United World College of the Adriatic, Italy; M.M., Indiana University; D.M.A., University of Toronto (G, DR)





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