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UNIVERSITY PROGRAMS
Undergraduate Programs, 2004-2005 on page 71
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OFFICE OF THE DEAN
Location: Candelaria 0215	Telephone: 970.351.2707
Dean: vacant
Associate Dean: Richard G. Trahan, Ph.D.
Interim Assistant Dean: Curt M. Peterson, Ph.D.

INTRODUCTION
The College of Arts and Sciences provides the foundation for a liberal arts education through studies intended to impart general knowledge and to develop the intellectual capacities of reason and judgment. The broad areas included are the humanities, natural sciences and social sciences.

General Education courses, predominantly offered by disciplines in this college, give UNC graduates a background in the liberal arts and sciences to better prepare them for living in our complex society.

The College of Arts and Sciences at UNC is committed to serious scholarly work, superior instruction and research. The knowledge, understanding and perceptions that lead to critical and independent thought are fostered by the faculty and administration of the college, and these qualities serve to enrich the lives and careers of its graduates.

Arts and Sciences majors are broadly educated and well prepared to enter a wide variety of occupations. Many areas prepare students specifically for positions in industry and government. Pre-professional studies in law, medicine, dentistry, engineering and education are all based on a liberal arts foundation and many businesses today prefer their employees to have a liberal arts background to support on-the-job training. As Americans change jobs more and more frequently, a broad liberal arts background makes these changes possible and successful.

The college maintains a number of specialized facilities used by many departments. They include: the foreign language lab, a television studio, the English writing lab, the animal care facility, the greenhouse, an herbarium, a microscopy imaging suite, a natural history museum, computer facilities in Ross and Candelaria Halls and Michener Library, a computerized news-writing lab, the math lab and the psychology lab.

Performance based standards for degree programs in the College of Arts and Sciences are available online at http://asweb.unco.edu/prog_rev.htm.
ARTS AND SCIENCES ADVISING CENTER AND SUPPLEMENTAL INSTRUCTION

Location: Candelaria 1281  Telephone: 970.351.2751
Director: Teresa Sellmer
Assistant Director: Jean Kramlich

The Arts and Sciences Advising Center provides information and support for students, faculty and staff interested in Arts and Sciences majors and minors, general education programs and teacher education programs, as well as information on University services, policies and procedures. In addition this office and the Arts and Sciences Learning Communities Office coordinate several learning communities for entering students. These programs are designed to help new students with their transition into the university community by connecting them with faculty, peers, academic areas, and/or pre-professional fields. Most Arts and Sciences learning communities involve cohorts of students in general education coursework, new student seminars (ID 108), and the preparation of four-year graduation plans. These efforts combine with other Arts and Sciences Academic initiatives to support student satisfaction, retention and success.

PROGRAMS

AFRICANA STUDIES

Location: Candelaria 0140  Telephone: 970.351.2685
Chair: George H. Junne, Jr., Ph.D.
Faculty: Hermon George, Jr., Ph.D.; George H. Junne, Jr., Ph.D.; Anthonia C. Kalu, Ph.D.

The Department of Africana Studies offers an interdisciplinary curriculum that promotes the study of the history, culture, philosophy, economy and political experience of people of African descent, especially those living in the United States, on the African continent itself, in Latin America and in the Caribbean. The curriculum is based on the assumption that there exists a substantive, intrinsically valuable body of knowledge that expresses the black experience.

As an academic discipline, the Africana Studies curriculum is divided into two foci: social and behavioral and cultural studies. Coursework in the social and behavioral studies focus indicates how people of African descent are affected by the social and cultural conditions that have shaped their experience. Courses in the cultural studies focus include such topics as history of African people, nationalism, cultural heritage, the effects of racism and the social scientific study of African American communities. The cultural studies focus emphasizes literature by authors of African descent, music, religion, identity and the family.

Africana Studies Minor on page 134
Africana Studies B.A. on page 73

Africana Studies (B.A.) Requirements

Electives are chosen with the approval of the chair.

AFS 395, Aspects of the African American Experience, is a variable subject course, which may be taken more than once, each time with materials applicable to a different program focus. Students may not repeat the same subject course in a program focus for credit.

Majors in Africana Studies must choose at least one elective at the 300-level and one elective at the 400-level. AFS 399 must always be taken at 3 semester hours.

ANTHROPOLOGY

Location: Candelaria 0190  Telephone: 970.351.2021
Chair: James A. Wanner, Ph.D.
Faculty: Robert Brunswig, Ph.D.; Sally McBeth, Ph.D.; Joan C. Trautman, M.A.; James A. Wanner, Ph.D.

Anthropology is the study of the nature of humans and of human relations, both within one’s own society and in other societies. It helps one to think internationally and interculturally. It teaches one to evaluate current developments and trends in a global perspective.

The discipline of anthropology is subdivided into cultural/social anthropology, archaeology, physical anthropology and anthropological linguistics. Cultural/social anthropology, archaeology and physical anthropology are stressed at UNC.

Laboratories in physical anthropology, archaeology, ethnology and media are utilized in the instructional program. Ethnology and archaeology courses include all areas of the world, but focus on peoples of the New World. Social processes such as culture change, acquiring culture, ethnicity, urban anthropology, the biological basis for culture and society and current problems are stressed.

Students in Anthropology will gain the following skills in the specific subfields:

- Cultural Anthropology — Cultural awareness, participant observation, interviewing, listening, and ethnographic description, interpretation, and comparison in the development of ethnographic assessments.
- Physical Anthropology — Techniques of paleoanthropology, microevolutionary analysis, forensic anthropology, and statistical methods in applied settings.
- Archaeology — Field and laboratory techniques, interpreting site and survey data, report writing, interdisciplinary approaches, integration of subfields in cultural resource management and heritage preservation.
- Multicultural Studies — Multicultural awareness, critical thinking, empathy for others, ability to conceive and apply alternative interpretations to the contemporary problems of culturally diverse societies.

Anthropology Minor on page 134
Anthropology/Multi-cultural Anthropology Minor on page 134
Interdisciplinary Studies B.A. on page 94
Anthropology Emphasis

BIOLOGICAL SCIENCES

Location: Ross Hall 2480  Telephone: 970.351.2921
Interim Chair: Catherine S. Gardiner, Ph.D.

The biological sciences study the diverse forms of life ranging from microorganisms and mammals to fungi and vascular plants. Study of these organisms includes how they interact with each other and with their environment, their strategies for obtaining energy and maintaining themselves, and the impact they have on our society.

All undergraduate programs require a core of common courses with a varied emphasis on development, structure and function, heredity and diversity among organisms. These emphases provide students an opportunity for preparation in organismal biology, biomedical sciences, cellular and molecular biology and secondary teaching in biology. Graduate programs are designed to meet the unique needs of students, enhancing their understanding of the biological sciences for teaching or for research.

Students are encouraged to participate on independent research projects or internships with both faculty members and agencies outside the University to gain experience not available in the classroom.
Animal maintenance facilities, a microscopy imaging suite, a museum, herbarium and greenhouses are available for laboratory support and research. Field studies are encouraged, since there is ready access to both prairie and mountain habitats. Expertise and research interests of the faculty include systematics of plants, animals and microorganisms; genetics; molecular biology; animal behavior; cellular biology; reproductive biology; ecology; community and ecosystem structure; mammalogy; ornithology; plant and mammalian physiology; anatomy; and biology and science education.

**Biological Sciences Minor on page 135**

**Biology Concentration on page 97**

**Biological Sciences B.S. on page 73**

**Biomedical Sciences Emphasis**

**Cell and Molecular Biology Emphasis**

**Organismal Biology Emphasis**

**Biological Sciences (B.S.) Requirements**

The State of Colorado has mandated that institutions of higher education assess student outcomes resulting from their college education. The Department of Biological Sciences requires that all undergraduate students entering under this Catalog meet the following conditions in addition to meeting the general graduation requirements of the University:

- In the senior year of study all undergraduates will take the Educational Testing Service's nationally standardized exam in Biology.
- All departmental majors are required to have a minimum of a 2.0 GPA in all BIO prefix courses taken to meet their major requirements. Students receiving "D" or "F" grades in BIO courses taken to meet their major requirements must repeat the courses or take suitable alternate courses approved by their major advisor.

**Biological Sciences M.S. on page 260**

**Non-Thesis Emphasis**

**Thesis Emphasis**

**Biological Sciences (M.S.) Requirements**

Before admission to the program students should have completed at least four courses in biology and a combined total of three courses in the areas of chemistry, calculus or physics. In addition to the application form and transcripts that are sent to the Graduate School, applicants must also include the following:

- a letter of intent including research/teaching interests and goals;
- three letters of recommendation;
- GRE scores and biology subject scores.

Students are strongly encouraged to review the research areas of the Biology faculty on our website and contact those faculty in whose research they are interested.

Results of the thesis research (Thesis Emphasis) must be presented orally in a seminar to faculty in Biological Sciences during the last semester prior to graduation. Non-thesis students must pass an examination to be administered by the advisor in the form of a written paper covering some aspect of their program of study.

The student must meet with a graduate advisor and graduate committee during the first semester of the program to determine a course of study. Electives must be selected to insure background and experience in the fundamental areas of biological sciences.

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

**Biological Education Ph.D. on page 233**

**Biological Education (Ph.D.) Requirements**

Before admission to the program students should have completed at least four courses in biology and a combined total of three courses in the areas of chemistry, calculus or physics. A master's content thesis may be required for students entering the program with a master's degree. This requirement may be met as a deficiency within the doctoral program. Students entering the program with only a baccalaureate degree will be required to complete a master's thesis equivalent research problem. In addition to the application form and transcripts that are sent to the Graduate School, applicants must also include:

- a letter of intent including research/teaching interests and goals;
- three letters of recommendation;
- GRE scores and biology subject scores.

The student must meet with a graduate advisor and graduate committee no later than the second semester of the program to determine a course of study. Electives must be selected to insure background and experience in the fundamental areas of research, pedagogy and content biology.

SRM 502 and SRM 700 may be waived depending on course background of the student.

To meet the student's professional goals, courses may be selected from graduate courses in other sciences, science education, educational psychology, educational management and computer science with the approval of the advisory committee.

Written and oral comprehensive examinations and defense of the dissertation are required.

**CHEMISTRY/BIOCHEMISTRY**

**Location: Ross Hall 3480  Telephone: 970.351.2559**

**Chair:** Richard M. Hyslop, Ph.D.

**Faculty:** Aichun Dong, Ph.D.; Clark L. Fields, Ph.D.; Richard M. Hyslop, Ph.D.; Loretta L. Jones, Ph.D.; Marcus K. Melahn, Ph.D.; Kimberly A. Operman Pacheco, Ph.D.; David L. Pringle, Ph.D.; James O. Schreck, Ph.D.; Jerry P. Suits, Ph.D.; Richard W. Schwenz, Ph.D.

The goal of the Department of Chemistry is to provide a high-quality education in chemistry for several different groups of students:

- Those individuals who wish to become chemists or to pursue professional programs that may build on a strong background in chemistry, such as health-related careers, etc.
- Those individuals whose career choices require a background in chemistry, such as nursing, dietetics and nutrition, biology, etc.
- Those individuals who elect to study chemistry as a part of their General Education program.
- Those students with a background in chemistry who wish to undertake advanced or graduate studies.

The chemistry faculty is committed to the attainment of this goal and has set excellence in instruction as its highest priority. Relatively small classes and dedicated teachers help accomplish this goal. Students and faculty have the opportunity to know each other very well. This facilitates obtaining help on an individual basis when it is needed for coursework and for program planning.

We are proud of the fact that our undergraduate degree has been approved by the American Chemical Society since 1968 and that our recently revised program was accepted.

Graduates who elect to follow the approved program receive certification for this accomplishment.

Although the Chemistry Department is not formally divided, the areas of analytical, biological, inorganic, organic and physical chemistry and chemical education are well represented in the backgrounds of our faculty. This enables us to offer a well-balanced program.

Laboratory facilities are available and the experimental aspects of chemistry are included as an integral part of all chemistry programs. Modern chemical instrumentation is available for student use. Students are taught how to operate...
these instruments and how to interpret and apply the results. They are encouraged to use as much of this instrumentation as possible in their programs.

Access to microcomputers and to terminals of the large campus computers makes use of computers within chemistry courses possible.

Research opportunities are available to chemistry students in all programs. Students can work with faculty who are involved in research selected from most of the basic areas of chemistry, including chemical education.

At the undergraduate level, students are encouraged to work on independent research problems in their junior and senior years and to present the results of their work in departmental seminars and at the regional meeting of the affiliates of the American Chemical Society and the Colorado-Wyoming Academy of Science.

At the graduate level, most degree programs require research. The results of a graduate student's efforts are reported in a dissertation or thesis and may be presented at meetings and submitted for publication.

**Health Sciences (Pre-Professional Studies) on page 148**

Chemistry/Liberal Arts Minor on page 136

Chemistry/Teaching Minor on page 136

Chemistry Concentration on page 97

Chemistry B.S. on page 77

Biochemistry Emphasis (ACS Certified)

Chemistry Emphasis (ACS Certified)

Industrial Chemistry Emphasis

Secondary Teaching Emphasis (ACS Certified)

Pre-Health Emphasis

Option A: Pre-Medical, Pre-Dental, Pre-Optometry, Pre-Veterinary, Pre-Podiatry and Pre-Pharmacy

Option B: Pre-Medical Technology

Notes: Students completing biology courses and the elective will be eligible for a biology minor.

Prior to enrolling in MTEC courses, students must complete all other required courses, maintain a minimum 2.7 GPA and be admitted to an ASCP accredited hospital program.

Chemistry (B.S.) Requirements

Assessment

All students in the program must take an assessment examination before graduation.

B.S./M.S. Degree

Qualifying students may be eligible for a five-year program resulting in a B.S./M.S. degree. Consult your advisor early in your program for details.

Courses

Chemistry majors, minors and other well-qualified students are recommended to take CHEM 114 and CHEM 115.

Electives

It is recommended that students consider electives in public speaking (SPCO 100/SPCO 103) and for those students planning to go to graduate school, a foreign language (GER 100 or GER 101 and GER 102). Additional elective coursework in chemistry, mathematics, statistics and/or physics is desirable as time permits. Graduate level CHEM courses are recommended.

Electives, Other

Other recommended electives are MATH 221, MATH 335, STAT 150, PHYS 321 and PHYS 343.

Grades

Students majoring in chemistry must earn a grade of “C” or better in all courses having a CHEM and CHED prefix which count toward the major.

Honors Program

Students wishing to participate in the Honor’s Program should consult their advisors about general education selections and other requirements.

Research

Juniors and seniors are expected to participate in the Department’s undergraduate research program.

Chemistry (M.S.) Requirements

Chemistry M.S. on page 261

Education Emphasis

Admission. The student 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.

Prerequisites. Qualifier Examinations — Each student must pass qualifying examinations in three of five areas selected from chemistry content (analytical, biological, inorganic, organic or physical chemistry). Students will have two opportunities to pass each area exam. Qualifier examinations are scheduled during the week preceding the beginning of classes each semester. If an examination is failed, the requirement may be satisfied by completing designated undergraduate coursework in the appropriate subdiscipline with a minimum grade of “B.”

Research Emphasis

Admission. The student 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.

Prerequisites. Students must complete one year of calculus-based, physical chemistry with laboratory if not previously taken. CHEM 551, CHEM 552, CHEM 453 and CHEM 454 may be taken to meet this requirement.

Qualifier Examinations. Each student must pass qualifying examinations in three of five areas selected from chemistry content (analytical, biological, inorganic, organic or physical chemistry). Students will have two opportunities to pass each area exam. Qualifier examinations are scheduled during the week preceding the beginning of classes each semester. If an examination is failed, the requirement may be satisfied by completing designated undergraduate coursework in the appropriate subdiscipline with a minimum grade of “B.”

Chemical Education (Ph.D.) Requirements

Chemical Education Ph.D. on page 234

Admission. The student should have completed requirements of an ACS-certified baccalaureate degree in 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.”

**COMMUNICATION**

Location: Candelaria 1265  Telephone: 970.351.2045

Interim Chair: Thomas G. Endres, Ph.D.

Faculty: Linda S. Allen, Ph.D.; Thomas G. Endres, Ph.D.; James A. Keaton, 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 communication. Classes in communication (COMM) emphasize the examination of theories and research relevant to the field of communication and personal improvement in communication ability.

A Bachelor of Arts in Communication prepares students with the knowledge and skills to be effective communicators in personal and professional settings. Coursework focuses on theoretical, analytic, and practical aspects of human interaction.

To become a major in the Department of Communication, the student must complete a “Change of Major/Minor” form, available from the department office. Students may do this any time during the freshman, sophomore, or junior year.

Students may elect to emphasize the study of communication in interpersonal, small group, educational, organizational and intercultural contexts. Practical skills may be obtained in professional presentation, persuasion, leadership, and communication in the classroom. Students completing this program may elect to apply for graduate study in the field of communication, to apply to law or other professional schools, or to begin a career in business or education.

A major in communication is well-suited for students desiring a career in education. This degree will prepare future educators for effective communication with students, parents, and other school professionals. Students preparing for careers in Secondary Education must select the Emphasis in Secondary Education. All requirements for the Professional Teacher Education Program, as described in the UNC Catalog, must be met.

- Speech Communication Minor on page 144
- Communication B.A. on page 80

**Human Communication Emphasis**

**Secondary Teaching Emphasis**

**Communication (B.A.) Requirements**

Courses. Complete a minimum of 18 semester hours in 300- and 400-level COMM courses, with a minimum of 6 semester hours at the 400-level. A maximum of 3 semester hours of internship (including field experience, practicum, etc.) from a prefix other than CR may be used toward the major.

Electives. Majors may count one course in a related discipline toward their speech communication electives. This course must be approved by their major advisor.

**General Education Requirements.** The department expects its new majors to have already made significant progress toward completion of the General Education requirements.

Grades. A grade point average of 2.5 for COMM courses is required for graduation.

**Honors Program.** Students in the Honors Program may count HON 351 and HON 451 as electives in Speech Communication.

**Internships.** Students who are not eligible for an internship are required to complete six additional credits of Speech Communication electives.

**Communication M.A. on page 262**

**CRIMINAL JUSTICE**

**Location:** Candace Hall 2200C  
**Telephone:** 351.2186

**Chair:** Philip L. Reichel, Ph.D.

**Faculty:** Robert Dunkley, Ph.D.; Colleen Fitzpatrick, Ph.D.; Philip L. Reichel, Ph.D.

**Criminal Justice Minor on page 137**

**Criminal Justice B.A. on page 82**

**Criminal Justice (B.A.) Requirements**

All students meeting UNC admission requirements are eligible for admission to the Criminal Justice degree program. Currently enrolled UNC students changing their major from undeclared or from another major qualify for admission provided they are not on academic probation.

The Criminal Justice degree requires a grade of “C” or better for all courses (regardless of prefix) counting toward the major.

No more than three semester credit hours of internship (including field experience, practicum, etc.) from a prefix other than CR may be used toward the major.

Students must provide a written rationale for their selection of elective courses for content (9 hrs) and skills (9 hrs) and receive written approval from their advisors for the courses. Modifications to the selection are permissible but must be documented. All written rationales and approvals will be held in the student’s file in the Criminal Justice department office.

**EARTH SCIENCES**

**Location:** Ross Hall 3235  
**Telephone:** 970.351.2547

**Chair:** William H. Hoyt, Ph.D.

**Faculty:** Kenneth D. Hopkins, Ph.D.; William H. Hoyt, Ph.D.; Gary R. Huffines, Ph.D.; Rita Leafgren, M.A.; Jared R. Morrow, Ph.D.; William D. Nesse, Ph.D.; Michael R. Taber, Ph.D.

The Department of Earth Sciences includes the disciplines of geology, meteorology, oceanography and astronomy.

Geology is the study of the earth, its structure, composition and history. Meteorology is the study of the atmosphere and the weather phenomena that affect our daily lives. Oceanography is the study of the physical, chemical and biologic characteristics of the world’s oceans. Astronomy is the study of the planets, stars and galaxies that make up our universe.

The undergraduate program in the earth sciences provides preparation for professional careers in geology, meteorology, secondary-level earth science teaching, and the environmental industry. The general earth sciences program is appropriate for individuals seeking a broad background in the sciences. The major allows students to create programs of studies that are tailored to individual interests and goals. The graduate program is designed to meet the needs and interests of individuals who wish to expand their knowledge of the earth sciences as science teachers or in other careers that require knowledge of the earth sciences.

The Department of Earth Sciences emphasizes the integration of field and laboratory study and students are encouraged to undertake independent research projects and internships.

**Earth Sciences Minor on page 138**

**Earth Science Concentration on page 97**

**Earth Sciences B.S. on page 83**

**Earth Sciences (B.S.) Requirements**

A 2.0 grade point average in the courses taken as part of this major is required for graduation. (Secondary Teaching Emphasis: a 2.5 GPA is required in all major courses.)

**Environmental Earth Sciences Emphasis**

**General Earth Sciences Emphasis**

The course of study for this major, including both required and elective courses, must total at least 60 credit hours and must be developed in consultation with and be approved by the student’s departmental advisor.

At least one half of the credit hours in AST, ESCI, GEOL, MET and OCN courses must be numbered 300 or above. No more than 8 credit hours of AST, ESCI, GEOL, MET and OCN courses numbered below 200 may be counted toward the major.

Science and mathematics courses approved for General Education that are taken as part of this major may also be used to satisfy General Education requirements.
Earth Sciences (M.A.) Requirements

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.

ECONOMICS

Location: Michener L130    Telephone: 970.351.2739
Chair: Patricia E. Graham, Ph.D.
Faculty: David R. Aske, Ph.D.; Laura S. Connolly, Ph.D.; Rhonda R. Corman, M.A.; Patricia E. Graham, Ph.D.; Kefala M. Kallon, Ph.D.; Marie L. Livingston, Ph.D.; Christine E. Marston, Ph.D.; Bruce A. McDaniel, Ph.D.

The economics discipline provides a logical, orderly way of describing, analyzing and finding solutions to the numerous diverse economic problems and issues that people and societies face.

Topics in economics have a broad range, including how individuals and businesses make intelligent economic decisions to how governments deal with vital current problems like unemployment, inflation, international trade and economic growth.

As a discipline, economics is attractive to students and commands prestige because it is challenging, has a wide focus and is not static; the discipline contains theory, mathematics, models and scientific method.

The Economics Department takes part, with other College of Arts and Sciences departments and programs, in offering a quality liberal arts education, but the department also has close ties with the Monfort College of Business and several interdisciplinary programs, including the International Studies program and Life of the Mind.

The department concentrates on teaching core courses commonly taught at major universities and requires students to complete supporting courses in mathematics, statistics and information systems.

Students graduating with an Economics-Business Economics emphasis will also have demonstrated knowledge of the basic elements of business activity, including accounting, management, and marketing.

Economics major and minor students usually take other social science courses such as political science and sociology, and supporting and elective courses in business, mathematics and computer science.

The department participates in the Honors program and arranges limited internships.

Economics Minor on page 138
Economics Concentration on page 97
Economics B.A. on page 85
Economics
Business Economics Emphasis

Economics (B.A.) Requirements

Economics majors and minors learn the traditional tools and concepts of economics, theories and quantitative procedures applicable to economics and related disciplines and techniques and methodologies employed by economic practitioners.

To qualify for graduation, economics majors must earn a "C" or better in each economics course taken at UNC.

A maximum of six directed study credits in Economics may be taken.

For purposes of required supporting credits and minimum grades MIND 286 and ENST 335 will be counted as ECON courses.

ENGLISH

Location: Ross 1284    Telephone: 970.351.2971
Chair: Joonok Huh, Ph.D.

The discipline of English deals with literature and language and other related subjects such as creative writing, film, folklore and myth. Creative artists refuse to be limited in their subjects or approaches.

Literature, as one writer has said, is "an eloquent artistic document, infinitely varied, of mankind's journey; the autobiography of the race's soul." The questions we ask in studying literature are as "infinitely varied" as those asked by poets, playwrights and novelists: What does it mean to be human? How is the individual related to society? By what values should one lead his or her life?

The study of literature and language requires rigorous discipline and sensitivity, a strict adherence to the highest standards of logic, evidence and argumentation, as well as a 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.

Asian Studies Minor on page 135
Cultural Studies Minor on page 137
English Minor on page 138
Film Studies Minor on page 139
Writing Minor on page 147
English Concentration on page 97
ESL Concentration on page 98
English B.A. on page 86
Liberal Arts Emphasis
Middle Arts Emphasis

English (B.A.) Requirements

ENG 122, ENG 123, ENG 223, ENG 225, and ENG 227 may NOT be counted toward the English major. All other courses with an ENG prefix may be counted for elective credit. Qualified students may be exempted by examination from ENG 131.

English M.A. on page 268

FOREIGN LANGUAGES

Location: Candelaria 0190    Telephone: 970.351.2221
Chair: David Caldwell, Ph.D.
Faculty: David Caldwell, Ph.D.; Peter Kastner, Ph.D.; Kristina R. Ralston, M.A.; Lorie Sauble-Otto, Ph.D.; Helen Kathleen Ulrich, M.A.

The undergraduate program in French or German offers the student the opportunity to acquire the four language skills-speaking, listening, reading and writing and to study the culture and literature of the country.
Because it is necessary to attain a high level of skills for all careers in the field of foreign languages, our classes are performance-oriented. Conversational abilities are stressed at all levels and a number of advanced level skill-building courses are offered to promote the greatest possible fluency. In addition, courses are conducted almost exclusively in the target language. The department also provides a cutting edge computer language laboratory for individual work.

We hope it is possible for many of our majors and minors to study in their target countries as a normal part of their professional development. There is an exchange program with the Université de Tours in France, as well as three exchange programs with German universities.

In addition to our conventional classroom program, we offer a number of extracurricular programs and activities for our students. Conversation hours are regularly held on various parts of the campus to give the students opportunities to practice their foreign language. There is also a German Club and a French Club whose activities are open to all students studying the language.

French Minor on page 139
French Concentration on page 98
German Minor on page 140
German Concentration on page 99
Foreign Language B.A. on page 87
   French Liberal Arts Emphasis and German Liberal Arts Emphasis
   German Secondary Teaching Emphasis

Foreign Language (B.A.) Requirements
All work to be counted toward the degree must be beyond the first year level.
Advising and advisor’s signature are required each semester before registration.
Unless otherwise noted, all courses with the FR prefix are conducted in French and all courses with the GER prefix are conducted in German.
Students must demonstrate competency in certain areas of language activity: oral and written proficiency in French or German, ability to apply one’s knowledge of the culture to appropriate situations in a French or German language environment. Consult department advisor.
Students must complete a minor approved by the department.
To graduate with a Foreign Language degree (French or German Emphasis) students must have a 2.5 grade point average in those courses that count toward the major and that were taken at UNC.

Geography
Location: Candelaria 2200  Telephone: 970.351.2715
Chair: James P. Doerner, Ph.D.
Faculty:  Siaw Akwawua, Ph.D.;  Charles O. Collins, Ph.D.;
David M. Diggins, Ph.D.;  James P. Doerner, Ph.D.;  James M.
Dunn, Ph.D.;  Katherine M. Johnson, Ph.D.;  Philip A. Klein,
Ph.D.;  Charles “Gil” Schmidt, Ph.D.
Geography is the study of the social, environmental and locational processes that create diversity from place to place on the earth’s surface. The geographic perspective helps to explain the reasons for and the significance of local, regional and world patterns and analyzes the role of location in human affairs.
All programs provide the opportunity for directed independent study and actual experience as interns.
Geography department facilities include a geographic information science laboratory. A large, well-organized map collection is available in Michener Library.

Geography Minor on page 140
Geography Concentration on page 98
Geography B.A. on page 89
Geographic Information Science Emphasis
Liberal Arts Emphasis
Secondary Teaching Emphasis

Hispanic Studies
Location: Candelaria 0295  Telephone: 970.351.2811
Chair: Jose I. Suarez, Ph.D.
Faculty:  Genevieve Canales, Ph.D.;  Miriam Tibisay
Carrasquel-Nagy, M.A.;  Priscilla L. Falcon, Ph.D.;  Elizabeth
Anne Franklin, Ph.D.;  Ester M. Gimbernat de Gonzalez,
Ph.D.;  Joy Landeira, Ph.D.;  Maria E. Lopez, Ph.D.;  Marta
Ortega-Liebana, Ph.D.;  Alfonso Rodriguez, Ph.D.;  Teresa
Bolet Rodriguez, Ph.D.;  Jose I. Suarez, Ph.D.
The Department of Hispanic Studies offers courses in Spanish language and literature, Peninsular and Latin American civilization and culture, Mexican-American studies, bilingual/bicultural education, and teaching English as a second language. All areas of Hispanic language, literature and culture are taught in the same department in order to offer students degree programs that integrate related areas of study and to maximize faculty expertise.
Departmental resources include a student conversation and study lounge. Faculty are readily available for advising and consultation. Study-abroad programs have been established and majors and minors are encouraged to participate. Freshman and sophomore students may take part in this program and may take some courses for General Education credit.

Current research interests of the department faculty include:
- Mexican American art
- Hispanic music and culture
- Latin American short story
- Foreign language teaching methodology
- 20th century Spanish theatre
- Colorado Chicano history
- Southwest linguistics
- Bilingual educational materials
- Contemporary women Hispanic authors.

Mexican/American Studies Minor on page 141
Spanish Minor on page 144
Bilingual/Bicultural Concentration on page 96
Mexican American Studies B.A. on page 103
Spanish Concentration on page 99
Spanish B.A. on page 115

Spanish (B.A.) Requirements
Liberal Arts Emphasis
It is recommended that Spanish majors take HIST 118 and either HIST 314 or HIST 315.
All Spanish language courses to be counted for the major and minor must be beyond the first year level.
Courses with the SPAN prefix are taught in Spanish and courses with the HISP prefix are taught in English.
In order to gain permission to apply for graduation, a Spanish major must successfully pass the department’s oral proficiency interview.

Secondary Teaching Emphasis
Foreign Languages M.A. on page 269
Spanish Teaching Emphasis
Spanish Teaching Emphasis (M.A.) Requirements
The student must possess a B.A. in Spanish or the equivalent and must have completed one year of teaching experience in foreign language at the secondary level.

Students may complete the M.A. degree:

- in summers only on the Greeley campus or
- by combining summer studies with regular academic year program offerings at the UNC Denver Center or
- by combining one summer of study at the University of Salamanca, Spain with the above programs.

Students are required to complete 27 hours of coursework within the Department of Hispanic Studies in Spanish and pedagogy. SRM 600 Introduction to Graduate Research (3) is also required.

**HISTORY**

**Location:** Ross Hall 3270  **Telephone:** 970.351.2905  
**Chair:** Barry Rothaus, Ph.D.  

The discipline of history concerns itself with the record of the human past, thereby forming an indispensable background for all other areas of knowledge, whether in the humanities, social sciences or sciences.

It is the role of the history department at UNC to offer a series of courses that address the significant events in the human past for the purpose of liberally educating students from all areas of the University. The department has a second, but no less important, role in training teachers at both the graduate and undergraduate levels.

**Scholarships/Center of Excellence**

**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” on page 45.

**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 Minor on page 140**  
**History Concentration on page 99**  
**History B.A. on page 92**  
**Liberal Arts Emphasis**  
**Secondary Teaching Emphasis**  
**History M.A. on page 271**

**JOURNALISM AND MASS COMMUNICATIONS**

**Location:** Candelaria 1265  **Telephone:** 970.351.2726  
**Chair:** Charles H. Ingold, Ph.D.  
**Faculty:** Charles H. Ingold, Ph.D.; Alice Klement, J.D.; Lynn Klyve-Silverstein, Ph.D.; Wayne W. Meldanson, Ph.D.; Lee Anne Peck, Ph.D.

Career preparation and understanding of the mass communications media are two significant benefits of majoring in this discipline. Undergraduates are able to choose from among three emphases: news-editorial, telecommunications, and public relations and advertising media. Professionally-experienced, academically-qualified faculty members in each emphasis provide opportunities for instruction and skills enhancement. Modern facilities include a color TV studio and a computerized news writing lab.

**Media Studies Minor on page 141**  
**Journalism B.A. on page 101**

**Journalism and Mass Communications (B.A.) Requirements**

To become a major in the Department of Journalism and Mass Communications, you first become a pre-JMC major. This is done by filling out a “Change of Major/Minor” form, available from the department. The pre-major should be declared in the freshman or sophomore year.

Application for admission to full JMC-major status should take place during the sophomore year. It is important to note that the JMC major is a two-year program beyond the time at which a pre-major is admitted with full JMC major status. Whether admitted as a sophomore, junior or senior, the newly admitted JMC major will often need two full academic years to complete the major course requirements. In particular, seniors and transfer students who are considering applying to become JMC majors are advised that it is not usually possible to complete the process of application to the major and all the required coursework in fewer than four regular semesters.

To apply to become a JMC major, students must meet all of the following requirements:

- Completed 30 hours of undergraduate semester credit:  
  - Received a “C” or better in ENG 122;  
  - Received a “C” or better in JMC 100.

Application. Complete and submit an “Application for Admission to Journalism and Mass Communications Major” form, available from the department three weeks before each deadline.

Submit official transcripts from all colleges and universities attended other than UNC, if any, with the form noted above; submit an essay of 250-350 words, typewritten and double-spaced, explaining why you want to be a journalism major. Essays will be judged on the quality of content and mechanics.

Mail or deliver the materials noted above to the Department of Journalism and Mass Communications, Box 114, University of Northern Colorado, Greeley, CO 80639.

Your application must reach the department office by the deadlines indicated below:

- Fall semester admission: February 15  
- Spring semester admission: October 15  
- No admission decisions are made during the summer.

Students are permitted to apply to the major only once a semester, for only one emphasis per semester.

Should the number of qualified applicants exceed space available in required courses, the department will admit only those students ranking highest in cumulative grade point averages.

JMC majors may not take the Media Studies minor. Students cannot declare a minor until they have been admitted to the major.

JMC majors must complete courses for only one JMC emphasis, and changing from one emphasis to another after admission to the major may be prohibited by the department.

The JMC department is committed to liberal arts education. For this reason, students majoring in JMC are not permitted to apply for more than 36 hours with a JMC prefix toward meeting the required of 120 semester hours for graduation.

Students taking more than 36 hours in JMC will need 84 hours outside of JMC in order to graduate, making the total number of hours needed for graduation in excess of 120. JMC majors are also required to take 65 hours of the total 120 needed for graduation in liberal arts courses outside the JMC department.

To graduate with a B.A. in Journalism, all students must receive a “C” or higher in all courses in the major.
Mathematical Sciences

Location: Ross Hall 2239  Telephone: 970.351.2820  
Chair: Richard M. Grassl, Ph.D.

Mathematics and related areas have been important human endeavors since ancient times. Mathematics is a discipline with its own questions, methods and content. It has also been used as a tool to explain the natural world for centuries. Mathematics, statistics and computer science have become essential to almost every other discipline such as business, economics, psychology and the social sciences.

Mathematics, statistics and computer science reflect the dual nature of these programs. Undergraduate courses, minors, and majors from these areas can be used as important components within a variety of other programs.

Applied Statistics Minor on page 135  
Computer Science Minor on page 137  
Mathematics/Secondary Liberal Arts Minor on page 141  
Mathematics/Secondary Mathematics Teaching, Grades 7-12 Minor on page 141  
Mathematics Concentration on page 99  
Mathematics B.S. on page 102  
Applied Statistics Emphasis  
Liberal Arts Emphasis  
Secondary Teaching Emphasis  
Mathematics M.A. on page 272  
Liberal Arts Emphasis  
Mathematics (M.A.) Requirements

Students must have:
- an undergraduate major in mathematics
- an essay of approximately 500 words addressing their interest in the Master of Arts in Mathematics: Emphasis in Liberal Arts degree program and their educational goals.

Teaching Emphasis Requirements

Generally a B.S. in mathematics or mathematics education with strong mathematics courses is required for admission to this program. Students without the B.S. in mathematics are advised to consult the department for a list of recommended undergraduate courses they should take before entering the program.

Students must submit an essay of approximately 500 words addressing their interest in the Master of Arts: Emphasis in Teaching Program and their educational goals.

Educational Mathematics Ph.D. on page 239

Educational Mathematics (Ph.D.) Requirements

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.

Philosophy

Location: Weber House  Telephone: 970.351.2572  
Chair: Jack Temkin, Ph.D.
Faculty: Richard A. Blanke, Ph.D.; Paul F. Hodapp, Ph.D.; Lisa A. King, Ph.D.; Jack Temkin, Ph.D.; Thomas K. Trelogan, B.A.

Philosophy is the ongoing attempt to remain true to the spirit of the Socratic dictum: “The unexamined life is not worth living.” As such, it entails serious reflection on all of our fundamental convictions and beliefs, with an eye in particular to the clarification of the concepts that these involve and the discovery of reasons for regarding these convictions and beliefs as either true or false. The Department of Philosophy places special emphasis on helping its students to become capable of such serious reflection and it does so not only in the courses it offers primarily for its majors and minors, but in those it offers primarily as service courses for students of other disciplines as well.

Legal Studies Minor on page 140  
Philosophy Minor on page 142  
Philosophy B.A. on page 107

Physics

Location: Ross Hall 0232  Telephone: 970.351.2961  
Chair: Cynthia S. Galovich, Ph.D.
Faculty: Richard D. Dietz, Ph.D.; Cynthia S. Galovich, Ph.D.; Kendall E. Mallory, Ph.D.; Ruwang Sung, Ph.D.; Robert A. Walch, Ph.D.; Courtney W. Willis, Ph.D.

Small, personalized classes are a hallmark of all the programs offered by the Physics Department. The student is assured of consideration and expert guidance, with excellent opportunities to thoroughly develop personal skills at a pace compatible with needs. From the earliest to the most advanced physics courses, the student has direct contact with faculty members. Junior and senior laboratories, in which students work on sophisticated experiments extending over several weeks, are common. Students are encouraged to become involved in their own research projects under faculty guidance. These investigations often extend over several semesters or are pursued through cooperative internships in government laboratories or industry.

The Physics department has a well-equipped electronics lab. A lab with high-speed personal computers is adjacent to the Physics Office. Computer use is thoroughly integrated into physics classes and curricula. The department has developed award-winning computer software to enhance the first-year laboratories. A well-equipped nuclear laboratory features a neutron howitzer, radioactive materials, various detectors and multichannel analyzer equipment. Spectrophotometers, a Bausch and Lomb spectrometer, a mass spectrometer and a Varian nuclear magnetic resonance instrument are available in cooperation with the Chemistry department. The optics laboratory includes facilities for holography, gas and organic dye lasers and a photographic darkroom.

In addition to degree programs, the Department of Physics offers a selection of general education courses concerned with energy problems, space travel, the cosmos, science and society, scientific revolutions and a survey course in physical science.

Engineering Program (Pre-Engineering) on page 148  
Physics Minor on page 142  
Physics Concentration on page 99  
Physics B.S. on page 108

Physics (B.S.) Requirements

A “C” average or better is required in PHYS prefix courses for graduation.
A research project, completed in PHYS 470, is required for the above emphases. HON 451 may be substituted for PHYS 470.

Secondary Teaching Emphasis

A research paper, completed as part of PHYS 475, is required for this major.

**POLITICAL SCIENCE**

*Location:* Weber House  
*Telephone:* 970.351.2058  
*Chair:* Stan Luger, Ph.D.  
*Faculty:* Brook Blair, Ph.D.; Kelechi A. Kalu, Ph.D.; Stan Luger, Ph.D.; Steve J. Mazurana, M.A.; Christiane Olivo, Ph.D.

The Department of Political Science labors in the cause of citizenship through the systematic exploration of how societies are organized and how they change. Instruction and research opportunities are offered in the art and science of politics and policymaking. Undergraduate research and instruction is conducted within four basic fields in political science:

- American government, politics and policy
- International relations, organizations and law
- Comparative politics and policy
- Political philosophy.

The department emphasizes the development of writing skills and research skills. A research project, completed in PHYS 470, is required for the above emphases. HON 451 may be substituted for PHYS 470.

**SECONDARY TEACHING EMPHASIS**

The Social Studies - Secondary Licensure Program emphasis prepares students for careers in local, state and federal government positions.

Students may earn the Social Studies - Secondary Licensure Program emphasis by:

- completing the Secondary Teaching Emphasis
- fulfilling the Political Science Minor requirements
- earning six additional credits in Social Studies and History
- fulfilling the Secondary Teaching Emphasis requirements

Psychology majors must receive a grade of “C” or better in all REQUIRED courses in psychology (i.e., PSY 120, PSY 200, PSY 480 and PSY 491). Students receiving a grade of “D” or lower in a course must retake the course.

Students with a grade point average of 3.25 or better are invited to apply for membership in PSI CHI, the national psychology honor society. Applications and qualifications are posted outside the PSI CHI office.

A maximum of 24 semester hours may be transferred to the major from other institutions.

Psychology students must have a minimum of 9 upper division credits (300-400 level) while in residence in order to graduate.

**PSYCHOLOGY**

*Location:* McKee Hall 0014  
*Telephone:* 970.351.2957  
*Chair:* Mark A. Alcorn, Ph.D.  

The goal of psychology is to understand behavior. A psychologist seeks to predict behavior and to apply that knowledge for the benefit of people with a variety of needs. A psychologist may strive to assist people in realizing their full potential or help those experiencing problems in living.

**PSYCHOLOGY MAJOR**

- **Psychology Minor on page 143**
- **Psychology B.A. on page 111**

**PSYCHOLOGY (B.A.) REQUIREMENTS**

The Department of Psychology offers a quality, comprehensive, and coherent program. Students learn the research methods and core theories employed by psychologists. Students are also exposed to the diversity of psychology through a range of elective courses. The variety of courses offered permits students to choose a set of psychology courses that are related to their interests and career goals. All psychology students are given the opportunity to design, conduct, and write up their own research project. Students also participate in a field experience in which they work in a supervised psychology-related setting.

Psychology majors must receive a grade of “C” or better in all REQUIRED courses in psychology (i.e., PSY 120, PSY 200, PSY 480 and PSY 491). Students receiving a grade of “D” or lower in a course must retake the course.

Students with a grade point average of 3.25 or better are invited to enroll in the Honors program in psychology. MIND courses may count for General Education. Consult the director of the Honors program in psychology. Qualified students are invited to apply for membership in PSI CHI, the national psychology honor society. Applications and qualifications are posted outside the PSI CHI office.

A maximum of 24 semester hours may be transferred to the major from other institutions.

Psychology students must have a minimum of 9 upper division credits (300-400 level) while in residence in order to graduate.

**PSYCHOLOGY MA.**

- **General Psychology Emphasis on page 276**
- **Human Neuropsychology Emphasis**

**PSYCHOLOGY (M.A.) REQUIREMENTS**

- **The student must complete the Graduate Record Examination and submit the scores before admission into the program.**

**SOCIAL SCIENCE PROGRAM**

*Location:* McKee Hall 318  
*Telephone:* 970.351.2929  
*Director:* Matthew T. Downey, Ph.D.  
*Faculty:* David R. Aske, Ph.D.; Mary Green Borg, M.A.; Matthew T. Downey, Ph.D.; Christine E. Marston, Ph.D.

This multidisciplinary Bachelor of Arts program provides a general, theoretical and applied background in the social sciences and selected areas of the humanities. In particular the curriculum gives students a basis for thinking analytically about human behavior and the social environment with a broad introduction to the social sciences.

Students may elect to emphasize in one of two emphasis areas: Liberal Arts or Social Studies Middle Grades and Secondary Teaching.

The Liberal Arts emphasis prepares students for careers in human services, research, program planning, graduate school and law school. Examples of human services careers include positions such as agency management, probation counseling, environmental and social impact analysis, city planning and local, state and federal government positions.

The Social Studies - Secondary Licensure Program emphasis provides students with the academic subject content background necessary for teaching social studies at the secondary (grades 7-12) level in Colorado. Upon successful completion of this program and the requirements of the Professional Teacher Education Program, students will qualify to be licensed to teach social studies at the secondary level.

**INTERDISCIPLINARY STUDIES B.A.**

- **Social Science B.A. on page 113**
- **Liberal Arts Emphasis**
- **Social Studies Middle Grades and Secondary Grades Teaching Emphasis**
Sociology (B.A.) Requirements

Sociology. All emphasis areas provide a foundation for graduate work in sociology as the scientific study of human society and the social interactions that emerge among people. The main focus of sociology is the group rather than the individual. In studying groups, sociologists work to understand the social and cultural forces that operate throughout society and the forces that mold individuals, shape their behavior and thus, determine social events.

Sociologists employ various methods of gathering data from the social world which are generally labeled qualitative or quantitative. Theories provide explanations which account for social phenomena; together, methods and theory provide the foundation for sociology as the scientific study of society.

Change of Major/Minor Requirements. UNC students may change their major to sociology or may change from one sociology emphasis area to another provided that they have completed 30 semester hours of university level coursework with at least 15 semester hours at UNC. Students must meet the Change of Major and Minor requirements established by the Department of Sociology in which they wish to take their sociology emphasis. Copies of these requirements are available in the Department of Sociology.

Students enrolled in the Fresh Start Program should contact the Department of Sociology for information on program-specific policies regarding admission. The Department of Sociology uses grades from all classes taken at UNC when computing the student’s GPA.

UNC students with less than 30 semester hours of university level coursework may change to a Sociology major provided that they had met the first year student entry requirement specified above for admission and are in good academic standing at UNC.

Students must meet all departmental entrance requirements in effect at the time they apply for their major.

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

Sociology B.A. on page 114
  Applied Sociology Emphasis
  Family Studies Emphasis
  Social Issues Emphasis
  Sociology of Education Emphasis
  Sociology Minor on page 143
  Sociology/Social Inequality Minor on page 143
  Sociology/Urban Education Minor on page 144

Sociology (B.A.) Requirements

A GPA of 2.0 is required in all Sociology classes that count toward the major.

Include no more than two Sociology elective courses (6 hours) at the 100 or 200 level. Further, SOC 302, SOC 422 and SOC 490 can be repeated for credit but no more than three credit hours of each course will be counted toward electives in the major.

At least 50 percent of the courses taken to complete the major must be upper division, 300-400 level.

All emphasis areas provide a foundation for graduate work in sociology.

Students may select only ONE emphasis area.

Sociology emphasis areas do not lead to licensure in elementary education at UNC. Only students admitted prior to fall 2000 can gain teacher certification.

Computer literacy recommended, competence in word processing, spreadsheets and data base programs.

Family Studies Additional Requirements. Students should purchase a Family Studies Handbook upon their entry into the program.

Students need to attend a required practicum meeting during the fall before their spring senior year practicum and subsequently need to set up their research projects with the agencies before the spring semester begins. Missing the required fall orientation meeting for the subsequent spring practicum (SOC 493) is equivalent to missing the first two class periods and sufficient cause to be dropped from the course, unless other arrangements are made prior to this meeting.

Social Science M.A. on page 278
  Clinical Sociology Emphasis

Social Science (M.A.) Requirements

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. In addition, two letters of recommendation must be provided.

WOMEN’S STUDIES PROGRAM

Location: Candelaria 0140    Telephone: 970.351.2607
Coordinator: Tracey A. Sedinger, Ph.D.
Faculty: Hedy Red Dexter, Ph.D.; Lisa A. King, Ph.D.; Tracey A. Sedinger, Ph.D.

The basic goals of the Women’s Studies Program and course offerings are to understand and overcome social myths about women and sex role stereotypes of women and men in order to enhance the dignity of all human beings and to provide unique opportunities for knowledge and understanding for all students.

Women’s Studies Minor on page 146
Faculty, Arts and Sciences

- Rick Adams, Ph.D.
- Saw Akwawua, Ph.D.
- Mark B. Alcorn, Ph.D.
- Linda S. Allen, Ph.D.
- Michael Todd Allen, Ph.D.
- Dean E. Allison, Ph.D.
- David R. Aske, Ph.D.
- Marilyn Banta, Ph.D.
- Theodore R. Bashore, Ph.D.
- Mark Berrettini, Ph.D.
- Brook Blair, Ph.D.
- Richard A. Blanke, Ph.D.
- William L. Blubaugh, Ph.D.
- Mary Green Borg, M.A.
- Thomas A. Bredehoft, Ph.D.
- Robert Brunswig, Ph.D.
- Warren R. Buss, Ph.D.
- David Caldwell, Ph.D.
- Genevieve Canales, Ph.D.
- Miriam Tbisay Carrasque-Nagy, M.A.
- Michelle Chamberlin, Ph.D.
- Jennifer A. Clarke, Ph.D.
- Joan L. Clinet, Ph.D.
- Marshall S. Clough, Ph.D.
- Charles O. Collins, Ph.D.
- Lisa K. Comer, Ph.D.
- Laura S. Connolly, Ph.D.
- Rhonda R. Cormar, M.A.
- Gregory K. DeKrey, Ph.D.
- Hedy Red Dexter, Ph.D.
- Ricardo L. Diaz, Ph.D.
- Barbara A. Dickinson, Ph.D.
- Richard D. Dietz, Ph.D.
- David M. Diggs, Ph.D.
- James P. Doerner, Ph.D.
- Aichun Dong, Ph.D.
- Matthew T. Downey, Ph.D.
- Robert Dunkley, Ph.D.
- James M. Dunn, Ph.D.
- Thomas N. Dunn, Ph.D.
- Ronald K. Edgerton, Ph.D.
- Marcus E. Embry, Ph.D.
- Thomas G. Endres, Ph.D.
- Lahcen E. Ezzaher, Ph.D.
- Priscilla L. Falcon, Ph.D.
- Jeffrey D. Farmer, Ph.D.
- Clark L. Fields, Ph.D.
- Fritz Fischer, Ph.D.
- Colleen Fitzpatrick, Ph.D.
- John W. Fox, Ph.D.
- Elizabeth Anne Franklin, Ph.D.
- Sylvia J. Fromherz, Ph.D.
- Cynthia S. Galovich, Ph.D.
- Julie Garbus, Ph.D.
- Catherine S. Gardiner, Ph.D.
- Hermon George Jr., Ph.D.
- Helen Gerretson, Ph.D.
- David M. Gilliam, Ph.D.
- Emily B. Golson, Ph.D.
- Ester M. Gimbernat de Gonzalez, Ph.D.
- Patricia E. Graham, Ph.D.
- Carl E. Granrud, Ph.D.
- Richard M. Grassl, Ph.D.
- Rosemary Y. Hathaway, Ph.D.
- Shandy Hauk, Ph.D.
- Margaret E. Heimbrook, Ph.D.
- Robert L. Heiny, Ph.D.
- Pamela G. Hewitt, Ph.D.
- Teresa M. Higgins, Ph.D.
- Paul F. Hodapp, Ph.D.
- Kenneth D. Hopkins, Ph.D.
- William H. Hoyt, Ph.D.
- Gary R. Huffines, Ph.D.
- Joonok Huh, Ph.D.
- Richard M. Hyslop, Ph.D.
- Charles H. Ingold, Ph.D.
- Peter C. Isaacscon, Ph.D.
- Karen M. Jennison, Ph.D.
- Katherine M. Johnson, Ph.D.
- Kathleen S. Jones, Ph.D.
- Loretta L. Jones, Ph.D.
- Erin L. Jordan, Ph.D.
- George H. Junne, Jr., Ph.D.
- Richard Robert Jurin, Ph.D.
- Kelfala M. Kalon, Ph.D.
- Anthonia C. Kalu, Ph.D.
- Kelechi A. Kalu, Ph.D.
- Nancy J. Karlin, Ph.D.
- Peter Kastner, Ph.D.
- James A. Keaten, Ph.D.
- Lisa A. King, Ph.D.
- Alice Klement, J.D.
- Philip A. Klein, Ph.D.
- Lynn Klyde-Silverstein, Ph.D.
- Alexander W. Knott, Ph.D.
- D. Michael Kramp, Ph.D.
- Jeraldine Kraver, Ph.D.
- Joy Landeira, Ph.D.
- Rita Leafgren, M.A.
- Jeffrey Ethan Lee, Ph.D.
- Mark H. Leichliter, M.A.
- Steven C. Leth, Ph.D.
- Marie L. Livingston, Ph.D.
- John E. Loftis, III, Ph.D.
- Maria E. Lopez, Ph.D.
- Stan Luger, Ph.D.
- Stephen P. Mackessy, Ph.D.
- Kendall E. Mallory, Ph.D.
- Sherilyn R. Marrow, Ph.D.
- Christine E. Marston, Ph.D.
- James P. Marshall, Ph.D.
- Steve J. Mazurana, M.A.
- Sally McBeth, Ph.D.
- Bruce A. McDaniel, Ph.D.
- Marcus K. Meliahn, Ph.D.
- Wayne W. Melanson, Ph.D.
- Nathaniel G. Miller, Ph.D.
- John C. Moore, Ph.D.
- Melanie Moore, Ph.D.
- Jared R. Morrow, Ph.D.
- Heidi Muller, Ph.D.
- David W. Musick, Ph.D.
- William D. Nesse, Ph.D.
- Kenneth R. Nivison, Ph.D.
- Jodie Dawn Novak, Ph.D.
- Christiane Olivo, Ph.D.
- Charles E. Olmsted, III, Ph.D.
- Kimberly A. Omerman Pacheco, Ph.D.
- Marta Ortega-Liebaria, Ph.D.
- David L. Palmer, Ph.D.
- Cheryl Pawlowski, Ph.D.
- Lee Anne Peck, Ph.D.
- Norman L. Peery, Ph.D.
- Curt M. Peterson, Ph.D.
- Michael K. Petrie, M.A.
- Robert A. Powers, Ed.D.
- Joan K. Pratt, Ph.D.
- David L. Pringle, Ph.D.
- John D. Putnam, M.A.
- Kristina R. Ralston, M.A.
- Phillip L. Reichel, Ph.D.
- Paul D. Retzlaff, Ph.D.
- Julie Robinson, Ph.D.
- Alfonso Rodriguez, Ph.D.
- Teresa Bolet Rodriguez, Ph.D.
- Rosann Ross, M.A.
- Barry Rothaus, Ph.D.
- Thomas N. Santos, Ph.D.
- Lorie Sauble-Otto, Ph.D.
- Gerald W. Saunders, Ph.D.
- Lora D. Schlewitt-Haynes, Ph.D.
- Charles “Gil” Schmidt, Ph.D.
- Diane L. Schott, M.A.
- James O. Schreck, Ph.D.
- Mark R. Schultz, B.A.
- Richard W. Schwenz, Ph.D.
- Terry A. Scott, Ph.D.
- Tracey A. Sderling, Ph.D.
- Donald R. Shaffer, Ph.D.
- Eugene P. Sheehan, Ph.D.
- Frank A. Skufca, B.A.
- Neil Snow, Ph.D.
- Charles E. Soukup, Ph.D.
- Hillary T. Spriggs, M.S.
- Jacqueline B. Stanfield, Ph.D.
- Jose I. Suarez, Ph.D.
- Jerry P. Suits, Ph.D.
- Ruwang Sung, Ph.D.
- Igor N. Szczyba, Ph.D.
- Michael R. Taber, Ph.D.
- Jack Temkin, Ph.D.
- Richard G. Trahan, Ph.D.
- Thomas K. Trélogan, B.A.
- Helen Kathleen Ulrich, M.A.
- Leo Ben Varner, Ph.D.
- Robert A. Walch, Ph.D.
- James A. Wanner, Ph.D.
- Marilyn C. Welsh, Ph.D.
- Michael Welsh, Ph.D.
- Patricia D. Wilkins-Wells, Ph.D.
- Courtney W. Willis, Ph.D.
- Sharon R. Wilson, Ph.D.
- William Douglas Woody, Ph.D.
- Lloyd D. Worley, Ph.D.
- Janet E. Worral, Ph.D.
- Lisa Horton Zimmerman, M.F.A.
The College of Education is a professional college offering specialized undergraduate licensure and graduate degree programs in education and related areas to prepare elementary and middle school teachers, special education teachers, early childhood specialists, educational technology personnel and other educational specialists. In addition, the professional education programs are offered for students in secondary and K-12 teacher education programs. Graduate programs are also offered to prepare school administrators, counselors and counseling psychologists for mental health agencies and private practice and to prepare college and university faculty and administrators in a wide range of programs.

The faculty of the College of Education is committed to the serious study of education and the promotion of professional standards to foster innovation in professional preparation. This commitment also encompasses social issues, such as multicultural and ethnic education and increasing public awareness of education in general. The faculty, staff and administration are fully committed to equal opportunity and affirmative action. Multicultural education for all educators is a high priority.

The College of Education is accredited by the National Council for the Accreditation of Teacher Education (NCATE) and all educator preparation programs are approved for licensure by the Colorado State Board of Education. The College is composed of the following academic units: Department of Elementary Education and the Department of Educational Foundations and Curriculum Studies in McKee, Division of Professional Psychology, Division of Educational Leadership and Policy Studies, Division of Exceptionalities and Bilingual/ESL Education, Department of Educational Psychology, Department of Applied Statistics and Research Methods, and Department of Educational Technology.

In addition, the Department of Elementary Education and the Department of Educational Foundations and Curriculum Studies provides support to the University-wide professional teacher education programs. (Teacher Education: Professional Teacher Education Programs (PTEP) on page 68)

Other major units in the College are the Center for Applied Research, the Center for Educator Induction, the Center for Educational Leadership, the Bresnahan-Halstead Center on Mental Retardation and Developmental Disabilities, and the Kephart Memorial Child Study Center.

Performance based standards for degree programs in the College of Education are available online at http://www.unco.edu/coe/annual_assessment.htm.

**Programs**

**Applied Statistics and Research Methods**

Location: McKee 518  
Telephone: 970.351.2807  
Department Chair: Daniel J. Mundfrom, Ph.D.  
Faculty: Susan R. Hutchinson, Ph.D.; Maria K. E. Lahman, Ph.D.; Daniel J. Mundfrom, Ph.D.; Jay R. Schaffer, Ph.D.; Dale Shaw, Ph.D.; Ann M. Thomas, Ph.D.

The master’s and doctoral programs in Applied Statistics and Research Methods are designed to prepare graduates in statistics and education who make important contributions to educational practice. Through the programs, great emphasis
is placed on how research design and statistics can be applied to educational issues and problems. Service courses are offered by the department to support other university programs at the graduate level.

**Applied Statistics and Research Methods M.S. on page 259**

**Applied Statistics and Research Methods (M.S.) Requirements**

Students planning on concentrating on research methods need a working knowledge of basic statistics from descriptive techniques through analysis of variance, and students planning on concentrating on applied statistics need a working knowledge of calculus and linear algebra. Students must also provide a written statement regarding the relationship of the masters program to the student's professional goals.

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.

**Applied Statistics and Research Methods Doctoral Minor on page 251**

**Applied Statistics and Research Methods Ph.D. on page 232**

**Applied Statistics and Research Methods (Ph.D.) Requirements**

The student must provide the ASRM department chair 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.

### EDUCATIONAL FOUNDATIONS AND CURRICULUM STUDIES

**Location:** McKee 216  **Telephone:** 970.351.2703

**Department Chair:** Michael L. Jacobs, Ed.D.

**Faculty:** Frederick J. Bartelheim, Ed.D.; Thomas A. Griggs, Ph.D.; Michael L. Jacobs, Ed.D.; Adele Sanders, Ph.D.; Barbara L. Whinery, Ph.D.

The academic and professional purpose that unifies the various approaches to foundations of education is the development of interpretive, normative and critical perspectives on education. Foundational study within education relies heavily on the resources and methodologies of the humanities and the social and behavioral sciences.

The primary objectives of foundational studies at UNC are to provide experiences and perspectives that allow students to explain and evaluate educational issues, practices and policies in a manner that leads to the development of a disciplined sense of professional responsibility.

Foundations courses are a major component in the undergraduate professional education core and in many graduate programs. Courses are open to all undergraduate and graduate students. A student pursuing a doctoral degree in any area may take support courses in Foundations of Education.

**Graduate Interdisciplinary Degree Program M.A. on page 270**

**Teacher Education Emphasis**

**Graduate Interdisciplinary: Teacher Education Emphasis (M.A.) Requirements**

Applications meeting minimum Graduate School admission requirements will be forwarded to the Department of Elementary Education or the Department of Educational Foundations and Curriculum Studies in McKee for review and recommendation regarding admission by the Graduate School. In addition to the basic application requirements, applicants are required to document successful teaching experiences, possess or be eligible for a Colorado teaching license, and develop an application portfolio which demonstrates the congruence between their professional background and the program outcomes.

All Graduate School requirements for the interdisciplinary master's degree must be met. The degree awarded will be a Master of Arts degree in Interdisciplinary Studies: Education.

Students pursuing a course concentration for added endorsement to a Colorado teaching license must take and successfully complete the appropriate Program for Licensing Assessments for Colorado Educators (PLACE) examination.

**Middle Grades Education Program**

**Note:** This program is currently under review. Students interested in this program should contact Dr. Barbara Whinery, 970.351.1605 (July, 2003)

The Middle Grades Education program is designed to prepare educators at the Undergraduate and Graduate levels to teach young adolescents, ages ten to fifteen, in middle school grades five through nine. The content of the programs include understanding of human growth and development, effective teaching strategies appropriate for young adolescents, and middle level curriculum that is responsive to the developmental characteristics of young adolescents. The knowledge base of the programs integrates the academic, professional and personal development domains of learners.

**Elementary Education M.A.T. on page 267**

**Middle School Emphasis on page 267**

**Middle School Emphasis (M.A.T.) Requirements**

Students may petition for course equivalence consideration for a maximum of two classes in electives and required courses except where otherwise noted.

Applicants must have an overall 3.0 GPA on the last 60 semester hours for full admission to this program.

**Secondary Education Program**

The Secondary Professional Teacher Education Program (PTEP) is designed to prepare students to teach at the 7-12 grade levels within a special content area. Students selecting this program will work with their major advisor to enter the Secondary PTEP Phase One where they will be introduced to program standards and Phases Two, Three and Four to complete their program.

**Secondary PTEP on page 129**

**K-12 PTEP on page 132**

### EDUCATIONAL LEADERSHIP AND POLICY STUDIES

**Location:** McKee 418  **Telephone:** 970.351.2861

**Director:** Richard A. King, Ph.D.

**Faculty:** Thomas J. Gavin, Ph.D.; Michael J. Gimmestad, Ph.D.; Florence Guido–DiBrito, Ph.D.; Richard A. King, Ph.D.; Gardner L. Tucker Jr., Ph.D.; Linda R. Vogel, Ph.D.; Kathryn S. Whitaker, Ph.D.

The mission of the Division is to develop educators who have the vision and the ability to lead educational organizations by providing needed services to learners in educational settings, creating effective learning environments, effecting
The ELPS programs and the scholarship of its faculty and beliefs:
The ELPS Division programs are exemplified by the following learning.
reflective of a pluralistic society and promote continual 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 Division 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

Educational Leadership Program

Administrators' Licensure: District Level Leadership

An application packet available through the Division Office (Mcke 418) describes materials for admission review by the faculty: current resume, goals statement, and Professional Assessment Forms. Admission decisions are made throughout the year.

Principal's Licensure on page 256

Educational Leadership Ed.S. on page 254

Educational Leadership Ed.D. on page 238

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 Division Office (Mcke 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, and Professional Assessment Forms. Applicants complete an interview with the Educational Leadership program faculty.
For students who live out-of-state, the interview may be conducted by a conference call. Although admissions decisions are made throughout the year, students who complete the application process by February 15, including the interview, are given priority screening for Fall admissions of that year and have increased opportunities for financial assistance. The application process, including interview, is typically completed by May 1.

The doctoral program expands upon the foundation gained in the master's, specialist 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.

**Higher Education and Student Affairs Leadership Program**

Higher Education and Student Affairs Leadership Ph.D. on page 243

Higher Education/Student Affairs Leadership (Ph.D.) Requirements

Program Approach to Doctoral Study. The division of Educational Leadership and Policy Studies uses a community-of-scholars model of interaction among students and faculty. The students are viewed as colleagues with progressively higher levels of responsibility and expertise. Cooperative research and other scholarly projects are encouraged among faculty members and students.

**Admission.** The student must have a master's degree in higher education, student affairs or a related field from an accredited institution, at least two years of successful experience in higher education or student affairs work and an acceptable personal interview with the program admissions committee.

**Residency.** Students may complete the UNC residency requirement without leaving their employment.

**Commitment to Diversity.** The Higher Education and Student Affairs Leadership program recognizes the importance of addressing the needs of an increasingly diverse society. To that end, the program strives to increase the educational opportunities of diverse student populations, as well as create an atmosphere where the values and concerns of diverse populations receive attention and respect. Issues of diversity are integrated into core courses and are explored more fully through special topics courses.

**Prerequisites.** SRM 600 or the equivalent in an introductory statistics and research coursework is required for admission. If this was not a part of the master's degree curriculum, the deficiency may be made up by taking this course at UNC. When such deficiencies are made up, the courses taken do NOT count as degree credit toward the Ph.D.

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**EDUCATIONAL PSYCHOLOGY**

**Location:** McKee 518  
**Telephone:** 970.351.2808

**Department Chair:** Randy J. Lennon, Ph.D.  
**Faculty:** Kathryn F. Cochran, Ph.D.; John B. Cooney, Ph.D.; Jennifer K. Gering, Ph.D.; Yong-Yun Lee, Ph.D.; Randy J. Lennon, Ph.D.; Teresa M. McDevitt, Ph.D.; Steven M. Pulos, Ph.D.

Educational Psychology offers programs and service courses at both the graduate and undergraduate levels. The program faculty provide courses on psychological principles and theories and research methodologies as applied to the educational process. The applications range from everyday concerns in the public school classroom to basic research on learning and human development.

The master's and doctoral programs are designed to prepare individuals for educational activities such as classroom teaching, evaluation, test construction, educational research, educational consulting to business and public schools and university teaching. Faculty and students have access to mainframe computers with remote terminals, a complete set of statistical packages and a microcomputer laboratory. These facilities are available for both teaching and research purposes. Service courses are offered by the department to support other university programs at both the undergraduate and graduate levels.

**Educational Psychology M.A. on page 266**

**Educational Psychology (M.A.) Requirements**

Upon meeting the admission criteria for the Graduate School, the candidate’s application is forwarded to the program area faculty for review. All complete applications received by midterm are processed that term. Decisions regarding admission are communicated to the applicant before the beginning of the next semester. Although students may enroll any semester following admission, they are strongly encouraged to begin their program in either the summer or fall term in order to enter the proper sequencing of courses. Applications require a description of educationally-related work experience, statement of career goals, three letters of evaluation, and GRE scores.

Minimum criteria for acceptance include:

-GRE combined score of 1,500 on the verbal, quantitative and analytical sections with no section falling below 450. The GRE must have been taken within the last five years.
- GPA of 3.0 in the last 60 semester hours of academic work.
- Three letters of recommendation indicating a high potential for academic success and interpersonal competency.
- Congruency between the applicant's career goals and the purpose of the M.A. program.
- Educationally related work experience is desirable, but not required.

In the case of GRE scores and GPA, exceptions may be considered if warranted by special circumstances and individual situations.

**Educational Psychology Doctoral Minor on page 251**

**Educational Psychology Ph.D. on page 240**

**Educational Psychology (Ph.D.) Requirements**

Upon meeting the admission criteria for the Graduate School, the candidate's application is forwarded to the program area faculty for review. Reviews by the program area faculty are typically conducted within four weeks of receipt of the application. All complete applications received by midterm are processed that term. Decisions regarding admission are communicated to the applicant before the beginning of the next semester. Although students may enroll any semester following admission, they are strongly encouraged to begin their program in either the summer or fall term in order to enter the proper sequencing of courses. Minimum criteria for acceptance include:
• GRE combined score of 1,650 on the verbal, quantitative and analytic sections, with a minimum verbal score of 500.
• GPA of 3.5 (4.0 scale) in the last 60 semester hours of academic work.
• Three letters of recommendation indicating a high potential for success in a doctoral research program.
• A written statement of career goals and a resume.
• Congruency between the applicant’s career goals and the purpose of the Ph.D. program.

The doctoral program contains a common core of courses and three areas of concentration: Learning and Cognitive Processes, Human Development, and Research, Statistics and Measurement. All students must take the common core and then specialize in one of the emphasis areas. Depending upon the concentration area chosen, students must take a minimum of 66 hours to graduate.

Early Childhood Education Programs

Early Childhood Education offers a graduate program at the master’s level. The character of the program and the efforts of the faculty are guided by the perception of young learners and the early childhood profession through developmentally appropriate practices. The program is based on an interdisciplinary focus which emphasizes fundamental as well as current educational issues, research competencies, professional skills development, and field-based studies.

Educational Technology

EDUCATIONAL TECHNOLOGY

Location: McKee 518  Telephone: 970.351.2816
Chair: Linda L. Lohr, Ed.D.

The Educational Technology faculty administer graduate degree programs in Educational Technology and Educational Media, as well as graduate non-degree programs leading to a School Library Media endorsement by the State of Colorado Department of Education. In addition, the department offers a Master of Arts Degree in Educational Media.

At the master’s level these programs of study are designed to develop knowledge and skills in instructional systems analysis and design, computer applications, media design and information management. Application is focused upon improving human performance in applied learning settings.

At the doctoral level students are provided with advanced opportunities to develop knowledge and skills in the area of instructional system design, analysis and evaluation. Emphasis is placed upon the generation of empirically derived strategies to promote instructional practice based upon learning and instructional theory. Service courses are offered by the department to support other university programs at both the undergraduate and graduate levels.

Western Regional Graduate Program

The Ph.D. program in educational technology is a member of the Western Regional Graduate Program. Under this program any Ph.D. student in educational technology, who is a resident of selected western states pays in-state tuition rather than out-of-state tuition. The selected states include: North Dakota, South Dakota, Montana, Wyoming, Colorado, New Mexico, Idaho, Utah, Nevada, Arizona, Washington, Oregon, Alaska and Hawaii.

Educational Technology Doctoral Minor on page 252

Educational Technology M.A. on page 266

Educational Technology (M.A.) Requirements

Upon meeting the admission criteria for the Graduate School, the candidate’s application is forwarded to the program area faculty for review. Reviews by the program area faculty are held each semester (including summer). Decisions regarding admission are communicated to the applicant before the beginning of the next semester. Although students may enroll any semester following admission, they are strongly encouraged to begin their program in either the summer or fall semester in order to enter the proper sequencing of courses.

Applications require a description of educationally-related work experience, statement of career goals, three letters of reference, and transcripts from previous undergraduate work.

Multiple criteria for admission are considered, including:
• GPA of 3.0 in the last 60 semester hours of academic work.
• Three letters of recommendation indicating a high potential for academic success and interpersonal competency.
• Congruency between the applicant’s career goals and the purpose of the M.A. program.

Educationally-related work experience is desirable, but not required.

Educational Media M.A. on page 266

Educational Media (M.A.) Requirements

Upon meeting the admission criteria for the Graduate School, the candidate’s application is forwarded to the program area faculty for review. Reviews by the program area faculty are held each semester (including summer). Decisions regarding
admission are communicated to the applicant before the beginning of the semester. Although students may enroll any semester following admission, they are strongly encouraged to begin their program in either the summer or fall semester in order to enter the proper sequencing of courses. Applications require a description of educationally-related work experience, statement of career goals, and three letters of reference.

Multiple criteria for acceptance are considered, including:

- Three letters of recommendation indicating a high potential for academic success and interpersonal competency.
- Congruency between the applicant's career goals and the purpose of the M.A. program.
- Educationally-related work experience is required.

Note that applicants must also complete the Notification of Intent to Seek Endorsement (institutional recommendation).

Educational Technology Ph.D. on page 241

Educational Technology (Ph.D.) Requirements

The doctoral program is specifically designed to increase the levels of competence achieved in the master's degree program in educational technology. Students entering the doctoral program must have a master's degree in educational technology or a related field. Students in the educational technology program must have a set of core objectives and a set of objectives specific to an emphasis area in instructional development/design, interactive technologies, technology integration or distance education.

The program is designed to be rigorous but practical, encouraging the serious, mature, motivated and competent student to apply for admission. Applications are reviewed by the educational technology faculty during the middle of each semester. Although the students may enroll any semester following admission, they are strongly encouraged to begin their program in either the summer or fall semester in order to enter the proper sequencing of courses.

All applications must include the following items:

- Two page statement of career goals
- Description of previous teaching and other work experience
- In addition, an interview will be arranged with the faculty.

Minimum criteria for acceptance include:

- Minimum combined verbal, quantitative and analytical score of 1,650 on the Graduate Record Examination taken within the last five years with individual verbal, quantitative and analytical scores above 500.
- Grade point average of 3.2 on the most recent 60 semester hours of coursework.
- Congruency between the applicant's career goals and the goals of the doctoral program.
- Letters of reference indicating a strong potential for academic success, interpersonal competency and growth of the individual as a designer, producer, implementor, teacher, scholar, evaluator and researcher in educational technology.
- Relevant work experience is desirable.
- Successful interview with the faculty.

**ELEMENTARY EDUCATION**

**Location:** McKee 216

**Telephone:** 970.351.2908

**Co-Chairs:** Linda J. Button, Ed.D.; Fredrick L. Silverman, Ed.D.


Elementary Education offers programs at the undergraduate and graduate levels. These programs provide opportunities for students to become teachers and for experienced teachers to enhance their professional expertise. Faculty in these programs are committed to delivering individualized instruction for students in the degree and/or licensure programs. The philosophy of the programs is based on the premise that learning must be efficiently directed to meet pupils' individual needs through varied teaching modes.

**Elementary PTEP on page 127**

**Elementary Education, Post-Baccalaureate on page 256**

**Elementary Education M.A.T. on page 267**

**Middle School Emphasis**

**Educational Studies Ed.D. on page 242**

**EXCEPTIONALITIES AND BILINGUAL/ESL EDUCATION**

**Location:** McKee 29

**Telephone:** 970.351.2691

**Director:** Barbara G. Rhine, Ed.D.


The Division of Exceptionalities and Bilingual/ESL Education offers one of the most comprehensive training programs for special educators (undergraduate, master's, doctoral) in the nation. UNC is the only institution in a six-state region that offers degree programs in special education in all areas of exceptionality. Special programs associated with special education include the Summer Enrichment Program for the Gifted and Talented, the Bresnahan-Halstead Center on Mental Retardation and Developmental Disabilities, and the Kephart Memorial Child Study Center and an annual symposium in Vail, Colorado featuring renowned speakers.

Faculty in Exceptionalities and Bilingual/ESL Education are nationally recognized, have published in their respective areas, presented papers at prestigious conferences and have many of their publications translated into several foreign languages. Numerous program and research grants provide support for professional development and student scholarships at the graduate level.

**Special Education Minor on page 144**

**Special Education B.A. on page 116**

**Special Education, B.A. — PTEP on page 133**

**Special Education M.A. on page 279**

**Early Childhood Special Education Emphasis**

**Moderate Needs Emphasis**

**Profound Needs Emphasis**

**Severe Needs: Affective Emphasis**

**Severe Needs: Cognitive Emphasis**

**Severe Needs: Hearing Emphasis**

**Severe Needs: Vision Emphasis**

**Teaching the Gifted and Talented Emphasis**

**Special Education (M.A.) Requirements**

**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.

**Teaching the Gifted and Talented Emphasis - Additional Admission Requirements.** The student must possess a current teaching license, must have at least two years of teaching experience and must have a grade point average from the baccalaureate degree of at least 3.0 on a 4.0 scale. Three written references from the most recent or current
Committee members to be recommended for admission to the Graduate School.

Applicant must receive a positive recommendation from a majority of the Doctoral Admissions and Review Committee.

A master's degree or a department 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 departmentally approved documentation and completion of a licensure examination. However, a minimum of 15 semester hours must be taken at UNC.

The student must receive a positive recommendation by the Division of Exceptionalities and Bilingual/ESL Education's Doctoral Admissions and Review Committee. When a prospective student has met general University requirements for admission, his or her application is submitted to the Division for evaluation. In addition to an interview with members of the faculty, the Division of Exceptionalities and Bilingual/ESL Education requires the submission of:

- a written statement of academic and professional goals;
- a published or professional writing sample.

The Committee reviews each application for admission to determine evidence of:

- potential for scholarship;
- relevant formal training at the undergraduate and/or graduate level;
- evidence of successful teaching or clinical experience with persons who have exceptionalities for a minimum of two years;
- potential for leadership;
- professional commitment;
- clarity and rationality of professional and personal goals;
- potential for effective university teaching; potential for conceptualization of and reporting research.

Each applicant must receive a positive recommendation from a majority of the Doctoral Admissions and Review Committee members to be recommended for admission to the Graduate School.

The philosophy of the doctoral program is based on the concept that learning is an active, self-regulated process. Therefore, doctoral programs are individually tailored through interactive planning that involves the student, the advisor, the doctoral committee, other students and people from outside the University.

Students are expected to enter the program with a clear sense of personal direction and a set of learning goals. In this context, a personalized program is developed in which the focus is on finding innovative and flexible ways to meet the needs of each student while ensuring that the student develops advanced skills and knowledge. The overall goal of each student's program is to develop leadership abilities in five major themes in relation to special education, namely: theory, effective teaching, inquiry, scholarly production and intra-interpersonal skills.

Upon admission to the doctoral program, each student will be assigned an advisor. In consultation with this advisor, she or he should determine courses for the first semester.

In joint planning sessions the student and advisor, in consultation with the doctoral committee, other students and people from outside the University, should establish a tentative doctoral program during the first and second semesters on campus.

This program should be based on past experience and training and on student interests and goals. The program must include an emphasis on critical thinking, breadth and depth of theoretical understanding, apprenticeships that lead to scholarly production before completion of the program, methods of inquiry in education and direct experiences in schools with diverse populations. The program plan must include a statement of goals and rationale for proposed coursework and educational experiences. The program and rationale must then be submitted to the Division of Exceptionalities and Bilingual/ESL Education Doctoral Admissions and Review Committee. If the Committee is concerned with elements of the plan, they will make recommendations for revisions or additions. Enrollment in third semester courses without an approved program may lead to the inclusion of courses not ultimately approved as part of the doctoral plan.

PROFESSIONAL PSYCHOLOGY

Location: McKee 248
Telephone: 970.351.2731
Director: David M. Gonzalez, Ph.D.

Professional Counseling and Counselor Education Faculty:
David M. Gonzalez, Ph.D.; M. Sean O'Halloran, Ph.D.;
Michele S. Athanasiou, Ph.D.; Achilles N. Bardos, Ph.D.;
Rik Carl D'Amato, Ph.D.; Michelle S. Athanasiou, Ph.D.;
Robyn S. Hess, Ph.D.

Professional Psychology offers graduate programs in counselor education, professional counseling, counseling psychology and school psychology, which prepare students for careers in schools, community agencies, industry, higher education and private practice. Service courses are offered for other programs at both graduate and undergraduate levels.

In addition, the Division of Professional Psychology offers services to the University and the local community through its clinic, a research and training facility. The master's programs in School Counseling and Community Counseling, the emphasis area in Marriage and Family Therapy and the doctoral program in Counselor Education are accredited by the Council for Accreditation of Counseling and Related Educational Programs.

The doctoral program in School Psychology is accredited by the American Psychological Association and approved by the National Association of School Psychologists. The educational specialist degree program in School Psychology is also approved by the National Association of School Psychology.
Professional Counseling Programs

Community Counseling M.A. on page 264
Marriage and Family Therapy Emphasis

School Counseling M.A. on page 278
Community and School Counseling (M.A.) Requirements

The Counseling faculty views potential candidates as unique, with strengths and assets to be identified, encouraged, and developed during their graduate education. The knowledge and human relations skills necessary to help individuals recognize their own and other persons' unique promise and discover opportunities for its expression form the core of professional preparation for students in professional counseling. Such knowledge and skills are learned in part from research and study in the behavioral and social sciences, various skill development activities and supervised practica.

Opportunities for a broad understanding of human behavior and human relationships are included in the education of the student in Counseling.

Although the University is housed in the Rocky Mountain region, students in the program come from diverse backgrounds in terms of age, gender, race, ethnicity, region of the country/world, sexual orientation, etc. Given the diverse nature of the student population and future clientele, faculty members strive to train counselors for ethical practice with all forms of client diversity.

Admission. The student must apply for admission to and be accepted by the program area faculty.

Admission to the program requires a GPA of 3.0 on the last 60 hours of course work. If the student's GPA is below 3.0, the Graduate Record Exam (General Test) score must be submitted. It is recommended that the student have a total score that meets or exceeds 1000 on the Verbal and Quantitative subtests, with no score below 400. The Analytical Writing subtest should have a minimum score of 3.5. A Minnesota Multiphasic Personality Inventory - 2 (MMPI - 2) profile is required. If you received your bachelor's degree before the age of 25, it is recommended that you have two years of post-degree work experience. Admission to a pre-admission workshop is required for this admission process to be completed. When admission to the pre-admission workshop is an extreme hardship for the applicant, special arrangements are made. These may include a conference telephone interview with faculty, contact with references and/or campus interviews at alternate times.

Acceptance is based on consideration of the following criteria:

- Clarity of career goals.
- Intellectual qualities.
- Professional judgment of appropriate personality characteristics as evidenced by personality assessment, a structured interview, interpersonal communication style and personal references.

Counselor Education and Supervision Program

Counselor Education and Supervision Ph.D. on page 237
Counselor Education and Supervision (Ph.D.) Requirements

Admission: Application must be complete and on file in the Professional Psychology Office by January 1, with decisions announced by the first week of April.

- Total score of 1000 for the Verbal and Quantitative subtests of the GRE, and a minimum score of 3.5 on the Analytical Writing subtest is recommended.
- A master's degree in counseling or a related area is required.
- Three letters of recommendation are required from individuals who are familiar with the student's academic and clinical skills.
- GPA of 3.25 in the last completed degree is desired.
- Written statement must be completed regarding the relationship of the doctoral program to the future career goals of the applicant.

Attendance at a pre-admission workshop is required for the admission process to be completed. Admission decisions are based on the professional judgment of the Counseling faculty, considering the above data, including personal characteristics and interpersonal communications style as assessed in the pre-admission workshop. Applications are evaluated on a competitive basis for a limited number of positions.

Prerequisites: Required of All Counselor Education and Supervision Ph.D. Students

Entering doctoral students should have completed graduate courses in the following areas:

- Abnormal Psychology
- Career Counseling and Theory
- Counseling Theories
- Developmental Psychology
- Family Systems
- Group Counseling/Guidance
- Learning Theory
- Legal and Ethical Issues in Counseling
- Personality Theories
- Substance Abuse
- Testing: Analysis and Interpretation
- Tests and Measurement

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.

Counseling Psychology Program

Counseling Psychology Psy.D. on page 236
Counseling Psychology (Psy.D.) Requirements

Admission: Applications must be complete and on file in the Professional Psychology office by December 15, with decisions announced by the first week of April.

1. All entering doctoral students will hold a master's degree in counseling or a related field; a minimum of 1000 combined score on the Verbal and Quantitative subtests of the GRE, with no score below 450, and a minimum of 3.5 on the Analytical Writing subtest; 3.25 GPA; and a minimum of two years of counseling or related experience.

2. Three letters of recommendation from individuals who are familiar with the student's academic and clinical skills.

3. A further review process is conducted by the faculty for admission. Finalists are invited to attend an admission screening workshop.

Admission decisions are based on the professional judgment of the faculty, considering the above data, including personal characteristics and interpersonal communications style as assessed in the pre-admission workshop. Applications are evaluated on a competitive basis; positions are limited.

School Psychology Programs

School Psychologist Licensure Requirements

Institutional recommendation for endorsement in School Psychology is based on the completion of the Ed.S. or the Ph.D. program in School Psychology. No prior teaching experience is necessary.

Students wishing to obtain Colorado licensure in this area are required to successfully complete the National School Psychology Certification Examination (NCSP).
Students desiring licensure in states other than Colorado should note that requirements for licensure are set by each state's Department of Education and should become familiar with the requirements for any other state from which they seek licensure.

Near the end of the semester that the licensure program is to be completed, the candidate should complete application forms in the Teaching/Special Services Licensing Office in McKee 216. Applications are processed as soon as official transcripts, ordered by the applicant, are received from the Registrar showing completion of requirements. Departmental recommendations are required before institutional endorsement is granted.

School Psychology Ed.S. on page 254
School Psychology Ph.D. on page 247

School Psychology Admission Requirements
The Graduate School application must be submitted by December 15. In addition to meeting the admission requirements of the Graduate School, the student must submit the following data to the Professional Psychology Office by December 15. The master's degree is not required for admission. Educational Specialist - admission decisions are announced by March 30. Doctoral - admission decisions are announced by April 15.

- Supplementary Data Sheet (included in Division Application Packet).
- A written statement regarding the relationship of the specialist program to the personal and professional goals of the applicant. This statement should be forwarded to the School Psychology Admissions coordinator.
- A recommended minimum of 1000 combined score on the Verbal and Quantitative subtests of the GRE, with no score below 450, and a minimum of 3.5 on the analytical writing subtest.

Applications are evaluated competitively for a limited number of positions. The application must demonstrate clear potential for success in a School Psychology program.

Educational Specialist (Ed.S.) Prerequisites. The program is based on the student's entering with a bachelor's degree. A student with a master's degree in psychology or professional psychology should meet with his or her advisor to develop a specific plan of study. Courses in testing and measures and abnormal psychology are prerequisites to the program and must be completed by any student who has not had them. In consultation with the advisor, a student should select the number of hours and specific courses to meet licensure requirements, complete the program and prepare the student to be a professional school psychologist.

Doctoral (Ph.D.) Prerequisites. The program is based on the student entering with a bachelor's degree. A student with a master's or specialist's degree in psychology or professional psychology should meet with his or her advisor to develop a specific plan of study. Courses in tests and measurement and abnormal psychology are prerequisites to the program and must be completed by any student who has not had them. In consultation with the advisor, a student should select the number of hours and specific courses to meet licensure requirements, complete the program and prepare to be a professional school psychologist.

READING

Location: McKee 303 Phone: 970.351.2969
Chair: Roger G. Eldridge, Jr., Ph.D.

Reading offers graduate programs at the master's level. The programs in reading/literacy are based on a rationale that through wide reading, writing, discussion, and practice, teachers construct, then reflect and act upon their knowledge about learners, reading content and process, and contexts in which teaching and learning occur. Student and faculty research is directed to the study of learners from birth to adult maturity. Research is available to students include the Reading Clinic, and public as well as private schools.

Reading Minor on page 143
Reading Endorsement on page 256
Reading Specialist, Added Endorsement
Reading Teacher K-12, Added Endorsement

Reading Licensure Endorsement Requirements
Endorsements are granted by the Colorado Department of Education upon the recommendation of the University of Northern Colorado Licensure Officer. Courses taken at other accredited institutions within the preceding 10 years may be accepted in lieu of courses taken at UNC. However, these courses will be assessed by the UNC Graduate Evaluator before acceptance. Applicants should be prepared to present evidence of course appropriateness (e.g., a catalog and course syllabus) to address questions regarding the content, scope and/or focus of a course completed at another university.

Applicants must have an overall 3.0 GPA on the last 60 semester hours for full admission to this program. Applicants must complete a Reading Program application in addition to the Graduate School application.

Students wishing to obtain Colorado licensure in the Reading Specialist or Reading Teacher Endorsement area are required to take a proficiency examination(s). Students should contact the Department of Elementary Education or the Department of Educational Foundations and Curriculum Studies in McKee for information.

Reading M.A. on page 277

Reading (M.A.) Requirements
Applicants must have an overall 3.0 GPA on the last 60 semester hours for full admission to the Reading Program; must complete the Reading program Application and have three letters of recommendation sent to the Coordinator of the Reading 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.

If applicant's GPA is below 3.0, the applicant may choose to submit a Graduate Record Exam (General Test) score to attain non-probationary admission to the Reading program.

The Reading program faculty recommend that an applicant have a total score that meets or exceeds 1350 on the Verbal, Quantitative, and Analytical subtests; and it is highly recommended that the Verbal score meets or exceeds 500.

There are several steps to the evaluation of the Reading Program as well as to the evaluation of the students enrolled in the Reading M.A. degree program. The evaluation process is ongoing. For admission into the Graduate School and admission into the Reading M.A. degree program a student must complete and submit specific documents (Graduate School application, Reading program application, three letters of reference and a resume) that Reading 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 midpoint 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 Reading Program. At the conclusion of all the Reading M.A. degree coursework, a student takes a written comprehensive examination or completes a thesis. At the end of the written comprehensive examination or at the end of the thesis defense the student completes an exist survey evaluating all the elements of the Reading Program that the student has participated in and completed. Two years after graduating from the Reading 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.
FACULTY, COLLEGE OF EDUCATION

- Janet K. Alcorn, Ed.D.
- Michelle S. Athanasiou, Ph.D.
- Tracy D. Baldo, Ph.D.
- Achilles N. Bardos, Ph.D.
- Frederick J. Bartelheim, Ed.D.
- Diane Bassett, Ph.D.
- Jeffrey W. Bauer, Ph.D.
- George T. Betts, Ed.D.
- Linda L. Black, Ed.D.
- Sandra K. Bowen, Ph.D.
- Robin D. Brewer, Ed.D.
- Cliff Brookhart, Ed.D.
- Linda J. Button, Ed.D.
- Antonio L. Carvajal, Ed.D.
- Kathryn F. Cochran, Ph.D.
- Paula W. Conroy, Ed.D.
- John B. Cooney, Ph.D.
- M. Franci Crepeau-Hobson, Ph.D.
- Rik Carl D’Amato, Ph.D.
- Carolyn W. Edwards, Ed.D.
- Roger G. Eldridge, Jr., Ph.D.
- David A. Falvo, Ed.D.
- Kay A. Ferrell, Ph.D.
- Gary Fertig, Ph.D.
- James E. Gall, Ph.D.
- Thomas J. Gavin, Ph.D.
- Jennifer K. Geringer, Ph.D.
- Michael J. Gimmestad, Ph.D.
- David M. Gonzalez, Ph.D.
- Thomas A. Griggs, Ph.D.
- Florence Guido-DiBrito, Ph.D.
- Robyn S. Hess, Ph.D.
- Allen Huang, Ed.D.
- Susan R. Hutchinson, Ph.D.
- Lewis B. Jackson, Ed.D.
- Michael L. Jacobs, Ed.D.
- Brian D. Johnson, Ph.D.
- Richard A. King, Ph.D.
- Heng-Yu Ku, Ph.D.
- Maria K. E. Lahman, Ph.D
- J. Melvin Lane, Ed.D.
- Kevin M. Laxalt, Ed.D.
- Fong-Yun Lee, Ph.D.
- Randy J. Lennon, Ph.D.
- Linda L. Lohr, Ed.D.
- John L. Luckner, Ed.D.
- Sandy Magnuson, Ed.D.
- Teresa M. McDevitt, Ph.D.
- Madeline Milian, Ed.D.
- Daniel J. Mundfrom, Ph.D.
- Francie R. Murry, Ph.D.
- M. Sean O’Halloran, Ph.D.
- Stuart N. Omdal, Ph.D.
- Michael F. Opitz, Ph.D.
- Carol A. Picard, Ph.D.
- Steven M. Pulos, Ph.D.
- Barbara G. Rhine, Ed.D.
- Harvey Rude, Ed.D.
- Adele Sanders, Ph.D.
- Jay R. Schaffer, Ph.D.
- Debora L. Scheffel, Ph.D.
- Dale Shaw, Ph.D.
- Eugene P. Sheehan, Ph.D.
- Fredrick L. Silverman, Ed.D.
- Basilia (Lia) C. Softas-Nall, Ph.D.
- Grace L. Sussman, Ed.D.
- Ann M. Thomas, Ph.D.
- Susan A. Thompson, Ed.D.
- Gardiner L. Tucker, Jr., Ph.D.
- Linda R. Vogel, Ph.D.
- William M. Walsh, Ph.D.
- Barbara L. Whinery, Ph.D.
- Kathryn S. Whitaker, Ph.D.
- Matthew D. Zbaracki, Ph.D.
COLLEGE OF HEALTH AND HUMAN SCIENCES

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UNIVERSITY PROGRAMS

Undergraduate Programs, 2004-2005 on page 71
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OFFICE OF THE DEAN

Location: Gunter 1000  Telephone: 970.351.2877  Fax: 970.351.2176
Interim Dean: Robbyn R. Wacker, Ph.D.

The College of Health and Human Sciences is a multidisciplinary unit offering undergraduate and graduate programs in a wide range of disciplines in the health care, human service and human performance professions. The College recognizes its obligations to serve in the several capacities of teaching, research and service. The fundamental aim of the College is excellence and distinction in these pursuits.

Programs of the College are designed to prepare students for the proficient and successful practice of a profession and to pursue advanced educational opportunities. Students are prepared for careers in Athletic Training, Exercise Science, Outdoor Education, Physical Education/Sport Pedagogy, Recreation, Audiology, Speech-Language Pathology, Dietetics, Gerontology, Nursing, Public Health, Human Rehabilitative Services, Rehabilitation Counseling and Vocational Evaluation, and Sport Administration. Graduates find employment in schools, hospitals, public and private agencies, business and industry.

The College of Health and Human Sciences is a unique resource in terms of the quality and type of academic programs it offers. The mission of the College is to provide the best possible education for its undergraduate and graduate students, to contribute to knowledge and the solution of significant problems through research and to serve the people of Colorado and the nation.

The College contains five units:
- Department of Communication Disorders
- Department of Community Health and Nutrition
- Department of Human Services
- School of Sport and Exercise Science
- School of Nursing

Programs within each unit are approved and/or accredited by appropriate professional organizations. The College provides a wide array of physical activity courses for college credit in order to enrich students' present and future sport, recreation and leisure pursuits.

Performance based standards for degree programs in the College of Health and Human Sciences are available online at http://www.unco.edu/HHS/hhs/assess.htm.

ADVISING CENTER (HHS)

Location: Gunter 1000  Telephone: 970.351.1519
Director: Sue Kent, M.A., HHS Administrative and Student Services

The College of Health and Human Sciences Advising Center provides academic advising to students considering majors in Health and Human Sciences. Services are designed to support all Health and Human Science majors and assist with general education requirements.

CLINICS AND LABORATORIES

Faculty and students from all programs in the College participate in the College's multidisciplinary health clinics and human performance laboratories that provide student learning experiences and client care services. Well equipped laboratories for studying physiological, mechanical and
psychological kinesiology and a teaching laboratory with state-of-the-art video equipment and computers provide faculty and students with excellent instructional and research capabilities.

The Speech-Language Pathology Clinic provides assessment and treatment services for speech and language problems in the areas of articulation, voice, stuttering, language and augmentative/alternative communication devices.

The Audiology Clinic provides a full range of services related to hearing including hearing assessment, special hearing tests, hearing aid evaluations, hearing aid analysis and dispensing, aural rehabilitation, counseling on hearing impairment, noise measurement and other related services. Services are extended to nursing homes and industry on a contractual basis.

The Dietetics Program conducts research and offers nutritional assessment and counseling in its Food Science and Nutrition Laboratories.

The Rehabilitative Services Clinic provides learning experiences and client services in vocational evaluation, job seeking and placement skills for independent living.

Programs in the School of Nursing provide learning experiences and health services in a variety of health areas. Included are health assessment, health counseling, health promotion and illness prevention activities.

An outstanding faculty of teachers and scholars serves the students enrolled in College programs. Among the faculty members are nationally recognized scholars, researchers, master teachers, experts and vigorous groups of talented coaches, all dedicated to providing high quality programs and the personal attention students at UNC have come to expect.

The School of Sport and Exercise Science labs provide learning experiences and/or client services in the following areas: Exercise Physiology, Anatomical/Biomechanical, Teacher Education, Sport Marketing Research Institute, and the Rocky Mountain Cancer Rehabilitation Institute.

PROGRAMS

COMMUNICATION DISORDERS

Location: Gunter 1400  
Telephone: 970.351.2734  
Fax: 970.351.2974

Chair: Kathleen R. Fahey, Ph.D.


The Department of Communication Disorders offers educational programs in Speech-Language Pathology and Audiology, both with a clinical orientation. The department also houses the Speech-Language Pathology and Audiology Clinics. Students majoring in either emphasis area of this department who meet the grade point requirement and who pass speech-language-hearing screening by the department faculty are offered the opportunity for supervised clinical experiences through the Speech-Language Pathology and Audiology Clinics and various other centers and programs on- and off-campus. The educational programs offered through this department are as follows:

Audiology Programs

This program prepares students in the diagnosis, treatment and management of hearing disorders and related areas.

UNC offers an undergraduate pre-professional major in Audiology, a non-certification master's degree program and a professional certifying clinical doctorate in audiology (Au.D.). The certifying clinical doctoral degree program is fully accredited and provides excellent academic, research, and clinical preparation. Areas emphasized include:

- Diagnosis of hearing disorders in persons ranging in age from infants through older adults;
- Audiological treatment of the hearing impaired, including counseling and specific treatment procedures for children and adults;
- Special test procedures including ABR, OAE and ENG;
- Hearing aids and other amplification and auditory prosthetic devices;
- Hearing conservation programs for industry, schools and other agencies.

This program offers extensive supervised clinical experience through the well-equipped UNC Speech-Language Pathology and Audiology Clinics and ancillary clinics in Colorado. The 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).

Career opportunities include positions in hospitals; ear, nose and throat medical practices; rehabilitation centers; schools; industry; and in private practice.

Communication Disorders Minor on page 136

Communication Disorders: Audiology B.A. on page 81

Communication Disorders: Audiology M.A. on page 262

Communication Disorders: Audiology, Non-Certifying (M.A.) Requirements

Students will be admitted to this program on the basis of (1) a letter of intent, (2) at least three letters of recommendation from persons familiar with their academic performance and (3) Graduate Record Examination scores.

Prerequisites. This program assumes an undergraduate background in Communication Disorders or Audiology. Students who do not have such a background must fulfill academic requirements as determined by their major advisor and must be prepared to spend a longer period of time than usual for completion of the master's degree.

Communication Disorders Au.D. on page 235

Communication Disorders: Audiology (Au.D.) Requirements

Areas emphasized in the graduate program include:

- Diagnosis of hearing disorders in persons ranging in age from infants through older adults.
- Audiological treatment of the hearing impaired, including counseling and specific treatment procedures.
- 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 noise abatement programs for industry, schools and other agencies.
- Supervised clinical practica are provided at both on- and off-campus sites.

Upon completion of the program, graduates are eligible to take the National Examination in Speech-Language Pathology and Audiology (NESPA) and for the Certificate of Clinical Competence (CCC) awarded by the American Speech-Language-Hearing Association (ASHA). Certified audiologists find employment in schools, private practice, hospitals, rehabilitation facilities, industry, free-standing clinics and otolaryngological practices.

Admission. Students will be admitted to this limited-enrollment program on the basis of 1) a letter of intent, 2) at least three letters of recommendation from persons familiar with their academic/clinical performance and 3) Graduate Record Examination scores. Admission to the Graduate School does not guarantee admission to the Audiology graduate program.
Communication Disorders: Speech-Language Pathology

This program prepares students in the diagnosis and treatment of speech and language disorders. UNC offers an undergraduate pre-professional major in Speech-Language Pathology, a professional certifying master's degree program and a master's degree program that does not lead to certification. The certifying master's degree program is fully accredited and provides excellent academic, research, and clinical preparation. Areas emphasized include:

- The science of communication
- Diagnosis and management of developmental articulation, language and stuttering
- Acquired voice disorders
- Dysphagia
- Psychiatric disorders and neurologic disorders including aphasia, apraxia, post head injury disorders and dementia.

This program offers extensive supervised clinical experience through the well-equipped UNC Speech-Language Pathology and Audiology Clinics and ancillary clinics in Colorado. The M.A. program leading to certification is accredited by the Colorado Department of Education (CDE) and by the Council on Academic Accreditation (CAA) of the American Speech-Language-Hearing Association (ASHA).

Career opportunities include: positions in schools, hospitals, practice in association with a range of physicians including otolaryngology, neurology, neurosurgery, psychiatry and psychology, in oral health programs, disaster preparedness and wellness programs for people of all ages.

Communication Disorders: Speech-Language Pathology

B.A. on page 81

Communication Disorders: Speech-Language Pathology

M.A. on page 263

Community Health

The Department of Community Health and Nutrition at the University of Northern Colorado is the only department in Colorado to offer the following undergraduate and graduate degree programs:

- Community Health Education Minor on page 136
- School Health Education Minor on page 143
- Health B.S. on page 91
- Public Health M.P.H. on page 276

Public Health (M.P.H.) Requirements

Students must submit with their application at least two letters of recommendation and a typed, one-page statement of career goals.

Students applying with less than a 3.0 GPA for the last 60 semester hours must complete GRE or MAT requirements before the completion of the first semester of attendance.

Students in these programs are prepared to work with populations of all ages – helping prevent disease and developing positive healthy lifestyles.

Students take a broad range of courses covering health and disease processes, effective educational strategies and community health resources. Coursework in Community Health Education is supported by classes from the behavioral, natural and social sciences. Both undergraduate and graduate programs include pre-professional experiences through practica and internships. In addition, students have opportunities to practice health education skills as part of regular classroom activities.

Students who graduate with a degree in Community Health are expected to possess the knowledge and skills needed to enhance the health and well being of people.

The Master of Public Health program is the only program of its kind in the Rocky Mountain region with Council on Education for Public Health (CEPH) accreditation.

CAREERS in community health are people-oriented, with employment opportunities available for working with people in all age groups. Examples of such opportunities include: community-wide health promotion programs, tobacco cessation programs, employee health seminars, adolescent health programs, disaster preparedness and wellness programs for people of all ages.

Dietetics

The Dietetics major offers a wide range of studies applicable to community, clinical, private practice and management aspects of nutrition in health care and business.

The undergraduate dietetics program provides fundamental knowledge and skills necessary to practice as a professional dietitian according to the competencies established by the Commission on Accreditation for Dietetics Education (CADE) of the American Dietetic Association.

To complete the professional preparation, graduates must complete a supervised practice program (internship) before taking the dietetic registration examination. Note: The Department of Community Health and Nutrition offers a CDE accredited dietetic internship.

Dietetic graduates are prepared for career opportunities in nutrition, dietetics, education, management and research.

Community Health and Nutrition

Location: Gunter 2280  Telephone: 970.351.2755  Fax: 970.351.1489

Chair: Sherrie L. Frye, Ph.D.

Community Health Faculty: Betsy Cairo, Ph.D.; William Ebomoyi, Ph.D.; Kathleen J. Zavada, Ph.D.

Dietetics Coordinator: Jamie M. Erskine, Ph.D., R.D.

Dietetics Faculty: Alana D. Cline, Ph.D., R.D.; Jamie M. Erskine, Ph.D., R.D.; Sherrie L. Frye, Ph.D., R.D.; Judith Stauter Huse, M.S., R.D.
HUMAN SERVICES

Location: Gunter 1250  Telephone: 970.351.2403  FAX: 970.351.1255

Chair: Kenneth E. Galea'i, Ph.D.

Gerontology Faculty: Mark S. Adams, M.A.; Susan M. Collins, Ph.D.; Robbyn R. Wacker, Ph.D.

Recreation Faculty: Marcia J. Carter, Re.D.; Diane B. Gaede, Ph.D.


Gerontology

The Gerontology program provides the student with the opportunity to study the human aging processes and to learn skills needed in working directly with the older population. A broad spectrum of courses is offered covering the social, psychological and biological aspects of aging. Individuals who hold a degree in gerontology are prepared to work as service providers in social service agencies, senior centers, long term care facilities, adult day care and other community organizations. The Gerontology Program offers the programs listed below.

- Gerontology Minor on page 140
- Gerontology B.S. on page 91
- Gerontology Graduate Certificate Program (Non-Degree) on page 231
- Gerontology M.A. on page 269
  - Direct Service Emphasis
  - General Studies Emphasis
  - Management/Administration Emphasis

Gerontology (M.A.) Requirements

The student must send directly to the department:
1. Two letters of recommendation.
2. Miller Analogies Test scores.
3. A statement of interest covering the following topics (maximum 10 pages double-spaced):
   a. Why have you chosen gerontology? What factors and events motivated your interest in gerontology? Discuss your attitude and philosophy toward aging in general and your personal aging in particular. Also discuss your attitude or philosophy toward research, community change and advocacy.
   b. What are your career and educational goals? In what role and in what organizational setting would you ultimately like to be employed? Why have you chosen the Direct Service, General Studies, or Management/Administration emphasis area?
   c. What past exposure have you had to gerontology? Include any coursework or work experience (paid or volunteer) you have had related to aging. If you have had none, provide a justification of your current interest in the field of aging.
   d. How would you describe your strengths and weaknesses? This should cover such areas as academic ability, capacity to work with others, leadership and ability to cope with stress.

Recreation

The Recreation Program has been a pioneer in the design and development of professional recreation curricula since it was established in 1964. The program has been directly responsible for the professional preparation of more than 1,300 students. Graduates have obtained positions in many varied agencies throughout the nation, including the Armed Forces, therapeutic agencies, corporations, sports and fitness centers, voluntary agencies (e.g., YMCA, Campfire, Inc.), universities and city, state and national park and recreation agencies.

The program is committed to providing students with the highest possible quality education. All faculty have had both academic and practical experience in their subject areas and place a special emphasis on excellence in instruction and academic advising.

The program participates in the Recreation Club, subscribes to pertinent job bulletins and maintains detailed files on internship placements available throughout the world. The concept of learning through doing is further emphasized through numerous volunteer opportunities and the internship experience.

Recreation Minor on page 143
Recreation B.S. on page 112
Therapeutic Recreation Emphasis

Rehabilitation

The Department of Human Services houses the only rehabilitation degree programs in Colorado. The following undergraduate and graduate degree programs are offered: Bachelor of Science: Human Rehabilitative Services; Master of Arts: Rehabilitation Counseling; Master of Arts: Rehabilitation Counseling with an emphasis in Vocational Evaluation; and a Doctor of Philosophy: Human Rehabilitation.

Students in these programs are prepared at three professional levels to work with people with physical and/or mental disabilities. Both undergraduate and graduate programs include experiences through practica and internships.

Careers in Human Rehabilitation are available in areas of direct service, administration, teaching and research.

In addition to the academic programs, the Department operates the following: Region VIII Rehabilitation Continuing Education Program.

Rehabilitative Services Minor on page 143
Human Rehabilitative Services B.S. on page 93
Rehabilitation Counseling M.A. on page 277
Vocational Evaluation Emphasis

Rehabilitation Counseling (M.A.) Requirements

The student must send DIRECTLY TO THE DEPARTMENT:
1. Two letters of recommendation.
2. Miller Analogies Test scores.
3. A statement of interest covering the following topics (maximum of ten pages double-spaced).
   a. What factors and events motivated your interest in rehabilitation? Discuss your attitude and philosophy in general. Describe your attitude or philosophy toward research, community change and advocacy.
   b. What are your career and educational goals? Why have you chosen rehabilitation counseling as your area of study? In what role and in which 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 lifelong 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 have earned the Certified Rehabilitation Counselor (CRC) designation, as it is a requirement of the program. Students with an emphasis in Vocational Evaluation, who graduate, will be qualified to sit for the Certified Vocational Evaluation (CVE) examination.

8. All students who graduate will be prepared to enter the professional Rehabilitation Counseling field in public and/or private rehabilitation programs.

**Human Rehabilitation Ph.D. on page 244**

**Human Rehabilitation (Ph.D.) Requirements**

All doctoral applicants must meet the following criteria for preliminary consideration:

1. Hold a master's degree from an accredited college or university, in Rehabilitation Counseling or a closely allied discipline. The appropriateness of a degree in a related discipline will be determined by the graduate faculty of the department. If the student is deficient in rehabilitation counseling content, the equivalents determined by the student’s program committee will be included in the plan of study.

2. Have two years of work experience (or equivalent, as determined by the department's graduate faculty) in the field of rehabilitation. This must include the minimum of one year's experience before receipt of the master's degree and completion of a minimum of two years of work experience before receipt of the doctorate.

3. Participate in a personal interview on request. Admission decisions are based on multiple criteria, without fixed weights for any individual criterion.

4. Please submit a statement of interest (double spaced, no more than 12 pages) addressing the following:
   a. State why you are interested in pursuing a doctorate in the field of rehabilitation. Did any life experiences motivate you to seek this degree?
   b. What is your professional or personality background that sets you apart from other applicants?
   c. What are your short-term and long-range educational and career goals? What do you hope to be doing in five years? In ten years? Beyond?
   d. Discuss your professional attitudes or strengths that will be professional strengths you hope to develop.
   e. Who do you envision your future consumers to be once you graduate?
   f. Discuss your academic background. What do you consider to be your aptitudes as well as strengths you hope to develop.

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**NURSING**

**Location:** Gunter 3080  **Telephone:** 970.351.2193  **Fax:** 970.351.1707

**Director:** Margaret M. Andrews, Ph.D.

**Faculty:** Kathryn A. Blair, Ph.D.; Gayle Johnson Bohrer, M.S.; Vicki Weissman Downey, Ph.D.; Priscilla A. Faulkner, M.S.; Karen Hessler, M.S.; Faye I. Hummel, Ph.D.; Jane E. Koeckeritz, Ph.D.; Debra Leners, Ph.D.; Judith A. Makiwcz, Ph.D.; Janice Hoop Martin, Ph.D.; Alison D. Merrill, M.S.; Diane Peoples, Ph.D.; Judith Richter, Ph.D.; Heidi Ritchie, R.N., M.S.; Carol Roehrs, Ph.D.; Pamela Stoeckel, M.S.; Laurie Arnold Struthers, M.S.; 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.

The undergraduate program in nursing is a nine (9) semester program (4 years including one summer) leading to a bachelor of science degree. Qualified students are prepared to be professional nurses and receive a foundation for graduate study in nursing.

Graduate programs are available at the master's and doctoral level. The Ph.D. in Nursing Education offers two levels of entry: B.S. to Ph.D. and Masters to Ph.D. Graduates are qualified to fill nursing faculty positions in educational institutions and health care agencies.

Nursing students have a variety of clinical experiences in hospitals, nursing homes, industry, schools, and community agencies, primarily in northeastern Colorado communities. Clinical practice is concurrent with nursing theory (classes) and is guided by nursing faculty. Health clearance, OSHA requirements, and CPR certification are required.

Nursing students have a variety of clinical experiences in hospitals, nursing homes, industry, schools, and community agencies, primarily in northeastern Colorado communities. Clinical practice is concurrent with nursing theory (classes) and is guided by nursing faculty. Health clearance, OSHA requirements, and CPR certification are required.

Graduates of state-approved diploma or associate degree programs in nursing are eligible to apply for admission to the on-line baccalaureate program in nursing. The program to be pursued by R.N. students has been designed to be as flexible and responsive to individual student needs as possible, within the constraints and resources of the School of Nursing.

The Master of Science in Nursing Program has two emphases available: a nursing education with a clinical emphasis in chronic illness and the Family Nurse Practitioner emphasis. Full and part-time options are available.

**Nursing B.S. on page 106**

Family Nurse Practitioner (FNP) Graduate Certificate Program (Non-Degree) on page 231

Nursing Education Graduate Certificate Program (Non-Degree) on page 231

Transcultural Nursing Graduate Certificate Program (Non-Degree) on page 231

Nursing M.S. on page 275

Nursing Education Ph.D. on page 246

Nursing Education Doctoral Minor on page 252

**Nursing (B.S.) Requirements**

**Admission Requirements**

**Pre-clinical Major.** Students interested in nursing are accepted as pre-clinical nursing majors if they meet the general admission requirements of the University. Formal application is made to and obtained from UNC’s Office of Admissions.

It is highly recommended that students planning a career in nursing include chemistry, biology, and algebra in their high school programs. Proficiency in mathematics is essential to success in the nursing program.

Students enrolled in the pre-clinical major will receive academic advisement from members of the School of Nursing faculty.
Clinical Major. The designation of pre-clinical nursing major does not assure admission to the clinical nursing program. A separate application and acceptance processes are required. The sophomore year is required for the student to enter clinical nursing courses in the junior year. Forms for applying to the clinical program and information about application procedures are obtained at the School of Nursing during late fall semester.

The following factors will be considered by the nursing faculty in the selection of students:

- Cumulative grade point average at UNC and/or all previous institutions. Contact the School of Nursing for specifics on the GPA calculation;
- Only applicants who, at the time of application, have earned a cumulative grade point average of 2.0 in the required science courses or as many as have been completed of the following: BIO 101, BIO 245, BIO 246, BIO 251 and CHEM 281, will be considered;
- Other selection variables may include: Letter of recommendation, personal essay, hours at UNC, ethnic background, previous application and rural residency.

The number of students admitted to the clinical nursing program is determined by available resources. Available resources may also limit possibilities for readmission to the program for those students who withdraw for any reason. Scores on selected tests measuring such factors as aptitude, cognitive, affective and psychomotor skills and achievement may be used for advisement.

All students entering the professional clinical nursing major must be certified in cardiopulmonary resuscitation (CPR) for the adult and child as evidenced by current CPR card. This certification must be maintained while in the program. Nursing Articulation Model permits RNs to receive credit for transfer course work without testing. Individuals seeking admission must be granted by the Board of Trustees upon recommendation of the nursing faculty of the School of Nursing to those who have successfully completed the prescribed curriculum with an average of “C” or above.

Health Policies. Within the academic year preceding the first clinical course, the student must have met the University’s requirements regarding immunizations, received any necessary update in immunizations (such as Rubella Titer, PPD, Diphtheria, Tetanus and Rubeola/Rubella/Mumps) and have on record a completed physical examination. Hepatitis B vaccination is required. Thereafter, an annual PPD is required, as well as completion of OSHA requirements.

School Nurse Provisional Licensure. Graduates seeking School Nurse Licensure should contact the Teacher Education and Certification Unit of The Colorado Department of Education at 201 E. Colfax Avenue, Denver, Colorado 80203 for an application packet.

Additional Expenses. Clinical nursing majors may anticipate the following expenses in the spring semester before the junior year.

- Uniforms – $100
- Lab coat – $25
- Chest x-ray – $20
- White shoes – $30
- Penlight – $3
- Scissors – $4
- Rubella Titer – $15
- Hepatitis B Vaccine – $150
- Watch with second hand – $30
- Nursing Achievement Examinations – $30
- Stethoscope – $25
- Travel – Cost varies

Required uniforms are ordered the semester before clinical assignment. Costs listed here are approximate and subject to change.

Senior Year Expenses:
- School pin (optional) - Cost varies
- Travel - Cost varies

Clinical Practice. Student practice is offered in agencies according to available resources. All placements require transportation and may necessitate commuting from the Greeley area. Students are responsible for their own transportation to all clinical practicums.

Graduate Nursing Requirements

Master’s student admission requirements
1. A bachelor’s degree from an NLN or CCNE accredited institution with a major division 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. Two letters of reference.
5. A statement of career goals.
6. One year of clinical experience is preferred.
7. A personal interview may be required.

In addition, FNP emphasis requires:
1. Evidence of an undergraduate physical assessment course.
2. Two years of clinical experience required prior to clinical course enrollment.

Ph.D. in Nursing Education Requirements

Admission requirements
1. Completion of a bachelor’s degree in nursing from an accredited school or completion of a bachelor’s in nursing and a master’s degree.
2. Admission to the Graduate Program of UNC:
   a. GRE scores must have been taken within 5 years of
understanding human movement from early childhood

that provide opportunities for developing expertise in

curriculum is comprised of both required and elective courses

and physical education liberal studies. Minors are offered in

training, exercise science, physical education K-12 teaching,

contribute to the overall quality of life. To this end the

subscribes to the philosophy that physical activity and sport

in the outdoors, sport administration, and working with

human movement, pedagogy, delivery of sport and activity

an opportunity to go into greater depth in the study of

Graduate programs in sport and exercise science

field, laboratory and supervised practical experiences.

provide students with the necessary coursework and

the management of sport. Majors in these diverse fields

are available in athletic training, exercise science, sport psychology, and sport management.

Undergraduate emphasis areas are available in athletic training, exercise science, physical education K-12 teaching, and physical education liberal studies. Minors are offered in coaching, physical education K-12 teaching, outdoor education, and youth development. The undergraduate curriculum is comprised of both required and elective courses that provide opportunities for developing expertise in understanding human movement from early childhood through adulthood. Courses provide a scientific basis for the study of physical activity, emphasizing theoretical and practical approaches to the development and improvement of human performance. Each emphasis provides classroom, field, laboratory and supervised practical experiences.

Graduate programs in sport and exercise science provide an opportunity to go into greater depth in the study of human movement, pedagogy, delivery of sport and activity in the outdoors, sport administration, and working with youth. 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 interactive video and computer equipment that is available for student and faculty use. This laboratory is the focal point for the analysis of teaching physical education. The University also operates a large challenge course and indoor climbing facility.

Biomechanical facilities include a motion analysis system for three-dimensional data acquisition using video cameras and computerized data reduction to determine the mechanical parameters of total body motion. There is a computerized system for acquiring electronic data through the use of a force platform.

Research in social psychology 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.

Housed within the Ben Nighthorse Campbell Health and Human Sciences Center is the Rocky Mountain Cancer Rehabilitation Institute, one of the first programs of its kind in the United States. In addition, laboratory equipment is also available for motor learning and motor control research.

Sport and Exercise Science/Coaching Minor on page 144

Sport and Exercise Science/Outdoor Education Minor on page 145

Sport and Exercise Science/Physical Education Minor on page 145

Sport and Exercise Science/Youth Development Minor on page 145

Sport and Exercise Science B.S. on page 117

Sport and Exercise Science (B.S.) Requirements

Admission to the Athletic Training Clinical Program

The designation of Athletic Training as a major does not assure admission to the Clinical Athletic Training Program. The number of students enrolled in the clinical program is limited. Students must make a separate application to the Clinical Athletic Training Program, typically during the fall semester of their sophomore year. Application is accepted during fall semester. Prior to application, students must complete the prerequisite courses; BIO 110; BIO 245, CHEM 281, SES 181, SES 220, SES 233, and SES 380. To apply SES students must possess a minimum GPA of 2.8. Admission is based on available openings, GPA grades in the prerequisite courses, prerequisite exam and an interview.

Students must complete the full five semester Clinical Program to graduate with the Athletic Training degree and to be eligible to take the NATA certification exam.

Any student receiving a grade of “D” or lower in any of the required athletic training courses in the major must retake the course until a grade of “C” or higher is achieved.

Exercise Science Emphasis

Exercise Science Emphasis Requirements

Prior to taking SES 404, SES 410, SES 436 (or SES 333), and SES 490, students must pass Competency Assessment I with a grade of 70% or better. Prior to registering for SES 492, students must have a GPA of 2.7 or above in the SES prefix courses and pass Competency Assessment II with a grade of 70% or better. Competency Assessments may be repeated as necessary.

A grade of “C” or higher is required in all SES prefix courses; the course must be retaken until a “C” is achieved.
Sport and Exercise Science M.S. on page 281

Sport Administration Emphasis (M.S.) Admission Requirements

Sport administration applicants must submit an application form, official transcripts, letter of intent/career goals statement, two letters of recommendation from persons who can attest to the applicant’s academic ability, and processing fee directly to the Graduate School. Applicants are encouraged to visit the campus to meet with the sport administration faculty. Admission to the program occurs for the fall or summer semesters only. The Master’s in Sport Administration curriculum is a limited enrollment degree program. Students who complete the application process by February 15 are given priority screening for fall or summer admission of that year. The application period normally closes on August 1 for fall admission.

Sport and Exercise Science Ph.D. on page 249

Sport Administration Emphasis (Ph.D.) Admission Requirements

Sport administration applicants must submit an application form, official transcripts, three letters of recommendation from persons who can attest to the applicant’s academic ability, Graduate Record Examination General Test Scores and processing fee directly to the Graduate School. Materials required for admission to the program are: a resume, a written statement of career goals and research interests and an essay on a current issue in sports business. Applicants are encouraged to visit the campus to meet with the sport administration faculty. Although admission decisions are made throughout the academic year, the faculty prefers that students begin the program in the fall semester. Students who complete the application process by February 15 are given priority screening for fall admission of that year and have increased opportunities for financial assistance. The application period normally closes on August 1 for fall admission.

Faculty, Health and Human Sciences

- Mark S. Adams, M.A.
- Margaret M. Andrews, Ph.D.
- Megan L. Babkes, Ed.D.
- Ann T. Bentz, M.Ed.
- Kathryn A. Blair, Ph.D.
- Gayle Johnson Bohrer, M.S.
- Donna J. Bottenberg, Ph.D.
- Kathryn E. Bright, Ph.D.
- Robert J. Brustad, Ph.D.
- Betsy Cairo, Ph.D.
- Marcia J. Carter, Re.D.
- Alana D. Cline, Ph.D.
- Susan M. Collins, Ph.D.
- Shannon M. Courtney, M.A.
- Vicki Wessman Downey, Ph.D.
- William Ebomoyi, Ph.D.
- Diane Erbruegger, M.A.
- Jamie M. Erskine, Ph.D.
- Kathleen R. Fahey, Ph.D.
- Priscilla A. Faulkner, M.S.
- Juliet H. Fried, Ed.D.
- Sherrie L. Frye, Ph.D.
- Diane B. Gaede, Ph.D.
- Dennis A. Gay, Ph.D.
- Kenneth E. Galea'i, Ph.D.
- Karen Gookin, M.S.
- Dianna P. Gray, Ph.D.
- Ellen Meyer Gregg, Ph.D.
- Julie A. Hanks, Ed.D.
- Carrie Haugen, M.A.
- J. Reid Hayward, Ph.D.
- Gary D. Heise, Ph.D.
- Karen Hessler, M.S.
- Fayel I. Hummel, Ph.D.
- Judith Stauter Huse, M.S.
- Dennis R-S. Ingrisano, Ph.D.
- Jane E. Koeckeritz, Ph.D.
- Debra Leners, Ph.D.
- Jani Malkiewicz, M.A.
- Judith A. Malkiewicz, Ph.D.
- C. Bruce Martin, Ph.D.
- Janice Hoot Martin, Ph.D.
- Alison D. Merrill, M.S.
- Susan Morrison, M.A.
- Raymond E. Nelson, Ph.D.
- Joseph N. Ososkie, Ph.D.
- Melissa A. Parker, Ph.D.
- Diane Peters, Ph.D.
- Mark Peters, M.A.
- Tim B. Ramsey, M.A.
- Judith Richter, Ph.D.
- Heidi Ritchie, R.N., M.S.
- Carol Roehrs, Ph.D.
- Vincent A. Scalia, Ed.D.
- Carole M. Schneider, Ph.D.
- Linda A. Sharp, B.A., J.D.
- Christina Sinclair, Ph.D.
- Jim Stiehl, Ph.D.
- Pamela Stoeckel, M.S.
- David K. Stotlar, Ed.D.
- Laurie Arnold Struthers, M.S.
- Robbyn R. Wacker, Ph.D.
- Jennifer E. Weber, Au.D.
- Nancy E. White, Ph.D.
- Kathleen J. Zavela, Ph.D.
The College of Performing and Visual Arts believes that the arts are the most powerful tools available for refining and broadening human experience. They represent beauty and order in our environment and are important to the perpetuation of our cultural heritage. The specific role of the arts at UNC is to address the aesthetic and creative potentials of students by blending theory with practical study.

The College's performing groups, artists and art works have brought regional and national recognition to UNC, as well as many opportunities for the placement of graduates in prestigious performance and educational positions.

The College of Performing and Visual Arts stresses a rigorous curriculum and maintains an annual calendar of more than 250 cultural events.

The three divisions within the College - the School of Music and the Departments of Theatre Arts/Dance and Visual Arts - provide valuable experiences for students by enabling them to demonstrate their talents through numerous exhibits, concerts, operas, musicals, recitals, and dance and theatrical performances.

The college maintains Helen Langworthy Theatre, a 612-seat fully rigged theatre with production areas; Norton Theatre, an experimental space seating up to 125; and Foundation Hall, which seats 550 and is used primarily by the School of Music.

Performance based standards for degree programs in the College of Performing and Visual Arts are available online at http://arts.unco.edu/pva/assessment/default.html.

PROGRAMS

MUSIC

Location: Frasier Hall 105  Telephone: 970.351.2993
Director: Robert N. Hallquist, D.M.A.
Graduate Coordinator: Robert Ehle, Ph.D.
Faculty: Vergie Amendola, M.M.;  H. Gray Barrier, M.M.;
Jason Byrnes, M.M.;  R. Evan Copley, Ph.D.;  Galen
Darrough, D.M.A.; Robert Ehle, Ph.D.;  James A. Fittz,
D.M.A.; Richard C. Fuchs, M.M.; Carl Gerbrandt, D.M.A.;
Roger Greenberg, M.M.;  Russell Guyver, D.M.A.; Robert N.
Hallquist, D.M.A.; Charles A. Hansen, D.M.A.; Robert Al
Harding, D.M.E.;  Errol Haun, D.M.A.; Marian K. Hesse,
M.M.; Deborah Kauffman, D.M.A.; Dana B. Landry, M.M.;
Melissa Malde, D.M.A.; Kyle D. Malone, D.A.; Lesley
Manning, M.M.;  Richard G. Mayne, Ph.D.;  John D. McLairst,
M.M.; Charlotte R. Mills, D.A.; Kathy Bundock Moore,
Ph.D.; Robert Murray, D.M.A.; Thomas M. Poole, M.A.E.;
Kenneth Singleton, D.M.A.;  Howard M. Skinner, D.Mus.;
Juliet T. White-Smith, D.M.A.; Nathaniel G. Wickham,
D.M.A.; Sharon Wolzien, D.M.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 33 full-time and eight part-
time faculty, is organized into eight departments, each headed
by a chairperson, and five performance programs, each with a
director. The departments are Brass and Percussion, History
and Literature, Keyboards, Music Education, Strings, Theory
and Composition, Voice and Woodwinds. The performance
programs are Bands, Choirs, Jazz Studies, Opera Theatre and
Orchestras.

Students may choose from a full range of degrees, bachelor through doctoral programs, and from emphases in performance, conducting, music education, music theory, and music history. Considerable variety and depth of course offerings are available at UNC. The academic year program is augmented by a summer schedule with music theory, music history, music education and applied music opportunities and workshops.
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 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 accepted in the professional world. UNC-prepared educators hold positions at universities, colleges, high schools, junior high and elementary schools throughout the United States and 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**
- MUS 267/MUS 467/MUS 667 University Symphony Orchestra
- MUS 268/MUS 468/MUS 668 Chamber Orchestra
- MUS 280/MUS 480/MUS 680 Mixed Concert Choir
- MUS 281/MUS 481/MUS 681 Women's Glee Club
- MUS 284/MUS 484/MUS 684 Men's Glee Club
- MUS 288/MUS 488/MUS 688 Concert Band
- MUS 289/MUS 489/MUS 689 University Brass Choir
- MUS 290/MUS 490/MUS 690 Symphonic Band
- MUS 291/MUS 491/MUS 691 Wind Ensemble

**Undergraduate Admission Requirements**
Students planning to major in music are required to submit an application to the School of Music. The music application and appropriate instructions are provided by the Admissions Office upon request, or upon receipt of an Application for Admission that specifically indicates a music major.

Auditions are required of all applicants to the School of Music. Information concerning auditions may be requested from the School of Music, University of Northern Colorado, Fraser Hall, Greeley, Colorado 80639, phone 970.351.2993 or at our website [http://arts.unco.edu/music/admissions.html](http://arts.unco.edu/music/admissions.html)

Students meeting the general admission requirements of the University may be accepted as pre-music majors. However, this designation does not assure admission to the School of Music, since all degree programs require an audition for entrance.

Students will be designated as music majors and accepted by the School of Music after a successful audition.

**Music/Liberal Arts—Minor on page 142**
**Music B.A.—on page 103**

**Music (B.A.) Requirements**
- MUS 100 Recitals, Concerts and Productions must be taken each semester in residence.
- Students must take Individual Performance and Major Musical Organizations during each semester in residence.

**Liberal Arts Emphasis**

**Liberal Arts Emphasis Requirements**
Two foreign language courses may count toward General Education requirements and electives in the content area; minor courses may fulfill General Education requirements.

**Music (B.M.) Requirements**

**Music B.M.—on page 104**

**Instrumental Performance Emphasis**

**Instrumental Performance Emphasis Requirements**
- MUS 100 Recitals, Concerts and Productions must be taken each semester in residence.
- Students must take Individual Performance and Major Musical Organizations during each semester in residence.

**Music Theory and Composition Emphasis**

**Music Theory and Composition Emphasis Requirements**
- MUS 100 Recitals, Concerts and Productions must be taken each semester in residence.
- Students must take Individual Performance and Major Musical Organizations during each semester in residence.

**Graduate Admission Requirements**
Prerequisite to admission to any graduate program in Music is completion of an appropriate undergraduate degree. Admission will be based on an evaluation of the student's competencies and the content of the undergraduate program.

The student must take the Advisory Examinations in Music Education, Music History and Music Theory, administered by the School of Music faculty upon the student's arrival on campus. Students with an instrumental emphasis may be required to take written examinations on technique in their performance area.
Masters/Doctoral 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. 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.—on page 273
- Choral Conducting Emphasis
- Instrumental Conducting Emphasis
- Music Education Emphasis
- Music History and Literature Emphasis
- Music Theory and Composition Emphasis
- Vocal Performance Emphasis
- Wind/Organ/Conductor Conducting Emphasis

Music (M.M.) Requirements

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 Literature, Music Theory and writing skills. Candidates with deficiencies will meet with their major advisor and other appropriate faculty to determine the best way to address the deficiencies. An entrance audition is required.

Choral Conducting Emphasis: Prospective choral 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.

Music Education Emphasis: 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 Department.

Wind Orchestra Conducting: Applicants should write to the appropriate director for specific information concerning audition and interview procedures.

Music D.A.—on page 245

- Conducting, Music History and Literature Music
- Performance, Music Theory and Composition Performance
- and Pedagogy, Emphasis
- Music Education Emphasis

Music (D.A.) Requirements

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.

Theatre Arts and Dance

Location: Frasier Hall 100

Theatre Arts—970.351.2991

Dance—970.351.1204

Chair: Daniel G. Guyette, M.F.A.


UNC’s Theatre Arts program combines classroom instruction with first-hand experiences in the Little Theatre of the Rockies (LTR), established in 1934. In addition to theatre productions, LTR serves as the production entity for Opera Theatre and provides technical support, scenes, costumes, stage direction, choreography, promotion and general management for UNC’s popular Performing Arts Series.

During the summer, the College of Performing and Visual Arts presents the Little Theatre of the Rockies and other events. LTR Summer company members are involved in acting and technical aspects of professional theatre, working under the excitement of a rigorous production schedule. As participants, they encounter a wide variety of opportunities to observe, learn from and share ideas with an experienced faculty, professional actors, singers and technicians.

General objectives of the University of Northern Colorado Department of Theatre Arts and Dance are based on service and leadership in the arts at local, state, regional and national levels. An integral unit within the University, the Department embraces the role and mission of the University and has designed its goals and objectives to support and enhance institutional purposes and directions.

Admission. All degree program areas in the Department of Theatre Arts and Dance (Theatre, Musical Theatre and Dance) require an audition/interview for entrance into the degree program.

Students interested in majoring in theatre arts or musical theatre may be accepted as pre-theatre arts or pre-musical theatre if they meet the general admission requirements of the University. However, this designation does not assure admission to the degree program, since all degree programs in the department require an audition/interview for entrance. If a student has been accepted by the department after a successful audition or interview, then they will be designated as a theatre arts or musical theatre major.

Consideration of student acceptance will be made by the Admission Committee in the department in accordance with the student’s audition or interview, resume, letters of recommendation and academic record.

All students planning to major in Musical Theatre are required to submit an additional application to the Musical Theatre Program. The application and appropriate instructions are provided by the College of Performing and Visual Arts. Auditions are required of all applicants to the Musical Theatre Program. Information concerning auditions may be requested from Vance Fulkerson, Coordinator of Musical Theatre Program, University of Northern Colorado, Frasier Hall, Greeley, Colorado 80639, phone 970.351.2991.

Theatre Arts—Minor on page 146

Dance—Minor on page 137

Musical Theatre B.A.—on page 106

M. Theatre (B.A.) Requirements

Admission to the Bachelor of Arts with a major in Musical Theatre program is by audition. Students pursuing the degree must complete the required courses and meet the following requirements:

- Meet all recital and production attendance requirements.
- Meet annual juried audition (assessment) requirements.
- Any student receiving a grade of "D" or lower in a course required in the major must retake the course until a grade of "C" or higher is achieved.
- Mixed Concert Choir, Women's Glee Club, Men's Glee Club are major ensembles.
- Must attend Voice Department 4:40 pm recitals as required by the applied voice teacher if enrolled in MUS 269 or 469.

Theatre Arts B.A.—on page 119

Theatre Arts (B.A.) Requirements

Admission to the Theatre Arts degree program with concentration areas of acting, design technology and theatre studies is by audition, interview, or essay.

The Department of Theatre Arts requires student majors to consult with and be advised by a faculty member teaching in the department.
The student must apply and be accepted to one of the concentration areas. The student must then complete all of the required courses in the concentration area prior to achieving the Bachelor of Arts in Theatre Arts degree.

Any student receiving a grade of "D" or lower in a course in the required core or concentration area must retake the course until a grade of "C" or higher is achieved.

First semester (non-Design Technology Concentration Area) freshmen do not take THEA 100 Individual Performance in Theatre, but are required to take THEA 100 or THEA 110 all other academic year semesters in residence.

Attendance at or involvement in all productions of the Little Theatre of the Rockies is required during residency.

The Colorado Commission on Higher Education and this department requires the completion of a yearly assessment process. The assessment, which includes an evaluation of your year’s progress as well as a yearly audition or interview, may be the basis of your continuance in this program area.

**Dance Emphasis**

Dance Emphasis (B.A.) Requirements

The department of Theatre Arts and Dance is not presently accepting applications for enrollment in the Dance Emphasis. Students interested in the concentration prior to declaring a "Dance Minor." All emphasis students must take a placement technique class as a part of their audition. Students choosing this emphasis must have a 2.7 GPA before enrolling in the practicum experience. Any student receiving a grade of "D" or lower in a course in the emphasis must retake the course until a grade of "C" or higher is achieved (with the exception of technique classes). A grade of "B" or better must be achieved in a technique class in order to progress to the next level.

Students must obtain a card to certify completion of CPR training. All emphasis students must take a written assessment at the end of the fourth year. Assessments in the areas of modern dance, jazz dance, ballet, choreography, performance and teaching will be done as part of coursework throughout the four years.

**Secondary Teaching Emphasis**

**VISUAL ARTS**

**Location:** Guggenheim  
**Hall:**  
**Chair:** Virginia Jenkins, M.F.A.  

The Department of Visual Arts offers the opportunity to study the artistic aspects of our heritage, our culture, visual communications and personal artistic expression, as well as the arts of other cultures and civilizations. It is the purpose of the department to provide a creative and intensive education in the visual arts through studio practice, art history, cultural studies and critical studies.

Students learn to produce works of art in a variety of media and to understand the processes of various art forms as they relate to personal expression and professional application. Through the programs of the Art Department, students learn to analyze and make reasoned, critical judgments about the significance and quality of works of art. This approach gives students an excellent background for recognizing and understanding art in context, which is necessary preparation for the many careers in the visual arts.

In addition, students pursuing Art Education Studies will have demonstrated the ability to teach art effectively in grades K-12.

**Visual Arts—Minor on page 146**
Prerequisites. Students who have completed an undergraduate degree in art or art education or the equivalent and whose grade point average is a minimum of 3.0 based on the last 60 semester hours of coursework may apply for the Master of Arts degree program in the Department of Visual Arts. An applicant who does not have an undergraduate major in art or art education, or its equivalent, will be required to complete specified coursework or areas of study before beginning the program.

Faculty, Performing and Visual Arts

- Vergie Amendola, M.M.
- H. Gray Barrier, M.M.
- Jonathan Bellman, D.M.A.
- Connie Bethards, Ph.D
- Monte Black, M.F.A.
- Diane Bolden-Taylor, M.M.
- Jason Byrnes, M.M.
- R. Evan Copley, Ph.D.
- Michael A. Corneal, M.A.
- Galen Darrough, D.M.A.
- Jane Dillon, M.F.A.
- Robert Ehle, Ph.D.
- Mark Fetkewicz, M.F.A.
- James A. Fittz, D.M.A.
- Richard C. Fuchs, M.M.
- Raymond Vance Fulkerson, M.A.
- Karen Sue Genoff-Campbell, D.A.
- Carl Gerbrandt, D.M.A.
- Roger Greenberg, M.M.
- Charlotte Guyette, M.F.A.
- Daniel G. Guyette, M.F.A.
- Russell Guyver, D.M.A.
- Robert N. Hallquist, D.M.A.
- Charles A. Hansen, D.M.A.
- Robert Al Harding, D.M.E.
- Sieger Hartgers, M.A.
- Errol Haun, D.M.A.
- Marian K. Hesse, M.M.
- Charles Houghton, M.F.A.
- Virginia Jenkins, M.F.A.
- Deborah Kauffman, D.M.A.
- Casey J. Kearns, M.F.A.
- Dana B. Landry, M.M.
- John R. Leonard, M.A.
- Melissa Malde, D.M.A.
- Kyle D. Malone, D.A.
- Lesley Manring, M.M.
- Richard G. Mayne, Ph.D.
- John D. McLaird, M.M.
- Thomas P. McNally, M.F.A.
- Charlotte R. Mills, D.A.
- Kathy Bundock Moore, Ph.D.
- Dennis Morimoto, Ed.D.
- Robert Murray, D.M.A.
- Charlotte Nichols, M.F.A.
- Thomas M. Poole, M.A.E.
- Kenneth Price, M.A.
- Anne Toewe, M.A.
- Mary Schuttler, M.A.
- Kenneth Singleton, D.M.A.
- Howard M. Skinner, D.Mus.
- Thomas Stephens, M.F.A.
- Connie Stewart, M.A.
- Anne Toewe, M.A.
- Anna Ursyn, Ph.D.
- Juliet T. White-Smith, D.M.A.
- Nathaniel G. Wickham, D.M.A.
- Sharon Wolzien, D.M.A.
semester hours (45 quarter hours) of college work must submit an official transcript from each college attended, along with a high school transcript and ACT/SAT test score.

All Summer and Fall 2004 entering transfer students will be under the following new admission standards as set forth by the Colorado Commission on Higher Education.

- 12 or fewer transferable semester hours counted results in admission based on high school credentials including cumulative GPA, class rank, ACT and/or SAT scores.
- 13 or more transferable semester hours counts requires a 2.4 cumulative college GPA for admission.

Transfer Application Procedures. An Application for Admission and a $40 non-refundable processing fee must be submitted to the Admissions Office. Applicants also must submit an official transcript from each college or university previously attended. Final admission status cannot be determined until official transcripts have been received from each institution attended. Applications can be submitted online at www.GoBears.unco.edu.

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

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

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

Transfer students planning to major in Nursing program are required to submit an additional application to the School of Nursing. Application information can be obtained by contacting the School of Nursing or at the UNC website www.unco.edu.

Transfer Credit. A maximum of 90 semester or 135 quarter hours of academic credit may be accepted from regionally accredited four-year institutions. No more than 60 semester or 90 quarter hours of credit earned at junior or community colleges may be applied towards UNC degree requirements. A student who has earned a liberal-arts based Associate of Arts or Associate of Science degree from an accredited college will receive a full waiver of the content area in the General Education requirements. The skills requirements will be evaluated course by course. Completion of the Colorado Community College Common Core Curriculum will result in a full waiver of both the Skills and Content area of General Education. Associate of general studies degrees are not transferable to UNC. Students with an AAS or AAA degree must choose an applied bachelors degree at UNC to transfer their associate degree.

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

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

Previous grade point averages are used for admission and scholarship purposes only and are not carried forward on the student’s academic record at UNC. New transfer students begin a new grade point average. Courses with letter grades of “D” are not transferable.

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

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

Information concerning transfer to UNC from Colorado community and junior colleges is available in the UNC Transfer Guide. Copies of this publication are on file at each Colorado community or junior college and may also be obtained online at www.unco.edu/admissions.

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

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

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

INTERNATIONAL EDUCATION ADMISSION

Please see “International Education Admission” (on page 214)

FINANCIAL AID, RATES AND STUDENT FEES

FINANCIAL AID

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

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

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

Graduate Assistants, Teaching Assistants, Graduate Research Assistants. Graduate Assistantships are available through the individual academic and administrative departments. All assistantships are available as of this printing. These assistantships are comprised of a monthly stipend, as well as a tuition waiver, based proportionally on the stipend in exchange for a work assignment. These tax deductable awards are disseminated according to individual departmental budgets. For more information students should contact their department.
Financial Aid, Rates and Student Fees

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

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

**Veterans' Benefits.** Eligibility for veterans' benefits is certified through the Financial Aid office.

**Academic Progress Standards**

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

In order to be eligible to receive financial aid, the student must be making satisfactory progress toward a degree program, regardless of whether he/she has previously received financial assistance. For a more detailed explanation of these policies, refer to the Standards of Satisfactory Academic Progress available in the Office of Student Financial Resources or on our web site.

**How to Apply for Aid**

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

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

To apply for a Federal Stafford or Parent Loan for Undergraduate Students, students must accept the loan on the Award Notification form. Students will receive notification from the Colorado Student Loan Program that an online promissory note is available for electronic signature.

**How To Apply for a UNC Scholarship**

Students must be admitted to UNC by March 1 to be considered for scholarships for the upcoming academic year. Eligibility for some scholarships is based on information obtained from the admission application. All students are encouraged to complete the “UNC FAST-APP” for scholarships every year. The deadline is March 1. The “UNC FAST-APP” is available on-line at www.unco.edu/sfr. A listing of scholarships offered through private sources is available for use in the Office of Student Financial Resources. Many local libraries offer a comprehensive list of local and national scholarships. Students are also encouraged to use the World Wide Web for scholarship listings.

**Refund and Repayment**

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

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

**The Award**

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

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

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

Financial aid funds usually are available at the beginning of each semester as a credit to charges on the student’s bill. A refund will be deposited to the student’s checking account if the aid exceeds all institutional charges.

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

Renewal of financial aid is not automatic. A new FAFSA (new, renewal or online) for the next academic year must be submitted early enough to meet our priority filing date of March 1. The student's academic progress as well as financial need determine the continuance of funding.

**Web Homepage.** Visit our web site at www.unco.edu/sfr.

**RATES**

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

The rates quoted in the print and CD Catalog relate to the 2003-2004 academic year. Rates for the 2004-2005 academic year, which begins with fall semester 2004, were not available at the print publication of this document.

Updated information about tuition and fees will be available from Accounts Receivable after June 30 of each year and will be updated in the current online Catalog August 1 of each year.

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

**Housing and Dining Services**

The University operates thirteen residence halls and one apartment complex. Rooms and apartments hold two, three or four persons per unit. All freshmen with less than 20 semester hours earned and under 20 years of age are required to live in a residence hall and will be assigned a full meal plan. Non-freshmen residents will be assigned a full meal plan, but may re-contract for a 15 Meal Plan or a 14 Meal Plan. The final date to re-contract for a 14 or 15 Meal Plan is the drop/add deadline for the semester.
Room and Board Rates by Semester

<table>
<thead>
<tr>
<th>Residence Halls, 2003-2004</th>
<th>Semester Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Harrison and McCowen</td>
<td>$1,352.00</td>
</tr>
<tr>
<td>Belford, Decker, Gordon, Sabin, Snyder, Turner, Wiebking and Wilson</td>
<td>$1,508.00</td>
</tr>
<tr>
<td>Hansen-Willis, Lawrenson and Faculty Unit One, Unit Two, Unit Three</td>
<td>$1,664.00</td>
</tr>
<tr>
<td>University Apartments Unfurnished</td>
<td>Per Month $620.00 $670.00</td>
</tr>
<tr>
<td>Furnished</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Meal Plans, 2003-2004</th>
<th>Semester Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>19 Meal Plan</td>
<td>$1,539.00</td>
</tr>
<tr>
<td>15 Meal Plan</td>
<td>$1,459.00</td>
</tr>
<tr>
<td>14 Meal Plan</td>
<td>$1,439.00</td>
</tr>
<tr>
<td>Optional Bear Plans:</td>
<td></td>
</tr>
<tr>
<td>50 Meals</td>
<td>$315.00</td>
</tr>
<tr>
<td>80 Meals</td>
<td>$504.00</td>
</tr>
<tr>
<td>120 Meals</td>
<td>$720.00</td>
</tr>
<tr>
<td>160 Meals</td>
<td>$960.00</td>
</tr>
</tbody>
</table>

Room and Board Withdrawal Costs

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

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

See Schedule of Classes for each term for exact dates.

Semester Optional Bear Plans

Dining facilities on-campus provide convenience and economy. Varied entrees, salad bars, beverage and dessert selections are available daily. Computerized access allows contract holders to dine in any dining room and at the University Center Food Court.

UNC Dining Services offers 4 Optional Bear Plans to residents of Lawrenson (excluding freshmen under age 20), as well as off campus students. With options of 50, 80, 120 or 160 meals, students can choose when to eat, where to eat and how often to eat. For more information, contact the Dining Services Office at 970.351.2652, or www.auxiliary.unco.edu/dining.

Tuition Classification: Non-Resident, Resident

<table>
<thead>
<tr>
<th>Non-Resident, Per Semester, Credits Taken</th>
<th>Undergraduate</th>
<th>Graduate</th>
</tr>
</thead>
<tbody>
<tr>
<td>8.9 credit hours or less, tuition per credit hour</td>
<td>$647.00</td>
<td>$689.00</td>
</tr>
<tr>
<td>9-18 credit hours, total tuition (full-time enrollment)</td>
<td>$5,823.00</td>
<td>$6,198.00</td>
</tr>
<tr>
<td>Surcharge per credit hour for credits above 18 hours</td>
<td>$647.00</td>
<td>$689.00</td>
</tr>
</tbody>
</table>

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

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

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.

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 fees. The determination of a student's tuition status is provided for under State Law Title 23, Article 7, Colorado Revised Statutes 1997 Repl. Vol., 1994 Supplement.

A person who has been domiciled in Colorado for one year or more immediately preceding registration may be eligible for in-state tuition classification. A domicile is a person’s true, fixed and permanent home and place of habitation. It is the place where the student intends to remain and where he/she expects to return to 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 registration. If at a later date, the student thinks the classification is no longer correct, he/she may petition for a change in tuition classification.

Petitions can be submitted to the Tuition Classification Specialist in the Registrar’s Office (Carter Hall, Room 3002) no later than the first day of classes for the given school term that the student desires a change in classification. Any student who is denied in-state classification after petitioning may appeal that decision in writing to the Tuition Classification Appeals Committee. The appeal must be submitted to the Tuition Classification Specialist no later than 10 days after the denial has been sent to the student. The decision rendered by the Tuition Classification Appeals Committee is the final University determination.
Petitioning for in-state tuition classification requires the student to complete a detailed form available in the Registrar’s Office (Carter 3002). This form and other relevant information will be reviewed and a decision rendered in accordance with the state law and authorized procedures.

Active duty Armed Forces personnel and their dependents stationed in Colorado on a permanent change-of-station basis may contact the Tuition Classification Specialist for information regarding qualification for the lower in-state tuition rates.

### Student Fees

<table>
<thead>
<tr>
<th>General Fees: 2003-2004</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Per Semester 8.9 hours or less, per credit hour</strong></td>
</tr>
<tr>
<td>Student service fees:</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td><strong>9 or more credit hours</strong></td>
</tr>
<tr>
<td>Student service fees:</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td><strong>Technology Fee per credit hour</strong> (Maximum $75.00)</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td><strong>Academic Program Fee</strong></td>
</tr>
<tr>
<td>$1.85 per credit hour</td>
</tr>
</tbody>
</table>

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

Other Fees

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

### Payment

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

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

Payments from Financial Aid will be automatically posted to the billing account. Any excess funds will be deposited to the student’s 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 or Discover through the Web. Visit our website: 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 your account being placed with a collection agency and such action reported to a credit bureau. In addition, the student’s account may be charged legally allowable collection charges and attorney fees needed to collect or enforce the student’s indebtedness.

### 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 you drop all classes, you will incur a minimum charge of 10 percent (10%) of tuition and fees. When applicable, you will also pay the new enrollment fee and housing deposit. Therefore, it is strongly recommended to drop all the classes by the first day of the semester to avoid a minimum 10% late withdrawal charge. The minimum 10% withdrawal charge does not apply if you drop individual classes as a part of your schedule adjustment process.

### Fees for Class Withdrawals

Withdrawal from an individual class is permitted until the midpoint of the course. Students can withdraw from individual classes via the Web through Webster or in person. The student must initiate the process of withdrawing from ALL classes in the Registrar’s Office. A total withdrawal may be initiated through Friday of the 12th week of the term.

Changes in tuition, fees, and other charges can occur during the Add 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.

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

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

**Note:** 100% of non-refundable fees will be assessed. These fees include academic program fees, technology fees, 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 short term loans, etc. Some federally funded aid programs mandate a different withdrawal computation.

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

Individual classes may be dropped or added during the Add and Drop periods at no charge. Students with room and board are assessed amounts based upon rates, policies and procedures explained in the Residence Life contractual materials.
If a more complete explanation of the above policies is required or if individual circumstances warrant review, the student should contact the Bursar's Office.

**POLICIES AND PROCEDURES — ALL STUDENTS**

**ACADEMIC FREEDOM, RIGHTS AND RESPONSIBILITIES OF STUDENTS**

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

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

**ATTENDANCE**

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

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

Attendance during the first two class 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. Not all instructors will exercise this option; therefore, a student should not assume that non-attendance will automatically drop him or her from class.

**COURSE DESIGNATIONS**

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

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

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

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

**COURSE LOAD**

**Overload.** More than 18 credit hours per semester will increase tuition. Students requesting overload credits must have a 3.00 or higher cumulative grade point average.

- In addition, specific colleges, departments and programs may have additional conditions regarding overloads. It is the student’s responsibility to meet these conditions.
- Overloads of more than 21 hours require approval by the student’s major advisor and major department chair. These approvals must be forwarded to the Registrar. The Registrar will assure that these procedures have been followed.

**Graduate Students**

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 in a graduate degree program, a non-degree certification program, or any combination thereof. The maximum load for a graduate student is 17 hours per semester. This information may vary during summer terms; students should check the Summer Schedule of Classes for correct information.

- **Financial aid and verification of enrollment.** Full-time enrollment is nine credit hours for graduate students.
- **Half-time classification.** Graduate students enrolled in five to eight credits hours are classified as half-time. Part-time enrollment is four credit hours or less.
- **Overload.** More than 17 credit hours per semester for graduate students is considered an overload.

Graduate students receive overload approval from their academic advisor. Students enrolled with a grade-point-average of 3.00 but have extenuating circumstances may petition for an overload to the dean of the Graduate School.

**Undergraduate Students**

A normal undergraduate course load, is 15 credit hours of academic credit in each semester. This information may vary during summer terms; students should check the Summer Schedule of Classes for correct information. Undergraduate students are allowed to enroll for a maximum of 18 credit hours before the beginning of the semester.

- **Financial aid and verification of enrollment.** Full-time enrollment is considered 12 credit hours for undergraduate students.
- **Half-time classification.** Undergraduate students enrolled in six to eleven credit hours are classified as half-time. Part-time enrollment is five credit hours or less.
- **Overload.** More than 17 credit hours per semester for undergraduate students is considered an overload.
- Undergraduate students who have lower than a 3.00 GPA but have extenuating circumstances may petition for an overload from the department advisor and department chair.

**FAMILY EDUCATIONAL RIGHTS AND PRIVACY ACT**

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

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

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

Any student who believes that his/her education records contain information that is inaccurate or misleading or is otherwise in violation of his/her privacy or other rights or who believes that his/her records have been or are being maintained or processed in violation of his/her privacy or other rights, may discuss his/her concerns informally with the Registrar's Office. If the decision of that person is in agreement with the student's request, the appropriate records shall be amended and the student shall be notified in writing of the amendment(s). If the decision is not in agreement, the student shall be notified within thirty (30) calendar days that the records will not be amended and the student shall be notified by the official of the student's right to a hearing.

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

3. The right to prevent disclosure without consent, with certain exceptions, of personally identifiable information from the student's educational records. One exception which permits disclosure without consent is disclosure to school officials with legitimate educational interests. “School officials” shall mean any person who is a trustee, officer, agent or employee of the University. “Legitimate educational interest” shall mean any authorized interest or activity undertaken in the name of the University for which access to an education record is necessary or appropriate to the proper performance of the undertaking. It shall include, without limitation, access by a student's instructor, department or division head, dean, the chief academic administrator, the president, a trustee, the custodian of the University records, the alumni administrator, legal counsel, the financial aid administrator, administrators charged with maintaining education records, the staff and subordinates of the foregoing, and others authorized by the President to the extent the foregoing persons are acting within the course and scope of their employment or authority.

4. The right to file complaints with the U.S. Department of Education concerning alleged failures by the University to comply with the provisions of the Act. The name and address of the office that administers FERPA is: Family Policy Compliance Office, U.S. Department of Education, 400 Maryland Avenue S.W., Washington, D.C. 20202-4605.

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

The University may provide “Directory Information” in accordance with the provisions of the Act without the written consent of an eligible student unless it is requested in writing that such information not be disclosed (see below). The items listed below are designated as Directory Information and may be released without a student's written consent for nondisclosure on the following schedule:

- **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, 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 Registrar's Office 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 Registrar's Office 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 Registrar's Office.

**FINAL EXAMINATIONS**

All final examination periods are 150 minutes in length. Examinations are conducted in the same classroom used throughout the semester unless alternative arrangements are made with the room scheduling department in the Events/Scheduling Office at the University Center.

Faculty should alert students to changes in final examination times or locations before the testing date.

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

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

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

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

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

**FULL-TIME AND PART-TIME ENROLLMENT STATUS**

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

Full-time for financial aid purposes and enrollment verification (other than health insurance) is 12 credit hours or more for undergraduates and nine credit hours or more for graduates. Undergraduates enrolled in six to eleven credit hours and graduates enrolled in five to eight credit hours are classified as half-time. Part-time is five credit hours or less for undergraduates and four credit hours or less for graduates.
Quality Points GPA
---
A = superior 4.0
B = above average 3.0
C = average 2.0
D = minimum passing 1.0
F = failure 0.0
I = incomplete *
I/F = incomplete turned to failure 0.0
NC = no credit (audit) *
NR = no report *
S = satisfactory-credit granted **
U = unsatisfactory-no credit *
UW = unauthorized withdrawal *
W = withdrawal *

*Credits not used to compute grade point average (GPA) and not counted toward graduation.
**Credits not used to compute GPA but counted toward graduation.

Courses for which “D,” “F,” “U,” “W,” “UW,” “NR,” or “I” grades are awarded will not count in graduate degree programs and will not satisfy program deficiency requirements.

A “W” indicates an approved withdrawal from the course and is assigned only when the student has completed the official withdrawal processes outlined in this publication.

A “UW” indicates an unauthorized withdrawal and is assigned when the student has never attended the class for which he/she enrolled.

An “I” is assigned due to unanticipated circumstances the last week of the term that make the student unable to complete course requirements within the allotted time (e.g. he/she missed the final examination due to illness, an emergency in the family). The instructor must submit to the department chair, a written notice of the specific coursework to be completed before the final grade is determined; a copy is kept in the department and one is provided to the student. To amend a grade of “I” with an earned grade on a student’s transcript, the student must complete all incomplete course work by the last day of the next semester, including summer term. If the academic requirements are not completed within the time limitation and the grade received in the Registrar’s Office, the grade will be recorded as “I/F” or “I/U” on the academic record.

The grade of “NR” is used for honors courses, theses, dissertations, and other courses that have been granted approval for “NR” grading. 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.

Grade Point Average

The University operates on a 4.0 grade point system. A grade of “A” has a value of four grade points, “B” three points, “C” two points, “D” one point. No points are given for an “F”.

To compute a grade point average, first remove all basic skills courses (courses numbered 001 through 099) and all courses that carry the grades: “S,” “U,” “W,” “UW,” “NR,” “I,” “NC.” Multiply the credit hours for each remaining class by the number equivalent to the letter grade. Total the hours, total the credit points, and finally divide the total points by total credits.

GPA Example:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Credit</th>
<th>Points</th>
<th>GPA</th>
</tr>
</thead>
<tbody>
<tr>
<td>A = 4</td>
<td>3</td>
<td>12</td>
<td>3.00</td>
</tr>
<tr>
<td>B = 3</td>
<td>5</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>C = 2</td>
<td>3</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>I = 0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>11</td>
<td>33</td>
<td></td>
</tr>
</tbody>
</table>

If a course is repeated, all grades earned are used in determining the GPA. If a course is listed as grade forgiveness, the grade will not be used in determining the GPA. Grades received at other institutions are not included in the UNC GPA.

Grades-Submissions and Corrections

Faculty must submit grades via the Web to the Registrar’s Office by 5 pm of the third working day after the end of a course. Grade changes or corrections must be submitted within the first two weeks of the following semester. Spring term grade changes are also due the first two weeks of Summer term. Grade change requests are submitted on special grade report forms signed by the instructor and department chairperson. Forms are available from departmental offices. No grade change request forms delivered by students will be accepted.

Immunization Regulation

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

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

Insurance Requirement for All Students

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

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

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

The University’s health insurance is available to students’ dependents and part-time students upon request.
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 University Parking Services is to facilitate the safe and orderly conduct of University business and to provide parking facilities in support of this function within the limits of available space. Students, faculty or staff who wish to park on campus should purchase a parking permit from Parking Services in Gray Hall. Parking Services is a self-supporting auxiliary department of the University of Northern Colorado. No tax revenue, student fees, or tuition funds are received or used for parking facilities.

SEMESTER SYSTEM

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

TRANSCRIPTS

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

WITHDRAWAL FROM THE UNIVERSITY

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

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

REGISTRATION

REGISTRATION PROCEDURES

A student must be registered to attend class. The Schedule of Classes are found at www.registrar.unco.edu and serve as the basic guide for registering for classes.

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

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

New freshmen and transfer students for fall term are strongly encouraged to attend Discover UNC. Discover UNC is an orientation program for entering freshmen and transfer students that provides essential information about the University and special assistance in registering for classes.

The College Transition Center conducts the Discover UNC program during June, July and August. The Graduate School conducts an orientation for new graduate students.

SCHEDULE CHANGES (ADDS/DROPS)

During the beginning of each semester, students may add or drop courses from their schedule. Students may add a class during the first eight percent (8%) of the class term and may drop a class during the first fifteen percent (15%) of the class term. Any student seeking to add a class after the 8% period has lapsed must secure approval from the professor. Dates for the add/drop deadlines are listed in the Schedule of Classes.

This procedure may be handled through Web Registration (www.unco.edu and accessing Webster) or at the Registrar’s Office. After the deadline posted in the Schedule of Classes, students may not enroll in additional full term courses or drop full term courses in which they are currently registered.

The add deadline for a short-term class occurs when the class has held 8% of its class meetings. The drop deadline occurs when the class has held 15% of its class meetings. The number of credits for which a student is registered at the time of the add/drop deadline determines tuition and fee charges. Drops differ from withdrawals since drops are not recorded on the student’s transcript and withdrawals are recorded on the transcript (see next section).

TWO-CLASS-HOUR DROP REQUIREMENT

A faculty member may drop a student from a class during the Drop period if the student has not attended the first two-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 in the Schedule of Classes.

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. The dates of the Drop period each semester are listed in the Schedule of Classes.

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 in the Schedule of Classes. The withdrawal deadline for an individual short-term class occurs when the class has held 50% of its meetings. A “W” appears in the transcript of each class from which a student withdraws. Students may withdraw from all classes at the Registrar’s Office through the twelfth week of the term.
STUDENT RESOURCES

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

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

Information Technology

Information Technology provides a number 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 located in the University Center and open extended hours. Access to campus computing resources and the Internet is provided through direct connections in the residence halls via ResNet and from off campus through a dial-in modem pool (Slip/PPP). Telephone service and the student long distance calling program are provided in the residence halls by Telecommunications. Access to powerful statistical packages and specialized resources is provided through a state-of-the-art enterprise server. Information Technology also manages and operates Bear Logic, the campus computer store, of-the-art enterprise server.

ACADEMIC TECHNOLOGY SERVICES

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

ALUMNI RELATIONS

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

BOOKSTORE

Barnes and Noble College Bookstore, located in the lower level of the University Center, provides course textbooks and general reading books. Barnes and Noble 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, special order books and book information.

CAMPUS RECREATION

The Campus Recreation Center is the focal point for recreational sports, fitness and wellness education activities on campus. Programs include intramural sports, group fitness classes, club sports, swimming, indoor rock climbing, personal fitness training, wellness education workshops and events, and a wide range of drop-in recreation activities. Facilities include two multipurpose gymnasiums, an indoor climbing room, two strength and conditioning areas, one group fitness room, one multi-purpose room, three racquetball courts, a jogging track and locker rooms. Strength and conditioning areas feature elliptical cross-trainers, treadmills, steppers, upright and recumbent exercise bikes, art upper-body cycle, rowing machines, and a full line of free weight equipment and weight machines.

DINING SERVICES

UNC Dining Services provides students, faculty and staff with a variety of meals in different settings, seven days a week. Dining rooms located in Harrison, Tobey-Kendel, and the University Center are open to students with meal plans. Dining Services anticipates opening a new West Campus Dining Hall Spring Semester 2005. Take-out meals called “Gourmet to Go” are available at McCown and Tobey-Kendel. Freshmen under age 20 and living on campus will be assigned a full meal plan (19 meals a week). At the University Center, Taco Bell Express, and UC Dining and other cash venues offer services to cash paying customers. Menu choices encourage the practice of good nutrition and a registered dietitian is available to assist with any special dietary needs. Dining Services also provides catering for special occasions.

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

ENROLLMENT SERVICES

The Enrollment Services Office coordinates the functions of the following student services areas to assist in providing seamless services to UNC students:

The Office of Admissions provides information and assistance to potential new undergraduate students. New freshmen, as well as undergraduate students transferring from other colleges and universities, should contact this office.

Admissions information is available on UNC’s website: www.unco.edu. (Prospective graduate students should contact the Graduate School.)

The Career and Testing Services Office helps students and alumni explore their educational and occupational options and prepare for the work world. Students receive assistance in choosing their majors and careers as well as finding internships and full time professional jobs. The services offered are career counseling, testing, career planning classes and workshops, resume critiquing, mock interviewing, career fairs, on-campus recruiting, credential files, career and job search resources. The office is located at the University Center.

For more information, access the Career Services website, www.unco.edu/careers or call 970.351.2127.

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

General Information - 53
Dear Graduate Students:

Welcome to the Graduate School at the University of Northern Colorado, a specialized graduate research institution. UNC offers Masters, Doctoral, and Educational Specialist programs. Many licensure and certificate programs are also available through our on and off-campus initiatives for individuals pursuing their professional career in schools and communities.

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.

Allen Huang
Dean of the Graduate School
Introduction

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.

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 elected to serve three-year terms.

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

At the time of appointment, graduate faculty are authorized to teach graduate courses, act as program advisors for graduate students, serve on doctoral committees, and serve on other university committees pertaining to graduate education at UNC. Graduate credit 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.

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

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

Office of the Graduate Dean

Location: Carter Hall 2007  Telephone: 970.351.2831
Dean: Allen Huang, Ed.D.
Center for International Education
Joyner House, 1947 10th Avenue  970.351.2396
Sponsored Programs and Academic Research Center
Kepner Hall 0025  970.351.1907

Introduction

The first graduate degree, a master’s degree, was offered by UNC in 1913. 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 most recent degree, the Doctor of Audiology, was added in 2003.

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.

Students seeking graduate credit must display evidence of superior academic aptitude, achievement, and motivation. Moreover, the demonstration of competence in the discipline as evidenced by written and oral exams, theses, research projects, directed studies, and internships is an integral part of the graduate education experience. Through cooperative efforts of the graduate faculty, the Graduate Council, and the Graduate School, the university seeks to establish an environment in which the graduate student and the graduate faculty can achieve the traditional goals of graduate education.

Academic Recognition (Graduate Dean’s)

Citation for Excellence

The Graduate Dean’s Citation for Excellence is awarded each semester to students nominated by their department in recognition of superior achievement in their graduate studies. Each department may recommend graduate students completing their programs during a specific term (fall, spring or summer) 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.

The nomination should be supported by:

• written recommendations from graduate faculty of the academic program outlining the student’s accomplishments and/or,
• special recognition by an agency or organization (outside UNC) for scholarly accomplishment, academic achievement or contributions to society, 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.

Citation for Outstanding Thesis and Dissertation

The Graduate Dean’s Citation for Outstanding Thesis and Dissertation may have four awards each semester: two for
outstanding master’s thesis and two for outstanding doctoral dissertation. Faculty may nominate a thesis or dissertation by submitting a letter of nomination that specifies contributions of the study to the discipline.

GRADUATE POLICIES AND PROCEDURES

ADMISSION APPLICATION

Faculty members in each degree program establish admissions standards for the specific degree program which often exceed the minimum standards. Applicants should consult program brochures, departmental offices or faculty in the degree program(s) of interest to them for any additional admission requirements.

If departments set deadlines for review of applications for admission for any term, they must allow sufficient time for Graduate School handling and evaluation. This typically means they must ask students to submit materials early enough to allow at least 20 working days for the Graduate School to complete all processing upon receipt of a completed application prior to sending it to the department for screening. It is particularly important for programs requiring GREs and having early admission deadlines to notify applicants of this requirement. The Graduate School does not set standard priority admission deadlines, but encourages each program to determine what specific deadlines they will use and to work closely with the Graduate School to ensure these deadlines are feasible.

Admission Application Checklist

1. Complete the appropriate application forms
2. Obtain two official transcripts from ALL institutions (except UNC)
3. Submit Graduate Record Examinations (if applicable)
4. Obtain letters of recommendation (if applicable)
5. Check department/program requirements
6. Include the non-refundable processing fee
7. Submit all required application materials to the Graduate School
   - Interdisciplinary Admission Application on page 213
   - International Education Admission on page 214
   - Master’s Admission on page 219
   - Doctoral Admission on page 222

For additional information refer to the Graduate School application or online at: http://www.unco.edu/grad/general/home.htm

Admission Expiration

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

Conditional Admission

Conditional admission refers to applicants admitted pending the receipt of admission requirements specified by the Graduate School. No student will be permitted to register for an additional semester, receive financial aid or take the comprehensive examination or its equivalent unless the specified requirement(s) is met during the first semester of the student’s program.

Extended Degree Programs

Students applying for admission to extended degree programs must meet the same criteria for admission as on-campus students. Additional policies regulating extended degree programs can be found in the Statewide Extended Campus Policies and Procedures Manual available at the Office of Extended Studies located in the Center for Professional Development.

INTERDISCIPLINARY STUDIES: GRADUATE INTERDISCIPLINARY DEGREE

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, the student will require close supervision, participation, and coordination from all assigned committee members of each discipline concerned. It is imperative that the program be truly interdisciplinary and represent an integration of the subject matter of the component disciplines. Programs that parallel other degree programs are not acceptable as interdisciplinary degree programs. Applicants 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. Two official copies 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 EdD). Secondary disciplines may also be included.
7. A current resume that summarizes academic and professional experiences, activities, publications, and other pertinent information.

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

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

Upon receipt of the application materials from the Graduate School, the GIDP College Coordinator and the faculty in the appropriate disciplines evaluate the application and recommend to the Graduate School 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 deficiencies in his/her background, the proposal must list the course work necessary to alleviate those deficiencies. (Deficiency courses must be completed at the earliest possible date).

2. SRM 600 or one of the research oriented substitute courses approved by the Graduate Council (master’s) or a 12 hour research core (doctoral) must be proposed. The proposal must also contain at least one additional research methods, statistics, or applied research course (i.e. computer science, tests/measurements, etc.).

3. Secondary disciplines (departments/divisions/schools) are defined as those disciplines in which nine (9) to eleven (11) semester hours of course work are proposed at the master’s levels or those disciplines in which nine (9) to fourteen (14) semester hours of course work are proposed at the doctoral level. If identified in the program proposal, these disciplines must assign an advisor and approve the selected course work.

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 numbered 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 department chairpersons. Until an approved plan of study is filed with the Graduate School, a hold is placed on an interdisciplinary student’s ability to register for classes.

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 to 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 student must recommend at least one additional graduate faculty advisor, subject to approval by his/her department chairperson 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 departments will be notified by letter regarding program approval or disapproval. If approved, the student will be granted regular admission. NOTE: Until such a letter is received, the student remains on provisional admission status. The decision of the GIDP Coordinating Committee and the Dean of the Graduate School shall be final.

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

Committees. At the doctoral level, the Program Advisory Committee plus a graduate faculty representative appointed by the Dean of the Graduate School shall serve as the doctoral committee. The doctoral dissertation proposal and dissertation shall be under the supervision of a research advisor who is a member of the graduate faculty and holds doctoral research endorsement.

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

All Graduate School policies apply to interdisciplinary students.

INTERNATIONAL EDUCATION ADMISSION

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

All application materials and all related credentials must be received by the Graduate School no later than 90 calendar days before the semester that the student wishes to enroll. All international applicants must take these steps to be considered for admission:

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

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

3. Submit the “Financial Statement for International Students” and “Affidavit of Support” forms (evidence of adequate financial support). These forms are attached to
Students at UNC. The Intensive English Language Program allows international student applicants whose English language proficiency fails to meet the minimum admission standard to gain conditional admission pending completion of English language training and a successful outcome on the Test of English as a Foreign Language (TOEFL). Applicants for admission whose TOEFL scores are below 550 (paper version) or 213 (CBT) cannot apply for conditional admission to UNC. However, for applicants whose TOEFL scores are at least 475 (paper) or 150 (CBT), the IELP allows international student applicants to register as full-time students to improve their English proficiency. Applicants who have at least a 475 on the paper version of the Test of English as a Foreign Language (TOEFL) or at least a 150 on the Computer-Based Test and are academically admissible can qualify for the IELP. The university also accepts the results of the International English Language Test (IELT) with a minimum score of 4.5. A current TOEFL score is required for all international students applying for admissions to UNC.

Qualification Criteria. Applicants must show evidence of English language proficiency by submitting one of the following:

a. Official score reports of current Test of English as a Foreign Language (TOEFL) (minimum score for regular admission is 550--Computer Based Test (CBT 213) for a graduate student or 520--Computer Based Test (CBT 190) for an undergraduate student and 550 Computer Based Test (CBT 213) for an undergraduate student applying for business or results of the International English Language Test (IELT) (minimum score of 6.0). Additionally, subscores may not be lower than the equivalent total score.

b. Transcripts showing a bachelor's degree in the United States or one year of full-time study at a regionally accredited college or university in the United States with a cumulative GPA of at least 3.0.

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

5. International students who are not native speakers of English or who have not received their undergraduate degree from a U.S., British, Canadian, or Australian university are required to provide evidence of English language proficiency by taking a valid English proficiency test. Based on their TOEFL score at the time of admission and their academic performance, international students may be granted a conditional admission status until approved to do so by the Director of the Center for International Education.

International applicants whose academic record is sound but who have not earned the minimum admission requirement for conditional admission to UNC may be considered for conditional admission status on the basis of their TOEFL scores. Additionally, the TOEFL requirement may be waived for applicants who have earned their undergraduate degree from a U.S., British, Canadian, or Australian accredited college or university. Applicants who have at least a 475 on the paper version of the Test of English as a Foreign Language (TOEFL) or at least a 150 on the Computer-Based Test and are academically admissible can qualify for the IELP. The university also accepts the results of the International English Language Test (IELT) with a minimum score of 4.5. A current TOEFL score is required for all international students applying for admissions to UNC.

Classes Offered in the IELP. The purpose of the program is to increase the language proficiency of students to a level at which they can fully benefit from being a regular student at UNC. Classes offered include intermediate, high-intermediate and advanced level ESL. Courses include English reading, writing, listening, speaking and grammar. The IELP is offered fall, spring, and during one summer session each year.

Length of the IELP. The length of the program varies for each student, depending upon TOEFL score, the score the student achieves on the IELP Entrance Assessment Test administered by the Center for International Education, and performance in the CIE English classes. For more details about the program see www.unco.edu/cie.

All Students - General Information

Financial Aid, Rates and Student Fees on page 45.
"Policies and Procedures — All Students" on page 49.
"Registration" on page 52.
"Student Resources" on page 53.

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 faculty member who is pursuing an advanced degree at this institution.

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 student’s may count the work toward their residency requirement. Those students interested in this opportunity may obtain the guidelines and the proper form in the Registrar’s Office or from the Graduate School Office. Forms must be completed and approved before the term that a student proposes to take a course.
CONCENTRATED DELIVERY FORMAT (SHORT COURSES)

The following concentrated course delivery format is intended to provide guidance and a clear policy statement for short courses offered by UNC. All courses of brief duration should be consistent with these requirements. Exceptions to this policy may be granted by the appropriate academic dean for undergraduate courses and the academic and Graduate Dean for graduate courses. However, all courses, regardless of format, are expected to meet minimum CCHHE requirements (750 minutes of class contact per semester credit hour) and contain sufficient opportunities for reflection and consolidation of course content. Due to the nature of content, certain courses are not appropriate for concentrated delivery.

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<tr>
<th>Contact Minute Requirements</th>
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<td>1 credit hour</td>
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<td>2 credit hours</td>
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<td>3 credit hours</td>
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<td>5 credit hours</td>
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**Instructional Length of Day, Breaks, Lunches, Travel Time, etc.**

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

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

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

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

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

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

Preparation, Study and Reflection Time

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

CONTINUOUS REGISTRATION FOR GRADUATE STUDENTS

All graduate students must be enrolled for at least 1 credit hour each academic semester (fall and spring). Students register continuously from the time they first enroll in their graduate degree program until the semester or term in which they graduate. Students must also register for at least 3 semester hours the semester (or summer term) in which they take examinations (including written and oral comprehensive examinations or approved equivalent and dissertation defenses) and the semester (or summer term) in which they graduate.

Exceptions will be considered in these circumstances:

1. Students make a strong case that their life circumstances do not permit them to continue study for a prescribed period of time. These circumstances might include unforeseen financial burdens, family responsibilities, health problems, or other significant disruption or hardship. Leaves of absence are typically not granted for a period exceeding one year.

2. Students who enroll in summer terms may petition for summer term to count as one of the fall or spring semesters.

3. Students in summer-only programs and students in off-campus programs with course offerings not resembling on-campus term schedules may apply for exception. However, these students are also expected to adhere to the spirit of the policy, which encourages ongoing and sustained progress toward degree completion.

4. Programs, and not just individual students, may also apply for exceptions.

Transfer of credit from other institutions will not be considered in lieu of continuous registration.

Request for Exception. Students seeking an exception to the Continuous Registration Policy for Graduate Students are encouraged to follow procedures of the Graduate Student Petition for Exception. Students should complete the petition in a timely fashion so as to ensure their continued status with the university is protected. The form requires the student's completion and signatures by the student, program advisor, department chair/division director, and Graduate Dean.

Failure to Follow Continuous Registration Policy for Graduate Students. Students who fail to register continuously and are not approved for exception will be notified with a letter of warning the first semester during which they fail to enroll. At the end of the second semester of non-enrollment they will be classified as discontinued. Discontinued students will need to re-apply to the Graduate School and 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 re-admitted.

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.

For repeated courses, grades of “F,” “U” and “I” that have not been completed within the allotted time, the credit hours are bracketed on the transcript and not included in total credits.
**Coursework Counted in Next Higher Degree**

See: “Coursework Counted in Next Higher Degree” on page 57.

**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. Upon prior written permission of the instructor, the major advisor, and the department chairperson, an undergraduate student may take 500-level courses. Only those undergraduate students who have been previously approved to count work toward the next higher degree will be permitted to take 600-level courses.

All requests for multiple numbered courses must be simultaneously submitted to the Undergraduate Council and the Graduate Council for approval.

All new requests for multiple numbered courses should try to pair a 500 level course with a 400 level course.

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

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 the 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.

**Distance Delivered Course Credit**

Courses delivered through alternative means (e.g., distance delivery, independent studies, communications technology or computer assisted delivery) must be approved by the sponsoring department, 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.

**Enrichment Credits from Other Institutions**

At the request of the student or the department, the Graduate Dean may approve the graduate student to attend another accredited institution offering graduate degrees to earn a maximum of 10 semester hours of specific course credit.

**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 General Education course may be double-numbered allowing undergraduate and graduate level students. No course identified as an undergraduate General Education course may be double-numbered allowing undergraduate and graduate level students. This process must occur no later than three weeks prior to the end of the semester that the student plans to graduate. Courses requested for transfer must meet all criteria for credit transfer (see general transfer policies) to be approved by the Graduate School.

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

The Graduate School may place holds on the registration of students that 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 nine semester hours.

A maximum of nine 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.

VARIABLE TOPIC COURSES

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

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

- **Specialist:** For baccalaureate only students, a maximum of 12 semester hours of 508, 513 or 622, individually or in combination, will be counted toward a specialist degree.

GRADUATE PROGRAMS

See “Certificate Programs” on page 231.
See “Doctoral Degrees” on page 232.
See “Doctoral Minors” on page 251.
See “Educational Specialist Degrees” on page 254.
See “Endorsement and Licensure Programs” on page 255.
See “Master’s Degrees” on page 259.

PROGRAM REQUIREMENTS

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 understand the expectations and requirements of their academic programs and planning their programs to satisfy all requirements. The program advisor is responsible for assisting students with questions regarding their academic programs such as expectations for comprehensive examinations, theses, or internships, as guided by department, university and Graduate School policies and procedures. The program advisor is also responsible for professional advising and guidance including assisting students with planning for their academic and professional future.

It is the responsibility of the department to notify the Graduate School of the advisor assignment and any change in advisor assignment. Any advisor-approved deviations from published program requirements or plans of study are communicated to the Graduate School, in writing, by the program advisor to assist the graduation check process.

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.

CHANGE OF MAJOR

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

If a student is admitted in a degree program and if the student desires to change programs, the student must complete a Request for Change of Major form and receive appropriate department approvals.

Note: A change of emphasis is a change of major.

COMPREHENSIVE EXAMINATIONS, WRITTEN

Also see specific degree requirements. Records of written comprehensive examinations are maintained in the departmental office for a period of 12 calendar months. These examinations are to be confidential and only available to the student who completed an exam and department faculty to address potential appeals and/or questions of administration and grading procedures. Students may request to review their comprehensive examination but may not be allowed access to written responses of other students. Past comprehensive examination responses with identification removed can be used by program faculty as models for instructional purposes.

ENGLISH COMPETENCY: SPOKEN AND WRITTEN

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

GRADUATION REQUIREMENTS

Graduation requirements are checked in accordance with one specific university Catalog. The Catalog used to meet graduation requirements is normally the one published for the academic year during which the student first enrolls after admission to the university. The student must specify the Catalog under which he/she wishes to be evaluated and must meet all requirements in that Catalog.

The student may select any subsequent Catalog up to and including the current one, provided the student was in attendance at the university during that academic year. However, a student may not choose to meet some requirements in one Catalog and other requirements in another Catalog.

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 for a letter of completion. A letter of completion can be issued only after all the degree requirements have been officially verified as completed including posting of grades for the current semester by the Registrar.

PETITION FOR EXCEPTION

Graduate students may petition for exceptions to certain procedures, rules, policies, and requirements.
The Graduate Student Petition for Exception forms are available in department offices or on the Graduate School website. When petitioning for an exception to a rule, policy or requirement, the student will explain how the exception would enhance the academic program, allow the continuation of a productive academic program, allow recovery from lost opportunity due to health or traumatic events or allow the student to profit from a unique educational opportunity. If the student's former program was terminated due to failure to pass the comprehensive examination or approved equivalent in the new program, the student will describe specific steps, proposed scheduling and evidence of progress toward completing program requirements. Signatures of the department advisor and department chair indicating approval of and support for the request will be required on this form prior to submitting the request to the Graduate School.

**Program Termination**

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

- Based on an overall evaluation of a student's progress, the major department recommends that the student's program be terminated;
- the department declines to issue a letter of continuation based on an overall evaluation of a specialist or doctoral student's progress;
- in order to remain in a graduate program, a graduate student must maintain a cumulative grade point average of 3.00 in graduate level courses. A graduate student may not graduate with a cumulative grade point average below 3.00. If the student's cumulative grade point average drops below 3.00 after taking at least 9 graduate level credit hours, a warning letter will be sent to the student. The degree program of a student who has been sent a warning letter will be terminated if the student's grade point average is below 3.00 after completing an additional 9 or more graduate level credit hours in which grades of “A,” “B,” “C,” “D,” or “F” are earned. All grades earned during the semester that the 9th hour is earned are used in the calculation of the grade average;
- fails the retake of the written comprehensive examination or its approved equivalent;
- fails the retake of the oral comprehensive examination; or
- submits an unsatisfactory thesis or dissertation.

**Readmission Subsequent to Program Termination**

A student whose degree program has been terminated may be admitted to a different degree program. The following policies apply:

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

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

**Master's Degree, Specific Requirements**

**Master's degrees (M.A., M.A.T., M.M., M.P.H., M.S.)** are awarded for a level of academic accomplishment substantially beyond that required for the baccalaureate degree. Programs consist of a coherent pattern of courses, seminars, and supervised learning experiences that culminate in a comprehensive examination and, in some cases, a thesis. Master's programs require a minimum of 30 semester hours beyond the baccalaureate degree plus additional time in preparation for comprehensive examinations and thesis writing.

**Master's Admission**

Each applicant to a master's degree program must possess a baccalaureate degree from an accredited college or university.
and have a grade point average of 3.00 or better on a [4.00 point scale] on the most recent 60 semester hours.

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

**Double Major**

Only one degree will be awarded (e.g. M.A., M.A.T., M.M., M.P.H., M.S.) and only one degree will be reflected on the transcript, but both majors will be noted. The student must specify, therefore, which degree is to be used for degree purposes. Double majors must meet all requirements and must apply for, take, and pass the comprehensive examination or approved equivalent in each major. No degree will be awarded until all requirements for both majors are complete.

If a student is interested in obtaining two master's degrees, it is recommended that they complete one degree program completely before applying to the other. Students are commonly advised that it is most often to their advantage to seek a higher degree (specialist or doctorate) upon completion of a master's degree rather than obtaining two master's degrees. Additional consultation from the student's program advisor or the Graduate School regarding a decision to declare a double major to seek two master's degrees should be pursued.

**Drop of Double Major**

A student with a double major may drop one of the majors before taking either comprehensive examination only if he/she has a UNC grade point average of 3.00 in the major being dropped. Once a student has taken the comprehensive examination for one of the majors, 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. Departments 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 and Specialist Degree Policy.** Students must complete a minimum of 24 credits through the University of Northern Colorado as part of their master's degree or post-master's specialist degree. Thus, students can transfer up to six (6) credits from another accredited institution, that offers graduate degrees, into a 30 credit hour master's or specialist degree program. If the program requirements exceed the minimum 30 credits, students are allowed to transfer additional credits as determined by the department or program faculty. Students without a master's degree must complete 48 semester credit hours at UNC of the 60 required credits for a specialist degree. Students are encouraged to check departmental policies regarding transfer of credit.

  These policies allow programs that exceed the 30 credit minimum for a master's specialist to establish departmental 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**

**Comprehensive Examinations**

**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 of at least two graduate faculty members is required. If the thesis is in lieu of the written comprehensive examination, departmental procedures for determining comprehensive examination eligibility are to be used prior to conducting the thesis research and at least two signatures from graduate faculty members must be obtained to indicate the successful completion of the thesis.

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 at 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 and specialist degree student must pass a written comprehensive examination or otherwise show competency in the discipline by successfully completing a department specified equivalent that has been approved by the Graduate Council (thesis or project in lieu of comprehensive examinations). Defense of a project or thesis in lieu of comprehensive examinations is equivalent to administering the comprehensive examination.

The major department is responsible for determining the student's eligibility for taking the examination as well as scheduling the time, date, and place of the examination. This examination or its approved equivalent may not be taken until the student has:

- been granted regular admission to the program
- completed departmentally specified course requirements
- maintained a GPA of at least 3.0 in their program
- received approval from the program advisor.

Application. The student will apply in the academic department 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, 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 (project for Specialist students), the program advisor must return the signed report form to the Graduate School indicating a pass or failure of the examination. This must be done on or before the published deadline to submit the results of the written comprehensive examination for that semester.

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.

220 - Graduate School
Filing the Thesis (Master’s). One original and three copies of the thesis plus an additional copy of the abstract (150 words) must be submitted to the Graduate School along with a non-plagiarism affirmation form. These items must be submitted to the Graduate School at least four weeks (28 calendar days) before the student’s anticipated graduation date. Upon filing a thesis, the Graduate School will require each student to complete specific forms related to the thesis and will be billed the current fees for binding, mailing, publishing, and microfilming, as applicable.

All four copies of the thesis will be bound. After binding, the original and one copy will be filed in the university library, one copy will be forwarded to the student’s research advisor, and one copy will be sent to the student.

Graduation Application

All master’s and specialist students must apply for graduation no later than the end of the semester preceding the semester that a student plans to graduate. A late fee will be assessed for late applications. The student has the responsibility for determining that the application has been filed with the Graduate School. The Graduate School will not 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.

Plan of Study

The program listed in the university Catalog will serve as the plan of study for master’s programs.

Written requests for changes or substitutions in the plan of study must be signed by the program advisor and submitted to the Graduate School. Students should take the responsibility to make sure any deviations from the Catalog are documented in their Graduate School file. Departments are also encouraged to identify any deficiency courses a student must complete at the time of screening for admission.

Research Requirements

Master’s and Specialist 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. Departmental 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. 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.

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 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 departmental lines but are not offered in all discipline areas. The degree requires a minimum of 30 semester hours beyond the master’s degree.

Specialist Admission

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

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

Transfer Credit

See “Transfer Credit” on page 220.

Variable Topic Courses

See “Variable Topic Courses” on page 218.

PROGRAM REQUIREMENTS

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
- and see requirements under “Written Comprehensive Examinations” on page 220.

Graduation Application

See “Graduation Application” on page 221.
Research Requirements
See: “Research Requirements” on page 221.

Plan of Study
In conjunction with the supervising committee, each specialist degree student must plan a program of study that clearly identifies core requirements and identifies elective, transfer, and double numbered course work.

The plan must be formalized on a Plan of Study form and 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 from the Dean of the Graduate School, a post-doctoral student in conference with a faculty committee appointed to advise the student throughout the post-doctoral program and to assess the student's progress at the end of the program.

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 five years of the earliest work counted in the program (which would include transfer credit and unclassified hours).

Doctoral Degrees, Specific Requirements

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

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

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

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

Supervising Committee
A two-person specialist supervising committee, recommended by the department, 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.

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

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

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

Doctoral Admission
Each applicant for the doctoral degree must:
- Possess a baccalaureate degree from an accredited college or university,
- Submit three letters of recommendation confirming that the applicant has the ability to do doctoral work in the proposed discipline(s),
- Have a minimum level of achievement combining GPA and GRE performance,
- GRE scores must be less than five years old.

Doctoral applicants meet the Graduate School minimum criteria for admission if they have a GPA of at least 3.0 on a 4.0 scale on the most recently completed degree, scores of at least 400 on both the verbal and quantitative sections of the GRE-General Test with a combined score of at least 1000 and an analytical writing score of at least 3.5. A higher GRE score can compensate for a lower GPA and a higher GPA can compensate for a lower test score. For doctoral applicants who do not meet Graduate School requirements, the Graduate School will consider departmental recommendation for admission. A written explanation must accompany the recommendation explaining circumstances and factors considered justifying acceptance of the applicant.
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 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.

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

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

Doctoral Minor

Doctoral minors consist of a minimum of 15 semester hours of course work in a discipline different from the doctoral program. Any department with at least one approved graduate degree program (master's, specialist or doctoral) is eligible to offer doctoral minor(s). With department and college approval to offer the doctoral minor the proposal is 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 program of study for inclusion in their doctoral program.

The credit hours associated with an approved doctoral minor would count toward the total doctoral degree program hours required only when they overlap with electives or research core requirements. No course would be allowed to count for double credit hours. Students would not be allowed to pursue a minor offered under the same program name as the doctoral program to which they are admitted. To complete a minor, the student must first be officially admitted to a doctoral degree program.

Master's Enroute to the Doctoral Degree

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

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, the program advisor, and all members of the doctoral committee. Departments 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 department policies regarding transfer of credit.

These policies allow programs that exceed the 64 credit minimum for a doctoral degree to establish departmental 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.

Program Requirements

Comprehensive Examinations

Each doctoral student must pass a written comprehensive examination that is designed, administered, and evaluated by the graduate faculty of the major department and by other qualified individuals as specified by the program advisor. This examination may not be taken until the student has:

- been granted regular admission to the degree program;
- filed an approved plan of study;
- completed at least 36 semester hours (60 semester hours if baccalaureate only student) of work applicable toward the degree -- at least 24 semester hours must have been completed on-campus;
- maintained a grade average of at least 3.00 in his/her graduate degree program;
- had a doctoral committee appointed;
- obtained approval from the program advisor to take the exam.

The major department is responsible for scheduling the date, time, and place of the examination(s). Each student must check the departmental requirements at the beginning of his/her program.
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.

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

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.

**Comprehensive Examinations, Oral**

After passing the written comprehensive examination, each doctoral student must pass an oral comprehensive examination. Permits for the oral comprehensive examination will not be released and the oral examination will not be authorized until the written examination report is filed with the Graduate School indicating that the student passed the written examination.

The results of the written comprehensive examination must be on file in the Graduate School two weeks prior to the scheduling of the oral comprehensive examination.

The program advisor, who will serve as chairperson of the oral comprehensive examination committee, shall direct the student to arrange the date, time, and place of the oral examination. After all arrangements have been made, the student or program advisor will notify the Graduate School by forwarding a completed Request to Schedule Doctoral Examinations form two weeks (14 calendar days) before the exam date. Requests submitted with greater advance notice are encouraged and appreciated. The student’s performance on the examination will be evaluated as (a) pass, (b) will pass if meets stated conditions, (c) unsatisfactory, retake permitted, (d) fail, retake not permitted, program terminated. At least three-fourths of the committee members must agree on the final evaluation.

The Graduate School will approve and publicize the examination date, time and place in the UNC REPORT or in any other appropriate university publication.

All members of the faculty are invited to attend and may ask questions of the student after the committee members finish their questioning. Other graduate students may also attend with permission from the chairperson of the committee.

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

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

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

**Doctoral Committee**

Besides the doctoral program advisor appointed by the department, each doctoral student will have a doctoral committee. At minimum, a doctoral committee must consist of a chair or co-chair who holds doctoral research endorsement; a faculty representative who has graduate faculty status (with or without DR); and two departmental faculty members (or a representative from a supporting area, if applicable, and a departmental/program member).

The Dean of the Graduate School or his/her designee will appoint a faculty representative from another department. The student may nominate a faculty representative from outside the program discipline. The final approval of the faculty representative is the responsibility of the Graduate Dean. The faculty representative is a full voting member with all the rights and responsibilities of any other member and must be present at the student’s doctoral oral examination and dissertation defense. The faculty member must hold graduate faculty status and should be in a department program unit different from that of the student’s program. The faculty representative is expected to contribute conceptual, theoretical, methodological and/or academic expertise from an alternative disciplinary perspective.

No faculty member will be appointed to a doctoral committee without his/her consent. University employees who are not members of the graduate faculty shall not be appointed as members of doctoral committees.

The doctoral committee must be appointed before the written comprehensive is taken. The appointment shall occur no later than the end of the semester prior to the scheduled comprehensive examination. The student and all members of the doctoral committee will receive confirmation of the approved committee assignments.

Unless the student or committee chairperson otherwise informs the Graduate School or the Graduate School informs the student of the need for a change, the doctoral committee membership will remain the same from the oral comprehensive examination throughout the dissertation research stages of the program. The Graduate School will confirm that the student’s committee membership is appropriate as a doctoral research committee at the time the Graduate School receives the results of the oral examination. The research committee is comprised of a chair who is doctoral research endorsed or is a graduate faculty member co-chairing with a doctoral research endorsed member of the graduate faculty, at least two departmental graduate faculty members (or a representative from a supporting area, if applicable, and a departmental/program member), and a faculty representative.

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

The concerns and recommendations of all committee members, including the faculty representative, are crucial to the dissertation approval process. The student and all members of the doctoral committee will receive confirmation of the approved committee assignments.

**Faculty Committee Load Policy**

An individual graduate faculty member may serve on ten active doctoral research committees at any one time and may serve to the Graduate School’s director or research advisor for no more than five of these ten committees. Exceptions to the committee maximums may be permitted only if agreed to by the graduate faculty member, department chair and college dean as follows:
• The faculty member involved agrees that his or her load (current or projected) allows adequate time to take on an additional student without adversely affecting the responsibility of the department to other students and to programs offered by the department.

• The department chairperson approves the additional student. Approval indicates that the chairperson has reviewed the current load of the faculty member and does not feel the additional load will adversely affect the responsibility of the department to other students and to programs offered by the department.

• The Graduate Dean has approved the exception(s).

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

Graduation Check

Upon admission to doctoral candidacy, the Graduate School will conduct a preliminary graduation check of those doctoral students newly admitted to candidacy. Any discrepancies between the transcript and the plan of study must be corrected with either a new plan of study or a correction memo initiated by the advisor. Upon receipt of the preliminary graduation check, the student must thereafter notify the Graduate School in writing the semester he/she wishes to graduate. Therefore, doctoral students will not need to file an application for graduation.

All graduating students are encouraged to attend graduation. Those students participating in the graduation ceremony are required to wear appropriate academic regalia. Diplomas are not issued at the graduation ceremony. They will be mailed to addresses supplied by the students to the Graduate School. Failure to supply the mailing address could result in a delay in receipt of the diploma. No diploma will be issued until all requirements for graduation have been met.

Hooding. The candidate’s research advisor shall hood the candidate at the graduation ceremony.

Plagiarism

The following is the approved definition of plagiarism: Plagiarism is the act of appropriating the written, artistic, or musical composition of another, or portions thereof; or the ideas, language, or symbols of same and passing them off as the product of one’s own mind. Plagiarism includes not only the exact duplication of another’s work but also the lifting of a substantial or essential portion thereof.

Regarding written work in particular, direct quotations, statements which are a result of paraphrasing or summarizing the work of another, and other information which is not considered common knowledge must be cited or acknowledged, usually in the form of a footnote. Quotation marks or a proper form of indentation shall be used to indicate all direct quotes.

As long as a student adequately acknowledges his/her sources and as long as there is no reason to believe that the student has attempted to pose as the originator, the student will not be charged with plagiarism even though the form of the acknowledgment may be unacceptable. However, students should be aware that most professors require certain forms of acknowledgment and some may evaluate a project on the basis of form.

Plan of Study

A committee of at least three persons appointed and approved by the major department and, if applicable, by any supporting area department shall supervise the planning of a student’s doctoral degree program. In conjunction with the doctoral committee, each doctoral student must prepare a long-range plan of study that clearly specifies core requirements, elective, transfer, double-numbered course work, research tools (if applicable), and doctoral minor (if applicable).

The plan must be formalized on a Plan of Study form and the completed form, including the signatures of the program advisor and committee members, if required by the department, 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 disapprove the plan. If approved, the Plan of Study form will be filed in the student’s folder. If disapproved, the Plan of Study form will be returned to the student for correction and re-submission. Because the plan of study will be the basis for the graduation check, any departure from the plan of study must be approved by the program advisor and the Dean of the Graduate School or his/her designee. Requests for changes to the plan of study must be approved by the advisor and submitted in writing to the Graduate School with copies sent to all committee members.

Progress Review

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 and reporting at least the following information for each assigned advisee:

• Student’s self evaluations of their academic performance and professional development.
• Student’s grades in all graduate courses during the evaluation period.
• Performance ratings from instructors for all graduate courses during the evaluation period.
• Assessment of the student’s professional development from appropriate departmental faculty. Based on the data collected, each doctoral advisor will meet with each student’s doctoral committee to develop and provide a summary of the student’s strengths and area(s) for improvement. Emphasis should be placed on acknowledging accomplishments and professional growth where appropriate.

Recommendations for improvement should include specific changes expected in the student’s performance or behavior, means of assessing the changes, and the time period by which the change is expected to occur. Improvements or lack of change in areas recommended from prior progress reports should be documented signatures of the advisor and all committee members are required on the progress report.

The progress report will include a clear recommendation to the chair of the Department Graduate Program Committee (DGPC) of whether the student is to be continued each year without conditions, continued with conditions, or not supported for continuation. If conditions for improvement are stipulated, the student must be informed by the Department Graduate Program Committee (DGPC), in writing, of the conditions and specific changes required to satisfy the conditions. If the department does not have a DGPC, the report will be submitted directly to the chair of the department.

The following procedures must be followed prior to submitting a recommendation to discontinue a doctoral student’s program for causes other than poor academic performance:

• The student must be informed of the pattern of behavior or incident(s) that has given rise to concern among the departmental faculty members and that led to the recommendation for program discontinuation.

• The student must be given an opportunity to meet with and address the observed behavior or incident with the Department Graduate Program Committee (DGPC) or with the student’s doctoral committee for departments with no graduate program committee. Following the meeting, the DGPC or doctoral committee must either reassert the concerns or withdraw the concerns in writing to the department chairperson.
If the complaint arises from an unprofessional behavior or other behavioral concerns, the student will be given a clearly defined probationary period during which clear behavioral objectives are provided to either rectify the concerns or change the behavior. Clear means of assessing improvement will be provided.

If the complaint results from an egregious violation of laws or published university or departmental policy, rules or professional ethics, clear documented evidence of the incident(s) must be provided with the recommendation.

Copies of the progress report are to be provided by the DGPC or student doctoral committee to the department chair/division director no later than April 15 of each year and copied to the student. A chair/division director may agree or disagree with the DGPC’s or doctoral committee recommendation. If in agreement with the recommendation, the department chair will invite the student’s program advisor and the DGPC chair or doctoral committee members to discuss the disagreement. After the meeting, the DGPC chair or student’s doctoral advisor will approve and submit the original progress report recommendation to the Graduate Dean with a copy to the college dean and student.

or

Modify and submit the recommendation to include conditions agreed to by the department chair/division director and DGPC or doctoral committee (or add conditions) to the Graduate Dean with a copy to the college dean and student.

or

Change and submit the recommendation as agreed to by the department chair/division director and DGPC or doctoral committee with explanation any additional documentation and acknowledged from the department chair/division director and DGPC chair or doctoral committee members. The advisor and DGPC members or doctoral committee members may submit additional comments or documentation to support the DGPC chair’s decision or to express opposition to the chair’s decision. The changed recommendation will then be submitted to the Dean of the Graduate School with a copy to the college dean and student.

Proposal and Dissertation

A dissertation pertaining to a significant topic in the candidate’s major subject field is required for each doctoral program. The dissertation proposal (797) is 4 semester hours. Minimum credit for the doctoral dissertation is 12 semester hours. Any program requirement exceeding 12 credits of dissertation hours must first be approved by the Graduate Council and Graduate Dean.

A dissertation proposal is to be developed and presented to the student’s doctoral committee for approval and submitted to the Graduate School prior to engaging in final data collection. Preliminary data collection necessary for developing appropriate skills and methods pertaining to the project is acceptable prior to approval of the proposal. All 797 and 799 hours will result in a grade of “NR” until the completion of the proposal and final dissertation. Upon successful completion of the dissertation and submitting the Report of the Dissertation Defense form to the Graduate School with approval signatures, the Graduate School and Registrar are authorized to change all prior grades for 799 to “S”.

The proposal is a crucial step in the dissertation process and should culminate with a formal and public dissertation proposal hearing. With the full committee present. Approval of the dissertation proposal establishes the expectations for the final dissertation and assures agreement among the committee with the student’s methods and research strategy prior to proceeding to the final stages of the project. The proposal hearing also allows the committee to introduce required changes or additions to a student’s proposed project while changes are still possible. The student should consult department procedures for scheduling the defense of the proposal.

Candidacy. Doctoral students advance to candidacy upon passing the written and oral comprehensive examinations and filing an approved dissertation proposal in the Graduate School.

Research Proposal. The student should confirm the composition of the research committee prior to registering for 797. This same committee will serve as research and oral comprehensive exam committee. When a student wants to conduct research is deemed appropriate by the student and student’s research advisor. If there is to be a difference in the doctoral committee structure for the oral comprehensive examination and the dissertation research, the student must submit a change of committee membership form to the Graduate School.

Students should prepare their dissertation proposal in collaboration with their research advisors. Dissertation proposals and proposal hearings are required for all doctoral students. Other committee members are to be consulted when appropriate but the major interaction and editorial work should be with the student’s research advisor. Students shall avoid sending portions of the dissertation proposal to all committee members for their review and comment.

Unless otherwise agreed by the committee members, only completed copies of the proposal or dissertation are to be distributed and reviewed by the committee.

The proposal is then presented to the student’s entire committee at least three weeks prior to the scheduled formal proposal hearing. Arrangements for a room are made with the research advisor. Students must make sure all committee members are available and aware of the time and place. The faculty representative must be present at both the proposal hearing and the final dissertation defense which will be a public hearing open to the academic community.

After the proposal hearing, the proposal is to be revised according to committee requirements. During the proposal hearing, committee members will direct questions to the student and point out concerns regarding the proposed project. It is a good idea for the student to take careful notes of all comments and concerns made and then review the notes with the committee before the hearing is over to insure that all the requested changes are included on the list. It will be the student’s responsibility, in consultation with the research advisor, to address those concerns in a revised proposal. It is recommended that the student summarize the changes that have been incorporated into the revised proposal to assist the committee in identifying and locating the changes that have been made.

The revised proposal should then be circulated with a signature page to the committee for review and signature if they approve of the revisions. A second committee meeting is optional but could be required by the committee due to the extensive nature of the expected changes or to expedite the approval process. All committee members’ signatures are required.

Filing Proposal. The approved proposal is then submitted to the Graduate School. The student shall sign the non-plagiarism affirmation when the proposal is filed and shall be told that another affirmation must be signed and filed in the Graduate School Office with the corrected dissertation proposal. Following the defense. All doctoral students must submit a paper copy of the signature page with signatures of all committee members. Students must also assume responsibility for maintaining their own paper copy of the entire proposal in a secure location until the time of their graduation.

Electronic submission. Students have the option of submitting a paper copy or electronic copy of the proposal narrative to the Graduate School. Doctoral students who elect to submit an electronic copy of their proposals must remain 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. Students wishing to submit electronic copies
should submit the proposal on high-quality floppy, zip, or compact disk. A description of the operating system and word processing system should accompany electronic submissions.

The Graduate School will consider the proposal to be accepted unless the Graduate Dean would otherwise. If the Dean objects, the proposal would be sent to the student and research advisor with specific written requests for revision. After submitting the dissertation proposal to the Graduate School, students may then register for departmental prefix 799, Doctoral Dissertation. Approval from the appropriate institutional review board (IRB for human subject research or IACUC for animal research) must be obtained prior to collecting data for the dissertation.

Dissertation Defense. The student will complete the project and write the dissertation in close collaboration with the research advisor. The student will submit a Request to Schedule a Doctoral Examination form to the Graduate School to request a defense date. The Graduate School will send the research advisor a copy of the confirmed schedule and a defense evaluation. The scheduled defense date must be at least two weeks (14 calendar days) following the request to allow for publicizing the defense to the academic community. Requests for defense submitted more than two weeks in advance are welcomed and appreciated.

The defense must occur at least five weeks (35 calendar days) before the anticipated graduation date or the student cannot graduate until the following semester.

All members of the graduate faculty may attend the defense and may ask questions of the student after the committee members finish their questioning. Other graduate students may attend with permission from the research advisor.

The research advisor should discuss the nature and purpose of the dissertation defense with the student. Generally, the student is instructed to prepare a brief description of the entire study from the purpose to the results and discussion.

The committee is free to ask any questions pertaining to the dissertation. The student is expected to understand all aspects of the study including the data analyses and theoretical implications and should avoid being unaware of the procedure or logic followed in the data analyses even if he/she contracted the services of a statistical consultant to complete the analyses. The committee will expect the student to demonstrate himself/herself as an expert on the topic and thesis of the dissertation. It should be recommended that the student bring copies of the signature pages for the dissertation to the defense in the event that the committee evaluates the performance as pass. They can then sign the evaluation form and the signature pages. The dissertation committee will evaluate the student's performance at the defense as well as the written dissertation as “pass,” “pass with conditions,” or “failure” on the Report of Defense of Dissertation form. If a student fails the defense, the research advisor shall obtain the signatures of the research committee members on the Report of Defense of Dissertation form and submit the form to the Graduate School. The Graduate School shall then notify the student that the degree program is terminated.

If the student passes the defense, the research advisor shall obtain the signatures of the research committee members on the Report of Defense of Dissertation form and submit the form to the Graduate School. The student shall proceed to make any corrections required by the research committee and submit the corrected dissertation to the committee members for their signatures. The student must provide all necessary copies of the signature page.

If the research committee requires the student to meet stated conditions, the research advisor shall list the conditions on the Report of Defense of Dissertation form, obtain the signatures of the committee members on the form, and submit the form to the Graduate School. The list of conditions must include a statement regarding the number of additional defense meetings authorized and the amount of additional time allowed by the research committee.

If the student subsequently satisfies the stated conditions, the research advisor shall obtain the original Report of Defense of Dissertation form from the Graduate School, shall obtain the signatures of the research committee members on SECTION II of the form indicating approval, and resubmit the form to the Graduate School. The student shall proceed to make any corrections required by the research committee and submit the corrected dissertation to the committee members for their signatures.

If the student does not meet the stated conditions, the research advisor shall obtain the original Report of Defense of Dissertation form from the Graduate School, shall obtain the signatures of the research committee members on SECTION II of the form indicating that they do not approve, and resubmit the form to the Graduate School. The Graduate School shall then notify the student that the degree program is terminated.

Dissertation Filing. After completing any necessary revisions and successful approval of the dissertation by the student's committee, one copy of the final dissertation is to be submitted to the Graduate School. The Graduate School will conduct an editorial review to check for grammar, spelling and formatting. The student will then be asked to make revisions and/or submit the additional three copies of the final dissertation for the Dean of the Graduate School to sign. The dissertation is not approved until signed by the Graduate Dean.

The original and each additional copy must contain an originally signed approval sheet and a 350 word abstract. Furthermore, the student must submit one extra copy of the abstract to the Graduate School for publication purposes.

If the dissertation is not filed with the Graduate School at least four weeks (28 calendar days) before the student's anticipated graduation date, the student may not graduate until the following semester.

Upon filing the dissertation, the Graduate School will require each doctoral student to complete specific forms relating to the dissertation and will bill the current fees for binding, mailing, microfilming, and publishing the dissertation. All four copies of the dissertation will be bound by the university. The dissertation will be microfilmed and the abstract will be published in Dissertation Abstracts.

After binding, the original and one copy will be filed in the university library, one copy will be forwarded to the student's research advisor, and one copy will be sent to the student.

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). If a formal objection is filed, the Dean of the Graduate School will appoint a review committee to assess the specific objection(s) of the dissenting dissertation committee member. If the review committee rules that the objection(s) does not justify the rejection of the study, the chairperson of the review committee will sign the dissertation in place of the dissenting faculty member. If the review committee rules that the objection(s) is valid, the student must take appropriate steps to modify the dissertation in order to gain the approval of the original dissertation committee.

Research Requirements

Research Core. Doctoral students must complete a departmentally prescribed core of at least 12 semester hours of research courses or methods of inquiry designated as appropriate to the discipline and approved by the Graduate Council. Departmental courses numbered XXX 622 (Directed Studies) shall not be used to substitute for courses in the research core.

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 advanced knowledge and/or set of skills related to a specifiable technique or method that contributes to the student's ability to conduct doctoral level research in the discipline. Departments will determine acceptable research tools such as languages, applied statistics, mathematical statistics, and computer languages/applications.

Collateral Field. With the approval of the major department and the Dean of the Graduate School, however, doctoral students may use a collateral field of study as a substitute for one of the research tools. A collateral field of at least 12 credit 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 their major discipline (e.g., advanced cognitive theory) applications of distance education technology or multimedia technology to the classroom. The level of competency and the assessment of competency is established by each department 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 department or program.

Residency Requirement

Each student must complete at least two terms of full-time study in residence after having been admitted to the doctoral degree program. A term in residence is defined as an academic term during which a student completes nine or more credit hours of on-campus course work applicable to the doctoral degree. Non-scheduled courses (e.g., internships, externships, directed studies and doctoral research) will not be counted in the nine or more credit hours unless a student also completes at least six other credit hours of on-campus course work applicable to the doctoral degree.

Departments may request approval of alternative requirements. Proposals for alternative residency requirements must assure extensive immersion in discipline research or practice under close supervision of departmental graduate faculty or field professionals approved for graduate faculty equivalent status. Further, alternative proposals should address how the requirements promote appropriate values and professional motivation of a doctoral student beyond the training or academic experience that the individual will receive. Approvals will be applicable only to the program(s) specified in the proposal. Proposals should be submitted as a program curriculum request in accordance with the current curriculum review process. Alternative proposals must be approved by Graduate Council and Graduate Dean prior to implementation for any individual student.

The purpose for this residency requirement is to encourage immersion of the doctoral student in the program of study, the department and the discipline. Part-time or sporadic participation in a doctoral program is discouraged. A residency requirement does not guarantee total focus on doctoral studies. It does extend the message that a doctoral program involves more than attending some classes and completing program requirements. It also includes refinement of professional values and developing the intrinsic motivation required to contribute to the discipline.

If a UNC or Aims Community College employee cannot meet the above prescribed residency requirement due to employment restrictions, he/she may satisfy the requirement by completing 20 or more credit hours of on-campus work applicable to the degree during consecutive, academic year terms. Such a student must receive written permission from his/her immediate supervisor and a recommendation from his/her major department to fulfill the residency requirements in this manner. The supervisor's permission and the department's recommendation must be filed with the Graduate School.

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.
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Certificate Requirements — 33 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 ANA certification upon program completion.
Prerequisites: Undergraduate physical assessment course, Master's degree in nursing.
Required FNP Certificate Credits — 33 hours
NURS 610 Health Assessment (3)
NURS 612 Advanced Pharmacology (4)
NURS 614 Advanced Pathophysiology (3)
NURS 640 Health Care of Families I (4)
NURS 645 Health Care of Families II (4)
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NURS 680 Advanced Practice Role Practicum (1-9)
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GERONTOLOGY GRADUATE CERTIFICATE PROGRAM (NON-DEGREE)

Certificate Requirements — 22 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. It is offered either on-campus or online by independent study.
Required Credits — 22 hours
GERO 560 Community Resources for the Elderly (4)
GERO 625 Family and Social Issues in Late Life (3)
GERO 630 Intervention Strategies with the Elderly (3)
GERO 635 Social Policies of Aging (3)
GERO 640 Health Aspects of Gerontology (3)
GERO 694 Practicum in Gerontology (3)
Advisor approved elective (3)

NURSING EDUCATION GRADUATE CERTIFICATE PROGRAM (NON-DEGREE)

Certificate Requirements — 12 Credits
The certificate in nursing education is intended to provide nurses with master's or doctoral preparation with advanced knowledge in nursing education and the academic role as an option for required doctoral electives/area of concentration. Master's prepared nurses and matriculated master's in nursing or doctoral students from other academic institutions may apply for admission. Candidates must possess the baccalaureate degree in nursing and be currently licensed as a registered nurse. Students must complete the required coursework with a grade of “B” or better. Application materials include a cover page with a statement of intent relative to nursing education and are available on the UNC School of Nursing home page at http://www.unco.edu/HHS/son/son.htm. Under school news click on new programs: Doctoral Minor or Certificate in Nursing Education. Completed applications should be submitted electronically prior to enrollment in the online nursing education course work. Applications will be considered on an open schedule.
Required Credit — 12 hours
NURS 630 Teaching Strategies in Nursing (3)
NURS 660 Nursing Education Seminar (4)
NURS 695 Advanced Academic Nursing Roles (2)
Nursing elective (3)

TRANSCULTURAL NURSING GRADUATE CERTIFICATE PROGRAM (NON-DEGREE)

Certificate Requirements — 10-11 Credits
Using Leininger's theory, the certificate in transcultural nursing prepares the nurse to provide culturally congruent and competent nursing care based upon qualitative analysis and other research methodology. Field experiences are a required component of the program offered in a summers only format. The certificate option is designed for master's in nursing students and senior level undergraduate nursing students.
Required Courses — 7-8 hours
Transcultural Nursing Courses (7-8 hours)
NURS 510 Concepts in Transcultural Nursing (3)
NURS 511 Advanced Transcultural Nursing and Research (2)
NURS 512 Transcultural Nursing Field Experience (2-3)
Graduate Elective — 3 hours
SRM 680 Introduction to Qualitative Research (3)
or
One additional elective with instructor approval.
DOCTORAL DEGREES

APPLIED STATISTICS AND RESEARCH METHODS PH.D.

Degree Requirements — 64 Credits

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.


Required Program Credits — 6 hours

SRM 689 Internship in Applied Statistics (3)

or

SRM 694 Practicum (3)

SRM 763 Apprenticeship (3)

Complete one of the following Concentration Areas:

Applied Statistics Concentration — 29 hours

SRM 606 Multiple Linear Regression Analysis (3)
SRM 607 Non-Parametric Statistics (3)
SRM 609 Sampling Methods (3)
SRM 619 Resampling Methods (3)
SRM 635 Categorical Data Analysis (3)
SRM 645 Statistical Process Control (3)
SRM 731 Multivariate Analysis (3)
Elective Credits (8)

Research Methods Concentration — 29 hours

SRM 521 Statistical Computing with SPSS (1)
SRM 625 Applied Multiple Regression Analysis (3)
SRM 627 Survey Research Methods (3)
SRM 670 Evaluation: Models and Designs (3)
SRM 680 Introduction to Qualitative Research (3)
SRM 705 Advanced Issues in Research Methods (3)
Elective Credits (13)

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 masters program.

Research Core — 13 hours

SRM 610 Statistical Methods III (3)
SRM 611 Advanced Statistical Data Analysis (3)
SRM 650 Research and Statistics Colloquium (4) (1 credit/term)
SRM 700 Advanced Research Methods (3)

Research Proposal/Dissertation — 16 hours

SRM 797 Doctoral Proposal Research (4)
SRM 799 Doctoral Dissertation (12)

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.
Graduate Programs, 2004-2005

BIOLOGICAL EDUCATION PH.D.

Degree Requirements — 64 Credits

This program is designed for graduate students interested in post-secondary discipline-based education in the biological sciences. Areas of emphasis prepare students to conduct and to supervise discipline-based pedagogical research at the university or college level or in content instruction at the two- and four year college level.

See “Biological Education (Ph.D.) Requirements” on page 3.

Master's en route to the Ph.D.

Students admitted to the Ph.D. program in Biological Education may complete a thesis master's degree in Biology en route to completion of the doctoral degree. A request for a simultaneous master's degree in a discipline other than Biology will not be accepted. The student, in collaboration with the student's advisor, will develop a dual plan of study that includes clearly distinct master's and doctoral requirements. The student will be required to meet all of the requirements of both the master's and the doctoral degrees. The student must graduate from the master's degree program a minimum of one semester prior to conferring of the doctoral degree. The maximum time allowed for completion of the doctoral is eight calendar years beginning with the students' first semester of enrollment after admission has been granted.

Pedagogical Elective Credits — 11-13 hours

- SCED 678 Science Education Seminar (1-2)
- SCED 680 Science Curricula in Secondary/College Settings (3)
- EPSY 540 Theories and Principles of Learning (3)
- SCI 591 Computer Applications in Science (2)
- BIO 682 Problems in Teaching College Biology (3)

Content Elective Credits — 21-22 hours

Basic Electives — 8 hrs-maximum (double numbered courses) With committee approval support science courses may be included.

- BIO 525 Molecular Genetics (3)
- BIO 530 Plant Taxonomy (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 540 Anatomy and Morphogenesis of Plants (4)
- BIO 550 Cell Physiology (4)
- BIO 554 General Plant Physiology (4)

Advanced Electives (13-14 hours — minimum)

- BIO 512 TA Development Seminar (1)
- BIO 521 Advanced Genetics (3)
- BIO 536 Advanced Invertebrate Zoology (4)
- BIO 544 Comparative Vertebrate Adaptations (4)
- BIO 545 Cytology (3)
- BIO 547 Immunology and Disease (4)
- BIO 552 Mammalian Physiology I (3)
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- BIO 555 Reproductive and Developmental 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 (4)
- BIO 561 Plant Ecology (4)
- BIO 569 Conceptual Issues in Evolution (2)
- BIO 571 Teaching Strategies for Biology Teachers (1)
- BIO 682 Problems in Teaching College Biology (3)

Research Core — 14-15 hours

- BIO 691 Seminar in Biological Sciences (1)
- BIO 792 Doctoral Supervised Teaching (4)
- SRM 502 Applied Statistics (4)
- SRM 700 Advanced Research Methods (3)

and select one of the following two courses:

- BIO 694 Foundations of Biological Research (2)
- SCED 694 Science Education Research (3)

Research Proposal/Dissertation — 16 hours

- BIO 797 Doctoral Research Proposal (4)
- BIO 799 Doctoral Dissertation (12)

Research Tools

All Ph.D. students must demonstrate competency in two acceptable research tools.
Chemical Education Ph.D.

Degree Requirements — 64 Credits

This program prepares versatile, well-informed chemistry teachers by providing advanced training for chemistry teachers or chemists who wish to pursue educational opportunities beyond the master's degree. Students completing this program are qualified to work in the chemical education field at a variety of levels; such as, science coordinator or supervisor in the secondary school, chemistry instructor at two- and four-year colleges or chemistry educators at a university. At the professional level, program graduates are qualified to do fundamental research in chemical education and to direct chemistry research at the undergraduate level.

See “Chemical Education (Ph.D.) Requirements” on page 4.

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. A request for a simultaneous master's degree in a discipline other than Chemistry will not be accepted. The student, in collaboration with the student's advisor, will develop a plan of study that includes clearly distinct master's and doctoral requirements. The student must graduate from the master's degree program in a minimum of one semester prior to conferring of the doctoral degree. The maximum time allowed for completion of the doctorate is eight calendar years beginning with the student's first semester of enrollment after admission has been granted.

Chemistry Component — minimum 12 hours

CHEM 520 Theory and Use of Analytical Instruments (1)
CHEM 522 Advanced Analytical Chemistry (3)
CHEM 523 Chemical Spectroscopy (3)
CHEM 533 Organic Synthesis and Stereochemistry (3)
CHEM 534 Theory and Mechanisms of Organic Reactions (3)
CHEM 543 Organometallic Chemistry (3)
CHEM 551 Physical Chemistry I (4)
CHEM 552 Physical Chemistry II (4)
CHEM 556 Physical Chemistry of Atomic and Microscopic Systems (3)
CHEM 557 Physical Chemistry of Macroscopic Systems (3)
CHEM 560 Environmental Chemistry (2)
CHEM 581 General Biochemistry I (4)
CHEM 582 General Biochemistry II (4)
CHEM 587 Toxicology (3)
CHEM 590 Advanced Topics in Chemistry (3)
CHEM 622 Directed Studies (1-3)

Pedagogy Component Required — minimum 7 hours

CHED 682 Problems in Teaching Chemistry (3)
CHED 755 Supervised Practicum in College Teaching (4)

Electives

EPSY 540 Theories and Principles of Learning (3)
EPSY 674 Measurement I: Educational Testing (3)
EPSY 675 Measurement II: Advanced Techniques (3)
EPSY 682 Cognition and Instruction II (3)
SCED 678 Science Education Seminar (1-2)
SCED 680 Science Curricula in Secondary/College Settings (3)
SRM 670 Evaluation: Models and Designs (3)
SRM 770 Evaluation: Advanced Methods (3)
ET 502 Instructional Design (3)
ET 503 Computers in Education (3)
ET 602 Instructional Analysis and Design (3)
ET 607 Computer Assisted Instruction Authoring Systems (3)
ET 702 Instructional Design Theory and Research (3)

Research Core — 13 hours (minimum)

CHEM 600 Seminar in Chemistry (1)
CHEM 693 Chemical Research (1-10)
SCED 694 Science Education Research (3)
SRM 610 Statistical Methods III (3)

and select one of the following courses:

CHEM 793 Doctoral Research Practicum-Chemistry (1-4)

Additional electives as stipulated in Plan of Study:

CHED 793 Doctoral Research Practicum-Chemistry (1-4)
CHEM 793 Doctoral Research Practicum-Chemistry (1-4)
SRM 731 Multivariate Analysis (3)
SRM 670 Evaluation: Models and Designs (3)
SRM 770 Evaluation: Advanced Methods (3)
SRM 680 Introduction to Qualitative Research (3)
SRM 700 Advanced Research Methods (3)

Advanced research methods—select one of the following courses:

SRM 700 Advanced Research Methods (3)
SCED 694 Science Education Research (3)

Research Proposal/Dissertation — 16 hours

Select one of the following groups:

CHED 797 Doctoral Research Proposal-Chemical Education (4)
CHED 799 Doctoral Dissertation - Chemistry (12)
CHED 797 Doctoral Research Proposal-Chemical Education (1-4)
CHED 799 Doctoral Dissertation-Chemical Education (12)

Research Tools

Students must demonstrate research skills in areas pertinent to the dissertation research topic. The student's competence in these skills will be assessed by the student's dissertation committee members. The skills may include statistical analysis, analytical instrument operation, background and experience in both field-based and quantitative studies in chemical education research, current technology in education and collateral fields of study such as mathematics, computer science, biology and physics. Courses which are recommended to assist in the development of these skills include SCED 694, CHEM 520, SRM 610 and either SRM 502 or SRM 603, Departmental Graduate Committee-approved courses in one or more of the following areas: educational technology, statistics and chemistry/chemical education research (CHED 693, CHEM 693, CHEM 793 or CHED 793), and collateral fields of study (computer science, mathematics, biology and physics).

Note: Students without a bachelor's degree in chemistry must:

• complete original research projects in chemistry and chemical education. One project must be equivalent to a master's project and written in thesis format and the other will be written and defended as the candidate's dissertation.

Note: Students without a master's degree in chemistry must:

• complete 24 hours in the Chemistry Component, 16 hours in the Pedagogy Component, and a minimum of 38 hours in the Research Component (all required hours and electives).

• complete courses in a minimum of three areas of chemistry: (analytical, biological, inorganic, organic or physical chemistry). One course in biochemistry is required if not previously taken.

• pass written and oral comprehensive examinations in chemical education and in two of five chemistry content areas (analytical, biological, inorganic, organic or physical chemistry).

• select sufficient electives to complete 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 candidate's graduate committee.

• demonstrate competence in the research aspects of both basic chemistry and chemical education.

• write a scholarly paper and submit it for publication in a refereed journal as a requirement for this degree.

Students who have written and defended a thesis as part of a master's degree, the thesis, if approved by the candidate's graduate committee, will substitute for the appropriate research requirement.
COMMUNICATION DISORDERS Au.D.

Degree Requirements — 129 Credits

This program is designed to prepare students for entry level activity as audiologists. Audiologists are professional practitioners responsible for the prevention, diagnosis, treatment and management of hearing disorders in children and adults.


Core Requirements — 54 hours

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CMDS 555</td>
<td>Neuroanatomy and Neurophysiology of Communication</td>
<td>3</td>
</tr>
<tr>
<td>CMDS 570</td>
<td>Rehabilitative Audiology</td>
<td>3</td>
</tr>
<tr>
<td>CMDS 571</td>
<td>Speech and Hearing Science</td>
<td>4</td>
</tr>
<tr>
<td>CMDS 572</td>
<td>Industrial Audiology</td>
<td>2</td>
</tr>
<tr>
<td>CMDS 573</td>
<td>Auditory Physiology and Pathology</td>
<td>3</td>
</tr>
<tr>
<td>CMDS 582</td>
<td>Educational Audiology</td>
<td>3</td>
</tr>
<tr>
<td>CMDS 671</td>
<td>Psychoacoustics</td>
<td>2</td>
</tr>
<tr>
<td>CMDS 675</td>
<td>Differential Diagnosis of Auditory Problems</td>
<td>3</td>
</tr>
<tr>
<td>CMDS 677</td>
<td>Medical Aspects of Audiology</td>
<td>3</td>
</tr>
<tr>
<td>CMDS 678</td>
<td>Hearing Aids and Uses of Amplification</td>
<td>3</td>
</tr>
<tr>
<td>CMDS 685</td>
<td>Advanced Differential Diagnosis of Auditory Problems</td>
<td>4</td>
</tr>
<tr>
<td>CMDS 668</td>
<td>Cochlear Implants</td>
<td>3</td>
</tr>
<tr>
<td>CMDS 688</td>
<td>Hearing Aids II</td>
<td>3</td>
</tr>
<tr>
<td>CMDS 771</td>
<td>Speech Perception and Advanced Signal Processing</td>
<td>2</td>
</tr>
<tr>
<td>CMDS 774</td>
<td>Professional Issues in Audiology</td>
<td>3</td>
</tr>
<tr>
<td>CMDS 775</td>
<td>Advanced Electro-diagnosis</td>
<td>3</td>
</tr>
<tr>
<td>CMDS 782</td>
<td>Pediatric Audiology</td>
<td>3</td>
</tr>
<tr>
<td>NURS 612</td>
<td>Advanced Pharmacology</td>
<td>4</td>
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Teaching Requirements (2 hours)

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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>CMDS 720</td>
<td>Supervised Teaching in Communication Disorders</td>
<td>2</td>
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</table>

Clinical Practicum (12 hours)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>CMDS 574</td>
<td>Clinical Practicum in Audiology</td>
<td>1</td>
</tr>
<tr>
<td>CMDS 580</td>
<td>Practicum in Rehabilitative Audiology (1-2)</td>
<td>2</td>
</tr>
<tr>
<td>CMDS 594</td>
<td>Practicum and Advanced Topics in Audiology</td>
<td>1-6</td>
</tr>
</tbody>
</table>

Internships (16 hours) (CMDS 692 or a combination of CMDS 592 and CMDS 692 with a minimum of 6 hours in CMDS 692)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CMDS 592</td>
<td>Internship in Public Schools</td>
<td>2-15</td>
</tr>
<tr>
<td>CMDS 692</td>
<td>Internship in Medical Settings</td>
<td>2-16</td>
</tr>
</tbody>
</table>

Clinical Residency (27 hours)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CMDS 792</td>
<td>Clinical Residency in Audiology</td>
<td>9-14</td>
</tr>
</tbody>
</table>

Elective Courses (6 hours)

Students will choose at least 6 credits from courses approved by the program advisor. Electives will be chosen so that students may focus on specialized career needs. For example, some students may elect to become proficient in American Sign Language; others who desire more of a medical emphasis may elect to take additional courses in genetics and pharmacology.

Research Courses (12 hours)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CMDS 515</td>
<td>Foundations of Research and Writing</td>
<td>1</td>
</tr>
<tr>
<td>CMDS 615</td>
<td>Research in Communication Sciences and Disorders</td>
<td>1-4</td>
</tr>
<tr>
<td>CMDS 715</td>
<td>Applied Research in Audiology</td>
<td>1-4</td>
</tr>
</tbody>
</table>

SRM 602 Statistical Methods I (3)

Notes: Six semester hours of practicum in School Audiology (CMDS 592 or CMDS 673) are required for licensure as an Education Audiologist by the Colorado Department of Education.

*Students may complete CMDS 792, Clinical Residency, in three semesters of nine credits each or in two semesters totaling 27 credits.
Degree Requirements — 91-141* Credits
(Accredited by the American Psychological Association)

* A student entering with previously completed graduate coursework equivalent to coursework required for the Psy.D. degree may have course(s) waived with advisor consent 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).

Objectives
This program is designed to develop individuals who will be effective counseling psychologists in community, agency or system settings. The program focuses primarily on training effective persons for therapy and assessment of individuals and groups, supervising others in the helping professions and research and evaluating programs relative to counseling. Secondarily, the objectives are to teach and train professionals and paraprofessionals in psychology and to develop skills in documenting the effectiveness of these programs and consulting in prevention and treatment models.

All graduates of the Psy.D. program will meet APA standards which lead to eligibility for licensing as a psychologist. In addition to formal course requirements, students are required to successfully complete a doctoral comprehensive examination, a dissertation and a one-year, 2000-hour internship.


Required Credits — 91-141 hours
Introductory Core Required - 28 hours
SRM 600 Introduction to Graduate Research (3)
PPSY 558 Abnormal Psychology (3)
PPSY 605 Group Laboratory Experience (1)
PPSY 607 Theories of Counseling (3)
PPSY 610 Theories of Personality (2)
PPSY 612 Practicum in Individual Counseling (5)
PPSY 662 Group Dynamics and Facilitation (3)
PPSY 665 Family Systems (3)
PPSY 669 Advanced Methods: Couples and Family Therapy (3)
PPSY 670 Psychological Testing and Measurement (2)

Counseling Psychology Core - 7 hours
PPSY 530 Life Span Developmental Psychology (3)
PPSY 616 Career Theory, Counseling and Assessment (3)
PPSY 701 Professional Development Seminar in Counseling Psychology (1)
PPSY 702 Practicum in Counseling (4)
PPSY 712 Advanced Practicum in Individual Counseling (4)
PPSY 714 Practicum in Supervision of Counseling (3)
PPSY 715 Seminar in Counselor Supervision and Theory (2)
PPSY 762 Practicum in Group Facilitation (4)
PPSY 793 Psychological Services Clinic I (1)
PPSY 794 Psychological Services Clinic II (2)

Practica Required - 24 hours
PPSY 694 Practicum in Family Therapy (4)
PPSY 702 Practicum in Counseling (4)
PPSY 712 Advanced Practicum in Individual Counseling (4)
PPSY 714 Practicum in Supervision of Counseling (3)
PPSY 715 Seminar in Counselor Supervision and Theory (2)
PPSY 762 Practicum in Group Facilitation (4)
PPSY 793 Psychological Services Clinic I (1)
PPSY 794 Psychological Services Clinic II (2)

Suggested Electives
PPSY 617 Play Therapy: Theory and Practicum (3)
PPSY 713 Practicum in Supervision of Play Therapy (3)
PPSY 773 Practicum in Supervision of Group Facilitation (3)
PPSY 774 Practicum in Supervision of Family Therapy (3)

Assessment Core Required - 10 hours
PPSY 674 Assessment for Intervention: Cognitive and Academic (5)
PPSY 678 Assessment for Intervention: Personality and Behavior (5)

Suggested Elective
PPSY 782 Introduction to Rorschach Administration and Scoring (2)

Licensing Core - 24-25 hours
PPSY 657 Legal and Ethical Aspects of Counseling and Psychology (3)
**Counselor Education and Supervision Ph.D.**

**Degree Requirements — *90-114 Credits***

* A student entering with previously completed graduate coursework equivalent to coursework required for the Ph.D. degree may have coursework waived with advisor consent. A plan of study for the degree must contain a minimum of 67 hours of coursework in addition to proposal, dissertation and internship hours (minimum of 90 hours). All students are required to complete all of the courses listed below; most students have already completed some of these hours in their M.A. program.

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

The Counseling faculty are committed to the development of broadly based competent counselor educators skilled in teaching, supervision, counseling and research. The requirements of the program are conceptualized within the framework and standards set forth by the counseling profession, Colorado state law, the Graduate School, and job requirements.

This program prepares an individual for employment as a counselor educator and supervisor for colleges and universities offering training in school counseling, community counseling, marriage and family counseling/therapy, and counseling with children and adolescents. Graduates are also qualified for licensure as professional counselors, and may be employed in such sites as community agencies, schools, counseling centers, employee assistance programs, and private practice.


**Required Credits — 49-53 hours**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>PPSY 702</td>
<td>Practicum in Counseling (4)</td>
</tr>
<tr>
<td>PPSY 712</td>
<td>Advanced Practicum in Individual Counseling (4)</td>
</tr>
<tr>
<td>PPSY 762</td>
<td>Practicum in Group Facilitation (4)</td>
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</table>

**Supervision Core (11 hours)**

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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>PPSY 714</td>
<td>Practicum in Supervision of Counseling (6)</td>
</tr>
<tr>
<td>PPSY 715</td>
<td>Seminar in Counselor Supervision and Theory (2)</td>
</tr>
<tr>
<td>PPSY 773</td>
<td>Practicum in Supervision of Group Facilitation (3)</td>
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</tbody>
</table>

**Theory and Instruction Core (23-27 hours)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>EPSY 654</td>
<td>Seminar in College Teaching (3)</td>
</tr>
<tr>
<td>PPSY 660</td>
<td>Psychological Consultation: Theory and Practice (3)</td>
</tr>
<tr>
<td>PPSY 707</td>
<td>Seminar in Personality and Counseling Theories (3)</td>
</tr>
<tr>
<td>PPSY 746</td>
<td>Seminar: Advanced Career Counseling, Theory and Assessment (3)</td>
</tr>
<tr>
<td>PPSY 755</td>
<td>Supervised Practicum in College Teaching (6)</td>
</tr>
<tr>
<td>PPSY 758</td>
<td>Advanced Psychopathology (3)</td>
</tr>
<tr>
<td>PPSY 792</td>
<td>Internship in Counselor Education and Supervision (2-6)</td>
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**Special Populations (3 hours)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>PPSY 623</td>
<td>Counseling Diverse Populations (3)</td>
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</table>

**Interest Areas (Select One) — 18-20 hours minimum**

<table>
<thead>
<tr>
<th>Area</th>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marriage and Family (19 hours)</td>
<td>PPSY 603</td>
<td>Counseling Children and Adolescents (3)</td>
</tr>
<tr>
<td></td>
<td>PPSY 668</td>
<td>Sexuality Counseling (3)</td>
</tr>
<tr>
<td></td>
<td>PPSY 669</td>
<td>Advanced Methods: Couples and Family Therapy (3)</td>
</tr>
<tr>
<td></td>
<td>PPSY 694</td>
<td>Practicum in Family Therapy (4)</td>
</tr>
<tr>
<td></td>
<td>PPSY 695</td>
<td>Seminar: Contemporary Issues in Couples and Family Therapy (3)</td>
</tr>
<tr>
<td></td>
<td>PPSY 774</td>
<td>Practicum in Supervision of Family Therapy (3)</td>
</tr>
<tr>
<td>Children and Adolescents (18 hours)</td>
<td>PPSY 630</td>
<td>Child and Adolescent Psychology (3)</td>
</tr>
<tr>
<td></td>
<td>PPSY 566</td>
<td>At Risk Students: Opportunities and Strategies (3)</td>
</tr>
<tr>
<td></td>
<td>PPSY 603</td>
<td>Counseling Children and Adolescents (3)</td>
</tr>
<tr>
<td></td>
<td>PPSY 617</td>
<td>Play Therapy: Theory and Practicum (3)</td>
</tr>
<tr>
<td></td>
<td>PPSY 654</td>
<td>Child Abuse and Neglect (3)</td>
</tr>
<tr>
<td></td>
<td>PPSY 713</td>
<td>Practicum in Supervision of Play Therapy (3)</td>
</tr>
<tr>
<td>School Counseling (20 hours)</td>
<td>PPSY 566</td>
<td>At Risk Students: Opportunities and Strategies (3)</td>
</tr>
<tr>
<td></td>
<td>PPSY 585</td>
<td>Family Counseling and Education in School Settings (2)</td>
</tr>
<tr>
<td></td>
<td>PPSY 602</td>
<td>Foundations of School Guidance (3)</td>
</tr>
<tr>
<td></td>
<td>EPSY 630</td>
<td>Child and Adolescent Psychology (3)</td>
</tr>
<tr>
<td></td>
<td>PPSY 603</td>
<td>Counseling Children and Adolescents (3)</td>
</tr>
<tr>
<td></td>
<td>PPSY 617</td>
<td>Play Therapy: Theory and Practicum (3)</td>
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<tr>
<td></td>
<td>PPSY 654</td>
<td>Child Abuse and Neglect (3)</td>
</tr>
<tr>
<td></td>
<td>PPSY 713</td>
<td>Practicum in Supervision of Play Therapy (3)</td>
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</table>

**Research Core — 3 hours**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>PPSY 603</td>
<td>Counseling Children and Adolescents (3)</td>
</tr>
<tr>
<td>PPSY 608</td>
<td>Organization, Administration and Consultation in Guidance Services (3)</td>
</tr>
<tr>
<td>PPSY 654</td>
<td>Child Abuse and Neglect (3)</td>
</tr>
<tr>
<td>PPSY 748</td>
<td>Instruction, Supervision and Leadership in School Counseling (3)</td>
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</table>

**Research Proposal/Dissertation — 16 hours**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>PPSY 797</td>
<td>Doctoral Proposal Research (4)</td>
</tr>
<tr>
<td>PPSY 799</td>
<td>Doctoral Dissertation (12)</td>
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</table>

**Research Tools — 22 hours**

<table>
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<tr>
<th>Tool Code</th>
<th>Tool Description</th>
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<tbody>
<tr>
<td>SRM 700</td>
<td>Advanced Research Methods (3)</td>
</tr>
<tr>
<td>SRM 602</td>
<td>Statistical Methods I (3)</td>
</tr>
<tr>
<td>SRM 603</td>
<td>Statistical Methods II (3)</td>
</tr>
<tr>
<td>SRM 610</td>
<td>Statistical Methods III (3)</td>
</tr>
</tbody>
</table>

**Research Tool 2: Applied Research**

- PPSY 703 Professional Development Seminar in Counselor Education (1) (take twice)
- PPSY 716 Research Seminar in Counselor Education (3)
- PPSY 733 Research Apprenticeship (1) (take twice)
- SRM 680 Introduction to Qualitative Research (3)
- SRM 670 Evaluation: Models and Designs (3)

**Research Proposal/Dissertation — 16 hours**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>PPSY 797</td>
<td>Doctoral Proposal Research (4)</td>
</tr>
<tr>
<td>PPSY 799</td>
<td>Doctoral Dissertation (12)</td>
</tr>
</tbody>
</table>

**Specialized Training (Optional)**

- PPSY 781 Evaluation of Psychological Services (3)

**Note:** 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.
EDUCATIONAL LEADERSHIP ED.D.

Degree Requirements — 64 Credits

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.


Educational Leadership Core — 21 hours
ELPS 751 Doctoral Core I (6)
ELPS 752 Doctoral Core II (6)
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)

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 (3-6)
ELPS 695 Practicum in Educational Leadership (3-6)

Research Core — 12 hours minimum
SRM 602 Statistical Methods I (3)
ELPS 754 Research in Educational Leadership (3)
and select research electives from the following courses (or equivalents approved by the doctoral committee) (6 hours):
EPSY 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 (4)
ELPS 799 Doctoral Dissertation (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 655 Seminar in Learning in Adulthood (3)
ELPS 660 Law and the Administrator (3)
ELPS 662 Design and Delivery of Professional Development (3)
ELPS 663 Developing Grants and Contracts (3)
ELPS 665 Policy Analysis and Development (3)
ELPS 670 The Principalship: Leadership at the School Site Level (3)
ELPS 711 Advanced Theories for Changing Organizations (3)
**EDUCATIONAL MATHEMATICS Ph.D.**

**Degree Requirements — 71-74 Credits**

This program offers an innovative approach to mathematical pedagogy. A basic tenet of the program is that mathematical content is fundamental to methods, research and reform in mathematics education. The program has three major strands: mathematics, mathematics education, and cognition.

Graduates of the program will be prepared to lead the reform of mathematics education. They will be able to teach mathematics at several levels; perform research; and administer and supervise the reform of mathematics education.


**Master’s Degree en route to the Ph.D.**

Students may apply for admission to the Ph.D. in Educational Mathematics and complete their M.A. in Mathematics with either a Liberal Arts Emphasis or Teaching Emphasis on the way to completion of the doctoral program. Once admitted, the student will work closely with their academic advisor to develop a Plan of Study that meets both M.A. and Ph.D. program requirements. Students must complete all program requirements for the M.A. in addition to the hours required for the Ph.D. Students must be conferred with the M.A. degree prior to admission to doctoral candidacy.

**Content Core — 26 semester hours**

A. Required Courses - 14 hours

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>MATH 609</td>
<td>Abstract Algebra I (3)</td>
</tr>
<tr>
<td>MATH 623</td>
<td>Abstract Algebra II (3)</td>
</tr>
<tr>
<td>MATH 632</td>
<td>Complex Variables (3)</td>
</tr>
<tr>
<td>MATH 635</td>
<td>Real Analysis (3)</td>
</tr>
<tr>
<td>MATH 700</td>
<td>Advanced Seminar (2)</td>
</tr>
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</table>

B. Minimum of 12 hours chosen from the following courses:

<table>
<thead>
<tr>
<th>Course Code</th>
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</thead>
<tbody>
<tr>
<td>MATH 633</td>
<td>Geometric Analysis (3)</td>
</tr>
<tr>
<td>MATH 664</td>
<td>Difference Equations and Chaos (3)</td>
</tr>
<tr>
<td>MATH 678</td>
<td>Mathematical Logic (3)</td>
</tr>
<tr>
<td>MATH 691</td>
<td>Number Theory (3)</td>
</tr>
<tr>
<td>MATH 695</td>
<td>Special Topics (3)</td>
</tr>
<tr>
<td>MATH 727</td>
<td>Representation Theory (3)</td>
</tr>
<tr>
<td>MATH 728</td>
<td>Topics in Discrete Mathematics (3)</td>
</tr>
<tr>
<td>MATH 736</td>
<td>Real Analysis I (3)</td>
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</tbody>
</table>

At most, one of the following may be included:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>MATH 525</td>
<td>Linear Algebra I (3)</td>
</tr>
<tr>
<td>MATH 528</td>
<td>Discrete Mathematics (3)</td>
</tr>
<tr>
<td>MATH 529</td>
<td>Mathematical Problem Solving (3)</td>
</tr>
<tr>
<td>MATH 540</td>
<td>Introduction to Topology (3)</td>
</tr>
</tbody>
</table>

**Educational Core — 10 hours (minimum)**

A. Required Courses (4 hours)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MED 703</td>
<td>Teaching and Learning K-12 Mathematics (3)</td>
</tr>
<tr>
<td>MED 710</td>
<td>Seminar in Post-Secondary Mathematics Teaching (1)</td>
</tr>
</tbody>
</table>

B. Elective Courses (6 hours) (Advisor must approve courses)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MED 622</td>
<td>Directed Studies (1-3)</td>
</tr>
<tr>
<td>MED 630</td>
<td>Technology in Mathematics Education (2)</td>
</tr>
<tr>
<td>MED 673</td>
<td>Teaching and Learning Mathematics on the Elementary Level (3)</td>
</tr>
<tr>
<td>MED 674</td>
<td>Teaching and Learning Mathematics on the Secondary Level (3)</td>
</tr>
<tr>
<td>MED 675</td>
<td>Teaching and Learning Mathematics on the Post-Secondary Level (3)</td>
</tr>
<tr>
<td>MED 678</td>
<td>Special Topics in Mathematics Education (1-3)</td>
</tr>
<tr>
<td>MED 750</td>
<td>History and Philosophy of Mathematics Education (3)</td>
</tr>
</tbody>
</table>

**Additional Electives — 0-7 hours**

Electives in this category can include any approved 600 or 700 level courses or any two approved additional 500 level courses. Courses taken for one of the two research tools may be counted for these electives.

Credits to satisfy the first research tool count as elective hours for the 70 hour total; credits for the second research tool do not count in that total. A student must complete research tool “option A” and may select any one of the remaining three options.

**Research Core — 12 hours**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MED 610</td>
<td>Survey of Research in Mathematics Education (3)</td>
</tr>
<tr>
<td>MED 700</td>
<td>Cognitive Processes in Mathematics (3)</td>
</tr>
<tr>
<td>MED 701</td>
<td>Educational Mathematics Research (3)</td>
</tr>
<tr>
<td>MED 702</td>
<td>Qualitative Research in Mathematics Education (3)</td>
</tr>
</tbody>
</table>

**Research Proposal/Dissertation — 16 hours**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 797</td>
<td>Doctoral Research Proposal (4)</td>
</tr>
<tr>
<td>MATH 799</td>
<td>Doctoral Dissertation (12)</td>
</tr>
</tbody>
</table>

**Research Tools — 7-10 hours**

A. Applied Statistics and Research Methods (10 hours)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>SRM 502</td>
<td>Applied Statistics (4) (or approved equivalent)</td>
</tr>
<tr>
<td>MED 701</td>
<td>Educational Mathematics Research (3)</td>
</tr>
<tr>
<td>SRM 608</td>
<td>Experimental Design (3) (or approved equivalent)</td>
</tr>
<tr>
<td>MED 610</td>
<td>Statistical Methods III (3)</td>
</tr>
</tbody>
</table>

**And 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 610 and MED 702) and experience (evaluated by the committee) to appropriately support the student’s proposed dissertation research.

C. Collateral Field. Contact the departmental graduate coordinator for a detailed list of approved courses in cognition, instruction, measurement and evaluation, psychology and human development and curricula.

D. Computer Science. Student’s doctoral committee will approve and evaluate a combination of advanced computer experience, proficiency and/or coursework only if relevant to the proposed dissertation research.

E. Foreign Language. Student’s doctoral committee will approve and evaluate a combination of foreign language experience, proficiency and/or coursework only if relevant to the proposed dissertation research.

**Notes** Electives must have the approval of the student’s advisor and doctoral committee.

MED 701 may be used as a substitute for the Graduate School’s SRM 700 requirement. MED 710 is normally taken the first semester of your program.

The department written comprehensive examination consists of two parts: mathematics and mathematics education. The mathematics portion of the comprehensive examination will consist of a four-hour examination over either: a) the MATH 635, Math 632 sequence or b) the MATH 609, MATH 623 sequence. The mathematics education portion will consist of a four-hour examination over the material in the research core (MED 610, MED 700, MED 701 and MED 702) and a list of required readings. The oral examination will be given upon successful completion of the written examination and will cover the entire program of the candidate.

Students must receive a grade of “B” or better in both courses of the required mathematics sequence over which they do NOT take the comprehensive examination. A student who does not receive at least a “B” may, in lieu of repeating the course, elect to take an examination over that sequence.

A student in this program is required to write a scholarly dissertation. Dissertation topics may range from mathematics with pedagogical applications to topics in educational mathematics such as cognitive processes, educational reform and instructional issues.
DOCTORAL DEGREES

EDUCATIONAL PSYCHOLOGY PH.D.

Degree Requirements — 66-78 Credits

The overall goal of the program is to produce scholars capable of undertaking original basic and applied research in psychological processes as they apply to education.

There is considerable emphasis on research training within the program. Research topics of the faculty pertain to fundamental processes in learning and development, to research design and statistics and to applications of the findings from educational psychology to educational settings.

See “Educational Psychology (Ph.D.) Requirements” on page 22.

M.A. Degree 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, the student will work with their academic advisor to develop a plan of study that meets both M.A. and Ph.D. program requirements. Students must complete all program requirements (including Comprehensive Examination) for the M.A. in addition to the minimum 66 hours required for the Ph.D. Students must be conferred with the M.A. degree prior to admission to doctoral candidacy.

Required Credits — 17 hours

Learning and Cognitive Processes (6 hours)
EPSY 682 Cognition and Instruction II (3)
EPSY 685 Advanced Seminar in Learning and Cognition (3)

Human Development (6 hours)
EPSY 630 Child and Adolescent Psychology (3)
EPSY 631 Psychology of Youth, Adulthood and Aging (3)

Professional Development (5 hours)
EPSY 661 Trends and Issues in Educational Psychology (3)
EPSY 663 Apprenticeship (2)

Select One of the Three Concentration Areas:

1) Learning and Cognitive Processes — 18 hours

   Required Credits (9 hours)
   PSY 625 Principles of Neuropsychology (3)
   EPSY 635 Individual Differences in Cognition (3)
   EPSY 685 Advanced Seminar in Learning and Cognition (3)

   Required Elective Credits — 9 semester hours
   Students electing to specialize in learning and cognitive processes must select 9 additional hours of courses. Selection of elective hours must be done in consultation with the student's advisor to develop a plan of study with a specific focus.

2) Human Development — 18 hours

   Required Credits (select 9 hours)
   EPSY 684 Advanced Seminar in Human Development (3)
   EPSY 694 Practicum (3-9)
   PSY 664 Advanced Social Psychology (3)
   PSY 625 Principles of Neuropsychology (3)

   Required Elective Credits (select 9 hours)
   EDEC 539 Parent Education and Involvement in Early Childhood/Primary (3)
   GER 625 Family and Social Issues in Late Life (3)
   PPSY 758 Advanced Psychopathology (3)
   EPSY 654 Seminar in College Teaching (3)

3) Research, Statistics and Measurement — 18 hours

   Required Credits (9 hours)
   SRM 770 Evaluation: Advanced Methods (3)
   EPSY 675 Measurement II: Advanced Techniques (3)
   SRM 680 Introduction to Qualitative Research (3)

   Required Elective Credits (select 9 hours)
   EPSY 654 Seminar in College Teaching (3)
   EPSY 686 Advanced Seminar in Measurement and Assessment (3)
   EPSY 692 Internship in Educational Psychology (3)
   EPSY 694 Practicum (3)
   SRM 608 Experimental Design (3)

SRM 731 Multivariate Analysis (3)
SRM 606 Multiple Linear Regression Analysis (3)
SRM 607 Non-Parametric Statistics (3)
SRM 609 Sampling Methods (3)

Program Electives — 3 hours

Chosen in consultation with student's advisor.

Research Core — 12 hours

SRM 603 Statistical Methods II (3)
SRM 610 Statistical Methods III (3)
SRM 700 Advanced Research Methods (3)
SRM 670 Evaluation: Models and Designs (3)

or
EPSY 675 Measurement II: Advanced Techniques (3)

or
SRM 680 Introduction to Qualitative Research (3)

Research Proposal/Dissertation — 16 hours

EPSY 797 Doctoral Proposal Research (4)
EPSY 799 Doctoral Dissertation (12)

Research Tools — 0-12 hours

Ph.D. students in Educational Psychology must demonstrate competency in two out of the four areas listed below. The following details each research tool and the level of competency required for each:

1) Research Design/Applied Statistics - Students must complete the requirements in the Research, Statistics and Measurement concentration with grades of B or better (directed research studies and research-related practica can be counted).

2) Computer Applications - Students must complete a minimum of 8 semester hours in courses relating to computer use at the graduate level with grades of B or better, or

A student can develop and demonstrate a computer program written to meet a specific educational research application. This program will be judged as “acceptable” or “unacceptable” by the student's advisor.

3) Evaluation - Demonstration of competency in evaluation will involve completing a minimum of 12 hours in evaluation courses, e.g., SRM 670, SRM 671 and PPSY 781 (or their equivalent in transfer credits) with grades of B or better.

4) Foreign Language - Students must pass the ETS (or other faculty approved) examination in any major modern foreign language with a score at the 50th percentile or better.

Note: Program concentration areas are distinguished on three criteria: course emphasis, dissertation focus and practicum experience. For example, a student selecting the learning and cognition concentration would take the required coursework in the learning and cognition area, write a dissertation on a problem related to learning and cognition and do a practicum related to that specialty area. Student competencies in the core and specialty areas are examined by both oral and written comprehensive examinations. Written exams are administered twice a year during fall and spring semesters. Specific procedures for comprehensive examinations are available from the program secretary. In addition, students will submit a written paper and give an oral presentation to the program faculty before the second letter of encouragement will be sent to the student as part of the review process.

Deficiencies

Upon entrance, a candidate must be able to satisfy the core course requirements for the M.A. degree in educational psychology, or must take additional courses to meet those requirements. M.A. core courses that will not count toward the doctoral degree requirements include SRM 600, SRM 602, EPSY 530, EPSY 540 and EPSY 674. The remaining core courses may count as electives in the doctoral program: EPSY 661, SRM 670 and EPSY 663.


**Degree Requirements — 67-76 Credits**

The Doctor of Philosophy in Educational Technology program focuses around the convergence of three major communication and information industries (broadcasting and motion picture, print and publishing, and computer) into a single industry. Educational Technology professionals must be prepared to function within the converged industries rather than in only one historically distinct industry. The UNC doctoral program in educational technology prepares graduates who will be leaders after the convergence. The doctoral program uses a community of scholars model of interaction among the students and the faculty members. The students are viewed as developing colleagues with progressively higher levels of responsibility as they move through the program. Cooperative research and other scholarly projects are encouraged among faculty members and students. The doctoral program in educational technology provides the students with a broad base of knowledge in the use of technology in educational and training settings.


**Master’s Degree en Route to the Ph.D.**

Students may apply for admission to the Ph.D. in Educational Technology and complete their M.A. in Educational Technology or Educational Media on the way to completion of the doctoral degree. The application process and the admission criteria are the same as for the Ph.D. program. Once admitted, the student will work closely with their academic advisor to develop a Plan of Study that meets both M.A. and Ph.D. program requirements. Students must complete all program requirements (including comprehensive examination) for the M.A. in addition to the minimum 67 hours required for the Ph.D. Students must be conferred with the M.A. degree prior to admission to doctoral candidacy.

**Program and Graduation Requirements**

Once admitted to a program, students must maintain a satisfactory grade point average of 3.2. The student must complete a minimum of two consecutive semesters as a full-time student (9 semester hours) and be registered for resident credit offered on-campus and applicable to the doctoral degree. A minimum of 67 semester hours beyond the master’s degree is required for the doctorate in educational technology. Students will receive an annual letter of progress providing feedback regarding their individual progress toward completion of their doctoral program.

Each doctoral student must pass a written comprehensive examination for admission to the dissertation. This examination cannot be taken until the student has completed the residency requirement and at least 36 semester hours beyond the master’s degree with a grade point average of 3.2 or higher. The oral examination may include questions from any part of the student’s program and is designed to test the student’s understanding of the field of educational technology.

The dissertation research advisor and the research committee for the dissertation are appointed after the student has passed both written and oral comprehensive examinations. The dissertation proposal and dissertation are completed under the supervision of the research advisor and research committee.

**Required Credits — 18 hours**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ET 524 Design of Computer Assisted Instruction</td>
<td>3</td>
</tr>
<tr>
<td>ET 602 Instructional Analysis and Design</td>
<td>3</td>
</tr>
<tr>
<td>ET 604 Advanced Design of Instructional Materials</td>
<td>3</td>
</tr>
<tr>
<td>ET 784 Doctoral Seminar in Educational Technology</td>
<td>3</td>
</tr>
<tr>
<td>ET 692 Internship</td>
<td>3</td>
</tr>
<tr>
<td>or ET 693 Practicum</td>
<td>3</td>
</tr>
<tr>
<td>EPSY 682 Cognition and Instruction II</td>
<td>3</td>
</tr>
<tr>
<td>or ELPS 655 Seminar in Learning in Adulthood</td>
<td>3</td>
</tr>
</tbody>
</table>

**Concentration Area — 6 hours**

Each student will select one of the three concentration areas and complete at least 6 semester hours of coursework.

1) Concentration Area: Instructional Development/Design
   - ET 650 Corporate Course Design (3)
   - ET 702 Instructional Design Theory and Research (3)
   - ET 627 Computer Assisted Instruction Authoring Systems (3)
   - ET 628 Design of Multimedia Learning Environments (3)
   - ET 613 Instructional Telecommunications (3)
   - ET 615 Distance Education: Theories and Practice (3)

**Elective Courses — 15 hours**

- General Electives (9)
- Electives outside ET courses and program requirements. (6)
- Research Core — 12 hours
  - SRM 602 Statistical Methods I (3)
  - SRM 603 Statistical Methods II (3)
  - 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**

- ET 797 Doctoral Proposal Seminar (4)
- ET 799 Doctoral Dissertation (12)

**Research Tools — 9 hours**

Doctoral students in educational technology must demonstrate competency in two out of the four research tools listed below:

1. Research Design/Applied Statistics/Quantitative Methods - Students must complete the 12 semester hours (excluding ET 797) in research methodology courses with an overall GPA of 3.0 or better.
2. Computer Applications - Students must complete a minimum of 9 semester hours in graduate courses relating to computer use with grades of “A” or “B.”
   - A student can develop and demonstrate a computer program written to meet a specific application in education. This program will be judged as “acceptable” or “unacceptable” by the student’s doctoral committee.
3. Evaluation - Students must complete a minimum of 9 semester hours in evaluation courses (e.g., SRM 670, SRM 671 and PPSY 781) with grades of “A” or “B.”
4. Foreign Language - Students must pass the Educational Testing Service or other faculty approved examination in any major modern foreign language with a score at the 50th percentile or higher.

**Deficiencies**

Since the program of study builds upon the requirements for the M.A. degree in educational technology, students must have taken comparable coursework to satisfy the educational technology core requirements of the UNC M.A. degree in educational technology or must take these courses as electives in the doctoral program. All doctoral students must complete the common educational technology core, the research methodology core, and specialize in at least one of the four concentration areas.
Educational Studies Ed.D.

Degree Requirements — 70-72 Credit

Students who complete the Ed.D. in Educational Studies are prepared for positions of leadership in public and private schools and for colleges, universities, agencies, businesses and government entities. Graduates reflect expertise for teaching, consulting, publishing, research and other professional services.

Graduate applicants for this degree must have evaluations by the Department of Elementary Education, in addition to the Graduate School, in order to determine admissibility. Applicants within licensed or eligible for the same to enter this program. Programs of study for degree candidates will be individualized to meet candidate’s career goals. A minimum of 64 semester hours are required for the completion of this program. The extent of an individual’s program will be dependent upon previous college work and professional experience.

Required Credits — 21-23 hours
*EDEL 725 Seminar in Elementary School Mathematics (2)
*EDEL 745 Seminar in Elementary School English (2)
*EDEL 755 Seminar in Elementary Education Social Studies (2)
*EDEL 790 Supervised Practicum in College Teaching (3)
*EDRD 745 Topical Seminar in Reading (2-4)
*EDRD 750 The Contributing Professional in Reading (2-4)
Other credits to be determined in consultation with advisor.

Elective Credits — 21 hours
There are two categories of elective coursework, general and external. Students must complete a minimum of 21 hours of elective coursework from one or both categories. Most students choose to balance their elective coursework by selecting electives in both categories.

General Electives
SRM 680 Introduction to Qualitative Research (3)
EPSY 674 Measurement I: Educational Testing (3)
**ET 503 Computer-Based Education (3)
*EDEL 612 Elementary School Curriculum (3)
*EDEL 619 Pluralism in Education (3)
*EDEL 612 Elementary School Curriculum (3)
*EDEL 601 Practicum in Elementary Education (3)
*EDEL 620 Research Applications for Instruction in Mathematics, K-9 (3)
EDEL 640 Instruction in Language Arts and Literacy in the Elementary School (3)
*EDEL 650 Research Application for Instruction in Social Studies, K-9 (3)
SCED 671 Elementary and Middle School Science Curriculum (3)
EDEC 660 Critical Issues in Early Childhood (3)
EDEC 663 Educational Assessment, Evaluation and Prescription for the Young Child (3)
EDEC 664 Seminar in Early Childhood and Primary Education (3)
EDEC 675 Play and Psychosocial Development in Early Childhood (3)
EDEL 508 Workshop (1-3)(maximum 4)
EDEL 622 Directed Studies (1-3)
EDRD 614 Literature for Children, Adolescents and Young Adults (3)
EDRD 645 Reading Research (3)

Research Core — 12 hours
SRM 602 Statistical Methods I (3)
SRM 603 Statistical Methods II (3)
SRM 700 Advanced Research Methods (3)
* SRM 680 Introduction to Qualitative Research (3)
or 3 hours of approved core related electives

Research Proposal/Dissertation — 16 hours
EDEL 797 Doctoral Proposal Research (4)
EDEL 799 Doctoral Dissertation (12)

Note:**Students will be required to demonstrate appropriate literacy and competency in computer applications as part of this program. ET 503: Computer Based Education (3) is a recommended course.

Students are responsible for course content, for the above courses, on doctoral comprehensive exams. In consultation with advisor, students may include 10-21 semester hours from these courses in the doctoral program of study or may elect other approaches to acquire the knowledge and application bases inherent within contexts of formal courses listed.

External Electives
In consultation with advisor, students may select 10-16 graduate semester hours from other program support areas in the College of Education (i.e., EDEC, EDRD, EDMS, EDSE, ET, EDF, etc) or within other colleges/areas in the University that would strengthen professional skills (i.e., sciences, foreign languages, visual arts, community health, communication, social sciences, mathematics, music, higher education and student affairs leadership, English, psychology, etc.).
Higher Education and Student Affairs Leadership Ph.D.

Degree Requirements — 75 Credits

The program of studies is designed to prepare professionals for college and university leadership positions in higher education and student affairs. The educational model on which the program is based maintains that student affairs professionals must possess a broad knowledge base, a variety of specific skills and be persons oriented toward personal growth. A strong background in the liberal arts, basic helping skills and an interest in research evaluation and statistics are desirable assets for those wishing to enter the program. The curriculum is based on a process-outcome model that prepares leaders for higher education and student affairs positions at the highest levels.

See “Higher Education/Student Affairs Leadership (Ph.D.) Requirements" on page 22.

Required Credits — 47 hours

I. Core Courses Required (15 hours)
ELPS 751 Doctoral Core I (6)
ELPS 752 Doctoral Core II (6)
ELPS 754 Research in Educational Leadership (3)

II. Concentration Required (18 hours) (minimum of 15 hrs with ELPS or HESA prefix)
Students identify one of two concentration areas of study related directly to their goals as leaders of educational programs. A concentration area, in either Higher Education Leadership or Student Affairs Leadership, is defined as a body of knowledge represented by 18 hours of course work.

III. Field Based Learning Required (3 hours)
Students engage in field based learning experiences to enhance their theoretical and practical knowledge and skills.
HESA 661 Practicum in College Teaching for Student Development (6)
HESA 670 Internship in Higher Education and Student Affairs Leadership (6)
HESA 675 Field Experience in Higher Education and Student Affairs Leadership (1-3)

IV. Elective Courses in Higher Education and Student Affairs Leadership (11 hours)
Students select additional course(s) as needed, with the guidance of their program committee, to meet their specialized career needs:
HESA 622 Directed Studies (1-4)
HESA 650 College Student Development: Theory and Research (3)
HESA 651 Philosophical, Historical and Cultural Foundations of Student Affairs in Higher Education (3)
HESA 652 Enrollment Management Services (3)
HESA 653 Services for Environmental and Student Development (3)
HESA 655 Multiculturalism in Higher Education (3)
HESA 658 Management and Administration in Student Affairs (3)
HESA 668 Higher Education in the United States (3)
HESA 669 College and University Curriculum (3)
HESA 680 Law and Higher Education (3)
HESA 682 Legal Issues in Student Affairs (3)
HESA 683 Finance and Resource Management in Higher Education (3)
HESA 685 Human Resources in Higher Education (3)
HESA 750 College Students: Culture, Characteristics, Campus Life (3)
HESA 752 Current Issues in College Student Personnel Administration (2)
HESA 758 Seminar in College Student Personnel Administration (1)
HESA 771 Administrative Leadership in Student Affairs (3)
ELPS 655 Seminar in Learning in Adulthood (3)
ELPS 662 Design and Delivery of Professional Development (3)
ELPS 665 Policy Analysis and Development (3)
ELPS 711 Advanced Theories for Changing Organizations (3)

Research Core — 12 hours
At least 12 hours of doctoral level work (beyond SRM 600 or its equivalent) are directed toward research design and data analysis skills. Nine hours include a background in a combination of both qualitative and quantitative methods courses including SRM 602, SRM 603, SRM 680 or the equivalent approved by the doctoral program planning committee.

- SRM 602 Statistical Methods I (3)
- SRM 603 Statistical Methods II (3)
- SRM 680 Introduction to Qualitative Research (3)

Research Electives (3)
Students may elect courses from nursing, educational psychology or other applied statistics and research graduate courses or HESA courses with a research emphasis including:
- HESA 753 Evaluative Strategies for Student Affairs (2)
- HESA 758 Seminar in College Student Personnel Administration (1)

Research Proposal/Dissertation — 16 hours
Before the dissertation, students identify needed resources and refine their skills in order to develop a dissertation proposal. As part of the development process, students enroll in 4 hours of Doctoral Proposal Research (HESA 797). Twelve hours of Doctoral Dissertation credit (HESA 799) must be taken after committee approval of the proposal.

HESA 797 Doctoral Proposal Research (4)
HESA 799 Doctoral Dissertation (12)

Research Tools — 0-9 hours
Doctoral students in Higher Education and Student Affairs Leadership must demonstrate competency in two of the four research tools listed below:

1. Research Design. (Applied Statistics/Quantitative Methods and/or Qualitative Methods). Complete 12 semester hours (excluding HESA 797 and ELPS 797) in research methodology courses with an overall G.P.A. of 3.0 or better.

2. Computer Applications. Complete a minimum of 9 semester hours in graduate courses related to computer use with grades of "B" or better OR students can develop and demonstrate a computer program to meet a specific application in higher education or student affairs. This program is judged acceptable or unacceptable by the student’s doctoral committee.

3. Evaluation. Complete a minimum of 9 semester hours in evaluation courses (e.g. SRM 670, SRM 671, ELPS 662 or PPSY 781) with grades of "B" or better.

4. Foreign Language. Pass the Educational Testing Service or other faculty approved examination in any major modern foreign language with a score at the 50th percentile or higher.
HUMAN REHABILITATION PH.D.

Degree Requirements — 72 Credits

Admission into the doctoral program in Human Rehabilitation is determined by the graduate faculty of the department, with final approval of the graduate dean. See “Human Rehabilitation (Ph.D.) Requirements” on page 33.

Required Major Courses — 23 hours
HHS 758 Seminar in Collaborative Research in Human Sciences (3)
SES 696 College Teaching (3)
HRS 650 Human Resources System (3)
HRS 659 Seminar in Rehabilitation Counseling Supervision (2)
HRS 660 Advanced Seminar in Client Assessment (3)
HRS 695 Seminar in Foundations of Human Rehabilitation (3)
HRS 696 Advanced Rehabilitation Counseling Theories and Approaches (3)
HRS 706 Advanced Seminar in Psychosocial Aspects of Disability (3)

Collateral Field
Students will identify a concentration area (a body of knowledge represented by a minimum of 12 hours of coursework) of study that relates directly to their goals as scholars in the field of rehabilitation. The concentration area and specific courses will be approved by their doctoral committee and the Graduate School. Examples of a collateral field could include, but are not limited to the following: gerontology, community health, nursing, sociology and special education.

Elective Credits — 6 hours
HRS 755 Supervised Practicum in College Teaching (3)
HRS 757 Advanced Seminar in Rehabilitation Administration (3)
HRS 759 Advanced Practicum in Rehabilitation Counseling Supervision (3)

Research Core — 15 hours
All doctoral students are required to take the following 15 graduate level hours in statistics and research in order to satisfy one of the two university required research tools. These 15 hours may count toward the 69 credits required in the doctoral curriculum.
SRM 602 Statistical Methods I (3)
SRM 603 Statistical Methods II (3)
SRM 610 Statistical Methods III (3)
SRM 680 Introduction to Qualitative Research (3)
SRM 700 Advanced Research Methods (3)
or
SES 703 Research Seminar in Sport and Exercise Science (3)

Research Proposal/Dissertation — 16 hours
HRS 797 Doctoral Proposal Research (4)
HRS 799 Doctoral Dissertation (12)

Research Tools — 12 hours
Select One Additional Tool:

1) Computer Applications: Satisfactorily complete with a grade of “B” or better a minimum of 12 hours of committee approved computer application courses. These hours, if graduate level, may count toward the required total credits for graduation.
   or
   The student may prepare and demonstrate a computer program written to meet a specific application need in the Department of Human Services. This program must be judged as acceptable by the student’s doctoral program committee.

2) Foreign Language: Pass the E.T.S. examination in any major foreign language (i.e., other than English) with a score not less than the 30th percentile. Students whose native language is other than English may be determined to have satisfied this requirement by unanimous vote of the student’s doctoral program committee.

Note: Completion of a detailed portfolio that addresses all areas of the doctoral matrix of competencies is submitted and must receive a passing evaluation prior to scheduling of the oral comprehensive examination.
Doctoral Degrees

Music D.A. (Select from six emphases)

Degree Requirements — 66-71 Credits

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” on page 38.

Conducting, Music History and Literature, Music Performance, Music Theory and Composition, Performance and Pedagogy Emphases

Program Requirements — 66-71 Credits

The Doctor of Arts degree provides options for advanced study in the areas of music history and literature, theory and composition, music performance, conducting or performance and pedagogy.

Required Major Credits — 8-12 hours

MUS 623 Individual Studies in Effective Teaching (3)
MUS 700 Introduction to Doctoral Research (3)
MUS 794 Supervised Practicum in College Teaching (2-6)

Primary Emphasis — 18 hours

The primary emphasis area develops a major scholarly and/or performing function for the college and university level in Conducting, Music History and Literature, Theory and Composition, Music Performance, or Music Performance and Pedagogy. Courses are selected by advisement based upon the candidate’s area of focus and upon the candidate’s needs identified through the advisory examination.

Secondary Emphasis — 10 hours

This area develops a secondary scholarly and/or performing emphasis in one of the degree emphasis areas (Music History and Literature, Theory and Composition, Music Performance, Conducting, Performance and Pedagogy), or in Jazz Pedagogy, Music Education, Opera Theatre, or related areas outside Music. It is expected that a creative project of some type will be undertaken as part of the concentration. The concentration area and courses are selected by the candidate with the approval of the program advisor and the advisor for the Secondary Area of Concentration.

Elective Credits — 2 hours

Research Core — 12-13 hours

MUS 700 Introduction to Doctoral Research (3)
Select one Course (3 hours) (*music history exam)
MUS 643-MUS 648 Period Seminars in Music History (3)
Select one Course (2-3 hours) (*music theory exam)
MUS 501-503, 603 Graduate Music Theory and Analysis (2-3)
Select one Course (4 hours) (**individual performance area)
MUS 551, 665, 670-679 Individual Performance Studies (4)
Dependent upon results of *advisory exam/**performance area.

Research Proposal/Dissertation — 16 hours

MUS 797 Doctoral Proposal Research (4)
MUS 799 Doctoral Dissertation (12)

Note: 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 and Conducting majors will perform two recitals for 8 semester hours and complete a four semester hour dissertation. Performance and Pedagogy majors will perform one recital for four semester hours and complete an eight-hour dissertation. Students seeking the D.A. in Music Education, Music History and Literature or Theory and Composition will complete a 12-hour dissertation.

Theory and Composition majors will present a recital of their composition written as part of their degree program.

A reading knowledge of one foreign language (French, German or Italian) is required by the following areas: brass, history and literature (a second language may be required through advisement), piano, strings, theory and composition, 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 area, a substitute research tool may be permitted after consultation and approval by the candidate’s committee. Students should contact the Graduate Coordinator or appropriate department to clarify language requirements.

The candidate must complete two consecutive semesters (minimum of 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.

Music Education Emphasis

Program Requirements — 66 Credits

This program emphasizes philosophy, psychology, contemporary and past history, research and includes scholarship and musicianship through study in the areas of music history and literature, theory, composition and performance.

This emphasis area places primary emphasis on a comprehensive working knowledge of contemporary music education practices in public schools and college music programs and community cultural life.

Required Credits — 25 hours

Primary Emphasis (15 hours)

MUS 519 Foundations of Music Education (3)
MUS 533 Curriculum Trends in Music Education (3)
MUS 622 Directed Studies in Music (3)
EDF 640 Psychological Foundations of Education (3)
EDF 685 Philosophical Foundations of Education (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 (4)
MUS 799 Doctoral Dissertation (12)

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.
NURSING EDUCATION PH.D.

Degree Requirements — 65-95 credits
(Select the BS to Ph.D. or the Master’s to Ph.D. entry options)
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 two entry options: the
Bachelor’s in Nursing (BS) to Ph.D. or the traditional Master’s
to Ph.D.

Program Requirements — 28 hours
Research Core — 12 hours
SRM 602 Statistical Methods I (3) *
SRM 603 Statistical Methods II (3) *
HHS 758 Seminar in Collaborative Research in Human
Sciences (3)
Advanced Qualitative or Quantitative Methods 3
Research and Dissertation — 16 hours
NURS 797 Doctoral Proposal Research (2-4) *
NURS 799 Doctoral Dissertation (1-12)
Research Tools
*The first research tool is quantitative statistical methods met
by successful completion of SRM 602 and SRM 603.
**The second research tool will be determined based on the
student’s personal interests/preferences (i.e. computer
application to coursework design, qualitative design
methodology, transcultural nursing project or fieldwork, etc.)
and documented in an approved plan of coursework. A
collaborative field of study may be used as a substitute for one of
the research tools (12 hours in a focused content area, i.e.,
educational psychology, educational leadership, gerontology,
community health, etc.).

BS to Ph.D. Requirements — 95 hours
The BS to Ph.D. students will receive the master's degree en-
route to the Ph.D.
Program Requirements — 28 hours
Nursing Science BS to Ph.D. Core — 26 hours
NURS 505 Nursing Research (3)
NURS 600 Nursing Theory (3)
NURS 602 Concepts in Chronic Illness (4)
NURS 604 Care of Chronically Ill Adult and Child (4)
NURS 614 Advanced Pathophysiology (3)
NURS 691 Applied Nursing Research (3)
NURS 700 Advanced Nursing Theory (3)
NURS 702 Advanced Concepts of Vulnerable Underserved
Populations (3)
Nursing Education — 35 hours
NURS 607 Leadership in Health Policy (3)
NURS 630 Teaching Strategies in Nursing (3)
NURS 660 Nursing Education Seminar (4)
NURS 695 Advanced Academic Nursing Roles (3)
NURS 710 Evaluation in Nursing Education (3)
NURS 730 The Scholarship of Teaching and Practice in
Nursing Education (4)
NURS 740 Intensive Teaching Practicum (3)
NURS 760 Advanced Nursing Curriculum Design (3)
NURS 780 The Professorial Role in Nursing Education (3)
EPSY 681 Cognition and Instruction I (3)
ET 602 Instructional Analysis and Design (3)
Electives — 6 hours (with advisor approval)
Examples include transcultural nursing courses or coursework
in education, educational leadership, educational
psychology, educational technology, statistics, gerontology,
etc.

Deficiencies
*Equivalencies or portfolio experience will determine
student’s need to take these additional hours (may be used as
elective courses):
NURS 630 Teaching Strategies in Nursing (3)
NURS 660 Nursing Education Seminar (4)

Master’s to Ph.D. Requirements — 65 hours
Students may also enter with a master’s and complete the
doctoral degree with 65 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.
Program Requirements — 28 hours
Nursing Science Master’s to Ph.D. Core — 9 hours
NURS 607 Leadership in Health Policy (3)
NURS 700 Advanced Nursing Theory (3)
NURS 702 Advanced Concepts of Vulnerable Underserved
Populations (3)
Nursing Education — 22 hours
NURS 710 Evaluation in Nursing Education (3)
NURS 730 The Scholarship of Teaching and Practice in
Nursing Education (4)
NURS 740 Intensive Teaching Practicum (3)
NURS 760 Advanced Nursing Curriculum Design (3)
NURS 780 The Professorial Role in Nursing Education (3)
EPSY 681 Cognition and Instruction I (3)
ET 602 Instructional Analysis and Design (3)
Electives — 6 hours (with advisor's approval)
Examples include transcultural nursing courses or coursework
in education, educational leadership, educational
psychology, educational technology, statistics, gerontology,
etc.

Deficiencies
*Equivalencies or portfolio experience will determine
student’s need to take these additional hours (may be used as
elective courses):
NURS 630 Teaching Strategies in Nursing (3)
NURS 660 Nursing Education Seminar (4)
SCHOOL PSYCHOLOGY Ph.D.

Degree Requirements — 138-141 Credits

The Ph.D. program is fully accredited by the American Psychological Association and the National Association of School Psychologists.

The principal goal of the doctoral program is the training of a professional psychologist who, in addition to possessing general practitioner skills, has developed proficiency in the areas of psychological intervention, psychological assessment, consultation, systems change, research and evaluation.

Doctoral graduates, in addition to being eligible for state and national licensure as school psychologists, may also be qualified to assume positions as therapists, university professors, educational evaluators and private consultants.

Doctoral students in School Psychology are required to engage in research with a school psychology faculty member for five hours per week (equivalent, one semester hour) for a minimum of two semesters.

See “School Psychology Admission Requirements” on page 27.

Required Credits — 110-113 hours

*Recommended to meet State of Colorado School Psychologist licensure requirements.

Psychological Foundations (33 hours)
- PPSY 590 Seminar in History and Systems (3)
- *PPSY 655 Community Psychology and Social Systems (3)
- *PPSY 658 Ethics and Law in Schools for Psychologists and Counselors (3)
- *PPSY 660 Psychological Consultation: Theory and Practice (3)
- PPSY 667 Crisis Intervention in the Schools (2)
- PPSY 763 Seminar in School Psychology (3)
- PPSY 758 Advanced Psychopathology (3)
- PPSY 777 Applied Neuropsychology (4)

Assessment for Intervention (28-31 hours)
- *PPSY 618 Practicum in Child, Adolescent, and Family Interventions (5)
- PPSY 674 Assessment for Intervention: Cognitive and Academic (5)
- *PPSY 676 Assessment for Intervention: Infant and Toddler (3)
- *PPSY 678 Assessment for Intervention: Personality and Behavior (5)
- PPSY 775 Supervision of Psychological Testing (3-9)
- PPSY 779 Practicum in School Psychology (3)

Assessment for Intervention (28-31 hours)
- *PPSY 559 Introduction to Clinical Hypnosis (2)
- *PPSY 617 Play Therapy: Theory and Practicum (3)
- *PPSY 681 Practicum in Consultation (3)
- *PPSY 694 Practicum in Family Therapy (4)
- *PPSY 626 Introduction to Neuropsychological Assessment (3)
- *PPSY 606 Group Laboratory Experience (1) and
- *PPSY 606 Theories and Practices in Group Guidance (3)
- PPSY 738 Practicum in Evidenced-Based Interventions (3)
- *PPSY 778 Clinical Neuropsychology Practicum (2)

Multicultural Understanding (3 hours)
- Select one of the following courses:
  - *PPSY 565 Psychology of Prejudice (3)
  - PPSY 623 Counseling Diverse Populations (3)

Supervised Field Work (36 hours)
- PPSY 789 Internship in School Psychology (12) (3 semesters)
- Professional Education (9 hours) (minimum)
  - PPSY 568 Psychology of Women (2)
  - PPSY 603 Counseling Children and Adolescents (3)

Electives in Professional Education (1 hour)
With Advisor approval other courses from ELPS, EDF, or EDSE, may be substituted to meet State of Colorado Licensure Standards.

Research Tools

1. Applied Statistics (choose one of the two options)
   - Option one (9 hours)
     - *SRM 602 Statistical Methods I (3)
     - SRM 603 Statistical Methods II (3)
     - SRM 610 Statistical Methods III (3)
   - Option two (11 hours)
     - *SRM 501 Applied Statistics I (4)
     - SRM 502 Applied Statistics (4)

2. Applied Research (10 hours)
   - PPSY 580 Computer Applications to Professional Psychology (2)
   - PPSY 663 Research Apprenticeship: School Psychology (2)
   - PPSY 781 Evaluation of Psychological Services (3)

3. Comprehensive Exam (9 hours)
   - PPSY 672 Neuropsychologically-Based Interventions for Educational Difficulties (3)
   - EDRD 617 Evaluation and Correction of Individual Reading Problems (4)

Electives in Professional Education (1 hour)
With Advisor approval other courses from ELPS, EDF, or EDSE, may be substituted to meet State of Colorado Licensure Standards.

Required Credits — 110-113 hours

*Recommended to meet State of Colorado School Psychologist licensure requirements.

Psychological Foundations (33 hours)
- PPSY 590 Seminar in History and Systems (3)
- *PPSY 655 Community Psychology and Social Systems (3)
- *PPSY 658 Ethics and Law in Schools for Psychologists and Counselors (3)
- *PPSY 660 Psychological Consultation: Theory and Practice (3)
- PPSY 667 Crisis Intervention in the Schools (2)
- PPSY 763 Seminar in School Psychology (3)
- PPSY 758 Advanced Psychopathology (3)
- PPSY 777 Applied Neuropsychology (4)

Assessment for Intervention (28-31 hours)
- *PPSY 618 Practicum in Child, Adolescent, and Family Interventions (5)
- PPSY 674 Assessment for Intervention: Cognitive and Academic (5)
- *PPSY 676 Assessment for Intervention: Infant and Toddler (3)
- *PPSY 678 Assessment for Intervention: Personality and Behavior (5)
- PPSY 775 Supervision of Psychological Testing (3-9)
- PPSY 779 Practicum in School Psychology (3)

Assessment for Intervention (28-31 hours)
- *PPSY 559 Introduction to Clinical Hypnosis (2)
- *PPSY 617 Play Therapy: Theory and Practicum (3)
- *PPSY 681 Practicum in Consultation (3)
- *PPSY 694 Practicum in Family Therapy (4)
- *PPSY 626 Introduction to Neuropsychological Assessment (3)
- *PPSY 606 Group Laboratory Experience (1) and
- *PPSY 606 Theories and Practices in Group Guidance (3)
- PPSY 738 Practicum in Evidenced-Based Interventions (3)
- *PPSY 778 Clinical Neuropsychology Practicum (2)

Multicultural Understanding (3 hours)
- Select one of the following courses:
  - *PPSY 565 Psychology of Prejudice (3)
  - PPSY 623 Counseling Diverse Populations (3)

Supervised Field Work (36 hours)
- PPSY 789 Internship in School Psychology (12) (3 semesters)
- Professional Education (9 hours) (minimum)
  - PPSY 568 Psychology of Women (2)
  - PPSY 603 Counseling Children and Adolescents (3)
SPECIAL EDUCATION Ed.D.

Degree Requirements — 64-70 Credits

The Ed.D. in Special Education is a flexible doctoral program with provisions for individual planning to prepare special education professionals for positions of leadership in public and private schools and for colleges, universities, agencies, businesses and government entities. Major emphases are internally flexible and may be established to fit a variety of interests in the field of special education. Graduates develop leadership knowledge and skills in special education related to five major themes: theory, effective teaching, inquiry, scholarly production and intra-interpersonal skills. The program is designed to prepare students for creative leadership in a rapidly changing world that is experiencing increasing cultural diversity, curriculum and structural reforms in schools and pedagogical innovations across the educational spectrum.

Required Credits — 27-33 hours

Note that students will be required to demonstrate literacy and competency in computer applications as part of the program.

Doctoral Core Courses (12 hours)
EDSE 721 Theoretical Foundations of Special Education I (3)
EDSE 723 Seminar in Facilitating Personal and Professional Development in Special Education (3)
EDSE 727 Seminar in Exceptionalities (3)
EDSE 728 Seminar in Professional Writing (3)

Apprenticeships (9 hours)
EDSE 729 Apprenticeship in Special Education (9)

Apprenticeships are typically taken in two hour blocks, beginning with the first semester on campus. Variable titles related to inquiry, university teaching and administration are selected based on the nature of the apprenticeship.

Externships (3 hours - minimum)
EDSE 730 Externship in Special Education (3)

Externships are taken in one to twelve hour blocks and involve an off-campus experience. Variable titles related to inquiry, university teaching and administration are selected based on the nature of the externship.

Topical Seminars (3 hours - minimum)
EDSE 731 Topical Seminar in Special Education (3-9)

Topical seminars are offered as three hour courses. A minimum of one topical seminar is required, and up to three topical seminars may be included in the program of study.

Elective Credits — 9 hours (minimum)

Students are to select 9 semester hours of courses from outside of the Division of Exceptionalities and Bilingual/ESL Education. Electives are chosen in consultation with the major advisor and are an integral part of the program plan.

Areas of Special Interest

The student may select an area of interest (one or more), in conference with his or her advisor, from the following areas: transition of children and youth with exceptionalities; education of preschool children with exceptionalities; one of the categorical areas of special education (autism, learning disabilities, deaf or hard of hearing, blind or visually impaired, emotionally disturbed, gifted, mental retardation, etc.); 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 (4)
EDSE 799 Doctoral Dissertation (12)
SPORT AND EXERCISE SCIENCE

PH.D.

(Select from three emphases)

Degree Requirements — 64-68 Credits

The Doctor of Philosophy in Sport and Exercise Science is offered through the School of Sport and Exercise Science.

Program Requirements — 28 hours

Prerequisites (6 hours)

Exercise Science and Sport Pedagogy:

SRM 600 Introduction to Graduate Research (3) or
SES 602 Introduction to Research in Sport and Exercise Science (3)

may be required if not taken during a student’s Masters program.

Research Administration:

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.

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 610 Statistical Methods III (3) or
SRM 680 Introduction to Quantitative Research (3)

Research Proposal/Dissertation — 16 hours

SES 797 Doctoral Proposal Research (4)
SES 799 Doctoral Dissertation (12)

Research Tools

Doctoral students in this degree must demonstrate competency in two research tools. Five possibilities are listed below:

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.
4. Computer Applications. Complete a minimum of 9 hours in graduate courses related to computer use with grades of “B” or better OR students can develop and demonstrate computer proficiency to satisfy a specific need in sport and exercise science. The students’ doctoral committee judges this program or proficiency acceptable or unacceptable.

A. collateral field of study may be used as a substitute for a research tool. See Graduate School policies for details.

Note: In order to advance to candidacy, students must demonstrate proficiency in theoretical and research foundations, teaching and communication, scholarship and professional service. Criteria for proficiency are identified in the School of Sport and Exercise Science Doctoral Evaluation Matrix.

Exercise Science Emphasis

Degree Requirements — 64 hours

Students pursuing the Exercise Science emphasis select one concentration area: 1) biomechanics, 2) exercise physiology, and 3) social psychology of sport and physical activity.

Program Requirements — 28 hours

1) Biomechanics

Concentration Area Credits — 24 hours

SES 620 Advanced Anatomical Kinesiology (3)
SES 621 Advanced Biomechanics (3)
SES 622 Directed Studies: Research in Biomechanics (6)
SES 623 Advanced Neuromotor Kinesiology (3)
SES 626 Advanced Physiological Kinesiology I (3)
SES 627 Advanced Physiological Kinesiology II (3)
SES 690 Graduate Seminar in Kinesiology (1) (3hrs required)

Elective Credits (with advisor approval) — 12 hours

SES 624 Advanced Developmental Kinesiology (3)
SES 629 Concepts in Kinesiology (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)
SES 694 Special Topics in Kinesiology (3)
SES 755 Supervised Practicum in College Teaching (3)

2) Exercise Physiology

Program Requirements — 28 hours

Required Concentration Area Credits — 18 hours

SES 625 Laboratory Techniques in Kinesiological Research (3)
SES 626 Advanced Physiological Kinesiology I (3)
SES 627 Advanced Physiological Kinesiology II (3)
SES 629 Concepts in Kinesiology (3) (Cardiopulmonary)
SES 690 Graduate Seminar in Kinesiology (1) (3hrs required)
SES 755 Supervised Practicum in College Teaching (3)

Elective Credits (with advisor approval) — 18 hours

SES 620 Advanced Anatomical Kinesiology (3)
SES 621 Advanced Biomechanics (3)
SES 622 Directed Studies (1-4)
SES 623 Advanced Neuromotor Kinesiology (3)
SES 624 Advanced Developmental Kinesiology (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)
SES 694 Special Topics in Kinesiology (3)
SES 705 Seminar in Sport Administration (2)
SES 755 Supervised Practicum in College Teaching (1-3)
BIO 550 Cell Physiology (4)
BIO 552 Mammalian Physiology I (3)
BIO 553 Mammalian Physiology II (3)
CHEM 581 General Biochemistry I (4)
CHEM 582 General Biochemistry II (4)
GERO 555 Grant Development and Administration (3)

3) Social Psychology of Sport and Physical Activity

Program Requirements — 28 hours

Required Concentration Area Credits — 15 hours

SES 624 Advanced Developmental Kinesiology (3)
SES 629 Concepts in Kinesiology (3) (Motivation)
SES 635 Exercise and Sports Psychology (3)
SES 665 Advanced Sociological Kinesiology (3)
SES 690 Graduate Seminar in Kinesiology (1) (3hrs required)

Elective Credits (with advisor approval) — 21 hours

SES 620 Advanced Anatomical Kinesiology (3)
SES 621 Advanced Biomechanics (3)
SES 622 Directed Studies (1-4)
SES 623 Advanced Neuromotor Kinesiology (3)
SES 626 Advanced Physiological Kinesiology I (3)
SES 627 Advanced Physiological Kinesiology II (3)
SES 692 Graduate Internship in Sport and Exercise Science (1-6)
SES 755 Supervised Practicum in College Teaching (1-6)
SES 670 Sport and Higher Education (3)
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SES 680 Perspectives in Sport Pedagogy (3)
SES 696 College Teaching (3)
PSY 643 Theories of Motivation (3)
PSY 664 Advanced Social Psychology (3)
SOC 532 Social Psychology and Group Dynamics (3)
SOC 552 Applied Social Theory (3)

Sport Administration Emphasis

Degree Requirements — 64 hours

This curriculum follows the guidelines set for the preparation of students in Sport Management by the National Association for Sport and Physical Education and the North American Society for Sport Management. The program is designed primarily to prepare students for academic positions in higher education. Some students may choose to apply their doctoral course work in careers in the management of sport in collegiate athletic programs, professional, Olympic, or commercial sport business.

See “Sport Administration Emphasis (Ph.D.) Admission Requirements” on page 36.

Program Requirements — 28 hours

Required Credits — 26 hours

SES 576 Sport Promotion and Marketing (3)
SES 650 Financial Management for Sport Organizations (3)
SES 660 Sport Personnel Management (3)
SES 665 Advanced Sociological Kinesiology (3)
SES 675 Management of Sports Facilities and Equipment (3)
SES 676 Sport Public Relations and Information Systems (3)
SES 678 Event Development and Management (3)
SES 688 Legal Aspects of Sport (3)
SES 705 Seminar in Sport Administration (2)

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.

ET 501 Introduction to Applications of Educational Technology (3)
ET 504 Instructional Materials Design (3)
ELPS 601 Leadership Development Through Inquiry (3)
ELPS 663 Developing Grants and Contracts (3)
SES 575 Supervised Practicum in College Teaching (1-6)
ELPS 650 School Finance and Budgeting (3)
HESA 680 Law and Higher Education (3)
SES 670 Sport and Higher Education (3)
SES 692 Graduate Internship in Sport and Exercise Science (1-6)
SES 696 College Teaching (3)
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.

Sport Pedagogy Emphasis

Degree Requirements — 65 Credits

Students who successfully complete this emphasis will have varied career opportunities including teaching and research positions in colleges and universities throughout the United States. Graduates often seek and obtain positions involving teaching and research in teaching methodology, curriculum design, measurement, administrative theory and practice and supervision.

Students will have the opportunity to gain practical experience in pedagogy and administration. They will also have opportunities to participate in ongoing research efforts within the School of Sport and Exercise Science (SES). SES has a well-equipped research laboratory for the study of teaching and various forms of graduate experiences are available in this area.

Program Requirements — 28 hours

Required 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) (take twice)
SES 696 College Teaching (3)

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 620 Advanced Anatomical Kinesiology (3)
SES 621 Advanced Biomechanics (3)
SES 623 Advanced Neuromotor Kinesiology (3)
SES 624 Advanced Developmental Kinesiology (3)
SES 626 Advanced Physiological Kinesiology I (3)
DOCTORAL MINORS

APPLIED STATISTICS AND RESEARCH METHODS

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.

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 619 Resampling Methods (3)
- SRM 625 Applied Multiple Regression Analysis (3)
- SRM 627 Survey Research Methods (3)
- SRM 635 Categorical Data Analysis (3)
- SRM 670 Evaluation: Models and Designs (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 as Analysis of Qualitative Research (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 department 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 PSYCHOLOGY

Doctoral Minor Requirements — 15 Credits

Admission Requirements

The minor will be open to all students who are enrolled in a doctoral degree program at the University of Northern Colorado. Doctoral students must apply for admission to this minor by submitting a written request to the chair of the Department of Educational Psychology stating: 1) their intent to obtain a minor in Educational Psychology, 2) the emphasis area in Educational Psychology in which they intend to concentrate, 3) their name, their student ID#, 4) the doctoral program in which they are enrolled, 5) the name of their doctoral program advisor, 6) the student’s mailing address, and 7) their E-mail address. The application may be sent at any time.

The student must complete a minimum of 15 semester hours of coursework with a grade of "B" or higher. All students enrolled in the minor must abide by the code of Ethics of the American Psychological Association (APA) and the American Education Research Association (AERA).

Concentration Area — 15 hours (minimum)

Substitutions of courses with the EPSY prefix will be allowed, if they are approved by the chair of the Department of Educational Psychology.

Select one of three concentration areas:

1) Learning and Cognition Concentration
   - EPSY 540 Theories and Principles of Learning (3)
   - EPSY 635 Individual Differences in Cognition (3)
   - EPSY 661 Trends and Issues in Educational Psychology (3)
   - EPSY 682 Cognition and Instruction II (3)
   - EPSY 685 Advanced Seminar in Learning and Cognition (3)

2) Human Development Concentration Courses
   - EPSY 530 Life Span Developmental Psychology (3)
   - EPSY 630 Child and Adolescent Psychology (3)
   - EPSY 631 Psychology of Youth, Adulthood and Aging (3)
   - EPSY 661 Trends and Issues in Educational Psychology (3)
   - EPSY 684 Advanced Seminar in Human Development (3)

3) Research and Measurement Concentration
   - EPSY 661 Trends and Issues in Educational Psychology (3)
   - EPSY 674 Measurement I: Educational Testing (3)
   - EPSY 675 Measurement II: Advanced Techniques (3)
   - EPSY 682 Cognition and Instruction II (3)
   - EPSY 684 Advanced Seminar in Human Development (3)
   or
   - EPSY 685 Advanced Seminar in Learning and Cognition (3)
Doctoral Minor Requirements — 15 Credits

Admission Requirements
Doctoral students must apply for admission to this minor. The application materials and admission criteria are the same as those required for the Ph.D. in Educational Technology: cover page, GRE (minimum scores: 1650 composite, 550 in each section), 3 letters of recommendation, statement of professional goals relevant to this minor. Completed applications packets should be submitted to the department chair prior to the completion of 6 hours of coursework within the minor. Applications will be considered on an open schedule.

The student must complete a minimum of 15 semester hours of coursework with a grade of “B” or better in each course for this Doctoral Minor. All coursework for the minor must carry an ET prefix. Course substitutions are allowed within this minor only if they have ET prefixes and are approved by both the student’s minor advisor and Educational Technology department chairperson. Internships, practica and directed studies may not be counted in the 15 hour minimum.

Doctoral students completing the Educational Technology minor will include an Educational Technology faculty member on their doctoral research committee.

Required Coursework — 15 hours
ET 502 Instructional Design (3)
ET 503 Computers in Education (3)
and/or
ET 504 Instructional Materials Design (3)
Total of at least 15 semester hours of ET prefix coursework approved by the student’s minor advisor and the Educational Technology department chairperson.
At least 6 hours of ET coursework at the 600 or 700 level. All prerequisite course requirements must be met.

Nursing Education

Doctoral Minor Requirements — 15-16 Credits
Matriculated UNC doctoral students may apply for admission to the minor. Candidates must possess the baccalaureate degree in nursing, have a master’s degree and be currently licensed as a registered nurse.

The application materials include a cover page, 3 letters of recommendation and a statement of professional intent relevant to the doctoral nursing minor. Completed packets will be submitted to the School of Nursing prior to enrollment in the nursing minor coursework. Applications will be considered on an open schedule.

Required Credits — 15-16 hours
NURS 630 Teaching Strategies in Nursing (3)
NURS 660 Nursing Education Seminar (4)
NURS 691 Applied Nursing Research (3)
NURS 780 The Professors Role in Nursing Education (3)
NURS 695 Advanced Academic Nursing Roles (2-3)

Students must complete a minimum of 15 semester hours with a grade of “B” or better in all courses in the doctoral minor. All coursework for the minor will carry a NURS prefix. Course substitutions may be allowed by the student’s advisor within the minor, prior to taking the course.
Doctoral Minor Requirements — 15 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 Division of Exceptionalities and Bilingual/ESL Education is required. In consultation with their doctoral program advisors, students may include sufficient EDSE courses in their programs of study to meet the requirements for the minor. Some or all of the courses used for this minor may be part of a student’s program of required or elective classes. The minor consists of additional courses completed with a “B” or better.

This minor is not available to students in the Special Education doctoral program.

Required Courses — 6 hours

EDSE 500 Field of Special Education (3)
or
EDSE 615 Special Education Law: Cases and Trends (3)
and
EDSE 503 Effective School Environments for Learners with Exceptional Needs (3)
or
EDSE 505 Assessment of Exceptional Individuals (3)
and select two of the following courses (6 hours):
EDSE 524 Seminar in Education of Learners with Profound Needs (3)
EDSE 525 Research and Policy for Learners with Profound Needs (3)
EDSE 601 Supporting Special Students in the Mainstream (3)
EDSE 602 Behavioral Disorders: Characteristics, Identification and Intervention (3)
EDSE 606 Instructional Methods for Students with Special Needs (3)
EDSE 608 Case Studies with Students with Special Needs (3)
EDSE 609 Language Development: Disorders of Individuals with Special Needs (3)
EDSE 610 Interventions for Students with Severe Affective Needs (3)
EDSE 611 Seminar in Severe Affective Needs (3)
EDSE 621 Seminar in Severe Cognitive Needs (3)
EDSE 641 Medical and Educational Implications of Visual Handicaps (1-3)
EDSE 642 Advanced Seminar in Education of Students with Visual Handicaps (3)
EDSE 652 Speechreading, Auditory Training and Amplification (3)
EDSE 653 Speech, Severe Needs: Hearing (3)
EDSE 654 Language, Severe Needs: Hearing (3)
EDSE 655 Reading, Severe Needs: Hearing (3)
EDSE 656 Methods of Teaching Content: Severe Needs Hearing (3)
and select one of the following courses (3 hours)
EDSE 721 Theoretical Foundations of Special Education I (3)
EDSE 723 Seminar in Facilitating Personal and Professional Development in Special Education (3)
EDSE 727 Seminar in Exceptionalities (3)
EDSE 728 Seminar in Professional Writing (3)
EDSE 731 Topical Seminar in Special Education (3)
EDUCATIONAL SPECIALIST DEGREES

EDUCATIONAL LEADERSHIP Ed.S.

Degree Requirements — 30 Credits
The Ed.S. Degree requires 30 hours beyond the master's degree and represents advanced study in educational leadership and policy. Completion of the program may satisfy requirements for the Colorado Principal or Administrator (central office including superintendent) license or provide advanced study for students preparing for leadership roles in post-secondary education.

Research — 3 hours
Select one of the following courses:
- SRM 602 Statistical Methods I (3)
- SRM 670 Evaluation: Models and Designs (3)
- SRM 680 Introduction to Qualitative Research (3)
- EPSY 674 Measurement I: Educational Testing (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 (3)
- HESA 670 Internship in Higher Education and Student Affairs Leadership (6)
- HESA 675 Field Experience in Higher Education and Student Affairs Leadership (1-3)
- ELPS 695 Practicum in Educational Leadership (1-3)

Electives — 9 hours
Courses Fulfilling Professional Needs and Interests (9)

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

SCHOOL PSYCHOLOGY Ed.S.

Degree Requirements — 73-87 Credits
The Ed.S. program is fully accredited by the National Association of School Psychologists.
The specialist program in School Psychology is designed for those persons who wish to become practitioners meeting state and national licensure requirements for school psychologists. Training is primarily oriented toward the acquisition of those skills necessary for effective functioning as a school psychologist working in a public school.
See “School Psychology Admission Requirements” on page 27.

Required Credits — 73-87 hours
- Psychological Foundations (40 hours)
- PPSY 580 Computer Applications to Professional Psychology (1)
- PPSY 607 Theories of Counseling (3)
- PPSY 638 Human Behavior Analysis (3)
- PPSY 655 Community Psychology and Social Systems (3)
- PPSY 658 Ethics and Law in Schools for Psychologists and Counselors (3)
- PPSY 660 Psychological Consultation: Theory and Practice (3)
- PPSY 665 Family Systems (3)
- PPSY 667 Crisis Intervention in the Schools (2)
- PPSY 672 Neuropsychologically-Based Interventions for Educational Difficulties (3)
- PPSY 758 Advanced Psychopathology (3)
- PPSY 763 Seminar in School Psychology (3)
- PPSY 781 Evaluation of Psychological Services (3)
- EDRD 617 Evaluation and Improvements of Literacy Teaching and Learning (4)

and select one of the following courses (3 hour):
- EPSY 630 Child and Adolescent Psychology (3)
- PSY 550 Cognitive Development (3)

Assessment for Intervention (24 hours)
- PPSY 618 Practicum in Child, Adolescent, and Family Interventions (5)
- PPSY 674 Assessment for Intervention: Cognitive and Academic (5)
- PPSY 676 Assessment for Intervention: Infant and Toddler (3)
- PPSY 678 Assessment for Intervention: Personality and Behavior (5)
- PPSY 779 Practicum in School Psychology (3)

and select one of the following courses:
- PPSY 681 Practicum in Consultation (3)
- PPSY 738 Practicum in Evidenced-Based Interventions (3)

Multicultural Understanding (3 hours)
Select one of the following courses:
- PPSY 565 Psychology of Prejudice (3)
- PPSY 623 Counseling Diverse Populations (3)

Supervised Field Work (6 hours minimum)
- PPSY 789 Internship in School Psychology (2-10) (register for three semesters)

Notes:A written comprehensive examination is a program requirement, and it is satisfied by successfully completing the National Certified School Psychology Examination (NCSP).
ENDORSEMENT AND LICENSURE PROGRAMS

For a complete list of programs please see “Post Baccalaureate and Post Master’s Licensure Programs” on page 69.

COE
ADMINISTRATORS’ LICENSURE:
DISTRICT LEVEL LEADERSHIP
(Non-Degree)

Licensure Requirements — 21 Credits

The Administrator Licensure Program in the Division of Educational Leadership and Policy Studies provides opportunities for candidates to acquire the knowledge and skills needed for the day-to-day demands of the administrative positions that provide leadership for family-school-community efforts to improve education. The program not only provides opportunities for students to develop an in-depth understanding of district office roles and responsibilities, but also develops a breadth of understanding of leadership, policy development, local school governance, and contemporary educational issues.

Entering students who already possess a master’s degree in Educational Leadership or a Principal License (or equivalent) need a minimum of 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” on page 256) 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” on page 21.

Required Credits — 21 hours (minimum)

- ELPS 606 Internship in Educational Leadership (3) (minimum 2 hours at central office and 1 hour with other agencies)
- 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) and select one of the following two courses:
  - ELPS 650 School Finance and Budgeting (3)
  - ELPS 651 School Business Management (3)
  - and select one of the following two courses:
  - SRM 670 Evaluation: Models and Designs (3)
  - EPSY 674 Measurement I: Educational Testing (3)

A&S

BILINGUAL BICULTURAL EDUCATION, POST-BACCAULAERATE
(Added Endorsement) Elementary and Middle School, and Secondary Education

Endorsement Requirements — 18-21 Credits

This graduate level endorsement program in Bilingual Bicultural Education emphasizes the study of the structures of English and Spanish, second language acquisition, and methodology related to teaching in a dual language classroom. This program leads to recommendation to Colorado’s Linguistically Diverse Bilingual Education endorsement. The Elementary and Middle School Education program must be completed in conjunction with, or after the completion of the Elementary or Middle School Licensure Program. The Secondary Education Program must be completed in conjunction with, or after the completion of a Secondary Teacher Preparation program.

Elementary and Middle School Education Endorsement — 18 hours

Required Credits — 18 hours

- EDEL 619 Pluralism in Education (3)
- EDDL 600 Literacy and Content Instruction in Spanish Bilingual Classrooms (3)
- EDDL 602 Teaching Linguistically Diverse Learners (3)
- EDDL 603 Methods and Assessment for ESL and Bilingual Education (3)
- EDDL 604 Field Experience in TESOL and Bilingual Education (3)
- SPAN 555 Spanish Readings (3)

Secondary Education Endorsement — 21 hours

Required Credits — 21 hours

- EDEL 619 Pluralism in Education (3)
- EDDL 600 Literacy and Content Instruction in Spanish Bilingual Classrooms (3)
- EDDL 602 Teaching Linguistically Diverse Learners (3)
- EDDL 603 Methods and Assessment for ESL and Bilingual Education (3)
- EDDL 604 Field Experience in TESOL and Bilingual Education (3)
- EDRD 620 Reading in the Middle and Secondary Schools (3)
- SPAN 555 Spanish Readings (3)

Note: Students are required to take Spanish Oral Proficiency Exams (OPI). Additional language courses may be required if they do not pass the OPI.

COE

EARLY CHILDHOOD EDUCATION,
POST-BACCALAUREATE
(Added Endorsement)

Endorsement Requirements — 18-21 Credits

Prerequisites:

- A completed baccalaureate degree in liberal arts, humanities, sciences, mathematics, social sciences, health or equivalent to those listed in this catalog. (Students without a liberal arts degree will have their transcripts evaluated for liberal arts content.);
- Hold or be eligible for a Type A Colorado Teaching License, endorsed Elementary Education;
- Completion of a minimum of one course in human growth and development or its equivalent;
- Demonstrate appropriate literacy and competency in computer applications. ET 503 or the equivalent may be used to meet this requirement.

Required Credits — 18-21 hours

- EDEC 539 Parent Education and Involvement in Early Childhood/Primary (3)
- EDEC 660 Critical Issues in Early Childhood (3)
- EDEC 664 Seminar in Early Childhood and Primary Education (3)
- EDEC 670 Curriculum and Instruction in Early Childhood and Primary Education (3)
- EDEC 675 Play and Psychosocial Development in Early Childhood (3)
- EDEC 601 Practicum (1-3) and select one of the following courses:
  - EDRD 519 Reading and Writing Development of preschool/Primary Children (2)
  - EDEC 648 Psycholinguistics in Early Childhood (3)

Notes: This is not an initial endorsement program.

Two levels of field experience/practicum (or equivalent) are necessary to meet the endorsement requirements. Placement with preschool aged children and K-2 level children is required.

Applicants must have an overall 3.0 GPA on last 60 semester hours for full admission to this program.
Elementary Education, Post-Baccalaureate (Non-Degree)

Licensure Requirements — 48 Credits
Must apply through the Graduate School.
Prerequisites

- For students seeking first time licensure, a completed baccalaureate degree in liberal arts, humanities, sciences, mathematics, social studies, health or equivalent to those listed in this catalog. Students will have their transcripts evaluated for liberal arts content;
- For students seeking an added endorsement (already hold a Colorado teaching certificate/license in a professional area), there is a 40-semester hour requirement plus any necessary content background courses.

Admission for First Time Licensure
Students seeking first time licensure are admitted into the program beginning the first summer session of any year and must attend full time in order to complete all course work and student teaching in three semesters. Applications must be received by December 1st of the prior year to begin the program the first summer session of a year. All applicants wishing to count licensure hours toward a Master of Arts degree in Elementary Education must apply to the Graduate School for admission into the Master of Arts program at the same time he or she applies to the Post-Baccalaureate Licensure program in Elementary Education.

Required Credits — 48 hours
CH 303 Health Education in the Elementary School (1)
EDEL 520 Effective Instruction in Elementary School Mathematics (3)
EDEL 525 Integrated Methods: Visual Arts, Music and Physical Education (3)
EDEL 540 Effective Instruction in Elementary School English/Language Arts (3)
EDEL 544 Student Teaching and Capstone Seminar (12)
EDEL 550 Effective Instruction in Elementary School Social Studies (3)
EDEL 602 Elementary School Practicum (3)
EDF 500 Conceptions of Schooling (3)
EDRD 510 Achieving Effective Instruction in Developmental Reading (1)
EDRD 511 Elementary Reading Diagnosis and Individualization (3)
EDSE 430 Exceptional Student in the Elementary Classroom (2)
EPSY 347 Educational Psychology for Elementary Teachers (3)
ET 501 Introduction to Applications of Educational Technology (3)
SCED 671 Elementary and Middle School Science Curriculum (3)

Notes:
Applicants must have an overall 3.0 GPA for admission. If the grade point average is below 3.0, the applicant is required to take the Graduate Record Examination receiving a combined score of 1000 on verbal and quantitative with a minimum of 400 on each test. The Colorado PLACE Test for elementary education must be passed prior to admission to the program.
EDEL 520, EDEL 540, EDEL 550 and EDRD 510 must be taken at UNC. Students may petition for course equivalence consideration for a maximum of two classes. A maximum of 9 semester credit hours in 500-level numbered elementary education course requirements or electives may be applied as elective credit toward a graduate degree program in elementary education. EDEL 544 (Student Teaching) must be completed in grades K-6 in an elementary school setting. Admission for Added Endorsement Students seeking an added endorsement to teach at the elementary school level may apply to the program prior to any semester. All applicants wishing to count licensure hours toward a Master of Arts degree in Elementary Education must apply to the Graduate School for admission into the M.A.T. degree program at the same time he or she applies to the Post-Baccalaureate Licensure program in Elementary Education.

Principals’ Licensure (Non-Degree)

Licensure 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.

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 (6)
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)

Reading Specialist, Added Endorsement

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.

Notes:
EDEL 544 (Student Teaching) must be completed in grades K-6 in an elementary school setting.
For more information about the Post-Baccalaureate Licensure program in Elementary Education, stop by the Department of Elementary Education in Mckee, or call for an appointment with the Coordinator of this program.

Notes:
EDEL 544 (Student Teaching) must be completed in grades K-6 in an elementary school setting.
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 study.

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 of 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.

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 645 Reading Research (3)
EDRD 670 Directing a School-Wide Reading/Literacy Program (3)
EDRD 692 Clinical Practicum in Literacy Coaching (4)

and select one of the following courses:
EDRD 694 Reading Center Internship: Adult Reading, Literacy and/or Supervision (3)
EDRD 701 Advanced Practicum in Literacy (3)

and select one of the following courses:
EDRD 622 Directed Study (3) (Content to be determined with Advisor)

Required Support Courses — 24 hours
EDEL 619 Pluralism in Education (3)
SRM 600 Introduction to Graduate Research (3)
SRM 670 Evaluation: Models and Designs (3)
EDLD 603 Methods and Assessment for ESL and Bilingual Education (3)
ELPS 662 Design and Delivery of Professional Development (3)
ELPS 655 Seminar in Learning in Adulthood (3)
and select one of the following courses:
EDE 541 Methods and Materials for Teaching Language and Composition in the Secondary School (3)
EDC 670 Curriculum and Instruction in Early Childhood and Primary Education (3)
EDEL 612 Elementary School Curriculum (3)
EDMS 667 Assessment, Design and Evaluation of Middle School Curriculum (3)
EDRD 618 Literacy Instruction for Emerging Readers and Writers at Risk (3)
EDSE 500 Field of Special Education (3)
EDSE 501 The Exceptional Learner (3)

Reading Teacher K-12, Added Endorsement

Endorsement Requirements — 29 hours

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 equivalent certificate.
- Pass the Colorado PLACE Test for Reading Teacher endorsement.

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)

SCHOOL LIBRARY MEDIA

(Added Endorsement)

Endorsement Requirements — 30-33 Credits

K-12 — 33 credits; K-6 and 7-12 — 30 credits.

The graduate non-degree programs in educational media presently includes the School Library Media Endorsement. This endorsement is required of those who intend to obtain professional level employment in Colorado K-12 school libraries, learning resource centers or media centers.

To be endorsed in School Library Media by the State of Colorado Department of Education, an applicant must meet the following requirements:

- hold a Type A teaching license (or equivalent) teaching license;
- have completed one year of successful teaching experience and/or school media experience while holding a valid Type A or teaching license or equivalent certificate;
- have completed an approved graduate degree or (non-degree) program in Educational Media in an accredited institution of higher education including field experience appropriate for the level of endorsement.

The UNC School Library Media program has been designed to meet or exceed competency requirements set by the Colorado Department of Education. Students who do not already hold an A, degree who are interested in obtaining a School Library Media Endorsement should investigate the M.A. program in Educational Media. The major difference between the M.A. and this program is 6 additional hours.

Endorsements are granted by the Colorado Department of Education upon the recommendation of the UNC Licensure Officer. Students wishing to obtain Colorado licensure in this area are required to pass proficiency examination(s). Students should contact the Department of Elementary Education or the Department of Educational Foundations and Curriculum Studies in McKee for information. Courses taken at other accredited institutions within the preceding 10 years may be accepted in lieu of courses taken at UNC. However, these courses will be assessed by the UNC Graduate Evaluator before acceptance. Students should be prepared to present evidence of course appropriateness (e.g., a copy of the course description).
Endorsement and Licensure Programs

School Library Media Requirements — 30 hours
- ET 502 Instructional Design (3)
- ET 503 Computers in Education (3)
- ET 504 Instructional Materials Design (3)
- ET 530 Media Cataloging and Classification (3)
- ET 533 Reference and Information Management (3)
- ET 535 Administration of Instructional Resources (3)
- ET 536 Media Selection, Utilization and Evaluation (3)
- SRM 600 Introduction to Graduate Research (3)
- EDRD 614 Literature for Children, Adolescents and Young Adults (3)
- ET 692 Internship (3)

Note: K-12 requires 3 additional hours of electives.

SPECIAL EDUCATION ADMINISTRATION, LICENSURE (Non-Degree)

Licensure Requirements — 37-48 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 licensed and have completed three years of successful teaching experience or its equivalent. In addition to the admission requirements, a student must hold or be eligible for Colorado licensure as Special Education Teacher I: Moderate Needs or the equivalent.

The course of study is a highly individualized program based on the background of the student and is designed to provide a broad knowledge base for all areas of special education. Depending upon the licensure of the student, a program is designed to provide an in-depth knowledge of the field of special education, emphasizing the wide variety of needs of special children with regard to delivery systems, evaluation, programming, identification, finance, law and due process.

Required Credits — 37-48 hours

Special Education Core (15 hours)
- EDSE 500 Field of Special Education (3)
- EDSE 501 The Exceptional Learner (3)
- EDSE 502 Communication, Collaboration and Consultation for Special Educators (3)
- EDSE 503 Effective School Environments for Learners with Exceptional Needs (3)
- EDSE 505 Assessment of Exceptional Individuals (3)

Special Education Administration (22-33 hours)
- EDSE 520 Survey of Learners with Profound Needs (3)
- EDSE 680 Administration and Supervision of Special Education (3)
- EDSE 681 Administrative Planning and Program Evaluation in Special Education (3)
- EDSE 718 Advanced Seminar in Education of Students with Hearing and/or Visual Handicaps (3)
- EDSE 730 Externship in Special Education (1-12)
- ELPS 650 School Finance and Budgeting (3)
- ELPS 660 Law and the Administrator (3)

Note: Students wishing to obtain Colorado licensure in this area are required to pass proficiency examination(s). Students should contact the Department of Elementary Education or the Department of Educational Foundations and Curriculum Studies in McKee for information.

TEACHING ENGLISH AS A SECOND LANGUAGE, POST-BACCALAUREATE (Added Endorsement) (Elementary and Middle School, and Secondary Education)

Endorsement Requirements — 18-21 Credits

This graduate level endorsement program in the teaching of English as a Second Language (ESL) emphasizes the study of the structures of English, second language acquisition, and methodology related to the teaching of English to speakers of other languages. This program leads to recommendation to Colorado’s Linguistically Diverse: ESL endorsement. The Elementary and Middle School Education Program must be completed in conjunction with, or after the completion of the Elementary or Middle School Licensure Program. The Secondary Education Program must be completed in conjunction with, or after the completion of a Secondary Teacher Preparation Program.

Elementary and Middle School Education Endorsement — 18 hours

Required Credits — 18 hours
- EDEL 619 Pluralism in Education (3)
- EDLD 602 Teaching Linguistically Diverse Learners (3)
- EDLD 603 Methods and Assessment for ESL and Bilingual Education (3)
- EDLD 604 Field Experience in TESOL and Bilingual Education (3)
- ENG 633 Studies in Linguistics (3)
- HISP 508 Teaching the Mexican American Student (3)

Secondary Education Endorsement — 21 hours

Required Credits — 21 hours
- EDEL 619 Pluralism in Education (3)
- EDLD 602 Teaching Linguistically Diverse Learners (3)
- EDLD 603 Methods and Assessment for ESL and Bilingual Education (3)
- EDLD 604 Field Experience in TESOL and Bilingual Education (3)
- EDRD 620 Reading in the Middle and Secondary Schools (3)
- ENG 633 Studies in Linguistics (3)
- HISP 508 Teaching the Mexican American Student (3)

Note: Students must show evidence of familiarity with a second language.
MASTER'S DEGREES

APPLIED STATISTICS AND RESEARCH METHODS M.S.

Degree Requirements — 30 Credits

This program provides students with a broad understanding of appropriate applications of statistical and research methodology and with experience in using computers effectively for statistical analysis. Emphasis is placed on the concerns that an applied statistician or educational researcher must address in dealing with practical issues.

Completion of this degree will enable the graduate to seek employment in a career field requiring the application of statistical or research methodology, for example: data analysis or experimental design; to teach in a community or junior college; to work as an evaluation/assessment specialist in a public school setting; or to enter a Ph.D. program in statistics, educational research, or a related area.


Required Credits — 10 hours
SRM 600 Introduction to Graduate Research (3)
SRM 502 Applied Statistics (4)
SRM 520 Introduction to Statistical Computing (1)
SRM 650 Research and Statistics Colloquium (2) (1 credit/term)

Select One Concentration Area — 20 hours

1) Applied Statistics Concentration — 20 hours
SRM 551 Mathematical Statistics with Applications I (4)
SRM 552 Mathematical Statistics with Applications II (4)
SRM 608 Experimental Design (3)
SRM 614 Linear Models (3)
Elective Credits (minimum) (6)

2) Research Methods Concentration — 20 hours
SRM 670 Evaluation: Models and Designs (3)
SRM 680 Introduction to Qualitative Research (3)
EPSY 674 Measurement I: Educational Testing (3)
Elective Credits (minimum) (11)

Note: Students enrolled in summers-only or evenings-only programs may substitute SRM 602 and SRM 603 for SRM 502 and SRM 520. They may also substitute two (2) credit hours of SRM 694 for SRM 650.

Electives must be approved by advisor prior to enrollment.
BIOLOGICAL SCIENCES M.S.
(Select from two emphases)

Degree Requirements — 30 Credits

See “Biological Sciences (M.S.) Requirements” on page 3.

Biology Core (3 hours)
BIO 691 Seminar in Biological Sciences (1)
BIO 694 Foundations of Biological Research (2)

Basic Elective Credits (7-10 hours)
BIO 525 Molecular Genetics (3)
BIO 530 Plant Taxonomy (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 540 Anatomy and Morphogenesis of Plants (4)
BIO 550 Cell Physiology (4)
BIO 554 General Plant Physiology (4)

Note: All of the above courses are double numbered.

Advanced Study Electives (8 hours)
BIO 512 TA Development Seminar (1)
BIO 545 Cytology (3)
BIO 547 Immunology and Disease (4)
BIO 552 Mammalian Physiology I (3)
BIO 553 Mammalian Physiology II (3)
BIO 555 Reproductive and Developmental Biology (3)
BIO 557 Mammalian Physiology Laboratory (1)
BIO 558 Mammalian Physiology Laboratory (1)
BIO 560 Behavioral Ecology (4)
BIO 561 Plant Ecology (4)
BIO 569 Conceptual Issues in Evolution (2)
BIO 571 Teaching Strategies for Biology Teachers (1)
BIO 521 Advanced Genetics (3)
BIO 536 Advanced Invertebrate Zoology (4)
BIO 544 Comparative Vertebrate Adaptations (4)
BIO 559 Plant Reproductive Growth and Development (3)
BIO 682 Problems in Teaching College Biology (3)

*Enrichment and Non-Scheduled Electives (3 hours)
BIO 501 Current Issues in Biology (1-6)
**BIO 508 Workshop (1-6)
**BIO 513 Professional Renewal (1-3)
BIO 556 Current Topics in Biomedical Research (2)
BIO 585 Topics in Field Biology (1-10)
BIO 592 Internship in Biological Sciences (1-3)
BIO 595 Special Topics in Biology (3)
**BIO 622 Directed Studies (1-6)
**SCED 508 Workshop (1-6)
**SCED 513 Professional Renewal (1-3)

Required Electives (6-9 hours)
Select with approval of advisor (6-9)

Note: Hours can be selected with the approval of the student’s advisor from the above list of enrichment and non-scheduled classes or other appropriate classes in the sciences or College of Education.

**See “Variable Topic Courses” on page 218.

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 or biological sciences pedagogy, including secondary biology and science teachers.

To receive the required BIO 697 credit for the non-thesis masters degree, students must submit, and have approved by their advisor, a proposal to carry out a capstone experience based on a topic relevant to their professional interest. Students also must pass a written evaluation pertaining to the specific topic upon completion of the project, which will be administered by the advisor.

Program Requirements — 30 hours

Biology Core (3 hours)
Basic Electives (10 hours minimum)

Advanced Study Electives (8 hours minimum)
*Enrichment and Non-Scheduled Electives (3 hour minimum to 9 hours maximum)

Thesis Emphasis

For students wanting to broaden their background in the biological sciences and to develop their research skills in preparation for a doctoral program or a research career.

Students will gain the background in biological science and in research to allow them to enter professional fields of biology requiring advanced training or to enter advanced studies.

Program Requirements — 30 hours

Biology Core (3 hours)
Basic Electives (7 hours minimum)
Advanced Study Electives (8 hours minimum)

*Enrichment and Non-Scheduled Electives (6 hour minimum)

Required Electives (6 hours)
BIO 699 Thesis (1-6) (Research Elective, 6 hours)
CHEMISTRY M.S.
(Select from two emphases)

Degree Requirements — 30 Credits
See “Chemistry (M.S.) Requirements” on page 4.

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 persons to teach at the junior or community college level.

Research Credits — 5-12 hours
CHEM 600 Seminar in Chemistry (2)
and either
CHEM 695 Thesis Proposal (1)
CHEM 699 Thesis (6)
or
CHEM 693 Chemical Research (3-10)
or
CHED 693 Chemical Education Research (3-10)

Note: Students must meet a physical chemistry requirement if not previously taken. CHEM 551, CHEM 552, CHEM 453 and CHEM 454 may be taken to meet this requirement.

Chemistry Elective Credits — 6-19 hours
CHEM 520 Theory and Use of Analytical Instruments (1)
CHEM 522 Advanced Analytical Chemistry (3)
CHEM 523 Chemical Spectroscopy (3)
CHEM 533 Organic Synthesis and Stereochemistry (3)
CHEM 534 Theory and Mechanisms of Organic Reactions (3)
CHEM 543 Organometallic Chemistry (3)
CHEM 556 Physical Chemistry of Atomic and Microscopic Systems (3)
CHEM 557 Physical Chemistry of Macroscopic Systems (3)
CHEM 560 Environmental Chemistry (2)
CHEM 581 General Biochemistry I (4)
CHEM 582 General Biochemistry II (4)
CHEM 587 Toxicology (3)
CHEM 590 Advanced Topics in Chemistry (3)
CHEM 622 Directed Studies (1-3)

Pedagogy Credits — 6-19 hours
CHED 682 Problems in Teaching Chemistry (3)
EPSY 540 Theories and Principles of Learning (3)
Electives
EDEL 619 Pluralism in Education (3)
EDSE 501 The Exceptional Learner (3)
EPSY 674 Measurement I: Educational Testing (3)
ET 503 Computers in Education (3)
SRM 600 Introduction to Graduate Research (3)

Note: Courses may be taken with the approval of the candidate's graduate advisor in the natural sciences, mathematics, computer science, education, etc., as necessary to broaden the candidate's background. For students with limited experience in using computers, SCI 591, Computer Applications in Science and SCI 593, The Computer in the Science Classroom, are recommended.

Students completing a thesis must successfully defend the thesis and must successfully complete comprehensive examinations in both chemistry and chemical education.

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.

Research Credits — 12 hours
CHEM 600 Seminar in Chemistry (2)
CHEM 695 Thesis Proposal (1)
CHEM 699 Thesis (9)

Chemistry Elective Credits — 12 hours minimum
CHEM 520 Theory and Use of Analytical Instruments (1)
CHEM 522 Advanced Analytical Chemistry (3)
CHEM 523 Chemical Spectroscopy (3)
CHEM 533 Organic Synthesis and Stereochemistry (3)
CHEM 534 Theory and Mechanisms of Organic Reactions (3)
CHEM 543 Organometallic Chemistry (3)
CHEM 556 Physical Chemistry of Atomic and Microscopic Systems (3)
CHEM 557 Physical Chemistry of Macroscopic Systems (3)
CHEM 560 Environmental Chemistry (2)
CHEM 581 General Biochemistry I (4)
CHEM 582 General Biochemistry II (4)
CHEM 587 Toxicology (3)
CHEM 590 Advanced Topics in Chemistry (3)
CHEM 622 Directed Studies (1-3)

General Electives — 0-6 hours
Electives to complete 30 credit hours with the approval of the major advisor are required for this program.

Note: In addition to course requirements, all students must successfully complete a defense of the thesis and must successfully complete comprehensive examinations in a major area of study (analytical, biological, inorganic, organic or physical chemistry).
COMMUNICATION M.A.
(Select from two emphases)

Degree Requirements — 30-33 Credits
This program focuses on the study of spoken symbolic interaction. Students will emphasize coursework relevant to rhetorical and communication theory, interpersonal and group communication, and communication research methods.

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 speech communication. The thesis option is recommended for students considering additional graduate study.

Program Major Requirements — 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)  
and select one of the following courses:
COMM 504 Rhetorical Theory (3)
COMM 603 Communication Theory (3)  
and select one of the following courses:
COMM 514 Interpersonal Communication (3)
COMM 515 Group Communication (3)

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 a minimum number of graduate and undergraduate credit hours in the discipline for graduation (45 Non-Thesis and 48 Thesis Option). 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 9 semester hours, individually or in combination, of courses numbered 508, 513, 561 or 622 may be counted toward the master's degree.

Human Communication: Non-Thesis Option Emphasis
Degree Requirements — 33 hours
Program Requirements — 18 hours
Required Elective Credits — 15 hours
500- and/or 600-level coursework

Human Communication: Thesis Option Emphasis
Degree Requirements — 30 hours
Program Requirements — 18 hours
Required Emphasis Credits — 6 hours
COMM 699 Thesis (6)
Required Elective Credits — 6 hours
500- and/or 600-level coursework
Students must pass an oral examination over his/her thesis.

COMMUNICATION DISORDERS:
Audiology M.A.
Non-Certifying Degree Emphasis

Degree Requirements — 32 Credits
This program is designed to provide students academic coursework relating to normal and disordered hearing in children and adults. Students who complete the non-certifying master's program will not participate in any of the clinical practica required in the certifying master's degree program. Therefore, they will not be eligible to complete the Clinical Fellowship Year (CFY) required by the American Speech-Language-Hearing Association (ASHA) for the Certificate of Clinical Competence (CCC) and they will not be qualified for Colorado Department of Education certification.


Required Credits — 32 hours
HRS 610 Interpretation and Evaluation of Behavioral Research (3)
CMDS 515 Foundations of Research and Writing (1)  
CMDS 555 Neuroanatomy and Neurophysiology of Communication (3)
CMDS 570 Rehabilitative Audiology (3)
CMDS 571 Speech and Hearing Science (4)  
CMDS 572 Industrial Audiology (2)
CMDS 573 Auditory Physiology and Pathology (3)
CMDS 582 Educational Audiology (3)
CMDS 671 Psychoacoustics (2)
CMDS 675 Differential Diagnosis of Auditory Problems (3)
CMDS 678 Hearing Aids and Uses of Amplification (3)
Required Elective Credits (2)*
*Elective Credits selected with consent of advisor.

Notes: If the student decides to complete a thesis, six hours of CMDS 699, Thesis: Communication Disorders and three hours of SRM 602, Statistical Methods I, must be taken in addition to the requirements described above. Successful completion of a written comprehensive exam or a master's thesis is required to complete the Master of Arts program.
COMMUNICATION DISORDERS: SPEECH-LANGUAGE PATHOLOGY M.A.  
(Select from two Emphases)

Degree Requirements — 69 Credits

Program Requirements — 37 hours
Select one of the following research courses:
- CMDS 515 Foundations of Research and Writing (1)
- CMDS 615 Research in Communication Sciences and Disorders (1-4) (Take 3 times)
- CMDS 686 Capstone in Speech-Language Pathology (2)

and complete the following courses:
- CMDS 516 Professional Issues in SLP (1)
- CMDS 555 Neuroanatomy and Neurophysiology of Communication (3)
- CMDS 563 Voice and Resonance Disorders (2)
- CMDS 571 Speech and Hearing Science (4)
- CMDS 655 Acquired Disorders of Language and Cognition (3)
- CMDS 656 Feeding and Swallowing Disorders: Lifespan (2)
- CMDS 657 Motor Speech Disorders: Lifespan (2)
- CMDS 661 Speech Production Disorders: Lifespan (3)
- CMDS 664 Fluency Disorders (2)

and select one of the following courses:
- CMDS 658 Assistive Technology for Communication Disorders (3)
- EDSE 254 American Sign Language 1 (3)
- CMDS 682 Language Disorders in Early Childhood and Preschool (3)
- CMDS 684 Disorders of Language & Literacy: School-Age and Adolescent (3)

Research Courses (6 hours)
- CMDS 515 Foundations of Research and Writing (1)
- CMDS 615 Research in Communication Sciences and Disorders (1-4) (Take 3 times)
- CMDS 686 Capstone in Speech-Language Pathology (2)

Successful completion of a written comprehensive exam, its equivalent, or a master's thesis is required to complete the M.A. program.


Certifying Degree Emphasis

Degree Requirements — 69 hours
This program is designed to prepare students for entry level activity as speech-language pathologists. Speech-language pathologists are professional practitioners responsible for the prevention, diagnosis and treatment of speech and language disorders in children and adults.

Areas emphasized in the graduate program include the diagnosis and treatment of articulation, voice, fluency and language disorders in persons ranging in age from young children through older adults. Supervised practica are provided in both on- and off-campus facilities.

Upon completion of the program, graduates are eligible to take the National Examination in Speech-Language Pathology and Audiology (NESPA) and to complete the Clinical Fellowship Year (CFY) required by the American Speech-Language-Hearing Association (ASHA) for the Certificate of Clinical Competence (CCC). Certified speech-language pathologists find employment in the public schools, private practice, hospitals, rehabilitation facilities and free-standing clinics. Students who are deficient in clinical observation hours should see advisor for enrollment options.

Program Requirements — 37 hours

Clinical Practicum — 14 hours
- CMDS 569 Advanced Diagnostic Procedures (6)
- CMDS 583 Clinical Practicum: Introduction (2)
- CMDS 585 Clinical Practicum in Speech-Language Pathology: Intermediate (2)

CMDS 586 Clinical Practicum in Speech-Language Pathology: Intermediate/Advanced (2)
CMDS 588 Clinical Practicum in Speech-Language Pathology: Advanced (2)

Internships — 18 hours
(Student chooses Primary internship for 12 hours and Secondary internship for 6 hours)
- CMDS 592 Internship in Public Schools (6 - 12)
- CMDS 692 Internship in Medical Settings (6 - 12)

Notes: Students who do not pursue a thesis must complete both internships: CMDS 592, Internship in Public Schools and CMDS 692, Internship in Medical Settings, for 6-12 semester hours each. Students who elect to complete a thesis may be exempted from one of these externships, with the consent of their academic advisor and they must complete CMDS 699, Thesis: Communication Disorders, for six semester hours and SRM 602, Statistical Methods I, for three semester hours, in addition to the requirements shown above.

Students who complete this program are eligible for the Certificate of Clinical Competence in Speech-Language Pathology from the American Speech-Language-Hearing Association and for licensure from the Colorado Department of Education. This program is accredited by the Council on Academic Accreditation (CAA) of the ASHA and by the Colorado Department of Education.

Non-Certifying Degree Emphasis

Degree Requirements — 37 hours
This program is designed to provide students academic coursework relating to normal and disordered speech and language in children and adults, without preparing them for direct clinical service. Students who complete the non-certifying master's program will not participate in any of the clinical pracica required in the certifying master's degree program. Therefore, they will not be eligible to complete the Clinical Fellowship Year (CFY) required by the American Speech-Language-Hearing Association (ASHA) for the Certificate of Clinical Competence (CCC) and they will not be qualified for Colorado Department of Education certification.

International students will be admitted to this program until such time as they successfully pass the required speech-language-hearing screening conducted by the department faculty. A student who passes this screening may then elect to follow the certifying master's degree program.

Program Requirements — 37 hours

Notes: If the student decides to complete a thesis, six hours of CMDS 699, Thesis: Communication Disorders and three hours of SRM 602, Statistical Methods I, must be taken in addition to the requirements described above.
COMMUNITY COUNSELING M.A.
(Select Community Counseling or Marriage and Family Therapy emphasis)

Degree Requirements — 60 Credits
This program is accredited by the Council for Accreditation of Counseling and Related Educational Programs.

Program Objectives
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. The requirements of the program are conceptualized within the framework and standards set forth by the counseling profession, Colorado state law, Graduate School and job requirements.

The Community Counseling program at the master's level prepares a professional counselor to work in various agency settings such as mental health centers, probation and parole departments, substance abuse centers and residential treatment centers.

See “Community and School Counseling (M.A.) Requirements” on page 26.

Required Credits — 60 hours
SRM 600 Introduction to Graduate Research (3)
EPSY 530 Life Span Developmental Psychology (3)
PPSY 558 Abnormal Psychology (3)
PPSY 565 Psychology of Prejudice (3) or
PPSY 623 Counseling Diverse Populations (3)
PPSY 603 Counseling Children and Adolescents (3)
PPSY 605 Group Laboratory Experience (1)
PPSY 607 Theories of Counseling (3)
PPSY 612 Practicum in Individual Counseling (5)
PPSY 616 Career Theory, Counseling and Assessment (3)
PPSY 624 Assessment and Treatment of Substance Abuse (3)
PPSY 650 Orientation to Community Counseling (3)
PPSY 654 Child Abuse and Neglect (3)
PPSY 655 Community Psychology and Social Systems (3)
PPSY 657 Legal and Ethical Aspects of Counseling and Psychology (3)
PPSY 662 Group Dynamics and Facilitation (3)
PPSY 665 Family Systems (3)
PPSY 673 Appraisal and Assessment: Community Counseling (3)
PPSY 692 Internship in Community Counseling (9)

Marriage and Family Therapy Emphasis
If admitted and enrolled in the Community Counseling M.A., this emphasis may be an elected addition to the degree program.

Program Requirements — 66 Credits
The requirements of the emphasis are directed toward the development of competent professionals in the practice of marital and family therapy. The emphasis area deals primarily with relationships, interpersonal interaction and systems theory.

Required Credits — 61 hours
Complete the required credits for the M.A. in Community Counseling degree, without PPSY 692.

Required Emphasis Courses — minimum 15 hours
PPSY 668 Sexuality Counseling (3)
PPSY 669 Advanced Methods: Couples and Family Therapy (3)
PPSY 691 Internship in Community Counseling: Marriage and Family Therapy (2)
PPSY 694 Practicum in Family Therapy (4)
PPSY 695 Seminar: Contemporary Issues in Couples and Family Therapy (3)

Suggested Elective
PPSY 585 Family Counseling and Education in School Settings (2)
**EARTH SCIENCES M.A.**

**Degree Requirements — 30 Credits**

This program is for students who wish to broaden or deepen their background 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 department affords each student the opportunity to develop a sequence of courses that complements and builds upon his or her previous education and experience, whether in the earth sciences or in other disciplines. The program provides both a thesis and a non-thesis option. Typically, students seeking a focused program emphasizing research skills elect the thesis option, and students seeking a broad, multidisciplinary curriculum emphasizing content will elect the non-thesis option. In consultation with the student’s graduate committee, each student will select the appropriate option and design a curriculum for his or her particular educational and career objectives.


**Thesis Option Required Credits — 12-16 hours**

- ESCI 600 Introduction to Earth Science Research (2)
- ESCI 599 Seminar in Earth Sciences — minimum of (2)
- ESCI 695 Special Topics in Earth Sciences (2)
- ESCI 699 Thesis (6-10)

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

*Select courses from the Elective Credits listed below.

**Non-Thesis Option Required Credits — 8-12 hours**

- ESCI 599 Seminar in Earth Sciences — minimum of (2)
- ESCI 600 Introduction to Earth Science Research (2)
- ESCI 695 Special Topics in Earth Sciences (2)
- ESCI 697 Graduate Research (2-6)

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

*Select courses from the Elective Credits listed below.

**Thesis or Non-Thesis Elective Credits**

- AST 622 Directed Studies (1-4)
- ESCI 550 Strategies in Teaching in Earth Sciences (1)
- ESCI 575 Earth Systems Science Education (1-6)
- ESCI 584 Earth Sciences Field Experiences (1-15)
- GEOL 510 Groundwater Geology (2)
- GEOL 521 Optical Mineralogy and Petrography (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 521 Climatology (3)
- MET 536 Biometeorology (3)
- MET 541 Synoptic Meteorology (3)
- MET 542 Synoptic Meteorology Laboratory (2)
- MET 595 Special Topics in Meteorology (1-4)
- *MET 622 Directed Studies (1-3)
- *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)

**Note:** 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.

*See “Variable Topic Courses” on page 218.

*Substitutions must be approved by the graduate committee.

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**EDUCATIONAL LEADERSHIP M.A.**

**Degree Requirements — 36 Credits**

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. See “Educational Leadership (M.A.) Requirements” on page 21.

**Required Courses — 15 hours**

- SRM 600 Introduction to Graduate Research (3)
- 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)

**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) Higher Education and Student Affairs Leadership (9 hours)
   - Select from the following courses:
     - HESA 650 College Student Development: Theory and Research (3)
     - HESA 651 Philosophical, Historical and Cultural Foundations of Student Affairs in Higher Education (3)
     - HESA 655 Multiculturalism in Higher Education (3)
     - HESA 668 Higher Education in the United States (3)
     - HESA 669 College and University Curriculum (3)
     - HESA 680 Law and Higher Education (3)
     - HESA 683 Finance and Resource Management in Higher Education (3)

3) Individually Designed Concentration (9 hours)
   - ELPS or HESA Prefix Courses (9)

**Electives — 12 hours**

Additional electives appropriate for concentration area to total a minimum of 36 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.

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EDUCATIONAL MEDIA M.A.

Degree Requirements — 36-39 Credits

Students interested in obtaining a School Library Media endorsement who do not already hold a master's degree may enroll in the master's degree in educational media. This program has been designed to meet the requirements for an M.A. degree as well as to meet the graduate program requirements and competency requirements dictated by the State of Colorado for School Library Media endorsement.

See “Educational Media (M.A.) Requirements” on page 23.

Required Credits — 36-39 hours

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>SRM 600</td>
<td>Introduction to Graduate Research</td>
<td>3</td>
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<tr>
<td>EPSY 540</td>
<td>Theories and Principles of Learning</td>
<td>3</td>
</tr>
<tr>
<td>ET 500</td>
<td>Introduction to Educational Technology</td>
<td>3</td>
</tr>
<tr>
<td>ET 502</td>
<td>Instructional Design</td>
<td>3</td>
</tr>
<tr>
<td>ET 503</td>
<td>Computers in Education</td>
<td>3</td>
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<tr>
<td>ET 504</td>
<td>Instructional Materials Design</td>
<td>3</td>
</tr>
<tr>
<td>ET 530</td>
<td>Media Cataloging and Classification</td>
<td>3</td>
</tr>
<tr>
<td>ET 533</td>
<td>Reference and Information Management</td>
<td>3</td>
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<tr>
<td>ET 535</td>
<td>Administration of Instructional Resources</td>
<td>3</td>
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<tr>
<td>ET 536</td>
<td>Media Selection, Utilization and Evaluation</td>
<td>3</td>
</tr>
<tr>
<td>ET 692</td>
<td>Internship</td>
<td>3</td>
</tr>
</tbody>
</table>

(required for K-6, K-12 endorsement and required for 7-12, K-12 endorsement)

EDRD 614 Literature for Children, Adolescents and Young Adults (3)

Notes: Students may transfer up to 6 semester hours or 9 quarter hours of approved graduate level credit to the program from other accredited institutions.

All coursework to be transferred or applied to meet graduate course requirements that was completed before a student’s acceptance into a graduate degree program must be approved by the UNC Graduate School.

Students wishing to obtain Colorado licensure in this area are required to pass proficiency examination(s). Students should contact the Department of Elementary Education and the Department of Educational Foundations and Curriculum Studies in McKee for information.

Students wishing to obtain an M.A. who do not intend to apply for State of Colorado School Library Media endorsement should apply to the M.A. program in Educational Technology.

EDUCATIONAL PSYCHOLOGY M.A.

Degree Requirements — 30 Credits

Students take the common core of courses listed below and select a concentration in consultation with their advisor. Appropriate area of concentration might include: learning and cognitive processes; research, measurement and evaluation; or human development.

See “Educational Psychology (M.A.) Requirements” on page 22.

Required Credits — 20 hours

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
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<td>SRM 600</td>
<td>Introduction to Graduate Research</td>
<td>3</td>
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<tr>
<td>EPSY 530</td>
<td>Life Span Developmental Psychology</td>
<td>3</td>
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<tr>
<td>EPSY 540</td>
<td>Theories and Principles of Learning</td>
<td>3</td>
</tr>
<tr>
<td>SM 602</td>
<td>Statistical Methods I</td>
<td>3</td>
</tr>
<tr>
<td>EPSY 661</td>
<td>Trends and Issues in Educational Psychology</td>
<td>3</td>
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<tr>
<td>EPSY 663</td>
<td>Apprenticeship</td>
<td>1-3</td>
</tr>
<tr>
<td>SRM 670</td>
<td>Evaluation: Models and Designs</td>
<td>3</td>
</tr>
</tbody>
</table>

or

EPSY 674 Measurement I: Educational Testing (3)

Elective Credits — 10 hours

Students define a concentration area in consultation with their advisor.

Note: SRM 603 and EPSY 699 are highly recommended electives for students intending subsequently to enter a doctoral program. Student competencies are examined by comprehensive examination during fall or spring semesters.

EDUCATIONAL TECHNOLOGY M.A.

Degree Requirements — 30 Credits

The Master of Arts degree in Educational Technology is designed to develop knowledge and skills in instructional system analysis, computer applications and media design. Application of knowledge and skills is focused on improving human performance in applied learning contexts.

See “Educational Technology (M.A.) Requirements” on page 23.

Required Credits — 21 hours

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SRM 600</td>
<td>Introduction to Graduate Research</td>
<td>3</td>
</tr>
<tr>
<td>EPSY 540</td>
<td>Theories and Principles of Learning</td>
<td>3</td>
</tr>
<tr>
<td>SM 602</td>
<td>Statistical Methods I</td>
<td>3</td>
</tr>
<tr>
<td>ET 500</td>
<td>Introduction to Educational Technology</td>
<td>3</td>
</tr>
<tr>
<td>ET 502</td>
<td>Instructional Design</td>
<td>3</td>
</tr>
<tr>
<td>ET 503</td>
<td>Computers in Education</td>
<td>3</td>
</tr>
<tr>
<td>ET 504</td>
<td>Instructional Materials Design</td>
<td>3</td>
</tr>
</tbody>
</table>

Elective Credits — 9 hours

Elective courses to be selected to develop or support a student’s teaching or research interests. Elective courses must be numbered at the 500 level or above.
### ELEMENTARY EDUCATION M.A.T.
(Select from two emphases)

#### Degree Requirements — 30-33 Credits

**Elementary Education**

**Program Requirements — 30 hours**

The Master of Arts in Teaching degree provides inservice elementary teachers with the knowledge, abilities, and dispositions needed to scaffold their own professional development toward a vision of accomplished practice. 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 elementary 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.

**Required Credits — 21 hours**

- SRM 600 Introduction to Graduate Research (3)
- EDEL 601 Practicum and Capstone Seminar in Elementary Education (3)*
- EDEL 610 Teacher Research in the Elementary School (3)
- EDEL 612 Elementary School Curriculum (3)
- EDEL 619 Pluralism in Education (3)
- EDEL 640 Instruction in Language Arts and Literacy in the Elementary School (3)
- EDEL 645 Assessment of Language Arts and Literacy in the Elementary School (3)

**Elective Credits — 9 hours**

Note: *The practicum and capstone seminar is designed as a culminating experience for the degree program. It must be approved by the student’s advisor and adhere to the guidelines established by the program area.

#### Middle School Emphasis

**Program Requirements — 33 Credits**

The Master of Arts in Teaching degree in Elementary Education with an Emphasis in Middle School is designed for elementary, middle school, junior high and secondary licensed teachers who wish to pursue graduate work that focuses on the middle level education. Because current licensure standards allow elementary, middle school and secondary licensed teachers to teach at this level, the program is open to all licensed teachers interested in middle school teaching. Students completing this program will not automatically receive middle school licensure. Students must have a teaching license before completing the master’s program. See “Middle School Emphasis (M.A.T.) Requirements” on page 20.

**Middle School Required Credits — 24 hours**

- SRM 600 Introduction to Graduate Research (3)
- EDMS 601 Practicum (1-3)
- EDMS 665 Middle School Theory, Philosophy and Curriculum (3)
- EDMS 667 Assessment, Design and Evaluation of Middle School Curriculum (3)
- EDMS 669 Integrated Curriculum for Middle Grades (3)
- EDMS 670 Instructional Practices in Middle Grades Education (3)
- EDEL 619 Pluralism in Education (3)
- Reading (3 hours)
- EDRD 620 Reading in the Middle and Secondary Schools (3)

**Middle School Elective Credits — 9 hours**

Electives are determined by the candidate’s need to develop or strengthen understanding and competency in areas related to his or her professional growth and development. Special consideration will be given to the professional growth activities approved and required by the student’s school district or institution in planning the M.A.T. program. The following courses may be relevant to a student’s professional development:

- EDRD 614 Literature for Children, Adolescents and Young Adults (3)
- EDRD 620 Reading in the Middle and Secondary Schools (3)
- EDEL 640 Instruction in Language Arts and Literacy in the Elementary School (3)
- EDEL 650 Research Application for Instruction in Social Studies, K-9 (3)
- EPSY 530 Life Span Developmental Psychology (3)
- SCED 671 Elementary and Middle School Science Curriculum (3)

Note: Teacher participants in the program take the common core of required courses listed above and determine an emphasis area in consultation with their advisor (9 hours). Students may transfer up to 6 semester hours of approved graduate level credit to the program from other accredited institutions. Course equivalence will be considered for elective credits only.
Elementary Education: Early Childhood Education M.A.
Primary Education Emphasis

Degree Requirements — 33-35 Credits
The master's degree program in Early Childhood/Primary Education is designed to meet the specific needs and interests of professional teachers in the primary grades.
See “Elementary Education: Early Childhood (M.A.) Requirements” on page 23.

Required Credits — 26 hours
Students are limited to a maximum of 9 semester credits of 500-level and/or double-numbered courses for inclusion in the master's program.

EDRD 508 Early Childhood Workshop (3)
*EDRD 519 Reading and Writing Development of Preschool/Primary Children (2)
*EDRD 539 Parent Education and Involvement in Early Childhood/Primary (3)
*EDEC 648 Psycholinguistics in Early Childhood (3)
*EDEC 660 Critical Issues in Early Childhood (3)
*EDEC 664 Seminar in Early Childhood and Primary Education (3)
*EDEC 670 Curriculum and Instruction in Early Childhood and Primary Education (3)
*EDEC 675 Play and Psychosocial Development in Early Childhood (3)
EDRD 612 Reading in the Elementary Schools (3)

Elective Credits — 7-9 hours.
Choose coursework in consultation with major advisor (7-9 hours)
EDEC 508 Early Childhood Workshop (3)
*EDRD 619 Practicum in Early Childhood (1-3)
EDEC 663 Educational Assessment, Evaluation and Prescription for the Young Child (3)
EDEL 619 Pluralism in Education (3)
EDEL 620 Researched Applications for Instruction in Mathematics, K-9 (3)
EDEL 640 Instruction in Language Arts and Literacy in the Elementary School (3)
EDEL 650 Researched Application for Instruction in Social Studies, K-9 (3)
EDRD 614 Literature for Children, Adolescents and Young Adults (3)
EDRD 617 Evaluation and Improvements of Literacy Teaching and Learning (4)
EPSY 630 Child and Adolescent Psychology (3)
SCED 671 Elementary and Middle School Science Curriculum (3)

(Other courses accepted with the approval of the academic advisor.)

Note: Students must also complete a four hour written comprehensive examination.

Endorsement In Early Childhood Education
Students who meet the following prerequisites and who complete courses specified with an asterisk (*) are eligible to receive institutional recommendation for Endorsement in Early Childhood Education from the Colorado Department of Education.
Prerequisites: 1) Hold or be eligible for a Colorado Teaching License, Endorsed Elementary; 2) completion of a minimum of one course in human growth and development (or its equivalent) before enrolling in the endorsement program; and 3) evaluation of supervised field experiences and teaching experiences to assess practicum placement needs associated with this endorsement.

*Required courses for endorsement: EDRD 519 or EDEC 648 and EDEC 539, EDEC 601, EDEC 660, EDEC 664, EDEC 670 and EDEC 675.

English M.A.

Degree Requirements — 30 Credits

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.

Required Credits — 15 hours

ENG 600 Introduction to Graduate Study (3)
One course in Theory (3)
Two courses in British Literature, one before and one after 1800 (6)
One course in American Literature (3)

Required Elective Credits — 15 hours
A minimum of two courses must be selected from ENG 600-level offerings (6)

Additionally, all students must choose one of the following options:
1) a Master's Project (ENG 697)
2) a Creative Project (ENG 697)

The master's or creative project may be written under ENG 697 for 3 semester hours. The Master's Project consists of a research paper of 30-50 pp., appropriate for journal submission. The Creative Project is a creative work of similar length 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.

Notes: To increase the flexibility of this program for teachers and to provide further work to help them improve their instructional skills, a block of pedagogical coursework (6 semester hours) may be taken as part of the required elective hours. The student and graduate advisor will plan according to individual needs.

Completion of a Master of Arts degree in English does not meet all the College of Education PTEP requirements for licensure in English. Students must consult their departmental advisors and/or the College of Education PTEP office if they are interested in elementary or secondary licensure.

All master's candidates must take a written comprehensive examination or approved equivalent.
FOREGN LANGUAGES M.A.
Spanish Teaching Emphasis

Degree Requirements — 30 Credits

The program is designed for the secondary school teacher of Spanish and concentrates on the development of a high level of functional proficiency in the four language skills and in culture. The most recent developments in foreign language teaching methodologies are studied and researched.

The program prepares graduate level Spanish language teachers for the secondary schools.

See “Spanish Teaching Emphasis (M.A.) Requirements” on page 7.

Required Credits — 10 hours
SRM 600 Introduction to Graduate Research (3)
FL 531 Teaching of Foreign Languages (2)

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

Required Elective Credits — Select 10 hours
From department graduate level courses offered during the regular academic year or from the courses listed below, which are offered on a rotating basis during summers only.

Civilization
SPAN 560 Spanish Civilization and Culture (2)
SPAN 561 Latin American Civilization and Culture (2)
SPAN 562 Mexico and United States Hispanic Civilization and Culture (2)
SPAN 563 Service Learning Practicum in Spanish (3)
SPAN 564 Latin American Civilization and Culture (2)
SPAN 565 Mexican Literature (2)
SPAN 566 Comparative Literature (2)
SPAN 567 Advanced Hispanic Culture (2)
SPAN 568 Spanish and Latin American Civilization and Culture (2)
SPAN 569 Mexican Literature (2)
SPAN 570 Mexico and United States Hispanic Civilization and Culture (2)
SPAN 571 Latin American Civilization and Culture (2)
SPAN 572 Readings in Latin American Literature (1-6)
SPAN 573 Readings in Hispanic Literature (1-3)
SPAN 574 Readings in Latin American Literature (1-3)
SPAN 575 Masterpieces of Latin American Literature (3)
SPAN 576 Mexican Literature (2)

HHS

GERONTOLGY M.A.
(Select from three emphases)

Degree Requirements — 49 Credits

The Master of Arts in Gerontology prepares students for professional responsibility in counseling-related, administrative positions or similar professional endeavors within the aging network.

Graduates find employment in health related or long term care facilities, senior centers, recreation programs, community college teaching, pre-retirement educational programs, mental health related activities, industrial settings or private practice/consultation.

See “Gerontology (M.A.) Requirements” on page 32.

Program Requirements — 31 hours
Required Credits — 31 hours
HRS 610 Interpretation and Evaluation of Behavioral Research (3)
GERO 560 Community Resources for the Elderly (4)
GERO 565 Management Concepts for Aging Services (3)
GERO 620 Individual Development and Aging (3)
GERO 625 Family and Social Issues in Aging (3)
GERO 630 Social Policies of Aging (3)
GERO 640 Health Aspects of Gerontology (3)
GERO 692 Graduate Internship in Gerontology (9)

Note: Successful completion of a written comprehensive exam is required to complete the M.A. program.

Direct Service Emphasis
Program Requirements — 31 hours
Required Emphasis Credits — 18 hours
GERO 630 Intervention Strategies with the Elderly (3)
HRS 630 Human Services Counseling Theories and Techniques (3)
HRS 694 Supervised Counseling in Human Services (6)

Two advisor-approved electives with content focused on direct practice or service skills (6)

General Studies Emphasis
Program Requirements — 31 hours
Required Emphasis Credits — 18 hours
and select one of the following courses:
GERO 655 Grant Program Planning and Evaluation in Gerontology (3)
NURS 505 Nursing Research (3)
Advisor approved courses (15)

Note: The opportunity to complete a thesis is available within this emphasis. Students should contact the Program Coordinator or his/her academic advisor for admission criteria. (GERO 699)

Management/Administration Emphasis
Program Requirements — 31 hours
Required Emphasis Credits — 18 hours
and select one of the following courses:
GERO 555 Grant Development and Administration (3)
GERO 650 Personnel Practices of Aging (3)
GERO 655 Grant Program Planning and Evaluation in Gerontology (3)
GERO 660 Financial Management and Budgeting for Aging Programs (2)
SES 676 Sport Public Relations and Information Systems (3)
Advisor approved course (4)
Graduate Interdisciplinary Degree Program M.A.
Teacher Education Emphasis

Degree Requirements — 30-36 Credits

The Teacher Education Emphasis is a comprehensive degree program coordinated by the Department of Elementary Education or the Department of Educational Foundations and Curriculum Studies in McKee. It provides advanced study focused on the following themes: teacher leadership; alternate teaching and assessment strategies; and teacher as researcher. In addition, students enrolling in this degree program will select an area of concentration from the following: Diversity in Education; Mathematics and Science; Bilingual Education; Teaching English as a Second (ESL) or Other Language; or Middle Level Education.

See “Graduate Interdisciplinary: Teacher Education Emphasis (M.A.) Requirements” on page 20.

Required Courses — 15 hours
SRM 600 Introduction to Graduate Research (3)
TED 600 Professional Seminar I (1)
TED 601 Conceptions of Schooling (3)
TED 602 Teacher Leadership (3)
TED 603 Alternative Teaching and Assessment Strategies (3)
TED 605 Professional Seminar II (2)

Elective Course — 3 hours
Three additional approved hours

Select One Course Concentration — 12-18 hours
(Select from A, B, C, D or E)

A) Diversity in Teaching (12 hours)
EDSE 506 Teaching Students with Special Needs in Inclusive Settings (3)
PPSY 508 Workshop: Family Systems (3)
EDFE 601 Practicum (3)
Three additional approved hours (3)

B) Mathematics and Science (12 hours)
ENST 515 Environment and Environmental Problems (2)
EDEL 508 Problem Solving in Mathematics (3)
ESCI 550 Strategies in Teaching in Earth Sciences (1)
Six additional approved hours (6)

C) Linguistically Different: ESL (18 hours)
EDLD 602 Teaching Linguistically Diverse Learners (3)
EDLD 603 Methods and Assessment for ESL and Bilingual Education (3)
EDLD 604 Field Experience in TESOL and Bilingual Education (3)
EDLD 605 Advanced Seminar in Bilingual Education and TESOL (3)
ENG 633 Studies in Linguistics (3)
HISP 513 Teaching the Mexican American Child (3)

D) Linguistically Different: Bilingual Education (18 hours)
EDLD 602 Teaching Linguistically Diverse Learners (3)
EDLD 603 Methods and Assessment for ESL and Bilingual Education (3)
EDLD 604 Field Experience in TESOL and Bilingual Education (3)
EDLD 605 Advanced Seminar in Bilingual Education and TESOL (3)*
SPAN 513 Contrastive Features (3)*
SPAN 555 Spanish Readings (3)*
These courses are taught in Spanish.

E) Middle Level Education (15 hours)
EDMS 665 Middle School Theory, Philosophy and Curriculum (3)
EDMS 667 Assessment, Design and Evaluation of Middle School Curriculum (3)
EDMS 669 Integrated Curriculum for Middle Grades (3)
EDMS 601 Practicum (3)
EDRD 620 Reading in the Middle and Secondary Schools (3)

Notes: All students are required to pass a written comprehensive examination or defend a program portfolio covering all aspects of the completed coursework.
History M.A.

Degree Requirements — 30 Credits

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.

See “Scholarships/Center of Excellence” on page 8.

Required Courses — 3-6 hours
HIST 600 Introduction to Graduate Historical Study (3)
*HIST 580 Seminar in History (3)
*Required for all students writing a thesis.

Elective Courses — 24-27 hours
Elective courses may be taken from any HIST 500-HIST 600 level course.

Notes: Candidates for the M.A. in history should consult with the chair of the history department and the departmental graduate coordinator as soon as possible during the first semester of graduate work so that a major field advisor may be assigned. A plan of study will be approved by the advisor and the graduate coordinator. Candidates, in consultation with the major field advisor, will select two other department members who together will constitute the candidate's examining committee. Candidates are urged to consult frequently with the faculty who compose their committee.

Thesis Option
A minimum/maximum of six hours may be earned in HIST 699 by writing a thesis on a subject that falls within the student's concentration. Additionally, each thesis candidate must take HIST 580. At least 15 hours of coursework, in addition to the six thesis hours, must be concentrated in one of the following areas: United States; European; Africa/Asia/ and Latin American history. The remaining three hours in history that round out the candidate's program should be taken from outside the concentration area. Research and writing of a thesis precludes comprehensive examinations. An oral examination will be held after the student's major professor has accepted the thesis for presentation to the candidate's committee. Students will be responsible on the oral for a mastery of their field of study, including the reading list they received during their first week in the program.

Non-Thesis Option
Candidates must concentrate fifteen hours of coursework in one of the following areas: American History, European History, African/Asian/Latin American History. The area chosen will become the student's major field. Twelve additional hours of history courses at the 500/600 level must be completed outside the student's concentration area.

Students who elect this option are required to pass written and oral examinations in their concentration area. The written examination will be three hours in length and may be taken no earlier than the second semester of graduate study. Within two weeks of the written examination, candidates receiving a passing grade from each member of the examining committee on the comprehensive will be examined orally, usually for two hours, over the concentration. Students will be responsible on the oral for a mastery of their field of study, including the reading list they have received during their first week in the program.

Comprehensive and Thesis Fields In History:

<table>
<thead>
<tr>
<th>European</th>
<th>United States</th>
<th>Africa/Asia/Latin American</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ancient</td>
<td>Colonials</td>
<td>Thesis or comprehensive exam to be developed with candidate's graduate advisor and committee.</td>
</tr>
<tr>
<td>Medieval</td>
<td>Period to the Present</td>
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<tr>
<td>Early</td>
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<tr>
<td>Modern</td>
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<tr>
<td>Modern</td>
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</table>

Notes: Candidates must obtain a permit from the Department of History allowing them to take their comprehensive or thesis/oral examination. The student must return the permit to the department office no later than the end of the sixth week of the semester in which the examination will be taken. At this time a specific date will be set by the department chair with the advice of the candidate's major professor and committee.

The maximum credit that may be earned in HIST 622, Directed Studies, is six hours. Candidates must obtain prior approval and the signatures of their advisor and the department chair before enrolling. The minimum/maximum credit that may be earned in HIST 699, "Thesis," is six hours.

See "Variable Topic Courses" on page 218.

All students will be examined orally by a department committee during their second semester in residence. A "pass" or "conditional pass" recommendation by the committee will permit a student's continuance in the program. A "fail" recommendation will eliminate the student from the History M.A. program. All students without exception must satisfy the thirty hours master's degree requirement.
MATHEMATICS M.A.
(Select from two emphases)

Degree Requirements — 30 Credits

Liberal Arts Emphasis
Applications are not being accepted into the Liberal Arts Emphasis at this time.
The foci of this program are the core areas of algebra and analysis with specialization or breadth available through electives.
A graduate of this program may continue graduate work in mathematics or some other discipline such as statistics. A graduate may also enter a career making use of the knowledge and skills developed in the selected courses; career potential exists in industrial settings, business and governmental service.

See “Mathematics (M.A.) Requirements” on page 9.

Required Credits — 17 hours
MATH 510 Seminar in Mathematics (1) *(take twice)
MATH 523 Modern Algebra (3)
MATH 525 Linear Algebra I (3)
MATH 540 Introduction to Topology (3)
MATH 545 Introductory Analysis (3)
MATH 560 Introductory Complex Variables (3)

Required Elective Credits — 13 hours
Electives must have the approval of the advisor. Electives must be selected from 500-600 level MATH or STAT courses not including those designed for the Master of Arts: Teaching Emphasis (Exception: One of MATH 528 or MATH 529 may be selected as an elective).

Note: The departmental comprehensive examination will consist of two two-hour written examinations over the required sequences MATH 523 - MATH 525 and MATH 540 - MATH 545. An oral examination over the program up to two hours in length will be given upon successful completion of the written comprehensive.

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.

See “Teaching Emphasis Requirements” on page 9.

Required Credits — 6 hours
MED 600 Introduction to Research in Mathematics Education (3)
MATH 534 Continuous Mathematics (3)

Elective Credits — 24 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 (5 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)

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 595 Teaching Advanced Topics in Secondary School Mathematics (2)
MED 599 Action Research Project (1) (repeatable, 3 times)
MED 673 Teaching and Learning Mathematics on the Elementary Level (3)

MED 674 Teaching and Learning Mathematics on the Secondary Level (3)
Additional electives may be chosen from courses offered by the department or other departments with the approval of the student’s advisor.

Comprehensive Examinations
A student may select either one of the following options to satisfy the departmental comprehensive examination requirement. Normally, at least three faculty members will be involved in judging whether or not the selected option has been completed satisfactorily.

• Option 1. A written examination over 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 department; in addition, the student must make a two hour presentation of the project. Students who choose this option are encouraged to take MED 599 to support their work on the project.
**Music M.M.**
(Select from seven emphases)

**Degree Requirements — 30-36 Credits**

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.

See “Music (M.M.) Requirements” on page 39.

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.

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**Choral Conducting Emphasis**

Program Requirements — 36 hours

This emphasis is designed to assist the graduate candidate in developing advanced professional competencies in choral conducting. In addition to the Music, M.M. requirements above, an entrance audition is required.

Required Credits — 32 hours

- MUS 600 Introduction to Musical Scholarship (2)
- MUS 550 Score Reading and Analysis (1)
- MUS 653 Vocal Literature and Styles (3)
- MUS 685 Performance in Opera Theatre (2)
- MUS 693 Practicum in Music (4)
- Individual Performance in Voice (4)
- Individual Performance in Conducting (2)
- Major Performing Organization (2)
- Studies in Music History and Theory (12 hours)
- Music History (6)
- Music Theory (6)
- Studies in Music History and Theory will be selected by advisement based upon candidates' needs identified through advisory examination.

Recommended Electives — 4 hours

- MUS 559 Opera History and Literature (2)
- MUS 650 Seminar: Choral Music (2)

Elective courses are recommended and should be selected by advisement based on specific needs and interests.

Notes: A recorded public recital and correlative paper are required. The performance will be conducted by the candidate and evaluated by the major advisor and vocal faculty. It is the student's responsibility to file a printed program and tape recording of the performance with the School of Music Office and the Music Library.

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**Instrumental Performance Emphasis**

Program Requirements — 30-31 hours

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.

Required Credits — 22-23 hours

- Studies in the Major Area (14 hours)
- MUS 600 Introduction to Musical Scholarship (2)
- MUS 693 Practicum in Music (2) (Recital and Correlative Paper)
- Individual Performance (8)
- Major Performing Organization (2)

Other Studies in Music will be selected by advisement based upon candidate's needs identified through advisory examination.

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**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 department.

Performance emphases are available in bassoon, clarinet, flute, harp, horn, keyboard, oboe, percussion, saxophone, string bass, bass trombone, tenor trombone, trumpet, tuba, tenor tuba, viola, violin, violoncello and voice.

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**Music Education Emphasis**

Program Requirements — 30 hours

The Master of Music (Music Education Emphasis) degree program is designed to develop and enrich professional understandings, skills, musical and pedagogical competencies in the field of music education.

Core Components — 12 hours

- Studies in the Major Area (9 hours)
- MUS 610 Research in Music Education (3)
- MUS 519 Foundations of Music Education (3)
- MUS 533 Curriculum Trends in Music Education (3)
- Studies in Professional Education (3 hours)

Selected from the following content areas such as: Multicultural Education, Educational Psychology, Educational Foundations or Special Education (3).

Credits in Music Studies — 10 hours

To be selected in consultation with program advisor (10).

Elective Credits in Music and other areas — 8 hours

Courses should be based upon the candidate's specialized teaching area and professional goals.

Notes: Candidates will be asked to write an advisory examination on topics related to music education.

The Music Education department will consider examinations, scholarly papers and musical performance in all areas of study to assess student progress throughout the program.

---

**Music History and Literature Emphasis**

Program Requirements — 31-34 hours

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.

Required Credits — 30 hours

- MUS 600 Introduction to Musical Scholarship (2)
- MUS 699 Thesis (6)
- Music History (12)
- Music Theory Courses (6)
- Major Performing Organization and/or Individual Performance (4)

Elective Credits — 1-4 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 Theory and Composition Emphasis

Program Requirements — 33 Credits

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 of Music, Bachelor of Music Education, or a Bachelor of Arts in Music degree.

Required Credits — 33 hours

- MUS 600 Introduction to Musical Scholarship (2)
- MUS 509 Electronic Music (3)
- MUS 603 Analytical Studies in Music (3)
- MUS 648 Seminar: Music in the Twentieth Century (3)
- MUS 677 Individual Instruction in Composition (8)
- MUS 699 Thesis (6) (or original composition)
- Music Performing Organization and/or Individual Performance (2)

Studies in Music History (6 hours)

Studies in Music History will be selected by advisement based upon candidate's needs identified through advisory examination.

Notes: MUS 502 and MUS 503 may be required if advisors indicate that these courses will significantly increase the strength of 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.

Vocal Performance Emphasis

Program Requirements — 32-36 hours

In addition to the Music, M.M. requirements above, Voice students must pass a dictation proficiency examination in German, French and Italian. An entrance audition is required; voice students will be expected to perform one or more art songs in French, German, Italian, and English, including one opera aria or oratorio aria and a contemporary art song. The entrance audition may be performed during the first semester of degree work.

Required Credits — 29-33 hours

- MUS 600 Introduction to Musical Scholarship (2)
- MUS 559 Opera History and Literature (2)
- MUS 693 Practicum in Music (1-4) (Recital and Correlative Paper)
- Individual Performance (8)
- Major Performing Organization (2)
- Studies in the Major Area (8-9 hours)
  - Select one of the following courses:
    - MUS 510 Vocal Pedagogy (2)
    - MUS 564 Problems in Teaching Voice (2)
  - Select two of the following courses (4-5 hours)
    - MUS 536 German Art Song (3)
    - MUS 538 French/Italian Art Song (2)
    - MUS 539 British/American Art Song (2)
  - Select one of the following courses:
    - MUS 685 Performance in Opera Theatre (2)
    - MUS 686 Scene Studies in Opera (2)

Other Studies in Music (6 hours)

Music History or Music Theory (6)

Other Studies in Music will be selected by advisement based upon candidate's needs identified through advisory examination.

Elective Credits — 3 hours

Note: Students in the area of Vocal Performance should have skills in translation of vocal literature in one foreign language (French, German, or Italian) as well as diction mastery of all three. A candidate may challenge any portion of the language requirement.

Wind/Orchestra Conducting Emphasis

Program Requirements — 30-31 hours

In addition to the Music, M.M. requirements above, the prospective instrumental conducting applicant should have had at least two years of experience in high school teaching or equivalent experience before applying. A personal audition is required.

Required Credits — 30-31 hours

- MUS 600 Introduction to Musical Scholarship (2)
- MUS 550 Score Reading and Analysis (1)
- MUS 693 Practicum in Music (1)
- Individual Performance in Conducting (4)
- Individual Performance (major instrument) (2)
- Major Performing Organization (2)
- and select one of the following courses:
  - MUS 511 History and Literature of the Wind Band (2)
  - MUS 512 Symphonic Repertoire (2) (orchestral)
- *and select one of the following courses:
  - MUS 580 String Techniques for the Conductor (2)
  - MUS 558 Choral Masterworks (2)
  - MUS 661 Percussion Pedagogy (2)
  - MUS 662 Woodwind Pedagogy (2)

*Orchestra conductors must take MUS 580; MUS 658, MUS 661, and MUS 662 are taken with advisement.

Studies in Music History and Theory (12 hours)

Music History (6)

Music Theory (6)

Note: Studies in Music History and Theory will be selected by advisement based upon candidate's needs identified through advisory examination.

A recorded public recital and correlative paper are required. The performance will be conducted by the candidate and evaluated by the major advisor and instrumental faculty. It is the student's responsibility to file a printed program and tape recording of the performance with the School of Music Office and the Music Library.
NURSING M.S.  
(Select from two emphases)

Degree Requirements — 43-48 Credits

Program Requirements — 9 hours
NURS 505 Nursing Research (3)  
NURS 507 Leadership and Nursing Issues (3)  
NURS 600 Nursing Theory (3)

Successful completion of a comprehensive exam is required to complete the Master of Science program.

Education Emphasis
Degree Requirements — 43 Credits

The Master of Science degree in Nursing prepares post-baccalaureate nursing students as nurse educators for either academic or in-service settings with clinical emphasis in case management of the chronically ill child or adult. The program is consistent with the characteristics of graduate education accepted by the American Association of Colleges of Nursing. Full-time and part-time options are available. Health policies, OSHA requirements and CPR certification are required.

This program provides expertise valuable for positions in education, community college settings, institutions of higher education, community health settings and institutions that provide inpatient care for the chronically ill child or adult.

Students who want to be on the Colorado Advanced Practice Registry as Clinical Nurse Specialists (CNS) will be required to take NURS 610 in lieu of the education elective and complete NURS 680 (9 hrs) and NURS 690 (2 hrs) instead of NURS 695.

Program Requirements — 9 hours
Prerequisites: Undergraduate Research.
Required Major Credits — 34 hours
Clinical (15 hours)
NURS 602 Concepts in Chronic Illness (4)  
NURS 604 Care of Chronically Ill Adult and Child (4)  
NURS 612 Advanced Pharmacology (4)  
NURS 614 Advanced Pathophysiology (3)

Education (13 hours)
EPSY 540 Theories and Principles of Learning (3)  
NURS 630 Teaching Strategies in Nursing (3)  
NURS 660 Nursing Education Seminar (4)  
NURS 695 Advanced Academic Nursing Roles (3)

Required Research (6 hours)
NURS 699 Thesis (6)  
or  
NURS 691 Applied Nursing Research (3)

Program Requirements — 9 hours
Required Major Credits — 36-39 hours
FNP Emphasis (33 hours)
NURS 610 Health Assessment (3)  
NURS 612 Advanced Pharmacology (4)  
NURS 614 Advanced Pathophysiology (3)  
NURS 640 Health Care of Families I (4)  
NURS 645 Health Care of Families II (4)  
NURS 650 Health Care of Families III (4)  
NURS 680 Advanced Practice Role Practicum (9)  
NURS 690 Advanced Clinical Role (2)

Research Requirement (3-6 hours)
NURS 699 Thesis (6)  
or  
NURS 691 Applied Nursing Research (3)

Family Nurse Practitioner (FNP) Emphasis
Degree Requirements — 45-48 Credits

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 Practitioner. Part-time options are available. Health policies, OSHA requirements, CPR and ACLS certification are required.

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.
Prerequisites: Undergraduate Research, Undergraduate Physical Assessment Course.
PSYCHOLOGY M.A. (Select from two emphases)

Degree Requirements — 36 Credits
Program Requirements — 30 hours

Core Curriculum (30 hours)
- PSY 600 Graduate Research Methodology (3)
- SRM 603 Statistical Methods II (3)
- SRM 610 Statistical Methods III (3)
- PSY 550 Cognitive Development (3)
- PSY 590 Seminar in History and Systems (3)
- PSY 625 Principles of Neuropsychology (3)
- PSY 627 Psychometrics (3)
- PSY 664 Advanced Social Psychology (3)
- PSY 697 Master's Project in Psychology (6)
  or
- PSY 699 Thesis (6)

See “Psychology (M.A.) Requirements” on page 10.

General Psychology Emphasis
The master’s program in psychology emphasizes the development of advanced research skills as well as expanding the breadth of knowledge in the various sub-specializations of psychology. The program culminates in a research project in which the student demonstrates scholarship while preparing an empirical study, a literature review, or a comprehensive course outline.

Students in the psychology master’s program develop the requisite knowledge and skills for careers in research in a wide range of psychology career specializations and in community and junior college teaching. In recent years, the majority of the graduates from this program have entered doctoral programs in psychology.

Program Requirements — 30 hours
Elective Credits — 6 hours
Choose two, three-credit 500 or 600 level courses from:
- psychology
- educational psychology
- school psychology
- or applied statistics and research methods.

Human Neuropsychology Emphasis
In addition to the core curriculum, which provides a systematic foundation in psychology, the emphasis includes coursework in behavioral and electrophysiological measurements of brain function.

The training provides skills necessary to carry out neuropsychological evaluations under appropriate supervision and to conduct advanced research in brain-behavior relationships. In recent years, the majority of the graduates from this program have entered doctoral programs in psychology.

Program Requirements — 30 hours
Required Credits — 6 hours
- PSY 626 Introduction to Neuropsychological Assessment (3)
- PSY 680 Neuroscience Seminar (3)

PUBLIC HEALTH M.P.H. Community Health Education Emphasis

Degree Requirements — 45 Credits
Program Requirements — 30 hours

Core Curriculum (30 hours)
- HRS 610 Interpretation and Evaluation of Behavioral Research (3)
- SRM 600 Introduction to Graduate Research (3)
- CH 509 Seminar in Health Behavior (3)
- CH 530 Seminar in Health Promotion Strategies (3)
- CH 540 Principles of Health Program Management (3)
- CH 550 Environmental Health (3)
- CH 560 Scientific Foundations of Health Promotion/Disease Prevention (3)
- CH 610 Program Planning and Evaluation (3)
- CH 620 Epidemiology (3)
- CH 625 Public Health Administration and Policy (3)
- CH 692 Graduate Internship (6)
- SRM 617 Biostatistics and Health Data Analysis (3)

Required Elective Credits — 9 hours

Notes: Elective units are selected with consent of advisor.
**READING M.A.**

**Degree Requirements — 33 Credits**

The Reading/Literacy graduate programs prepare students to be inquiring practitioners who seek knowledge and experiences about reading/literacy processes and practices. These evolving scholars are guided and encouraged to pursue knowledge, commit to inquiry, engage in problem solving related to reading/literacy processes and practices, and participate as leaders in reading/literacy related activities. The inquiring practitioners learn to use reading/literacy knowledge, practices, and processes to serve the changing technological, diversity, and reading/literacy education needs of dynamic local and global environments.

See “Reading (M.A.) Requirements” on page 27.

**Program Objectives**

The Master of Arts Degree program in Reading prepares a student to function more effectively as a classroom teacher; to direct reading programs, staff development and curriculum development at a school level and for many literacy related tasks.

**Endorsement**

By completing the Master of Arts degree in Reading 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. Students should contact the Licensure Officer in McKee for information.

**Required Credits — 33 hours**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SRM 600</td>
<td>Introduction to Graduate Research</td>
<td>3</td>
</tr>
<tr>
<td>EDRD 611</td>
<td>Language, Literacy and Cognitive Development</td>
<td>3</td>
</tr>
<tr>
<td>EDRD 612</td>
<td>Reading in the Elementary Schools</td>
<td>3</td>
</tr>
<tr>
<td>EDRD 614</td>
<td>Literature for Children, Adolescents and Young Adults</td>
<td>3</td>
</tr>
<tr>
<td>EDRD 617</td>
<td>Evaluation and Improvements of Literacy Teaching and Learning</td>
<td>4</td>
</tr>
<tr>
<td>EDRD 620</td>
<td>Reading in the Middle and Secondary Schools</td>
<td>3</td>
</tr>
<tr>
<td>EDRD 642</td>
<td>Teaching the Writing Process in Schools</td>
<td>3</td>
</tr>
<tr>
<td>EDRD 645</td>
<td>Reading Research</td>
<td>3</td>
</tr>
<tr>
<td>EDRD 670</td>
<td>Directing a School-Wide Reading/Literacy Program</td>
<td>3</td>
</tr>
<tr>
<td>EDRD 692</td>
<td>Clinical Practicum in Literacy Coaching</td>
<td>4</td>
</tr>
<tr>
<td>EDRD 693</td>
<td>Capstone Reading Seminar</td>
<td>1</td>
</tr>
</tbody>
</table>

**Rehabilitation Counseling M.A.**

(Select degree or emphasis area)

**Degree Requirements — 60 Credits**

The mission of the Rehabilitation Counseling program at the University of Northern Colorado is to develop well-educated professional rehabilitation counselors and to improve the quality of life for persons with disabilities in the state, region and the nation through counseling, teaching, learning, the advancement of knowledge, and community service. Graduate education includes the Master of Arts degree in Rehabilitation Counseling and/or with an emphasis in Vocational Evaluation. The University provides services that support equal learning opportunities for all students. Learning occurs in an environment characterized by small classes taught by full-time faculty who are all certified rehabilitation counselors, and some of whom are also certified vocational evaluators.

See “Rehabilitation Counseling (M.A.) Requirements” on page 32.

**Required Credits — 45 hours**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HRS 610</td>
<td>Interpretation and Evaluation of Behavioral Research</td>
<td>3</td>
</tr>
<tr>
<td>HRS 580</td>
<td>Rehabilitation Principles and Case Management</td>
<td>3</td>
</tr>
<tr>
<td>HRS 581</td>
<td>Vocational Evaluation and Assessment of People with Disabilities</td>
<td>3</td>
</tr>
<tr>
<td>HRS 585</td>
<td>Occupational Information and Job Placement</td>
<td>3</td>
</tr>
<tr>
<td>HRS 604</td>
<td>Family, Cultural and Psychological Aspects of Disability</td>
<td>3</td>
</tr>
<tr>
<td>HRS 605</td>
<td>Medical Aspects of Disability</td>
<td>3</td>
</tr>
<tr>
<td>HRS 630</td>
<td>Human Services Counseling Theories and Techniques</td>
<td>3</td>
</tr>
<tr>
<td>HRS 692</td>
<td>Clinical Internship in Rehabilitation (15)</td>
<td>15</td>
</tr>
<tr>
<td>HRS 694</td>
<td>Supervised Counseling in Human Services</td>
<td>6</td>
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</table>

**Elective Credits — 15 hours**

<table>
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<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GER 555</td>
<td>Grant Development and Administration</td>
<td>3</td>
</tr>
<tr>
<td>HRS 597</td>
<td>Counseling and Treatment of the Substance Abuser</td>
<td>3</td>
</tr>
<tr>
<td>HRS 611</td>
<td>Vocational Evaluation Planning and Reporting</td>
<td>3</td>
</tr>
<tr>
<td>HRS 612</td>
<td>Seminar in Vocational Evaluation Systems</td>
<td>3</td>
</tr>
<tr>
<td>HRS 650</td>
<td>Human Resources System</td>
<td>3</td>
</tr>
<tr>
<td>HRS 660</td>
<td>Advanced Seminar in Client Assessment</td>
<td>3</td>
</tr>
<tr>
<td>HRS 693</td>
<td>Practicum in Vocational Evaluation</td>
<td>6</td>
</tr>
</tbody>
</table>

**Notes:** To complete requirements for rehabilitation counseling, 15 semester hours must be taken from required electives. Substitutions to electives may be made only with department faculty approval on the written petition of the student.

Required courses may be waived only by the department chair on written recommendation of the student's advisor.

Passing the Certified Rehabilitation Counselor (CRC) examination, administered by the Commission on Rehabilitation Counselor Certification, to complete the Master of Arts program.

The master's program is fully accredited by the Council on Rehabilitation Education (CORE) and qualifies students for application for national certification as a Rehabilitation Counselor and/or Vocational Evaluator.

**Vocational Evaluation Emphasis**

**Program Required Credits — 45 hours**

**Required Major Credits — 15 hours**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HRS 611</td>
<td>Vocational Evaluation Planning and Reporting</td>
<td>3</td>
</tr>
<tr>
<td>HRS 612</td>
<td>Seminar in Vocational Evaluation Systems</td>
<td>3</td>
</tr>
<tr>
<td>HRS 660</td>
<td>Advanced Seminar in Client Assessment</td>
<td>3</td>
</tr>
<tr>
<td>HRS 693</td>
<td>Practicum in Vocational Evaluation</td>
<td>6</td>
</tr>
</tbody>
</table>

Graduate Programs, 2004-2005 - 277
SCHOOL COUNSELING M.A.

Degree Requirements — 57 Credits

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

The Counseling faculty is committed to the development of broadly based competent professional counselors skilled in helping people with personal, interpersonal and career concerns in educational institutions. The requirements of the program are conceptualized within the framework and standards set forth by the counseling profession, Colorado state law, Graduate School and job requirements.

The School Counseling program is designed at the master's level to develop a professional who counsels with children and adults in various settings, especially in elementary, middle and secondary schools.

See “Community and School Counseling (M.A.) Requirements” on page 26.

Required Credits — 57 hours

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SRM 600</td>
<td>Introduction to Graduate Research</td>
<td>3</td>
</tr>
<tr>
<td>EPSY 530</td>
<td>Life Span Developmental Psychology</td>
<td>3</td>
</tr>
<tr>
<td>PPSY 558</td>
<td>Abnormal Psychology</td>
<td>3</td>
</tr>
<tr>
<td>PPSY 565</td>
<td>Psychology of Prejudice</td>
<td>3</td>
</tr>
<tr>
<td>PPSY 623</td>
<td>Counseling Diverse Populations</td>
<td>3</td>
</tr>
<tr>
<td>PPSY 602</td>
<td>Foundations of School Guidance</td>
<td>3</td>
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<tr>
<td>PPSY 603</td>
<td>Counseling Children and Adolescents</td>
<td>3</td>
</tr>
<tr>
<td>PPSY 605</td>
<td>Group Laboratory Experience</td>
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<tr>
<td>PPSY 606</td>
<td>Theories and Practices in Group Guidance</td>
<td>3</td>
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<tr>
<td>PPSY 607</td>
<td>Theories of Counseling</td>
<td>3</td>
</tr>
<tr>
<td>PPSY 608</td>
<td>Organization, Administration and Consultation in Guidance Services</td>
<td>3</td>
</tr>
<tr>
<td>PPSY 612</td>
<td>Practicum in Individual Counseling</td>
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<tr>
<td>PPSY 614</td>
<td>Internship in School Counseling and Guidance</td>
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<tr>
<td>PPSY 616</td>
<td>Career Theory, Counseling and Assessment</td>
<td>3</td>
</tr>
<tr>
<td>PPSY 624</td>
<td>Assessment and Treatment of Substance Abuse</td>
<td>3</td>
</tr>
<tr>
<td>PPSY 654</td>
<td>Child Abuse and Neglect</td>
<td>3</td>
</tr>
<tr>
<td>PPSY 657</td>
<td>Legal and Ethical Aspects of Counseling and Psychology</td>
<td>3</td>
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<tr>
<td>or</td>
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<tr>
<td>PPSY 658</td>
<td>Ethics and Law in Schools for Psychologists and Counselors</td>
<td>3</td>
</tr>
<tr>
<td>PPSY 660</td>
<td>Psychological Consultation: Theory and Practice</td>
<td>3</td>
</tr>
<tr>
<td>PPSY 671</td>
<td>Appraisal and Assessment: School Counseling</td>
<td>3</td>
</tr>
</tbody>
</table>

Note: 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 in for information.

SOCIAL SCIENCE M.A.

Clinical Sociology Emphasis

Degree Requirements — 33 Credits

The master's program in clinical sociology emphasizes the application of social science knowledge to various problems experienced by communities, agencies, governmental bodies and businesses. The emphasis of the program is on providing students with social science knowledge and skills which are applicable to solving problems in the above organizations. The program culminates in an internship and a research project resulting in a professional research report.

See “Social Science (M.A.) Requirements” on page 11.

Required Sociology Credits — 27 hours

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>SOC 660</td>
<td>Applied Social Research</td>
<td>3</td>
</tr>
<tr>
<td>SOC 530</td>
<td>Organizational Analysis</td>
<td>3</td>
</tr>
<tr>
<td>SOC 552</td>
<td>Social Psychology and Group Dynamics</td>
<td>3</td>
</tr>
<tr>
<td>SOC 539</td>
<td>Seminar in Clinical Sociology</td>
<td>3</td>
</tr>
<tr>
<td>SOC 552</td>
<td>Applied Social Theory</td>
<td>3</td>
</tr>
<tr>
<td>SOC 580</td>
<td>Social Policy Analysis</td>
<td>3</td>
</tr>
<tr>
<td>SOC 691</td>
<td>Research Internship</td>
<td>6</td>
</tr>
<tr>
<td>GERO 555</td>
<td>Grant Development and Administration</td>
<td>3</td>
</tr>
</tbody>
</table>

Elective Credits — 6 hours

Elective credits may be any advisor approved 500 or 600 level courses.

Professional Research Report Options:

Courses required for this option are listed above. The professional research report is completed in conjunction with SOC 691 Research Internship (1-9). Candidates should consult with the departmental graduate coordinator as soon as possible during the first semester of work so that they can be assigned an advisor. In consultation with their advisor the committee chair, they should choose another department member to be on their committee. These faculty members plus the internship site supervisor serve as the student's committee which directs the research project, the professional research report and the oral examination over the research. Candidates are urged to consult frequently with the members of their committee.

Thesis Option:

The thesis option requires 6 thesis credits, SOSC 699. Thesis credit may be substituted for elective credits and/or for three research internship credits. The thesis option also includes an oral defense of the thesis. The option is primarily for students who wish to continue their graduate work, in another program, toward the Ph.D. Students who are interested in this option should consult with the graduate coordinator as soon as possible.
SPECIAL EDUCATION M.A.
(Select from eight emphases)

Degree Requirements — 36-74 Credits
If a student enters the master of arts program in special education without a current teacher license, she or he is required to complete additional (separate admission requirements and course requirements listed under Professional Teacher Education.

Program Requirements — 21 hours
EDSE 500 Field of Special Education (3)
EDSE 501 The Exceptional Learner (3)
EDSE 502 Communication, Collaboration and Consultation for Special Educators (3)
EDSE 503 Effective School Environments for Learners with Exceptional Needs (3)
EDSE 504 Transition Planning and Service Delivery for Students with Special Needs (3)
EDSE 505 Assessment of Exceptional Individuals (3)
See “Special Education (M.A.) Requirements” on page 24.

Early Childhood Special Education Emphasis
Emphasis Requirements — 42-51 Credits
This master's program is designed to prepare teachers who will work with infants and young children (birth to 5) with special needs. The program consists of the required courses and practicum requirements agreed upon by the student and advisor.

Program Requirements — 18 hours
EDSE 504 is not required for this emphasis.
Required Major Credits — 24-33 hours
EDSE 530 Parent/Professional Partnerships (3)
EDSE 531 Assessing Young Children with Special Needs (3)
EDSE 533 Methods in Early Childhood Special Education (3)
EDSE 534 Research and Policy in Early Childhood Special Education (3)
EDSE 536 Early Intervention for Infants and Toddlers with Special Needs (3)
EDUC 660 Critical Issues in Early Childhood (3)
EDUC 675 Play and Psychosocial Development in Early Childhood (3)
EDSE 535 Practicum in Early Childhood Special Education (3-12)

Moderate Needs Emphasis
Emphasis Requirements — 36-45 Credits
This master's program is designed to prepare teachers who will work with students who have moderate needs. The program consists of the required courses and practicum requirements agreed upon by the student and advisor.

Deficiencies
Students not endorsed in Elementary Education are also required to take the following two courses:
EDEL 612 Elementary School Curriculum (3)
EDEL 620 Research Applications in Instruction in Mathematics, K-9 (3)
EDRD 612 Reading in the Elementary Schools (3)

Program Requirements — 21 hours
Required Major Credits — 15-24 hours
EDSE 601 Supporting Special Students in the Mainstream (3)
EDSE 606 Instructional Methods for Students with Special Needs (3)
EDSE 608 Case Studies with Students with Special Needs (3)
EDSE 609 Language Development: Disorders of Individuals with Special Needs (3)
EDSE 603 Practicum with Moderate Needs Students (3-12)

Profound Needs Emphasis
Emphasis Requirements — 42-51 Credits
This master's program is designed to prepare teachers who will work with profound needs students. The program consists of the required additional (separate admission requirements and courses and practicum requirements agreed upon by the student and advisor.

Program Requirements — 21 hours
Required Major Credits — 21-30 hours
EDSE 520 Survey of Learners with Profound Needs (3)
EDSE 521 Assessment of Learners with Profound Needs (3)
EDSE 522 Methods of Teaching Learners with Profound Needs: Birth to 8 Years (3)
EDSE 523 Methods of Teaching Learners with Profound Needs 9 to Adult (3)
EDSE 524 Seminar in Education of Learners with Profound Needs (3)
EDSE 525 Research and Policy for Learners with Profound Needs (3)
Profound Needs Practicum (3-12 hours)
EDSE 526 Practicum with the Severely/Profoundly Handicapped (3-12)

Severe Needs: Affective Emphasis
Emphasis Requirements — 42-51 Credits
This master's program is designed to prepare teachers who will work with students with affective needs. The program consists of the required courses and practicum requirements agreed upon by the student and advisor.

Program Requirements — 21 hours
Required Major Credits — 21-30 hours
EDSE 602 Behavioral Disorders: Characteristics, Identification and Intervention (3)
EDSE 606 Instructional Methods for Students with Special Needs (3)
EDSE 608 Case Studies with Students with Special Needs (3)
EDSE 610 Interventions for Students with Severe Affective Needs (3)
EDSE 611 Seminar in Severe Affective Needs (3)
EDSE 615 Special Education Law: Cases and Trends (3)
Severe Needs: Affective Practicum
EDSE 612 Practicum with Students with Severe Affective Needs, Ages 5-21 (3-12)

Severe Needs: Cognitive Emphasis
Emphasis Requirements — 42-48 Credits
This master's program is designed to prepare teachers who will work with students with cognitive needs. The program consists of the required courses and practicum requirements agreed upon by the student and advisor.

Program Requirements — 21 hours
Required Major Credits — 21-27 hours
EDSE 606 Instructional Methods for Students with Special Needs (3)
EDSE 608 Case Studies with Students with Special Needs (3)
EDSE 609 Language Development: Disorders of Individuals with Special Needs (3)
EDSE 620 Psycho-Social Aspects of Students with Severe Cognitive Needs (3)
EDSE 621 Seminar in Severe Cognitive Needs (3)
Severe Needs: Cognitive Practicum
EDSE 623 Practicum with Students with Severe Cognitive Needs, Ages 5-21 (3-12)
Severe Needs: Hearing Emphasis

Emphasis Requirements — 54-60 Credits

This program is designed to prepare teachers of students who are deaf or hard of hearing. PTEP may require additional coursework addressing competencies in the scope and sequence of regular education curriculum and methodology. Students not endorsed in Elementary Education, Secondary Education, or Early Childhood Education also are required to take EDSE 612, EDEL 620, and EEDR 612. The program consists of the required courses and practicum requirements agreed upon by the student and advisor. Students are required to pass a sign communication proficiency evaluation at the completion of their coursework prior to the practicum experience. This program meets the standards of the Colorado State Department of Education and the Council on Education of the Deaf.

Prerequisites Required — 9 hours

CMDS 266 Normal Speech and Language Development (3)
CMDS 370 Basic Audiology (3)
EDSE 450 Introduction to Deafness (3)

Program Requirements — 21 hours

Required Major Credits — 24-30 hours

EDSE 554 Sign Language in Educational Settings (3)
EDSE 652 Speechreading, Auditory Training and Amplification (3)
EDSE 653 Speech, Severe Needs: Hearing (3)
EDSE 654 Language, Severe Needs: Hearing (3)
EDSE 655 Reading, Severe Needs: Hearing (3)
EDSE 656 Methods of Teaching Content: Severe Needs Hearing (3)

Severe Needs: Hearing Practicum (6-12 hours)
EDSE 657 Practicum, Severe Needs Hearing (6-12)

Notes: Retention/Exit Requirements: Satisfactorily complete a sign language proficiency test which will be administered before each student's practicum placement; and at the end of each semester in the program the student's progress is evaluated by the Severe Needs: Hearing Faculty Committee. This committee reserves the right to place on probation or require withdrawal from the program, any student who, in their professional judgment, fails to satisfy requirements of scholarship, performance, or personal suitability.

Severe Needs: Vision Emphasis

Emphasis Requirements — 46-74

This master's program 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 with licensure from a state other than Colorado may be required to take additional coursework to meet Colorado PTEP standards. Provided some prior coursework has been completed in visual impairment (VI), students may complete licensure and degree requirements in a minimum of 46 semester hours if they desire licensure in education of students who are visually impaired only. A minimum of 61 semester hours is required to complete requirements in both visually impaired and orientation and mobility if no prior coursework in VI has been completed. It is preferable for students to enroll fall semester.

Program Requirements — 21 hours

Required Major Credits — 25-38 hours

EDEL 612 Elementary School Curriculum (3)
EDSE 540 Independent Living for Individuals with Visual Disabilities (1-2)
EDSE 542 Assessment and Methods for Teaching Students with Visual/Multiple Disabilities (3)
EDSE 543 Braille Codes and Formats (3)
EDSE 544 Technology for Students with Visual Disabilities (2)
EDSE 545 Advanced Braille Codes and Formats (3)
EDSE 546 Principles of Orientation and Mobility (2)
EDSE 641 Medical and Educational Implications of Visual Handicaps (1-3)
EDSE 642 Advanced Seminar in Education of Students with Visual Handicaps (3)

EDSE 643 Psychosocial Needs of Individuals with Visual Handicaps (2)
Severe Needs: Vision Practicum (2-12 hours)
EDSE 644 Practicum in Education of Students with Visual Handicaps, K-12 (2-12)
Orientation and Mobility (O & M) Licensure Option - 15 hours
EDSE 547 Individual Instruction in Orientation and Mobility (4)
EDSE 647 Applied Methods in Orientation and Mobility (2)
EDSE 648 Practicum in Orientation and Mobility (9)

*Students earning licensure in O & M through the Association for Education and Rehabilitation of Blind and Visually Impaired (AERBVI) must complete the above coursework in addition to the VH program requirements. Before enrolling in any mobility coursework, students must obtain program faculty consent.

*Students earning licensure in rehabilitative teaching through AERBVI must complete the above program with faculty consent. This can be combined with Orientation and Mobility.

Teaching the Gifted and Talented Emphasis

Emphasis Requirements — 42-57

This master's program is designed to train teachers on the elementary and secondary levels to work with gifted and talented students in order to help them develop to their full potential. The program consists of the required courses and practicum requirements agreed upon by the student and advisor.

Program Requirements — 15 hours

EDSE 504 and EDSE 505 are not required for this emphasis.

Required Major Credits — 24-30 hours

EDSE 580 Nature and Needs of the Gifted and Talented (3)
EDSE 581 Teaching Strategies for the Gifted and Talented (3)
EDSE 582 Curriculum Models for the Gifted and Talented (3)
EDSE 583 History, Organization and Administration of Programs for the Gifted and Talented (3)
EDSE 585 Facilitating Creativity in the Gifted and Talented Student (2)
EDSE 586 Trends, Issues and Thinking Skills in Gifted Education (2)
PPSY 627 Counseling Interventions and Techniques for Talented and Gifted Students (2)
Teaching the Gifted and Talented Practicum (6-12 hours)
EDSE 584 Practicum in Teaching the Gifted and Talented (6-12)

A minimum of 6 hours is required during the Summer Enrichment Program. The maximum for the M.A. program is 12 hours.

Electives Required — 3-12 hours
Electives will be selected with the approval of the major advisor.
SPORT AND EXERCISE SCIENCE
M.S.
(Select from three emphases)
Degree Requirements — 30-33 Credits

Exercise Science Emphasis
Program Requirements — 33 Hours
Exercise Science is the integrated study of human movement. Concentrations within this discipline include biomechanics, exercise physiology and social psychology of sport and physical activity.

1) Biomechanics Concentration — 33 hours
Required Credits (9 hours)
SES 602 Introduction to Research in Sport and Exercise Science (3)
SES 625 Laboratory Techniques in Kinesiological Research (3)
SRM 602 Statistical Methods I (3)
Concentration area requirements (15 hours)
SES 620 Advanced Anatomical Kinesiology (3)
SES 621 Advanced Biomechanics (3)
SES 627 Advanced Physiological Kinesiology II (3)
SES 629 Concepts in Kinesiology (3) (Cardiopulmonary Physiology)
and select one of the following courses:
SES 623 Advanced Neuromotor Kinesiology (3)
SES 624 Advanced Developmental Kinesiology (3)
SES 626 Advanced Physiological Kinesiology I (3)
SES 665 Advanced Sociological Kinesiology (3)
Elective Credits (3-9 hours)
Elective credits in a concentration area must have the approval of the program advisor and must satisfy the Thesis option or the Professional Research Project Option.

2) Exercise Physiology Concentration — 33 hours
Required Credits (9 hours)
SES 602 Introduction to Research in Sport and Exercise Science (3)
or
SRM 600 Introduction to Graduate Research (3)
SES 625 Laboratory Techniques in Kinesiological Research (3)
SRM 602 Statistical Methods I (3)
Concentration area requirements (15 hours)
SES 620 Advanced Anatomical Kinesiology (3)
SES 626 Advanced Physiological Kinesiology I (3)
SES 627 Advanced Physiological Kinesiology II (3)
SES 629 Concepts in Kinesiology (3) (Cardiopulmonary Physiology)
and select one of the following courses:
SES 621 Advanced Biomechanics (3)
SES 623 Advanced Neuromotor Kinesiology (3)
SES 624 Advanced Developmental Kinesiology (3)
SES 665 Advanced Sociological Kinesiology (3)
Elective Credits (3-9 hours)
Elective credits in a concentration area must have the approval of the program advisor and must satisfy the Thesis option or the Professional Research Project Option.

3) Social Psychology of Sport and Physical Activity Concentration — 33 hours
Required Credits (9 hours)
SES 602 Introduction to Research in Sport and Exercise Science (3)
SES 625 Laboratory Techniques in Kinesiological Research (3)
SRM 602 Statistical Methods I (3)
Concentration area requirements (15 hours)
SES 626 Advanced Physiological Kinesiology I (3)
SES 629 Concepts in Kinesiology (3) (Motivation)
SES 635 Exercise and Sports Psychology (3)
SES 665 Advanced Sociological Kinesiology (3)
and select one of the following courses:
SES 620 Advanced Anatomical Kinesiology (3)
SES 621 Advanced Biomechanics (3)
SES 623 Advanced Neuromotor Kinesiology (3)
SES 626 Advanced Physiological Kinesiology I (3)
Elective Credits (3-9 hours)
Elective credits in a concentration area must have the approval of the program advisor and must satisfy the Thesis option or the Professional Research Project option.

Exercise Science Emphasis
Selected Electives
The following courses are recommended electives:
WIN 530 Nutrition in Sport and Exercise (3)
FND 555 Nutrition for Fitness and Athletic Performance (3)

Sport Administration Emphasis
Degree Requirements — 30 Credits
The curriculum follows the guidelines set for the preparation of students in sport management by the National Association for Sport and Physical Activity and 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.

Required Credits — 21 hours
SES 602 Introduction to Research in Sport and Exercise Science (3)
SES 560 Issues and Ethics in Sport Management (3)
SES 570 Program Management (3)

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SES 576 Sport Promotion and Marketing (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.

ET 501 Introduction to Applications of Educational Technology (3)
ET 504 Instructional Materials Design (3)
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)

Thesis Option — 6 hours
The research and writing of a thesis is in lieu of taking the comprehensive examination. Thesis hours may be included as elective hours within a student's program. Contact the School of SES's Graduate Coordinator for additional information.

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.

Sport Pedagogy Emphasis

Degree Requirements — 33 Credits
The Sport Pedagogy emphasis is designed for individuals who have relevant experience in their chosen concentration and who plan to provide leadership in that concentration. Sport pedagogy involves the complex and idiosyncratic activity of teaching. Students in this program examine different assumptions, conceptions, and paradigms of teaching physical activity and sport. Furthermore, they have opportunities to practice and reflect on the art and science of teaching using various models in assorted settings with diverse populations.

Required Major Credits — 12 hours
SES 602 Introduction to Research in Sport and Exercise Science (3)
SES 603 Professional Development Seminar (3)
SES 680 Perspectives in Sport Pedagogy (3)
SES 688 Legal Aspects of Sport (3)

Select One Concentration Area — 9 hours
1) Physical Education concentration requirements (9 hours)
   SES 612 Assessment in Sport Pedagogy (3)
   SES 614 Analysis of Teaching in Physical Education (3)
   SES 640 Curriculum in Physical Education (3)
2) Outdoor Education concentration requirements (9 hours)
   SES 612 Assessment in Sport Pedagogy (3)
   SES 630 Challenge Course Programming (3)
   SES 631 Outdoor Education (3)
3) Youth Development concentration requirements (9 hours)
   SES 605 Youth Development and Physical Activity (3)
   SES 606 Scholarship in Youth Development (3)
   and select one of the following courses with advisor approval:
   SES 614 Analysis of Teaching in Physical Education (3)
   SES 630 Challenge Course Programming (3)

Elective Credits — 12 hours
Select one course from a different concentration area (3)
   and select one of the following options (6 hours)
   1. Thesis Option: This option requires the research and writing of a thesis. Thesis hours (SES 699) may be included as elective hours within a student's program.
   2. Professional Project Option: This option requires the development and presentation of a professional project and is in lieu of completing a thesis. SES 692, SES 622 and other graduate coursework may be included as elective hours within a student's program and used in this option.

Additional elective credits must have the approval of a program advisor (3)

Note: Students must also develop a program matrix under the supervision of an assigned program advisor.

Endorsement: By completing the Sport Pedagogy Emphasis: Physical Education Concentration, students fulfill the requirements for institutional recommendation for endorsement as a K-12 Physical Education teacher. Before such recommendation is made, however, students seeking endorsement must provide evidence of two or more years of teaching experience in elementary, middle or secondary school while holding a Type “A” teaching license or equivalent. (Contact the Colorado Department of Education for a complete list of requirements for endorsement.)
VISUAL ARTS M.A.

Degree Requirements — 30 Credits

The graduate program in the Department of Visual Arts leads to the Master of Arts degree. It offers an in-depth and individualized course of study. The program provides opportunities for students who want to develop advanced expertise in art education, art history and studio arts. Courses from any of the program areas are suitable for the K-12 art educator seeking a masters degree. The M.A. degree can also be used in preparation for further, more advanced, graduate studies. It is the goal of the Department of Visual Arts to encourage, foster and provide academic rigor and artistic excellence.

See “Visual Arts (M.A.) Requirements” on page 40.

Required Credits — 12 hours
ART 600 Graduate Research in Art (3)
ART 680 Seminar in Art History (4)
ART 699 Thesis (5)

Art Electives — 18 hours

Each student will be assigned an academic advisor and graduate committee by the Graduate Coordinator for the department. 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 Graduate Coordinator. Changes in the course of study must be approved by the student's academic advisor and committee.

Students having less than 12 semester hours of art history in their undergraduate program will include enough hours of art history to make up the deficiency.

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 Graduate Coordinator. 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 research thesis is required of all Master of Arts degree candidates in the Department of Visual Arts.

In conjunction with the required written research 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.

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

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

Numbers. Course numbers generally 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:
- 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.

Course Load

Overload. More than 18 credit hours per semester will increase tuition. Students requesting overload credits must have a 3.00 or higher cumulative grade point average. In addition, specific colleges, departments and programs may have additional conditions regarding overloads. It is the student's responsibility to meet these conditions.

Overloads of more than 21 hours require approval by the department advisor and department chair. These approvals must be forwarded to the Registrar. The Registrar will assure that these procedures have been followed.

Graduate Students

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 nondegree certification program, or any combination thereof. The maximum load for a graduate student is 17 hours per semester. This information may vary during summer terms; students should check the Summer Schedule of Classes for correct information.

Financial aid and verification of enrollment. Full-time enrollment is nine credit hours for graduate students.

Half-time classification. Graduate students enrolled in five to eight credits hours are classified as half-time. Part-time enrollment is four credit hours or less.

Overload. More than 17 credit hours per semester for graduate students is considered an overload.

Graduate students receive overload approval from their academic advisor. Students who have lower than a 3.00 GPA but have extenuating circumstances may petition for an overload to the dean of the Graduate School.

See “Semester System” on page 52.
ART — 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 anthropology field school experience. Students will participate in an ongoing archaeological research project for four weeks during the summer. Participation fee.

ANT 622 Directed Studies (1-4)
Individualized investigation under the direct supervision of a faculty member. Repeatable, maximum concurrent enrollment is two times.

ART — VISUAL ARTS

ART 500 Contemporary Issues in Art (1-3)
In-depth inquiry into contemporary issues in the visual arts. Analytical and interpretive research on selected topics, including their antecedents and their implications. Repeatable, no limitations.

ART 508 Workshop (1-4)
A variety of workshops on special topics within the discipline. Goals and objectives will emphasize the acquisition of general knowledge and skills in the discipline. Repeatable, under different subtitles.

ART 512 Wheel Throwing (3)
Prerequisite: ART 332 or equivalent. Develop an individual approach to wheel thrown ceramic forms at an advanced level. Exploration of various methods of ceramic decoration and firing. Repeatable, may be taken two times.

ART 513 Professional Renewal (1-3)
Update skills and knowledge of professionals in the discipline. Goals and objectives will be specifically directed at individual professional enhancement rather than the acquisition of general discipline knowledge or methodologies. S/U or letter graded. Repeatable, under different subtitles.

ART 514 Ceramic Equipment and Materials (3)
Prerequisite: ART 512 or equivalent. An investigation of ceramic materials, kilns and studio equipment that will provide the prospective potter or teacher with essential advanced level technical and practical knowledge.

ART 521 Fiber Design (3)
Advanced design techniques in fibers. Repeatable, may be taken two times.

ART 523 Weaving (3)
Concentrate in a selected area of weaving on an advanced design concept. Repeatable, may be taken two times.

ART 533 Life Drawing (3)
Prerequisite: ART 333 or equivalent. Advanced life drawing emphasizing development of personal interpretations of the human form. Repeatable, may be taken two times.

ART 537 Computer Art (3)
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 443, ART 471, ART 571. Facts and aspects related to computer applications in art; graphic animation, interactive art. Analyze and contrast images, concepts and approaches to artistic quality and technological solutions in electronic art.

ART 541 Craft Design (3)
Relate basic art and crafts to the field of art education, education and recreation, emphasizing materials, instructional techniques, tools and facilities. Read literature appropriate to area of study. Repeatable, may be taken two times.

ART 553 Advanced Intaglio Printmaking (3)
Prerequisite: ART 353 or consent of instructor. Advanced investigations in intaglio printmaking techniques, including color printing. Individual imagery and technical mastery will be emphasized. Repeatable, may be taken three times.

ART 554 Advanced Relief Printmaking (3)
Prerequisite: ART 354 or consent of instructor. Advanced investigations in relief printmaking techniques. Individual imagery and technical mastery will be emphasized. Repeatable, may be taken three times.

ART 556 Advanced Monotypes (3)
Prerequisite: ART 356 or consent of instructor. Advanced investigations in monotype and monoprint techniques. Individual imagery and technical mastery are emphasized. Repeatable, may be taken three times.

ART 557 Advanced Artist's Books: Structures and Concepts (3)
Prerequisite: ART 357 or consent of instructor. Advanced investigations in traditional and experimental approaches to creating artists' books. Emphasis is on development of original solutions and mastery of traditional and innovative techniques. Repeatable, may be taken three times.

ART 561 Graduate Sculpture (3)
Self-directed or assigned work in specific areas of sculpture. Advanced technical skills emphasized. Repeatable, may be taken two times.

ART 571 Computer Graphics (3)
Designed to introduce principles and practices in computer graphics and to develop knowledge related to design and layout.

ART 575 Color Photography — Transparencies (3)
Prerequisite: ART 271 or equivalent. Improve and develop individual creative skills in color photography using transparency materials. Learn to plan and produce multi-projector presentations using current materials, tools and processes.

ART 576 Advanced Black and White Photography (3)
Prerequisite: ART 271 or equivalent. Refine and improve individual skills in black and white photography. Study film and print manipulation with silver and non-silver materials.

ART 577 Photographic Illustration and Lighting Techniques (3)
Prerequisite: ART 271 or equivalent. Learn creative lighting techniques for illustration and portraiture. Study available light and studio lighting for black and white and color photography.

ART 595 Special Topics in Art (1-4)
Study special topics in the Visual Arts. Specific course content is determined by subtitle. Repeatable, under different subtitles.

ART 600 Graduate Research in Art (3)
Learn appropriate art, art historical and art education research methodology and procedures for inquiry. Present research according to approved style guidelines. Review Art program and Graduate School requirements.

ART 611 Ceramic Design (3)
Design and assembly of hand-built ceramic forms at an advanced level. An exploration of stoneware, raku and sodium vapor firing processes. Repeatable, may be taken two times.

ART 615 Ceramic Studio (1-3)
Consent of instructor required. Individualized or specialized study on specific topics in ceramics. Repeatable, may be taken three times.

ART 622 Directed Studies in Art (1-4)
Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

ART 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, may be taken two times.

ART 634 Drawing (3)  
Advanced work in development of thematic imagery, inventive media, unique and personal solutions to visual problems. Repeatable, may be taken two times.

ART 635 Drawing Studio (1-3)  
Consent of instructor required. Individualized or specialized study on specific topics in drawing. Repeatable, may be taken three times.

ART 636 Painting Studio (1-3)  
Consent of instructor required. Individualized or specialized study on specific topic in painting. Repeatable, may be taken three times.

ART 639 Computer Graphics Studio (1-3)  
Consent of instructor. Advanced, individualized or specialized study on specific topics related to computer graphics. Repeatable, may be taken three times.

ART 640 Literature of Art Education (3)  
Survey historical and contemporary literature on theory, research and practice in art education and related areas.

ART 641 Art Curriculum and Instruction: Cultural Studies (3)  
Study methods for teaching art history, research art analysis, art criticism and art theory for developing procedures for instruction.

ART 642 Art Curriculum and Instruction: Studio Methods (3)  
Research and develop studio art content, processes and sequencing appropriate for the elementary and secondary art curriculum.

ART 643 Computer Based Technology in Art Education (2)  
Consent of Instructor. Working knowledge and application of computer graphics for educational purposes. Develop art instruction program and strategies for a classroom including integrative issues through lectures, written assignments and activities.

ART 648 Art and the Exceptional Student (2)  
Study art for the exceptional in depth. Involvement in the review of literature and research field in the development of an art curriculum specific to individual interest area.

ART 655 Advanced Printmaking Studio (1-3)  
Consent of instructor. This class provides a working environment for large scale printmaking by utilizing all facets of printmaking techniques, serious edition printing and special projects. Repeatable, may be taken three times.

ART 660 Graduate Sculpture Studio (1-3)  
Self-directed studies in selected sculptural modes or processes. Repeatable, may be taken three times.

ART 661 Advanced Graduate Sculpture (3)  
Select problems in the creation of sculpture with emphasis on critical and technical competencies. Repeatable, may be taken two times.

ART 669 Web Style Design (3)  
Prerequisite: ART 431, ART 433, ART 437, ART 537, ART 471, ART 571. Provide working knowledge about principles and practices in Web Page Layout.

ART 672 Photography Studio (1-3)  
Instructor consent required. Advanced individualized or specialized study in photography for graduate students. Repeatable, may be taken three times.

ART 680 Seminar in Art History (1-4)  
Discuss advanced and specialized art historical topics. Take concurrently with 300 level art history course. Subject area determined by subtitle. Repeatable, under different subtitles.

ART 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 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.

AST — ASTRONOMY

AST 622 Directed Studies (1-4)  
Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock-hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

BIO — 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 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 131 or CHEM 331. Recommended: BIOL 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 525 Molecular Genetics (3)  
(12 lecture, 3 laboratory) Prerequisites: BIO 220 and CHEM 481. Examination of protein synthesis, DNA replication, gene structure, and regulation of gene expression with particular emphasis on molecular techniques.

BIO 530 Plant Taxonomy (4)  
(2 lecture, 3 laboratory) Prerequisite: BIO 101. History of plant taxonomy and phylogenetic systematics, family recognition, and identification of local flora using keys. Native plant collection and field trips required.

BIO 533 General Parasitology (4)  
(3 lecture, 3 laboratory) Prerequisite: BIO 103 or BIO 111. Study of the systematic 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.

BIO 535 Survey of Fishes, Amphibians and Reptiles (4)  
(3 lecture, 3 laboratory) Prerequisite: BIO 111. Examination of the biology of the cold-blooded vertebrates including their evolution, ecology and behavior. Laboratory stresses the identification and biology of Colorado species.

BIO 536 Advanced Invertebrate Zoology (4)  
(3 lecture, 3 laboratory) Prerequisite: BIO 332. Compare the classification, anatomy, physiology, morphogenesis and natural history of the invertebrates, exclusive of insects and most parasitic forms.
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.

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 544 Comparative Vertebrate Adaptations (4) (3 lecture, 3 laboratory) Prerequisites: BIO 345 and BIO 350. Make a detailed study of selected aspects of vertebrate anatomy, stressing function and adaptive significance of organ systems.

BIO 545 Cytology (3) (3 Lecture) Prerequisite: BIO 210. Study the structure and function of the various components and organelles of both prokaryotic and eukaryotic cells.

BIO 547 Immunology and Disease (4) (4 lecture) Prerequisites: BIO 210 and BIO 350. Study the disease process and immunological resistance to disease with major emphasis on initiation and regulation of adaptive immunity.

BIO 550 Cell Physiology (4) (3 lecture, 3 laboratory) Prerequisites: BIO 220 and CHEM 131 or CHEM 331, recommend CHEM 481. The study of the structural and functional relationships among biological macromolecules, cell organelles, and cell processes.

BIO 552 Mammalian Physiology I (3) (3 lecture) Prerequisites: BIO 341 or BIO 345 and CHEM 481. In-depth examination of the physiological function of various organ systems of mammals.

BIO 553 Mammalian Physiology II (3) (3 lecture) Prerequisites: BIO 341 or BIO 345 and CHEM 481. 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.

BIO 554 General Plant Physiology (4) (3 lecture, 3 laboratory) Prerequisites: BIO 111 and CHEM 131 or 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.

BIO 555 Reproductive and Developmental Biology (3) Prerequisites: BIO 110 and CHEM 131 or CHEM 331, recommend CHEM 481. Examination of the anatomy, physiology and mechanisms of reproduction and development with an emphasis on mammals.

BIO 556 Current Topics in Biomedical Research (2) Prerequisite: BIO 110 and CHEM 131 or 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.

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 complement BIO 553.

BIO 559 Plant Reproductive Growth and Development (3) Prerequisite: BIO 354. Advanced study of the genetic and environmental factors that influence reproductive development in flowering plants.


BIO 561 Plant Ecology (4) (3 lecture, 3 laboratory) Prerequisite: BIO 360. Study of plant communities by examining the effects of environmental factors on plants, as well as community measurement and evaluation, modeling techniques, energy flow through ecosystems and community dynamics.

BIO 569 Conceptual Issues in Evolution (2) Prerequisite: BIO 465 or consent of instructor. Study of the guiding principles in evolutionary biology. Focus on concepts of fitness, selection, adaptation, form and function, concerted evolution and the nature of biological variation.

BIO 571 Teaching Strategies for Biology Teachers (1) (2 laboratory) Full admittance to PTEP required or consent of instructor. Demonstrations and strategies appropriate for lecture and laboratory instruction, including computer usage and controversial issues, will be presented.

BIO 585 Topics in Field Biology (1-10) After preparatory work, study biology in the field on a state, national or international basis.

BIO 592 Internship in Biological Sciences (1-3) Consent of instructor required. On-the-job experience in professional areas under the supervision of an area specialist. S/U graded.

BIO 595 Special Topics in Biology (1-6) Study of any biological topic at an advanced level. Repeatable, maximum of six credits.

BIO 622 Directed Studies (1-6) Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum of six credits per semester.

BIO 682 Problems in Teaching College Biology (3) (3 Lecture) Teaching biology strategies for increasing teaching effectiveness. Explore earning theory and application, presenting difficult material, curriculum development; research and the laboratory as teaching tools, management and maintenance of biological materials.

BIO 691 Seminar in Biological Sciences (1) (1 lecture) 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 694 Foundations of Biological Research (2) Required of all first year graduate students in biological sciences. Delineate philosophy, methods of research and oral and written presentations of scientific findings.

BIO 697 Graduate Research (1-6) 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 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.
CED — COMPUTER EDUCATION
CED 509 Advanced Placement Programs in Computer Science (1-3)
Consent of instructor. Graduate students only. Topics in computer science and pedagogical information related to establishing and maintaining a computer science advanced placement program. S/U graded. Repeatable, no limitations.

CED 513 Professional Renewal (1-3)
Update skills and knowledge of professionals in the discipline. Goals and objectives will be specifically directed at individual professional enhancement rather than the acquisition of general discipline knowledge or methodologies. S/U or letter graded. Repeatable, under different subtitles.

CH — COMMUNITY HEALTH
CH 500 Stress Management (2)
A holistic approach to stress management, with regard to both cognitive knowledge and stress reduction techniques with the intention to prevent or alleviate the 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 Seminar in Health Behavior (3)
Review theories of behavior and behavior change as they relate to current health issues. Health behavior change models will be examined and applied.

CH 510 International Health: Cross Cultural Comparisons (3)
This class explores the multi-cultural aspects of health and international comparisons of various health indicators. Students 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 530 Seminar in Health Promotion Strategies (3)
Prerequisites: CH 509, CH 560 or consent of instructor. Examines the effectiveness of a wide range of strategies used in health promotion/disease prevention programs. Current literature/programs are presented and reviewed.

CH 540 Principles of Health Program Management (3)
Prepares students to assume a supervisory role in the management of health and human services programs. Course covers planning, decision-making, organization, budgeting, marketing, human resource management, leadership.

CH 550 Environmental Health (3)
Investigate and discuss the relationships of environmental health problems to human health and welfare. Include sources of these problems, their recognition and control and current research studies.

CH 560 Scientific Foundations of Health Promotion/Disease Prevention (3)
Examine epidemiological, physiological and intervention studies from the USA and other countries to develop a scientific basis for health promotion and disease prevention.

CH 610 Program Planning and Evaluation (3)
Prerequisite: CH 530 or consent of instructor. Theories and practices of program planning and evaluation including needs assessment, planning approaches, selection of strategies, data collection and analysis, evaluation design, evaluation and utilization of evaluation data.

CH 620 Epidemiology (3)
Prerequisite: SRM 617. Epidemiological principles analyzed with an emphasis on selected topical issues, infectious and chronic/degenerative diseases, research design and analysis. Practical applications of statistical and epidemiological methods.

CH 622 Directed Studies (1-4)
Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

CH 625 Public Health Administration and Policy (3)
Analyze the organization and administration of public health agencies at national, state and local levels. Major public health problems, including administrative and policy decisions regarding their resolution, will be included.

CH 692 Graduate Internship (3-6)
Prerequisites: CH 610 and consent of advisor. Supervised experience at a health agency that allows the student to put into practice knowledge and skills learned in the classroom. S/U graded. Repeatable, maximum of six credits.

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.

CHED — CHEMISTRY EDUCATION
CHED 508 Workshop (1-3)
A variety of workshops on special topics within the discipline. Goals and objectives will emphasize the acquisition of general knowledge and skills in the discipline. Repeatable, under different subtitles.

CHED 509 Advanced Placement Institute in Chemistry (2)
Consent of instructor. Topics in chemistry content and pedagogy appropriate to the establishment, development and maintenance of an advanced placement program in chemistry. S/U graded.

CHED 682 Problems in Teaching Chemistry (3)
Problems encountered in teaching chemistry and approaches to their resolutions will be considered. The formal nature of concepts, management of laboratories, safety, demonstrations are illustrative of areas of discussion.

CHED 755 Supervised Practicum in College Teaching (1-6)
Supervised practice in college teaching for doctoral candidates with observation used as a basis for analysis of learning experiences. Repeatable, maximum of six credits.

CHED 793 Doctoral Research Practicum-Chemical Education (1-4)
Consent of advisor. Provides experience in the development and implementation of research techniques, the development of experimental design and the analysis of research data. S/U graded. Repeatable, maximum of 16 credits.

CHED 797 Doctoral Research Proposal-Chemical Education (1-4)
Required of all doctoral students. Students may register for this course (1-4 hours) in any semester, but must earn 4 hours of credit in partial fulfillment of requirements before admission to candidacy. S/U graded. Repeatable, maximum of four credits.

CHED 799 Doctoral Dissertation-Chemical Education (1-12)
Required of all doctoral candidates. See Ph.D. in Chemical Education - Minimum requirements for the major in the Graduate School section of this Catalog. S/U graded. Repeatable, maximum of 12 credits.

CHEM — CHEMISTRY
CHEM 520 Theory and Use of Analytical Instruments (1)
(3 laboratory) Prerequisite: CHEM 131 or CHEM 331. Techniques of sample preparation and data collection for IR, NMR, UV-visible and AA spectrophotometers and gas chromatograph.
CHEM 522 Advanced Analytical Chemistry (3)
(2 lecture, 1 laboratory) Prerequisite: CHEM 321. Advanced topics in analytical chemistry, including sampling, statistics, multiple equilibria and current literature.

CHEM 523 Chemical Spectroscopy (3)
Prerequisites: CHEM 321 and CHEM 331. Theory and application of IR, NMR, UV-visible and mass spectroscopy.

CHEM 533 Organic Synthesis and Stereochemistry (3)
Prerequisite: CHEM 332. An advanced treatment of synthesis and stereochemistry in organic chemistry.

CHEM 534 Theory and Mechanisms of Organic Reactions (3)
Prerequisites: CHEM 332, CHEM 451. An advanced treatment of organic reaction mechanisms and molecular orbital chemistry.

CHEM 543 Organometallic Chemistry (3)
Prerequisite: CHEM 441. An introduction to organometallic systems will be presented. Included will be a comprehensive study of the preparation, properties and practical utility of both main-group and transition metal organometallic compounds.

CHEM 551 Physical Chemistry I (4)
Prerequisites: CHEM 322, MATH 233, PHYS 241. Corequisites, CHEM 321. The properties of matter, thermodynamics, thermodynamics and kinetic molecular theory.

CHEM 552 Physical Chemistry II (4)
Prerequisite: CHEM 551. Chemical kinetics, quantum theory of atoms and molecules and statistical thermodynamics.

CHEM 555 Physical Chemistry of Atomic and Microscopic Systems (3)
Prerequisites: CHEM 451 and CHEM 452 or equivalent. This course will examine the details of atomic and molecular structure, energetics, and dynamics.

CHEM 557 Physical Chemistry of Macroscopic Systems (3)
Prerequisites: CHEM 451 and CHEM 452 or the equivalent. An examination of the thermodynamics and kinetics of bulk systems, including the energetic, equilibrium, and kinetics of such systems.

CHEM 560 Environmental Chemistry (2)
(1.5 lecture, 0.5 laboratory) Prerequisite: CHEM 131 or CHEM 331. The effect of chemicals on the environment.

CHEM 581 General Biochemistry I (4)
Prerequisite: CHEM 331 or equivalent. Chemistry of biologically important compounds (proteins, nucleic acids, carbohydrates and lipids), emphasizing structure and function, methods of isolation, identification and characterization, kinetics and mechanisms of enzyme catalysis.

CHEM 582 General Biochemistry II (4)
Prerequisites: CHEM 332, CHEM 581 or equivalent. A continuation of CHEM 581. Bioenergetics, electron transport systems, metabolism of carbohydrates, lipids, nucleotides and amino acids.

CHEM 586 Biochemical Techniques (3)
(1 lecture, 6 laboratory) Prerequisites: CHEM 211, CHEM 481. Theory and application of techniques for the purification and characterization of biological molecules. Various techniques utilizing centrifugation, spectroscopy, chromatography, electrophoresis and radioisotopes are examined.

CHEM 587 Toxicology (3)
Prerequisites: CHEM 481 or equivalent with consent of instructor. A descriptive examination of the toxic effects of environmental substances on living systems.

CHEM 590 Advanced Topics in Chemistry (3)
Discussion of a topic in chemistry at the graduate level; e.g. polymers, drug metabolism and molecular reaction dynamics. Repeatable, maximum of 12 credits, under different subtitles.

CHEM 600 Seminar in Chemistry (1)
Oral report and discussion on some topic of interest from current literature. Repeatable, may be taken three times.

CHEM 622 Directed Studies (1-3)
Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

CHEM 693 Chemical Research (1-10)
Develop, complete, and defend master's level research project in chemistry. S/U graded. Repeatable, maximum of ten credits.

CHEM 695 Thesis Proposal (1)
The student will develop a research proposal based on current literature.

CHEM 699 Thesis (1-10)
Required of Master of Arts candidates in the Arts and Sciences chemistry program. Repeatable, no limitations.

CHEM 793 Doctoral Research Practicum-Chemistry (1-4)
Consent of advisor. Provides experience in the development and implementation of research techniques, the development of experimental design and the analysis of research data. S/U graded. Repeatable, maximum of 16 credits.

CHEM 797 Doctoral Research Proposal-Chemistry (1-4)
Required of all doctoral students. Students may register for this course (1-4 hours) in any semester, but must earn 4 hours of credit in partial fulfillment of requirements before admission to candidacy. S/U graded. Repeatable, maximum of four credits.

CHEM 799 Doctoral Dissertation-Chemistry (1-12)
Required of all doctoral candidates. See Ph.D. in Chemical Education Minimum requirements for the major in the Graduate School section of this Catalog. Repeatable, maximum of 12 credits.

CIE — CENTER FOR INTERNATIONAL EDUCATION

CIE 050 English for International Students I (12)
Prepare international students for academic courses at an American University. Emphasis on pronunciation, written and spoken grammar, building academic vocabulary, reading skills, listening comprehension and note-taking skills.

CIE 051 Writing for Foreign Students I (3)
Intermediate. Assist international students with language skills in the areas of reading, writing, listening and speaking. Continuing Education course; no credit. Repeatable, no limitations.

CIE 052 Writing for Foreign Students II (3-6)
Advanced. Assist international students with language skills in the areas of reading, writing, listening and speaking. Continuing Education course; no credit. Repeatable, no limitations.

CMDS — COMMUNICATION DISORDERS

CMDS 508 Workshop (1-3)
A variety of workshops on special topics within the discipline. Goals and objectives will emphasize the acquisition of general knowledge and skills in the discipline. Repeatable, under different subtitles.

CMDS 513 Professional Renewal (1-3)
Update skills and knowledge of professionals in the discipline. Goals and objectives will be specifically directed at individual professional enhancement rather than the acquisition of general discipline knowledge or methodologies. S/U or letter graded. Repeatable, under different subtitles.

CMDS 515 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.

CMDS 516 Professional Issues in SLP (1)
Professional issues in speech-language pathology as they relate to the public schools, medical settings and private practice. Topics include the law, ethics, risk management and third party reimbursement.

290 - Graduate Course Descriptions, 2004-2005
Introduces students to issues related to the human auditory system, emphasizing physical aspects of noise, instrumentation, measurement and reduction principles, hearing conservation management.

**CMDS 570 Rehabilitation Audiology (3)**

Theory and procedures for rehabilitation of children and adults with hearing handicap.

**CMDS 571 Speech and Hearing Science (4)**

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.

**CMDS 572 Industrial Audiology (2)**

The study of noise as it pertains to the auditory system. Physical aspects of noise, instrumentation, measurement and reduction principles, hearing conservation management.

**CMDS 573 Auditory Physiology and Pathology (3)**

Undergraduate anatomy and physiology required. Advanced physiology of the human auditory system, emphasizing electrical potentials; processes of pathophysiology.

**CMDS 574 Clinical Practicum in Audiology (1)**

Prerequisites: 3.0 GPA in major courses or consent of clinical coordinator. Perform basic audiometric testing: audiometric screening, routine hearing evaluation and impedance audiometry. S/U graded.

**CMDS 580 Practicum in Rehabilitative Audiology (1-2)**

Habilitation/rehabilitation of acoustically-handicapped persons. Repeatable, maximum of six credits.

**CMDS 582 Educational Audiology (3)**

Explore services for hearing impaired children in the schools. Educational Implications of auditory processing disorders are also covered.

**CMDS 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.

**CMDS 584 Screening Procedures in Speech-Language Pathology (1)**

Prerequisite: CMDS 582. Performs basic audiometric screening, routine hearing evaluation and impedance audiometry. S/U graded.

**CMDS 585 Clinical Practicum in Speech-Language Pathology: Intermediate (1-2)**

Prerequisite: CMDS 583. Students improve clinical skills and learn about issues related to clinical practice, including ethics, counseling, self-evaluation, treatment notes, efficacy, counseling techniques, sharing information verbally and relating to diverse populations. Repeatable, maximum of six credits.

**CMDS 586 Clinical Practicum in Speech-Language Pathology: Intermediate/Advanced (2)**

Prerequisite: CMDS 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.

**CMDS 587 Advanced Audiology (3)**

Theory and practice of advanced techniques of audiometric assessment.

**CMDS 588 Clinical Practicum in Speech-Language Pathology: Advanced (2)**

Prerequisite: CMDS 586. Students improve their clinical skills and learn about issues related to clinical practice in medical settings, including interviewing, legislation, professional liability, marketing, clinical fellowship year, leadership, and clinical research.

**CMDS 592 Internship in Public Schools (2-15)**

Prerequisites: Minimum of 100 clock hours of previous supervised clinical experience and/or consent of advisor. Supervised experience and/or experience working with school children. S/U graded. Repeatable, maximum of 15 credits.

**CMDS 594 Practicum and Advanced Topics in Audiology (1-6)**

Prerequisite: CMDS 474 or CMDS 574. Perform the full range of clinical audiological services, including special testing, hearing aid evaluations and dispensing of hearing aids. Repeatable, maximum of twelve credits.

**CMDS 615 Research in Communication Sciences and Disorders (1-4)**

Engage students in systematic inquiry in communication disorders. Evaluate current research, pose research questions, formulate research designs, and develop formal research proposals. Advanced students conduct research and plan dissemination. Repeatable, maximum of 5 credits.

**CMDS 622 Directed Studies (1-4)**

Individualized investigation under the direction of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

**CMDS 655 Acquired Disorders of Language and Cognition (3)**

Prerequisite: CMDS 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.

**CMDS 661 Speech Production Disorders: Lifespan (3)**

Disorders of speech production in pediatric and adult populations. Biological, cognitive, linguistic, and ethnocultural systems influencing speech production, contributing/causal factors, theories of acquisition, assessment and treatment issues.

**CMDS 664 Fluency Disorders (2)**

Characteristics of fluency and fluency disorders; biological, developmental, and environmental factors contributing to fluency disorders; models of research in fluency disorders; assessment of fluency; and, treatment of fluency disorders.

**CMDS 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.

**CMDS 671 Psychoacoustics (2)**

Prerequisite: CMDS 573. Concepts of loudness, adaptation, auditory fatigue, masking and the critical band, pitch perception, localization, temporal order and perceptual organization.

**CMDS 673 Practicum in School Audiology (1-6)**

Prerequisite: CMDS 582. Perform audiological services in schools (grades K-12) under supervision of a certified audiologist. S/U graded. Repeatable, maximum of six credits.

**CMDS 550 Neuroanatomy and Neuropathology of Communication (3)**

Prerequisite: CMDS 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.
CMDS 675 Differential Diagnosis of Auditory Problems (3)
Prerequisites: CMDS 573. Theory and process of differential diagnosis of hearing and auditory processing disorders. Focus on behavioral testing, advanced immittance concepts and assessment. Some exposure to other objective measures.

CMDS 677 Medical Aspects of Audiology (3)
CMDS 573. Study of the medical correlates of hearing impairment including pathogenesis of auditory pathologies, medical/surgical intervention, pharmacology and ototoxicity, radiology and imaging techniques and effects of sedation on electrophysiologic tests.

CMDS 678 Hearing Aids and Uses of Amplification (3)
Advanced study of the theory and use of hearing aids, other amplification devices and assistive listening devices.

CMDS 681 Advanced Speech Physiology (3)
Undergraduate anatomy and physiology required. Advanced physiology of the speech production system, emphasizing normal aspects and select pathophysiological conditions.

CMDS 682 Language Disorders in Early Childhood and Preschool (3)
Language disorders from infancy through preschool. Application of contemporary theory and legislative mandates to assessment and treatment for infants and children demonstrating or at-risk for social-communicative-linguistic impairments.

CMDS 684 Disorders of Language & Literacy: School-Age and Adolescent (3)

CMDS 685 Advanced Differential Diagnosis of Auditory Problems (4)
Advanced study of auditory and vestibular physiology, otocoustic emissions, multi-frequency tympanometry, auditory evoked potentials, and electroneystagmography.

CMDS 686 Capstone in Speech-Language Pathology (2)
This course is designed as a seminar to provide students multiple avenues for the professional presentation of scholarly projects relative to the study of communication disorders.

CMDS 688 Hearing Aids II (3)
Prerequisite: CMDS 678. A continuation of the advanced study of the theory, instrumentation, and use of hearing aids and assistive listening devices with emphasis on applied theory and clinical use.

CMDS 689 Advanced Research Practicum in Health and Human Sciences (1)
Prerequisites: HRS 610 or SRM 600. Structured to give students broadened experiences in research and thesis design in the disciplines in Health and Human Sciences. S/U graded.

CMDS 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.

CMDS 699 Thesis: Communication Disorders (1-6)
Individual original research under the direction of faculty, aimed at acquisition of research skills, appreciation of the scientific inquiry process, knowledge of scientific writing style and dissemination. S/U graded. Repeatable, no limitations.

CMDS 715 Applied Research in Audiology (1-4)
Prerequisite: CMDS 615. Seminar to engage students in a capstone research project. Students will also explore multiple conduits for the presentation of professional quality scholarly projects in audiology. S/U graded. Repeatable, maximum of four credits.

CMDS 720 Supervised Teaching in Communication Disorders (2)

CMDS 721 Speech Perception and Advanced Signal Processing (2)
Prerequisite: CMDS 671. Advanced study of psychoacoustics with special reference to disordered auditory systems. Current theories of speech perception will also be addressed.

CMDS 724 Professional Issues in Audiology (3)
Overview of professional responsibilities and infra-professional relationships in the hearing health care delivery system. Medical-legal issues, business aspects, infection control, counseling, interpersonal skills and ethics are addressed.

CMDS 725 Advanced Electro-diagnosis (3)
Prerequisites: CMDS 685. Advanced testing methods of the auditory and vestibular systems.

CMDS 726 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.

CMDS 792 Clinical Residency in Audiology (9-14)
Prerequisites: 16 credits of internship in any combination of CMDS 592, CMDS 692, CMDS 673, 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. S/U graded. Repeatable, maximum of 27 credits.

CMDS 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.

COMM — Communication

COMM 502 Teaching College COMM 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 511 Instructional Communication (3)
This graduate seminar for educators will focus on contemporary issues, theoretical perspectives and academic research in communication instruction.

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 speech 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 speech 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 speech 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: SPCO 100, SPCO 103. 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 speech 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 speech 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 speech 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 speech 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 622 Directed Studies (1-3)
Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

COMM 699 Thesis (1-6)
Optional for Master of Arts candidates on recommendation of major advisor. S/U graded. Repeatable, no limitations.

ECON — ECONOMICS

ECON 552 Econometrics (3)
Prerequisites: ECON 303, ECON 305, STAT 150 or STAT 251 or BACS 291 or equivalent. Estimating statistical regression models of economic relationships; treatment of special problems that may arise in analysis of economic data. Microcomputers will be used.

ECON 570 History of Economic Thought (3)
Prerequisites: ECON 103 and ECON 105. Trace the evolution of economic thinking from the 17th century to modern day. See roles played by certain “schools” of economic thinkers, the genesis of their ideas and their contributions.

EDEC — ELEMENTARY EDUCATION: EARLY CHILDHOOD

EDEC 508 Workshop (1-3)
A variety of workshops on special topics within the discipline. Goals and objectives will emphasize the acquisition of general knowledge and skills in the discipline. Repeatable, under different subtitles.

EDEC 539 Parent Education and Involvement in Early Childhood/Primary (3)
Deal with relationships between parents, children and teachers stressing parent involvement in education and resources for promoting children's success in school.

EDEC 562 Classroom Management in Early Childhood (3)
Juniors or above. Examine those components of effective classroom management procedures with children in groups. Topics include theoretical perspectives, rules and organization, prosocial behavior and effective pedagogical decisions.

EDEC 601 Practicum (1-3)
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 622 Directed Studies (1-3)
Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

EDEC 648 Psycholinguistics in Early Childhood (3)
Designed to acquaint the student with the language development of the young child. Attention given to the nature of English, language acquisition, instructional implications and applications.

EDEC 660 Critical Issues in Early Childhood (3)
Investigating trends and issues concerning the young child, stressing curriculum, sound education policies, especially the need for cultural diversity, as well as issues of compelling contemporary significance.

EDEC 663 Educational Assessment, Evaluation and Prescription for the Young Child (3)
Focus on assessment tools and techniques for teacher evaluation of educational progress in young children. Plan educational programs with appropriate curricular content for individual children.

EDEC 664 Seminar in Early Childhood and Primary Education (3)
Explore topics in early childhood education in planned sequence that includes research, field settings, discussions and contemporary issues, especially the need for cultural diversity.
EDEC 670 Curriculum and Instruction in Early Childhood and Primary Education (3)
Examine components of effective instruction in early childhood and primary levels, including theoretical bases, environment, organization and management, teacher's role, curriculum content and evaluation. Relevant research is investigated.

EDEC 675 Play and Psychosocial Development in Early Childhood (3)
Focus on theories of play in socio-drama, therapy and cognition. Motor, emotional and psychosocial development explored. Play of successive development phases and individual meaning for each child emphasized.

EDEC 701 Advanced Practicum in Early Childhood Education (1-4)
Open only by invitation to resident doctoral students. Supervised professional activity in Early Childhood Education. A well-written paper must be filed with the supervising instructor before credit is given. S/U graded. Repeatable, maximum of six credits.

EDEC 750 The Professional Early Childhood Teacher Educator (3)
Designed for the Early Childhood professional completing doctorate. Examines and encourages participation in scholarly activity, professional service and organizational activity in Early Childhood.

EDEC 790 Supervised Practicum in College Teaching (3)
Receive experiences in observation and supervised practice in college teaching to be used as basis for analysis of learning experiences. S/U graded. Repeatable, maximum of six credits.

EDEC 797 Doctoral Proposal Research (1-4)
Required of all doctoral students. Students must earn 4 hours of credit for doctoral dissertation research proposal in partial fulfillment of requirements for doctoral degree before admission to candidacy. S/U graded. Repeatable, maximum of four credits.

EDEC 799 Doctoral Dissertation (1-12)
Required of all doctoral candidates, who must earn 12 hours of credit for the dissertation in partial fulfillment of requirements for the doctoral degree. S/U graded. Repeatable, no limitations.

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

EDEL 508 Workshop (1-3)
A variety of workshops on special topics within the discipline. Goals and objectives will emphasize the acquisition of general knowledge and skills in the discipline. Repeatable, under different subtitles.

EDEL 513 Professional Renewal (1-3)
Update skills and knowledge of professionals in the discipline. Goals and objectives will be specifically directed at individual professional enhancement rather than the acquisition of general discipline knowledge or methodologies. S/U or letter graded. Repeatable, under different subtitles.

EDEL 520 Effective Instruction in Elementary School Mathematics (3)
Prerequisite: EDRD 510 or take concurrently. Full admittance to PTEP or certification at undergraduate level required. A comprehensive examination of issues, trends and practices in elementary school mathematics programs, including instructional strategies, planning, development, materials and evaluation. Emphasis on promoting problem solving in school mathematics curriculum.

EDEL 525 Integrated Methods: Visual Arts, Music and Physical Education (1-3)
Prerequisites: Full admittance to PTEP. 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 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 (1-3)
Prerequisites: Full admittance to PTEP required. This practicum is designed to immerse students in the elementary school classroom. Opportunities are provided to inquire, analyze and reflect on classroom routines.

EDEL 610 Teacher Research in the Elementary School (3)
Provides teachers with an analytic framework for understanding different types of teacher research, as well as strategies and techniques for conducting their own research in elementary school.

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)
Full admittance to PTEP or certification at undergraduate level required. Assists student in recognizing need for creating processes that enable educational professionals and others support and design a culturally and socially diverse curriculum.

EDEL 620 Research Applications for Instruction in Mathematics, K-9 (3)
Prerequisite: EDEL 520 or experience as elementary/middle school teacher. Consider in detail the problems concerned with selection of what to teach, grade placement of content, methods and materials for teaching and means of evaluating achievement in mathematics.

EDEL 622 Directed Studies (1-3)
Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

EDEL 640 Instruction in Language Arts and Literacy in the Elementary School (3)
Prerequisites: EDEL 460 or EDEL 540 and/or teaching experience. 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 Research Application for Instruction in Social Studies, K-9 (3)
Prerequisite: EDEL 450 or EDEL 550 or experience as elementary/middle school teacher. Designed for experienced teachers, 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. Covers important problems in the teaching and supervision of mathematics in the elementary school. Content may vary from year to year according to needs of participants. S/U graded.
EDEL 745 Seminar in Elementary School English (2)
Prerequisite: EDEL 540. 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 requirement 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

EDF 500 Conceptions of Schooling (3)
Investigation of social contributions of schools. Determination of what the public expects from schools. Interactions, assessing how accurately present systems meet public's expectations and individual implications for teaching.
EDF 508 Workshop (1-3)
A variety of workshops on special topics within the discipline. Goals and objectives will emphasize the acquisition of general knowledge and skills in the discipline. Repeatable, under different subtitles.
EDF 513 Professional Renewal (1-3)
Update skills and knowledge of professionals in the discipline. Goals and objectives will be specifically directed at individual professional enhancement rather than the acquisition of general discipline knowledge or methodologies. S/U or letter graded. Repeatable, under different subtitles.
EDF 622 Directed Studies (1-3)
Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.
EDF 640 Psychological Foundations of Education (3)
Exploration and analysis of possible range of assumptions about nature of human activity (thinking, behaving, feeling) and implications of those assumptions relative to educational enterprise.
EDF 662 Foundations of Curriculum Development and Instructional Practice (4)
Designed to focus on nature and scope of curriculum planning and development and the instructional approaches, traditional and contemporary, for putting curriculum into affect.
EDF 665 Sociological Foundations of Education (3)
Analyze role of educational institution from sociological perspectives. Focus upon socialization process, issues arising from social and cultural differences in school populations and examine sociology oriented strategies for educational change.
EDF 685 Philosophical Foundations of Education (3)
Examine leading contemporary and classical philosophical systems and how they culminate in practical educational goals, systems of justification and practices. Includes the study of educational aims and values.

EDFE — EDUCATIONAL FIELD EXPERIENCES

EDFE 501 Practicum (1-4)
Full admittance to PTEP or certification at undergraduate level required. Arrange with instructor. Undertake educational field studies in school settings, either individual or team oriented and focus on practical and relevant assessment of needs in teacher education. S/U graded. Repeatable, no limitations.
EDFE 610 Field Experience (1-18)
Full admittance to PTEP or licensure, at graduate level required or previous licensure, EDFE 444, or equivalent. Individually arranged field experiences under supervision of university and school or community staff. A variety of sites are available year round. S/U graded. Repeatable, no limitations.
EDFE 640 Supervision of Educational Field Experience (2)
Required laboratory arranged. Previous teacher certification required and consent of instructor. Professional development of certified educators in the supervision of teacher aides, clinical experience students, student teachers and interns. Designed to correlate theory and practical supervision techniques in a school setting. S/U graded.

EDLD — EDUCATION OF LINGUISTICALLY DIFFERENT

EDLD 593 Language, School and Society (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 592 Second Language Acquisition Theory (3)
Designed for educators who are preparing to teach or who are already teaching, English Language Learners. Introduces students to the existing body of theory related to Second Language Acquisition.
EDLD 593 Language, School and Society (3)
Designed for educators who are preparing to teach, or are already teaching, English Language Learners. Primary focus is on the interactions between society, language, and institutions of schooling.
EDLD 600 Literacy and Content Instruction in Spanish Bilingual Classrooms (3) Prerequisite: FLN 621. Students will demonstrate content knowledge and effective instructional practices that support students in a dialectical bilinguist classroom. Full admittance to PTEP or certification at undergraduate level required. May be repeated with different subtitles.

EDLD 602 Teaching Linguistically Diverse Learners (3) This course will include current research, practical application, and professional practice for working with linguistically diverse students.

EDLD 603 Methods and Assessment for ESL and Bilingual Education (3) Prerequisites: EDLD 602 and EDLD 603. Provides teachers with the opportunity to observe and participate in instructional strategies for English Language Learners.

EDLD 604 Field Experience in TESOL and Bilingual Education (3) Prerequisites: EDLD 601, EDLD 602, and EDLD 603. This course provides an opportunity for students to participate in field experiences working with linguistically diverse learners.

EDLD 605 Advanced Seminar in Bilingual Education and TESOL (3) Prerequisites: SRM 600 or equivalent and at least six completed graduate credits in Bilingual/ESL. This course provides an opportunity for students to participate in field experiences working with linguistically diverse learners.

EDLD 606 Linguistically Diverse Students and the U.S. Educational System (3) Introduction to the history of education of linguistically diverse groups in the United States. Study of educational practices that affect their success and influence of language on schooling and culture.

EDLD 622 Directed Studies (1-3) Individualized investigation under the direction of a faculty member. (Min. of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

EDLD 999 Graduate School Continuous Registration (1) To permit a graduate student to continue to make progress in a degree program. S/U graded. Repeatable, no limitations.

EDMS — ELEMENTARY EDUCATION: MIDDLE SCHOOL

EDMS 508 Workshop (1-3) A variety of workshops on special topics within the discipline. Goals and objectives will emphasize the acquisition of general knowledge and skills in the discipline. Repeatable, under different subtitles.

EDMS 513 Professional Renewal (1-3) Update skills and knowledge of professionals in the discipline. Goals and objectives will be specifically directed at individual professional enhancement rather than the acquisition of general discipline knowledge or methodologies. S/U or letter graded. Repeatable, under different subtitles.

EDMS 601 Practicum (1-3) A project designed by the student with consent of an advisor. The project provides a practical application of concepts and skills acquired in the graduate program. Repeatable, may be taken two times.

EDMS 602 Directed Studies (1-3) Individualized investigation under the direct supervision of a faculty member. (Min. of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

EDMS 604 Field Experience in TESOL and Bilingual Education (3) Prerequisites: EDLD 601, EDLD 602, and EDLD 603. Provides teachers with the opportunity to observe and participate in instructional strategies for English Language Learners.

EDMS 605 Advanced Seminar in Bilingual Education and TESOL (3) Prerequisites: SRM 600 or equivalent and at least six completed graduate credits in Bilingual/ESL. This course provides an opportunity for students to participate in field experiences working with linguistically diverse learners.

EDMS 606 Linguistically Diverse Students and the U.S. Educational System (3) Introduction to the history of education of linguistically diverse groups in the United States. Study of educational practices that affect their success and influence of language on schooling and culture.

EDLD 603 Methods and Assessment for ESL and Bilingual Education (3) Prerequisites: EDLD 602 and EDLD 603. Provides teachers with the opportunity to observe and participate in instructional strategies for English Language Learners.

EDLD 604 Field Experience in TESOL and Bilingual Education (3) Prerequisites: EDLD 601, EDLD 602, and EDLD 603. Provides teachers with the opportunity to observe and participate in instructional strategies for English Language Learners.

EDLD 605 Advanced Seminar in Bilingual Education and TESOL (3) Prerequisites: SRM 600 or equivalent and at least six completed graduate credits in Bilingual/ESL. Provides teachers with the opportunity to observe and participate in instructional strategies for English Language Learners.

EDLD 606 Linguistically Diverse Students and the U.S. Educational System (3) Introduction to the history of education of linguistically diverse groups in the United States. Study of educational practices that affect their success and influence of language on schooling and culture.

EDLD 608 Workshop (1-3) A variety of workshops on special topics within the discipline. Goals and objectives will emphasize the acquisition of general knowledge and skills in the discipline. Repeatable, under different subtitles.

EDRD — ELEMENTARY EDUCATION: READING

EDRD 508 Workshop (1-3) A variety of workshops on special topics within the discipline. Goals and objectives will emphasize the acquisition of general knowledge and skills in the discipline. Repeatable, under different subtitles.

EDRD 510 Achieving Effective Instruction in Developmental Reading (3) Full admittance to PTEP or certification at undergraduate level required. Teaching/learning strategies, reading materials, selection, lesson planning and organizing for instruction in reading across the total curriculum constitute the focus of the course.

EDRD 511 Elementary Reading Diagnosis and Individualization (3) Prerequisites: EDRD 510 or equivalent. Full admittance to PTEP or certification at undergraduate level. Course will emphasize diagnosis leading to instruction through a variety of approaches toward the end of enabling teachers to select appropriate methods/materials.

EDRD 513 Professional Renewal (1-3) Update skills and knowledge of professionals in the discipline. Goals and objectives will be specifically directed at individual professional enhancement rather than the acquisition of general discipline knowledge or methodologies. S/U or letter graded. Repeatable, under different subtitles.

EDRD 519 Reading and Writing Development of Preschool/Primary Children (2) Acquaints students with current research on early literacy including environmental factors that enhance or reduce literacy learning and the importance of parents and significant others in literacy development.

EDRD 523 Reading and Writing in the Content Areas (3) Full admittance to PTEP or certification at the undergraduate level required. Develop sensitivity to individual needs. Participate in related field experiences.

EDRD 601 Practicum in Literacy (1-4) Written practicum proposal required before consent of instructor. Documentation must follow reading program guidelines. Repeatable, maximum of four credits.

EDRD 611 Language, Literacy and Cognitive Development (3) Prerequisites: Full admittance to PTEP or certification at undergraduate level required. 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) Prerequisites: EDRD 611 for Reading Majors. 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)  
Prerequisites: Full admission to PTEP or licensure at undergraduate level required.  
Considers locating and evaluating children's, adolescent, and young adult literature and methods of organizing, teaching, and evaluating a 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 611 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 618 Literacy Instruction for Emerging Readers and Writers at Risk (3)  
Consent of instructor. Intense study and guided application of researched early intervention strategies for emerging readers and writers at risk. Students will design, implement and document personal application of concepts presented.

EDRD 620 Reading in the Middle and Secondary Schools (3)  
Prerequisites: EDRD 611 and EDRD 612 for majors. 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 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

EDRD 642 Teaching the Writing Process in Schools (3)  
Prerequisites: EDRD 611, EDRD 612 and EDRD 620 for majors. 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)  
Prerequisites: EDRD 611, EDRD 612 and EDRD 620. Study research procedures and their application to reading education. Critique research reading 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)  
Prerequisites: EDRD 617 and full admission to PTEP. Seminar course intended to prepare reading teachers, specialists, coordinators and administrators for directing textbook adoption, curriculum development and issues, staff development, evaluation, and supervision of reading/writing programs.

EDRD 692 Clinical Practicum in Literacy Coaching (4)  
Prerequisites: EDRD 617 and full admission to PTEP. 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 694 Reading Center Internship: Adult Reading, Literacy and/or Supervision (1-3)  
Prerequisite: EDRD 617. Consent of instructor. Separate internships in each area may be taken for a maximum of six credits. Experiences are individually defined. A minimum 45 hours of supervised work equals one (1) credit. S/U graded.

EDRD 699 Thesis (1-6)  

EDRD 712 Psychology of Reading (3)  
Study linguistic, psychological, social, and physiological aspects of learning to read. Consider theories and research on perceptual, cognitive, linguistic, and motivational factors in reading, writing, thinking, and learning.

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 candidate to examine 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 Research (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.

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**EDSE — SPECIAL EDUCATION**

EDSE 500 Field of Special Education (3)  
Historical development and present status of individuals with disabilities and those who are gifted. Focus on communication, parent involvement, finance, legal issues, ethics, professionalism and trends in special education.

EDSE 501 The Exceptional Learner (3)  
Basic issues in dynamics of learning and evaluation related to exceptionality. Emphasizes understanding learning and evaluation processes for purposes of individual and group educational planning.

EDSE 502 Collaboration, Consultation for Special Educators (3)  
Develop skills in interpersonal dynamics in serving exceptional learners. Focus on communication, collaboration, and consultation in the multicultural educational settings along a continuum of special education.

EDSE 503 Effective School Environments for Learners with Exceptional Needs (3)  
Study of components of effective schools and the relationship to child, family, community and professionals. Roles of special educators and different service delivery models presented and analyzed.

EDSE 504 Transition Planning and Service Delivery for Students with Special Needs (3)  
Provide theoretical framework in transition process from school to adult life including historical, legal, planning, curricular, interagency, self-determination and parent/family aspects of transition.
EDSE 505 Assessment of Exceptional Individuals (3)
Explore issues in assessment related to exceptional children. Emphasis placed on principles, purposes, and processes of assessment related to programming in special education.

EDSE 506 Teaching Students with Special Needs in Inclusive Settings (3)
Introductory 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 508 Workshop (1-3)
A variety of workshops on special topics within the discipline. Goals and objectives will emphasize the acquisition of general knowledge and skills in the discipline. Repeatable, under different subtitles.

EDSE 513 Professional Renewal (1-3)
Update skills and knowledge of professionals in the discipline. Goals and objectives will be specifically directed at individual professional enhancement rather than the acquisition of general discipline knowledge or methodologies. S/U or letter graded. Repeatable, under different subtitles.

EDSE 520 Survey of Learners with Profound Needs (3)
Includes an overview of persons with profound needs and their families including their characteristics and needs. Programmatic issues are also emphasized in relation to current research.

EDSE 521 Assessment of Learners with Profound Needs (3)
Emphasizes the assessment-intervention-evolution approach for learners with profound needs. The use of developmental/behavioral/ecological assessment approaches as well as transdisciplinary approaches are emphasized.

EDSE 522 Methods of Teaching Learners with Profound Needs: Birth to 8 Years (3)
Prerequisite: Full admittance to PTEP or certification at undergraduate level required. Review methodological approaches to serving individuals with profound needs and their application; emphasizes teaching strategies, consultation techniques and accessing multi-agency resources.

EDSE 523 Methods of Teaching Learners with Profound Needs 9 to Adult (3)
Prerequisite: Full admittance to PTEP or certification at undergraduate level required. Reviews teaching approaches to serve students with profound needs at the prevocational/vocational levels and application of approaches; emphasis on residential-employment competencies and transition from school to work.

EDSE 524 Seminar in Education of Learners with Profound Needs (3)
Designed to synthesize experience and coursework in the area of educating students with profound needs. Emphases are on issues, research, classroom application and consultation.

EDSE 525 Research and Policy for Learners with Profound Needs (3)
Consent of instructor. Includes research and policy related to the learners with profound needs. Ethics of conducting research with these individuals, current research results and relevant public policy are the main foci.

EDSE 526 Practicum with the Severely/Profoundly Handicapped (3-12)
Prerequisite: Full admittance to PTEP or certification at undergraduate level required. Entails supervised clinical experience with young and older individuals with profound handicaps. Daily supervision by a master teacher with overall supervision by UNC faculty is provided. S/U graded. Repeatable, maximum of 12 credits.

EDSE 528 Linguistically Diverse Students with Low Incidence Disabilities (2)
Prerequisites: Regular admission into one of the Special Education Severe Needs Programs, or completion of one of the programs. Introduce instructional and assessment issues related to the education of linguistically diverse students with low incidence disabilities.

EDSE 530 Parent/Professional Partnerships (3)
Provides theory and practices regarding understanding and helping parents deal with their young handicapped child. Issues regarding family coping, parent-professional partnerships and parent training are emphasized.

EDSE 531 Assessing Young Children with Special Needs (3)
Focus on assessment tools and techniques for teacher evaluation of educational progress in young children with special needs. Plan educational programs with appropriate curricular content for individual children.

EDSE 532 Seminar in Early Childhood Special Education (3)
Prerequisites: Full admittance to PTEP or certification at undergraduate level required. Provides skills in an assessment-intervention-evolution programming philosophy. Different aspects of intervention and their common elements are covered. A developmental focus with consideration of child's functional needs is emphasized.

EDSE 534 Research and Policy in Early Childhood Special Education (3)
Review current policies related to the education of infants and young children with special needs. Familiarize students with research studies and classroom applications.

EDSE 535 Practicum in Early Childhood Special Education (3-12)
Prerequisites: Full admittance to PTEP or certification at undergraduate level required. Consent of instructor. Integrative field experience in practicum settings under college supervision and certified teacher. Provides experience in sufficient scope, intensity and length to assure demonstration of competencies in EDSE. S/U graded. Repeatable, maximum of 12 credits.

EDSE 536 Early Intervention for Infants and Toddlers with Special Needs (3)
Explores theoretical and practical approaches to early intervention for at-risk or disabled newborns, infants and toddlers. Focus on identification, program development and evaluation, instructional techniques and family involvement.

EDSE 540 Independent Living for Individuals with Visual Disabilities (1-2)
Prerequisite: Full admittance to PTEP or certification at undergraduate level required. Discuss causes, characteristics, educational implications and instructional methodologies for students with visual disabilities. Learn effective teaming and collaborative planning strategies.

EDSE 542 Assessment and Methods for Teaching Students with Visual/Multiple Disabilities (3)
Prerequisite: Full admittance to PTEP or certification at undergraduate level required. Discuss causes, characteristics, educational implications and instructional methodologies for students with visual/multiple disabilities. Learn effective teaming and collaborative planning strategies.

EDSE 543 Braille Codes and Formats (3)
Study literary and nemeth codes, basic abacus operations. Techniques of teaching literacy skills to students with visual disabilities are included.

EDSE 544 Technology for Students with Visual Disabilities (2)
This course will acquaint the student with state-of-the-art technology for students with visual disabilities. Includes required 4-day seminar on UNC campus.

EDSE 545 Advanced Braille Codes and Formats (3)
Prerequisite: EDSE 543 or proof of mastery from an approved examination. Study advanced braille codes and techniques for teaching literacy skills in each code: literary, nemeth, music, foreign language. Basic abacus operations are included.

EDSE 546 Principles of Orientation and Mobility (2)
Designed to synthesize experiences and transition from school to work. Orientation skills; pre-cane mobility operations are included.
EDSE 547 Individual Instruction in Orientation and Mobility (4)
Prerequisite: EDSE 546. Full admittance to PTEP or certification at undergraduate level required. Consent of instructor. Required laboratory arranged. A study of methods involved in general navigation and environmental awareness relating to severe vision needs. Travel techniques are gained while working under simulated conditions. Repeatable, maximum of four credits.

EDSE 554 Sign Language in Educational Settings (3)
Prerequisites: EDSE 254, EDSE 354, EDSE 454 or similar courses. Designed to focus on sign language and communication systems used in educational settings. Will focus on increasing sign vocabulary, understanding concepts, conversational skills and the ability to teach academic content.

EDSE 580 Nature and Needs of the Gifted and Talented (3)
The definitions, characteristics and needs of the gifted and talented will be covered. Emphasis will be placed on the identification and assessment of these children.

EDSE 581 Teaching Strategies for the Gifted and Talented (3)
Basic teaching strategies for use with the gifted and talented will be presented. Specific activities for cognitive, emotional and social development will also be included.

EDSE 582 Curriculum Models for the Gifted and Talented (3)
Beyond teaching activities and strategies, specific curriculum models for use with the gifted and talented will be presented with specific attention on how to implement these models.

EDSE 583 History, Organization and Administration of Programs for the Gifted and Talented (3)
A historical perspective of the education of the gifted and talented will lead to coverage of innovative program design and implementation for the gifted and talented.

EDSE 584 Practicum in Teaching the Gifted and Talented (1–12)
Consent of instructor. Emphasize actual teaching and facilitation of the gifted and talented in actual supervised teaching experiences. Repeatable, maximum of 12 credits.

EDSE 585 Facilitating Creativity in the Gifted and Talented Student (2)
Exploration and application of several theoretical and research approaches to creativity and integrating creative thinking skills of gifted and talented students to their facilitators.

EDSE 586 Trends, Issues and Thinking Skills in Gifted Education (2)
Prerequisite: EDSE 580. Exploration of issues in gifted and talented education and the application of critical thinking skills to issues in gifted and talented education.

EDSE 601 Supporting Special Students in the Mainstream (3)
Prerequisites: Full admittance to PTEP or certification at undergraduate level required. Interventions for students with moderate academic difficulties in inclusive settings including (a) collaborating in providing direct service and (b) providing scaffolds to enable students to perform independently.

EDSE 602 Behavioral Disorders: Characteristics, Identification and Intervention (3)
Examine typical characteristics associated with severe behavior problems and procedures for identification. Emphasis on development of appropriate intervention programs.

EDSE 603 Practicum with Moderate Needs Students (3-12)
Prerequisites: Full admittance to PTEP or licensure at the undergraduate level required. Consent of instructor. Supervised practica in programming for and teaching moderate needs students including assigned seminar topics. Additional seminar time required. S/U graded. Repeatable, maximum of 12 credits.

EDSE 606 Instructional Methods for Students with Special Needs (3)
Prerequisites: Full admittance to PTEP or certification at undergraduate level required. Teaches about major current techniques, methods, philosophies and trends in teaching communication, affective and cognitive needs students with moderate/severe disabilities.

EDSE 608 Case Studies with Students with Special Needs (3)
Consent of instructor. Required laboratory arranged. Applied experience in assessment and teaching of exceptional individuals. Work a minimum of 45 clock hours one-on-one with exceptional individual in school or clinical setting.

EDSE 609 Language Development: Disorders of Individuals with Special Needs (3)
Consent of instructor. In-depth study of language and speech disorders, including assessment instruments and teaching strategies related to language and communication. Focuses on the language of students with special needs.

EDSE 610 Interventions for Students with Severely Affective Needs (3)
Knowledge and classroom application of group and individual interventions for students with severe affective needs. Includes auxiliary services and parent interventions.

EDSE 611 Seminar in Severe Affective Needs (3)
Consent of instructor. This course is designed to synthesize experience and coursework in the area of students with severe affective needs. Emphases are on issues, research and classroom application.

EDSE 612 Practicum with Students with Severe Affective Needs, Ages 5-21 (3-12)
Prerequisites: Full admittance to PTEP or licensure at the undergraduate level required. Consent of instructor. Integrative experiences of sufficient scope, intensity, and length to assure demonstration of all Teacher II affective program competencies. Seminar required. S/U graded. Repeatable, maximum of 12 credits.

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 620 Psycho-Social Aspects of Students with Severe Cognitive Needs (3)
In-depth study of sociological and psychological aspects of students with severe cognitive needs. Focuses on issues relative to life care and treatment of the cognitive needs student.

EDSE 621 Seminar in Severe Cognitive Needs (3)
This course is designed to synthesize experience and coursework in the education of students with severe cognitive needs. Emphases are on issues, research and classroom application.

EDSE 622 Directed Studies (1–3)
Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

EDSE 623 Practicum with Students with Severe Cognitive Needs, Ages 5-21 (3-12)
Prerequisites: Full admittance to PTEP or licensure at undergraduate level required. Consent of major advisor. Integrative experiences of sufficient scope, intensity, and length to assure demonstration of all Teacher II cognitive program competencies. Seminar required. S/U graded. Repeatable, maximum of 12 credits.

EDSE 630 Seminar in Severe Communication Needs (3)
This course is designed to synthesize experience and coursework in the education of the severe communication needs. Emphases are on issues, research and classroom application.

EDSE 641 Medical and Educational Implications of Visual Handicaps (1-3)
Anatomy/physiology of the eye, medical and educational implications of various eye conditions. Techniques to develop use of functional vision. Repeatable, maximum of three credits.

EDSE 642 Advanced Seminar in Education of Students with Visual Handicaps (3)
Role of teacher of students with visual disabilities, assessments, compensatory skill methodology, IEP/IFSP development, appropriate placements, sourcing materials and equipment, administrative duties, consultation techniques and volunteer coordination.
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 Handicaps, K-12 (2-12) Prerequisites: Full admittance to PTEP or certification at undergraduate level required. Consent of instructor. Supervised teaching experience with students with visual disabilities, K-12, planning and implementing lessons, preparing materials, participating in staffings, IEP/IFSP development and parent conferences. Repeatable, maximum of 12 credits.

EDSE 647 Applied Methods in Orientation and Mobility (2) Full admittance to PTEP or certification at undergraduate level required. Consent of major advisor required. Supervised teaching experience with both blind and low vision individuals in orientation and mobility. Observation of varied programs, e.g., resource room, itinerant plan, residential school and rehabilitation settings.

EDSE 652 Speechreading, Auditory Training and Amplification (3) Prerequisites: CMDS 370, EDSE 450. Amplification; personal and group components, evaluation, maintenance, auditory training, speech, speech-reading. Develop receptive language through auditory and visual channels for individuals who are deaf or hard of hearing.

EDSE 653 Speech, Severe Needs: Hearing (3) Prerequisite: EDSE 450. Full admittance to PTEP or certification at undergraduate level required. Develop competencies to teach speech to individuals who are deaf or hard of hearing, including approaches, strategies, techniques and materials; develop a speech program, assess speech behaviors.

EDSE 654 Language, Severe Needs: Hearing (3) Prerequisite: EDSE 450. Full admittance to PTEP or certification at undergraduate level required. Consent of instructor. Required laboratory arranged. Develop competencies to assess, teach, and evaluate language for individuals who are deaf or hard of hearing. Methods, materials, and techniques appropriate for developing comprehensive expressive/receptive language program.

EDSE 655 Reading, Severe Needs: Hearing (3) Prerequisite: EDSE 450. Full admittance to PTEP or certification at undergraduate level required. Emphasizes relationship of cognition, language and reading for individuals who are deaf or hard of hearing. Learn process, approaches, methods, techniques, appropriate materials, and assessment of reading behaviors.

EDSE 656 Methods of Teaching Content: Severe Needs Hearing (3) Prerequisite: Full admittance to PTEP or certification at undergraduate level required. Consent of instructor. Required laboratory arranged. Study design of curriculum. Plan, implement and evaluate learning experiences in content subject areas and create and adapt materials appropriate for individuals who are deaf or hard of hearing.

EDSE 657 Practicum, Severe Needs: Hearing (6-12) Prerequisites: Full admittance to PTEP or certification at undergraduate level required. Consent of major advisor required. Individual observation and supervised practice in the education of individuals who are deaf or hard of hearing. Repeatable, maximum of 12 credits.

EDSE 660 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. Emphasis include leadership and management, organizational planning and change, and strategic thinking.

EDSE 681 Administrative Planning and Program Evaluation in Special Education (3) Prerequisite: EDSE 603. 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 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, instruction, methods, and other administrative concerns.

EDSE 721 Theoretical Foundations of Special Education I (3) In-depth study of special education's enrichment by conceptions of the nature of exceptioality, learning and instruction that have and are emerging from biological and sociocultural constructivism, phenomenology and holism.

EDSE 723 Seminar in Facilitating Personal and Professional Development in Special Education (3) Assist learners with development of the skills and knowledge necessary to function as special educators who effectively interact with diverse students, teachers, administrators and parents.

EDSE 727 Seminar in Exceptionalities (3) Investigation of the issues and trends in education of students with exceptionalities. Focus on research, curriculum and instructional strategies.

EDSE 728 Seminar in Professional Writing (3) To develop an understanding of the importance of and the procedures involved in professional writing, with emphasis on writing grant applications for the United States Department of Education.

EDSE 729 Apprenticeship in Special Education (1-4) Consent of instructor. Jointly defined experiences on campus in intensive mentor/apprenticeship project; participating in all aspects of inquiry, administration, or university teaching from planning through dissemination/publication. Repeatable, maximum of 12 credits, under different subtitles.

EDSE 730 Externship in Special Education (1-12) Consent of Instructor. Supervised program of participation in a variety of settings outside the University that serve exceptional persons. The externship requires an individually arranged field experience. Repeatable, maximum of 12 credits, under different subtitles.

EDSE 731 Topical Seminar in Special Education (3) Course content differs to ensure flexibility promoting cutting-edge knowledge. Faculty share expertise in depth. Students select from offerings to individualize program and utilize wide variety of methods of inquiry. Repeatable, maximum of 15 credits, under different subtitles.

EDSE 797 Doctoral Proposal Research (1-4) Permission of major advisor. Required of all doctoral students. A student must earn 4 hours of credits as a partial fulfillment of requirements for all doctoral degrees before admission to candidacy. S/U graded. Repeatable, maximum of four credits.


EDSE 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.
ELPS — Educational Leadership and Policy Studies

ELPS 508 Workshop (1-3)
A variety of workshops on special topics within the discipline. Goals and objectives will emphasize the acquisition of general knowledge and skills in the discipline. Repeatable, under different subtitles.

ELPS 541 Methods and Materials for Teaching Language and Composition in the Secondary School (3)
Prerequisite: Completion of PTEP Phase II. Content covers the writing process, composition theory, language and writing development in grades 7-12, with an emphasis on the teaching of writing.

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 602 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.

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 25 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, facility maintenance, purchasing, insurance and investments. Provisions for applications of technology to financial management.

ELPS 654 Instructional Leadership and Supervision (3)
Examines 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 655 Seminar in Learning in Adulthood (3)
A comprehensive overview of learning in adulthood. Emphasis on context, the participants, learning process and the relevance for practice in educational leadership.

ELPS 660 Law and the Administrator (3)
Relates 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 663 Developing Grants and Contracts (3)
Identifies various funding sources; understanding the explicit and implicit aspects of proposal writing for public and private agencies, proposal review processes, and elements of project operations.

ELPS 665 Policy Analysis and Development (3)
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 675 Practicum in Educational Leadership (1-3)
Consent of instructor. Enables students to engage in a particular task/activity in educational leadership in one or more field sites. S/U graded. Repeatable, no limitations.

ELPS 711 Advanced Theories for Changing Organizations (3)
Consent of instructor. Advanced theories of organizations; basic research on organizations and leader behavior; primary research about and models for facilitating change are combined to analyze, plan and evaluate major organizational change processes.

ELPS 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 qualitative and quantitative 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

ENG 503 Techniques of the Novel (3)
A study of seven or eight important English and American novels to show different techniques used to reveal the novelists' artistic insight.

ENG 506 Advanced Studies in Drama (3)
Studies of a variety of dramatists, historical periods or problems in drama; may focus attention on a specific dramatist or sub-genre. Repeatable, under different subtitles.

ENG 508 Workshop (1-3)
A variety of workshops on special topics within the discipline. Goals and objectives will emphasize the acquisition of general knowledge and skills in the discipline. Repeatable, under different subtitles.

ENG 510 Advanced Placement Program-English (1-3)
Consent of Instructor. A course designed to provide content and pedagogical information to the teaching of writing and literature in the secondary school English advanced placement program. S/U graded. Repeatable, no limitations.

ENG 513 Professional Renewal (1-4)
Update skills and knowledge of professionals in the discipline. Goals and objectives will be specifically directed at individual professional enhancement rather than the acquisition of general discipline knowledge or methodologies. S/U or letter graded. Repeatable, under different subtitles.

ENG 514 Greek and Comparative Mythology (3)
Greek myths as an important source of literary allusion and imagery and as a comparative vehicle to show what is common to all mythologies.

ENG 520 Advanced Studies in World Literature (3)
An investigation of a theme, form or problem that cuts across periods and nationalities. Repeatable, under different subtitles.

ENG 535 World Literature By and About Women (3)
The contributions of important early and modern women writers. Novels, plays and poetry or short stories of world writers will be studied.

ENG 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 (4)
Consent of instructor. Train new teaching assistants in Department of English to achieve college composition to UNC students.

ENG 600 Introduction to Graduate Study (3)
An orientation to graduate study in general and the nature and methods of research in particular. Should be taken during the first semester of graduate work.

ENG 622 Directed Studies (1-3)
Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

ENG 623 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, AEthelwulf, 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 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, Aest, 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 non-fiction 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, non-fiction, 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, non-fiction, 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, Augusteine, Erasmus, Ramus, Bacon, Montaigne, Campbell, Blair, Bakhtin, Richards, Gates, Cixious, 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 692 Teaching Internship (3)  
Consent of Instructor. Course offers community college teaching experience to English M.A. students. Interns teach a course at an appropriate community college, receive monitoring, and provide a portfolio describing the teaching experience. Repeatable, may be taken two times.

ENG 697 MA or Creative Project (3)  
Consent of Instructor. Select MA project, a journal-appropriate research paper of 30-50 pp., or creative project (collection of poems, short stories, or novel chapters). Proposal approval by advisor and public presentation (faculty/students) required.

EPSY — EDUCATIONAL PSYCHOLOGY

EPSY 530 Life Span Developmental Psychology (3)  
Human growth and development from conception through senescence, focusing on cognitive, affective, social and psychomotor development throughout the life span.

EPSY 540 Theories and Principles of Learning (3)  
A survey of classical and contemporary theory and research related to human cognition. Topics include the study of learning processes, memory and higher cognitive functions.

EPSY 622 Directed Studies (1-4)  
Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

EPSY 630 Child and Adolescent Psychology (3)  
Prerequisite: EPSY 530 or equivalent. Physical, social and emotional development of children from conception through puberty, stressing normal development and major development theories.

EPSY 631 Psychology of Youth, Adulthood and Aging (3)  
Prerequisite: EPSY 530 or equivalent. Cognitive, social and physical developments that affect transitions in youth, adulthood and senescence.

EPSY 635 Individual Differences in Cognition (3)  
Prerequisite: EPSY 540 or equivalent. Examine individual differences between learners from a cognitive viewpoint. Review verbal, mathematical and spatial abilities, cognitive styles, problem solving and gender and cultural differences. Seminar format.

EPSY 654 Seminar in College Teaching (3)  
Practices, issues and research in college teaching. Instructional models and methods, course planning, cognition, testing and grading, student-teacher interaction and ethics.

EPSY 661 Trends and Issues in Educational Psychology (3)  
Prerequisite: EPSY 540. Majors only. Examines professional, philosophical, theoretical issues and trends across the discipline. Students practice and receive feedback regarding written and oral communication skills. S/U graded.

EPSY 663 Apprenticeship (1-3)  
Consent of instructor. Work with faculty member on professional endeavors such as research, writing, course planning or public service. Requires 3 hours per week for each credit. S/U graded. Repeatable, maximum of nine credits.

EPSY 674 Measurement I: Educational Testing (3)  
Prerequisite: SRM 600. Construction and evaluation of tests and other measures. Topics include score and norm interpretation, reliability and validity, item construction and analysis, rating scales and questionnaires.

EPSY 675 Measurement II: Advanced Techniques (3)  
Prerequisite: EPSY 674. Classical and modern measurement theory and methods. Derivations of reliability and validity formulae, test bias, item response theory, logit models, score equating, standards, individual prediction and classification.

EPSY 680 Research Issues in Cognition and Development (3)  
Covers contemporary research methodologies in cognition and development. Topics include interviews, observations, classroom research, computer-assisted data collection, protocol analysis, and philosophical and ethical issues. Repeatable, maximum of nine credits.

EPSY 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.

EPSY 682 Cognition and Instruction II (3)  
Prerequisite: EPSY 681 or EPSY 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.

EPSY 684 Advanced Seminar in Human Development (3)  
Prerequisite: EPSY 530. For Graduate students wishing to develop advanced competency. Periodically, seminar may focus on topic reflecting instructor's interest area or on developing student's inquiry. Repeatable, maximum of nine credits.

EPSY 685 Advanced Seminar in Learning and Cognition (3)  
Prerequisite: EPSY 540. Pursue original research into learning and cognitive processes under the guidance of a faculty member. Arranged to reflect faculty and students' interests. Repeatable, maximum of nine credits.

EPSY 686 Advanced Seminar in Measurement and Assessment (3)  
For graduate students wishing to develop a competency in psychological and educational measurement. The seminar will focus on an advanced topic in contemporary measurement and assessment. Repeatable, maximum of nine credits.

ENST — ENVIRONMENTAL 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 513 Professional Renewal (1-3)  
Update skills and knowledge of professionals in the discipline. Goals and objectives will be specifically directed at individual professional enhancement rather than the acquisition of general discipline knowledge or methodologies. S/U or letter graded. Repeatable, under different subtitles.

ENST 515 Environment and Environmental Problems (2)  
Examine the structural and functional relationships of the environment with emphasis on present and long-term problems. Previous experience or courses in natural and social sciences useful but not required.
ET — EDUCATIONAL TECHNOLOGY

ET 500 Introduction to Educational Technology (3)
A survey course examining the field of educational technology, especially its impact on teaching and learning. Includes historical and current perspectives, as well as trends and issues in the field.

ET 501 Introduction to Applications of Educational Technology (3)
Instruction and practice with computer systems, video and other technological tools. Applications include word processing, spreadsheets and presentation software. Visual and information literacy skills and copyright trends are addressed.

ET 502 Instructional Design (3)
Covers design procedures and analysis techniques for determining instructional content. Evaluation tools for determining instructional efficiency at the systems, curriculum, course and lesson levels are explored.

ET 503 Computers in Education (3)
Prerequisite: ET 501 or permission of instructor. Instruction for intermediate to advanced applications of current computer-based technologies. Introduction to a variety of other technology related topics with an emphasis on educational applications and integration.

ET 504 Instructional Materials Design (3)
Procedures for designing and developing instructional materials. Includes scripting and production specifications for graphic, audio, slide/tape and/or video formats.

ET 513 Professional Renewal (1-3)
Update skills and knowledge of professionals in the discipline. Goals and objectives will be specifically directed at individual professional enhancement rather than the acquisition of general discipline knowledge or methodologies. S/U or letter graded. Repeatable, under different subtitles.

ET 524 Design of Computer Assisted Instruction (3)
Prerequisite: ET 503. A study of the design and development of computer assisted instruction, introducing both authoring system and general purpose programming language paradigms.

ET 530 Media Cataloging and Classification (3)
Study the purpose, theory and principles of cataloging and classifying media. Includes Dewey Decimal, Library of Congress and other systems, as well as on-line cataloging.

ET 533 Reference and Information Management (3)
Discuss suitable materials for elementary, secondary and post-secondary resource centers as well as data bases and research indices for students, instructors and administrators.
ET 535 Administration of Instructional Resources (3) Learn the essentials of organizing and administering instructional resource centers at elementary, secondary and post-secondary levels. Includes budget preparation and personnel management.

ET 536 Media Selection, Utilization and Evaluation (3) Selection principles, utilization strategies and evaluative criteria for print and non-print media for individuals, groups, different ages and cultural groups. Includes CAI/CM1 evaluation.

ET 601 Strategies for Teaching Technology Skills (3) Prerequisites: ET 502, ET 503. For teachers of technology skills in diverse environments (public schools to corporations). Topics include instructional design, theories, strategies, ethics and interpersonal skills for effective and appealing learning environments.

ET 602 Instructional Analysis and Design (3) Prerequisite: ET 502. Application of contemporary methods of assessment, design, development, implementation and evaluation of instructional courses, programs and systems.

ET 604 Advanced Design of Instructional Materials (3) Prerequisites: ET 504, EPSY 540. Application of principles of human learning, perception, and motivation to the design and production of materials to support learning and performance.

ET 613 Instructional Telecommunications (3) Conceptual design and production techniques for developing instructional telecommunication systems and programs.

ET 615 Distance Education: Theories and Practice (3) Includes an overview of distance education foundations, design issues systems development and applications across curricula.

ET 617 Development of Online Applications (3) Prerequisites: ET 502, ET 503 and ET 524; ET 613 or ET 615 strongly recommended. Focus on the design, development and implementation of interactive online network applications. Emphasis on instructional environments, application development necessary simulations, database development, evaluation. Secondary emphasis creating an ADA compliant online application.

ET 622 Directed Study (1-3) Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

ET 627 Computer Assisted Instruction Authoring Systems (3) Prerequisites: ET 503, ET 524. The generation and validation of computer based courseware using programming languages and authoring systems.

ET 628 Design of Multimedia Learning Environments (3) Prerequisites: ET 503, ET 524. Investigation of the theory, implementation, practice, and research on interactive, computer based instructional systems including videodisk, videotape, digital video, CD-ROM, and interactive capture technologies.

ET 650 Corporate Course Design (3) Consent of instructor. Reviews issues related to corporate course design. RFP preparation, human factors, incentive systems, pluralism and resource management are also featured.

ET 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 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 702 Instructional Design Theory and Research (3) Prerequisite: ET 602. Includes examination of theories underlying instructional design methods. Review and critique of basic and applied research bases is featured.

ET 784 Doctoral Seminar in Educational Technology (3) Prerequisite: ET 500. Investigation of the development, theory, and research bases of the field of Educational Technology.

ET 797 Doctoral Proposal Seminar (1-4) Design research proposals and conduct pilot studies to examine feasibility of proposed hypothesis. Summarize existing research, identify problems, develop hypotheses and justify selection of design components. S/U graded. Repeatable, maximum of four credits.

ET 799 Doctoral Dissertation (1-12) Required of all doctoral candidates. Student must earn 12 hours of credit for the dissertation as partial fulfillment of requirements for all doctoral degrees. Repeatable, no limitations.

FL 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.

FL 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.

FL 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.

FL 520 Maternal and Child Nutrition (3) Prerequisite: FND 250 or FND 357. 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.

FL 531 Teaching of Foreign Languages (1-4) Study problems in teaching at secondary and elementary school levels, content development for course of study, organization of learning materials, teaching procedures, testing and evaluating. Normally conducted in workshop format. Repeatable, under different subtitles.

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 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) Prerequisite: FND 250 or FND 357. 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.

GEOG — GEOGRAPHY

GEOG 507 Geographic Information Science (3) Consent of instructor (interview to determine expertise and academic background). Examines the nature and accuracy of spatially referenced data, as well as methods of data capture, storage, retrieval, modeling and output using GIS software.
GEOG 508 Workshop (1-3)  A variety of workshops on special topics within the discipline. Goals and objectives will emphasize the acquisition of general knowledge and skills in the discipline. Repeatable, under different subtitles.

GEOG 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 520 Topics in Systematic Geography (2)  Graduates only or consent of instructor. Examine a selected area of systematic geography; consider appropriate pedagogical approaches in teaching about that geographic topic. 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 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 roles humans have played in shaping those patterns.

GEOG 541 Maps and Mapping in Geographic Education (2)  Graduates only or consent of instructor. Study concepts of location on the earth’s surface, map projections, data acquisition and processing, thematic mapping. Work with computer-assisted drafting and thematic mapping packages. Develop applications for teaching geography.

GEOG 545 Computer Applications in Geographic Education (2)  Graduates only or consent of instructor. Examine computer-based resources for managing and displaying geographic information; develop applications for teaching geography.

GEOG 546 Directed Studies (1-3)  Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.


GEOG 551 Virtual Mineralogy and Petrography (4)  (2 lecture, 4 laboratory) Prerequisite: GEOL 320. Use of the petrographic microscope to study minerals in immersion media and in rock thin sections and the hand sample and microscopic description of rocks.

GEOG 552 Palaeontology (4)  (2 lecture, 6 laboratory) Prerequisite: GEOL 202. Fossil animals and plants - fossilization processes, collecting procedures, specimen preparation, description, classification, functional morphology, paleoecology, biostatigraphy, evolutionary trends. Field trip required.

GEOG 553 Paleontology and Biogeochemistry (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.

GEOG 554 Geomorphology (4)  (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.

GEOG 555 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.

GEOG 556 Volcanic Geology (3)  (2 lecture, 3 laboratory) Prerequisite: GEOL 421 or GEOL 521 or consent of instructor. A study of volcanoes and volcanic processes and products. Emphasis on the origin, classification and interpretation of volcanic rocks and volcanic structures and landforms.

GEOG 560 Geomorphology (4)  (3 lecture, 3 laboratory) Prerequisites: GEOL 201, PHYS 220, MATH 125. Mechanics of rock deformation and geologic structures of the earth’s crust - their description and classification, theories and facts regarding their origins and methods of investigating them. Field trips required.

GEOG 565 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 566 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 567 Advanced Placement Institute in Human Geography (2)  Graduates only or consent of instructor. A study of volcanoes and volcanic processes and products. Emphasis on the origin, classification and interpretation of volcanic rocks and volcanic structures and landforms.

GEOG 570 Structural Geology (4)  (3 lecture, 3 laboratory) Prerequisites: GEOL 201, PHYS 220, MATH 125. Mechanics of rock deformation and geologic structures of the earth’s crust - their description and classification, theories and facts regarding their origins and methods of investigating them. Field trips required.

GEOG 571 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 572 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 621 Directed Studies (1-4)  Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

GEOG 622 Directed Studies (1-4)  Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

GERO — GERMAN

GERO 555 Grant Development and Administration (3)  Overview of proposal planning and grant development process. Application of skills in identifying funding options, program planning, proposal writing, budgeting and establishing controls for grant administration.

GERO 560 Community Resources for the Elderly (4)  Field placement required. Review service needs of older persons and existing community resources. Evaluate the continuum of long-term care in relation to program models, service gaps and funding mechanisms.

GERO 565 Management Concepts for Aging Services (3)  Examines basic concepts of management and administration of human service organizations. Emphasizes principles and practices currently used in public, private nonprofit and proprietary aging programs.
GERO 595 Special Topics in Gerontology (1-4)
Course designed to investigate specific aspect of Gerontology. Repeatable, maximum of six credits, under different subtitles.

GERO 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 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

GERO 625 Family and Social Issues in Late Life (3)
Explores current research in study of social and familial issues that arise in later life. Ecological approach will highlight the consequences of aging on the individual, family and broader society.

GERO 630 Intervention Strategies with the Elderly (3)
Analyze major intervention strategies and techniques for utilization with older adults. Emphasizes individual, group and paraprofessional systems. Classroom practice of actual treatment techniques.

GERO 635 Social Policies of Aging (3)
Traces history and current status of major policies that benefit elderly. Reviews legislation, levels of policy-making and policy concerns of older population. Includes recent policy changes and policy directions.

GERO 640 Health Aspects of Gerontology (3)
Identifies major health problems, concerns and practices of the elderly. Examines health care policies, financing, health promotion and wellness concepts.

GERO 650 Personnel Practices of Aging (3)
Surveys basic personnel management practices: employee recruitment, selection, performance enhancement, performance review and promotion. Includes issues of volunteers, older workers and legal aspects of human resource management.

GERO 655 Program Planning and Evaluation in Gerontology (3)
Survey of basic concepts used in the development and implementation of aging programs. Emphasizes methods and skills needed for the assessment, development and evaluation of programs.

GERO 660 Financial Management and Budgeting for Aging Programs (2)
Overview of financial and budgeting functions within human services. Emphasizes public and private non-profits. Directed to non-accountants. Develop basic skills in financial control and fund-raising.

GERO 692 Graduate Internship in Gerontology (6-15)
Only 12 credits may be counted towards degree program. S/U graded. Repeatable, maximum of 15 credits.

GERO 694 Practicum in Gerontology (1-4)
Make application to the department before registration. Repeatable, maximum of eight credits.

GERO 699 Thesis (1-6)
S/U graded. Repeatable, no limitations.

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 — HIGHER EDUCATION AND STUDENT AFFAIRS LEADERSHIP

HESA 508 Workshop (1-3)
A variety of workshops on special topics within the discipline. Goals and objectives will be specified. A theoretical and practical approach to intervention in crises common to college students. Emphasis on individual, group and environmental interventions.

HESA 513 Professional Renewal (1-3)
Update skills and knowledge of professionals in the discipline. Goals and objectives will be specifically directed at individual professional enhancement rather than the acquisition of general discipline knowledge or methodologies. S/U or letter graded. Repeatable, under different subtitles.

HESA 583 Crisis Intervention (1)
Prerequisite: PSY 344 or PPSY 612 or equivalent. A theoretical and practical approach to intervention in crises common to college students. Emphasis on individual, group and environmental interventions.

HESA 584 Multiculturalism in Higher Education (3)
Understand various cultures’ impact on formation of values, attitudes and behaviors. Various factors are examined in relation to their influence on students’ ability to benefit from higher education.

HESA 650 Enrollment Management Services (3)
Examines and reviews the history, purposes, functions, organization and administration of Admissions, Financial Aid, Records and Registration, Advising and Orientation.

HESA 653 Services for Environmental and Student Development (3)
Covers history, purposes, functions, administrative and programming needs of such student services as counseling, health, career development and placement, student activities, residence life and services for diverse populations.

HESA 655 Multiculturalism in Higher Education (3)
Through understanding the educational mission and philosophy of the community college, students will develop skills to analyze the student service needs of community college students, design and evaluate delivery systems.

HESA 658 Management and Administration in Student Affairs (3)
Application of management tools to student affairs. Skill development focuses on budgeting models, resource management, planning, evaluation and intervention strategies.

HESA 661 Practicum in College Teaching for Student Development (6)
Consent of instructor. Actual classroom experience in teaching under supervision any course that has as a part of its objectives, developmental content. S/U graded.

HESA 668 Higher Education in the United States (3)
Prerequisites: ELPS 601, ELPS 603, ELPS 604, ELPS 605 or consent of instructor. Organization and leadership of higher education from department, campus wide, state and federal levels is examined by tracing historical antecedents and using contemporary research findings, models and theories.

HESA 669 College and University Organization and Leadership (2)
Prerequisites: ELPS 601, ELPS 603, ELPS 604, ELPS 605 or consent of instructor. Application of management tools to student affairs. Skill development focuses on budgeting models, resource management, planning, evaluation and intervention strategies.

HESA 670 College and University Curriculum (3)
Prerequisites: ELPS 601, ELPS 603, ELPS 604, ELPS 605 or consent of instructor. Application of management tools to student affairs. Skill development focuses on budgeting models, resource management, planning, evaluation and intervention strategies.
HESA 670 Internship in Higher Education and Student Affairs Leadership (1-6)
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. Skills in specific professional role. S/U graded. Repeatable, maximum of 12 credits.

HESA 675 Field Experience in Higher Education and Student Affairs Leadership (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)
Prerequisites: ELPS 601, ELPS 603, ELPS 604, ELPS 605 or consent of instructor. Relate statutory provisions, court decisions, common law principles and constitutional requirements to legal problems affecting public and private higher education institutions and systems.

HESA 682 Legal Issues in Student Affairs (3)
An examination of the legal implications for College Student Personnel Administration and the student-institutional relationship.

HESA 683 Finance and Resource Management in Higher Education (3)
Prerequisites: ELPS 601, ELPS 603, ELPS 604, ELPS 605 or consent of instructor. Analyze issues of financing public and private higher education; examine alternative financing sources and methods; develop skill in resource allocation and management.

HESA 684 Group Leadership in Student Affairs (2)
Majors only. Theories underlying group dynamics and their application to student affairs settings. Topics include group norms, pressure, standards and membership, leadership issues and ethics. Experience in leading a group is included.

HESA 685 Human Resources in Higher Education (3)
Prerequisites: ELPS 601, ELPS 603, ELPS 604, ELPS 605 or consent of instructor. The course focuses on understanding Human Resource Management (HRM) as an energy source for shaping institutions. Emphasis is on the practical application of achieving change through personnel and compensation administration.

HESA 700 Law and Higher Education (3)
Prerequisites: ELPS 601, ELPS 603, ELPS 604, ELPS 605 or consent of instructor. Relate statutory provisions, court decisions, common law principles and constitutional requirements to legal problems affecting public and private higher education institutions and systems.

HESA 750 College Students: Culture, Characteristics, Campus Life (3)
Prerequisite: ELPS 650. Investigates student affairs profession and impact on development of college students. Examines current college subcultures. Considers effect on students' progress and success, of campus norms and student characteristics.

HESA 752 Current Issues in College Student Personnel Administration (2)
Consent of instructor. Examines and analyzes current problems and issues in the college student personnel field. Seminar format.

HESA 753 Evaluative Strategies for Student Affairs (2)
Examine techniques of evaluating student personnel services in higher education. Evaluate reported research and identify areas of needed research.

HESA 755 Advanced Research Seminar (1)
Prerequisite: SRM 700 or take concurrently and 9 hours of statistics. Examines research needs of the profession. Develop a focused research question for the dissertation. Explore research planning and financial support. S/U graded. Repeatable, may be taken twice.

HESA 758 Seminar in College Student Personnel Administration (1)
Consent of instructor. Required doctoral seminar that covers topics of special importance to the profession. Must be taken three times, although credit is only required the first time. S/U graded. Repeatable, maximum of ten credits.

HESA 771 Administrative Leadership in Student Affairs (3)
Studies each student's leadership styles and examines available measurement instruments. Applies findings to conflict management, organizational communication systems, budget paradigms and authority/responsibility scenarios.

HESA 797 Doctoral Proposal Research (1-4)
Permission of major advisor. 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 and Human 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 515 Bio-Physical Changes in Aging (3)
Prerequisite: BIO 101, BIO 245 or equivalent. Study systemic, physiological and psychomotor changes during normal human aging. Theorized and known effects of behavioral changes will be examined relative to their impact on biological and physical aging processes.

HHS 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.

HIST — History

HIST 509 Modern Southeast Asia (3)
Graduates only. An analysis of the historical experience of Vietnamese, Filipinos, Indonesians, Thais and others caught between China/India, religions of the West and East, colonialism/nationalism and traditional vs. modern life-styles.

HIST 510 Modern China (3)
Graduates only. An analysis of the Chinese experience from the impact of Western imperialism in the mid-19th century to the present. Emphasizes internal changes in China's political, social, economic and cultural institutions.

HIST 511 Modern Japan (3)
Graduates only. An historical analysis of the late Tokugawa period to the present. Emphasizes internal changes in China's political, social, economic and cultural institutions.

HIST 512 Seminar in Asian History (3)
Graduates only. Investigations 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 515 History of Latin America: 1855 to the Present (3)
Graduates only. A thematic study of nationalism, colonialism, militarism, and economic developments in Latin America. May focus on colonial or post-independence periods. Repeatable, may be taken two times, 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 periods. 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 to the statehood period when full admission was 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 534 Advanced Placement Program in World History (1-3)
Graduates only. Intensive course in the study and interpretation of world history, designed for secondary school teachers teaching advanced placement courses in world history. Includes writing of model syllabi and extensive historical analysis. S/U graded. Repeatable, no limitations.

HIST 535 Advanced Placement Program US History (1-3)

HIST 536 Advanced Placement Program in European History (1-3)
Graduates only. Intensive course in European historiography and interpretation, designed for secondary school teachers teaching advanced placement courses in European history. Includes writing of model syllabi and extensive historical analysis and assessment. S/U graded. Repeatable, no limitations.

HIST 537 Advanced Study in the History of American Education (3)
Graduates only. Review of the development of American education from colonial times to the present, focusing on the European roots of the educational system to its impact on America's character.

HIST 544 Seminar in European Intellectual History (3)
Graduates only. A consideration of selected topics in European Intellectual History from prehistory to the present in a seminar format.

HIST 550 Industrial America (3)
Graduates only. Focus on the industrial transformation of the United States during the late nineteenth century. The economic developments as well as the political, social, and cultural ones will be examined.

HIST 552 History of World War II (3)
Graduates only. A survey of World War II from the rise of the totalitarian states to the dropping of the atomic bombs, with an emphasis on American military and naval operations.

HIST 555 Seminar in Medieval and Renaissance History (3)
Graduates only. Seminar for advanced undergraduate and graduate students that will investigate select topics in Medieval and Renaissance history through research and readings.

HIST 557 Modern Europe (3)
Graduates only. A consideration in depth of European historical development from 1815 to the present, focusing on political, diplomatic and economic matters. Repeatable, maximum of 15 credits, under different subtitles.

HIST 560 Introduction to Graduate Historical Study (3)
Examines the nature of history, historical research and the writing of history.

HIST 622 Directed Studies (1-6)
Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

HIST 699 Thesis (1-6)
Optional for Master of Arts programs on recommendation of the major advisor. S/U graded. Repeatable.
HRS 611 Vocational Evaluation Planning and Reporting (3)
Consent of instructor. Principles and techniques of planning in the vocational evaluation process and integration of assessment data and behavioral observations in report writing.

HRS 612 Seminar in Vocational Evaluation Systems (3)
Prequisite: HRS 581. Examination of various vocational evaluation systems, their uses and limitations in assessing vocational potential of the handicapped.

HRS 622 Directed Studies in Human Rehabilitation (1-4)
Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

HRS 630 Human Services Counseling Theories and Techniques (3)
Analyze counseling theories as they are applied to human services. Develop basic counseling skills.

HRS 631 Group Processes in Rehabilitation (3)
An integrated perspective of the stages of groups, basic concepts and goals of groups with rehabilitation clients.

HRS 650 Human Resources System (3)
Addresses leadership issues in human resource planning, management and development necessary for achieving responsible change. Examines various organizational components and their interrelationship and interdependence with other organization systems.

HRS 659 Seminar in Rehabilitation Counseling Supervision (2)
An investigation of the major approaches to counseling supervision intended to increase the student's understanding of clinical supervision as it relates to rehabilitation counselor training.

HRS 660 Advanced Seminar in Client Assessment (3)
Consent of instructor. Practices individual client assessment, particularly vocational implications of assessment techniques and the application of information in client treatment plans.

HRS 661 Vocational Evaluation Planning and Reporting (3)
Consent of instructor. Principles and techniques of planning in the vocational evaluation process and integration of assessment data and behavioral observations in report writing.

HRS 671 Practicum in Vocational Evaluation (6)
Consent of instructor. Meets minimum of 12 hours per week. Qualified human services majors engage in vocational evaluation activities in department's clinic under the supervision of one or more university staff. S/U graded.

HRS 680 Practicum in Human Services (6)
Consent of instructor. Practices major. Meets minimum of 12 hours per week. Qualified human services majors engage in counseling interviews and activities under the supervision of one or more university staff members. S/U graded.

HRS 693 Practicum in Vocational Evaluation (6)
Consent of instructor. Meets minimum of 12 hours per week. Qualified human services majors engage in vocational evaluation activities in department's clinic under the supervision of one or more university staff. S/U graded.

HRS 694 Supervised Counseling in Human Services (6)
Prerequisite: HRS 630. Meets minimum of 12 hours per week. Qualified human services majors engage in counseling interviews and activities under the supervision of one or more university staff members. S/U graded.

HRS 695 Seminar in Foundations of Human Rehabilitation (3)
This graduate seminar will focus on core issues confronting the field of rehabilitation. Issues will be examined from a historical, theoretical and research perspective.

HRS 696 Advanced Rehabilitation Counseling Theories and Approaches (3)
Prerequisite: HRS 630 or equivalent. Consent of instructor. Major counseling theories are comprehensively reviewed in terms of their utility with individuals who have disabilities and in order to enhance preparation for rehabilitation counselor education and supervision.

HRS 706 Advanced Seminar in Psychosocial Aspects of Disability (3)
Theoretical and conceptual frameworks of adjustment of various disabling conditions are comprehensively investigated. A thorough review of the research literature regarding psychosocial aspects of disability will be undertaken.

HRS 755 Supervised Practicum in College Teaching (3)
Majors only. Experiences in observation and supervised practice in teaching at college or university level. Repeatable, maximum of nine credits.

HRS 757 Advanced Seminar in Rehabilitation Administration (3)
Majors only. Students will receive supervised experience in administration, program planning, evaluation and grant writing. Approximately 150 clock hours per semester are required for three credits. Repeatable, maximum of nine credits.

HRS 759 Advanced Practicum in Rehabilitation Counseling Supervision (3)
Majors only. Students receive supervised experience in teaching problems in training rehabilitation counselors. Approximately 150 clock hours per semester are required for three credits. Repeatable, maximum nine credits.

HRS 797 Doctoral Proposal Research (1-4)
Majors only. Required of doctoral students. Students must earn 4 hours of credit towards doctoral degrees before candidacy. S/U graded. Repeatable, maximum four credits.

HRS 799 Doctoral Dissertation (1-12)
Majors only. Required of doctoral candidates. Students must earn 12 hours of dissertation credit for doctoral requirements. S/U graded. Repeatable, no limitations.

HRS 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.

ID — INTERDISCIPLINARY STUDIES

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.

MAS — MEXICAN AMERICAN 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 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

MATH — MATHEMATICS

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.
Graduate Courses

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, Graefe) multiplicities, symmetric functions, matrices and determinants. Elementary computer applications.

MATH 523 Modern Algebra (3) A study of groups, rings and fields with a special emphasis on groups and fields.

MATH 525 Linear Algebra I (3) Prerequisite: MATH 321. Vector spaces, linear transformations, matrices, eigenvalues, canonical forms, quadratic forms and other selected topics.

MATH 528 Discrete Mathematics (3) Graduates only. 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 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 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-parametrics). 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 564 Topics in History of Mathematics (3) Explore a period of time, an area of mathematics and/or a group of mathematicians. Consult instructor for emphasis. Repeatable, under different subtitles.

MATH 591 Abstract Algebra and Number Theory (3) Basic methods of problem solving in abstract algebra and number theory with applications in secondary school mathematics.

MATH 609 Abstract Algebra I (3) Prerequisite MATH 523 or equivalent. Groups and rings and their structure. Sylow theorems. Modules. History and applications.

MATH 622 Directed Studies (1-4) Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.


MATH 632 Complex Variables (3) Prerequisite: A course in complex analysis. Analytic and meromorphic functions in the complex plane. Integration, conformal mapping and advanced topics.

MATH 633 Geometric Analysis (3) Prerequisites: MATH 525; MATH 540 recommended. Analysis of functions of several variables, unifying and extending ideas from calculus and linear algebra. Includes the implicit function theorem and Stokes' Theorem.

MATH 635 Real Analysis (3) Abstract spaces. Lebesgue measure, continuity, integration and differentiation theorems, Baire category.

MATH 644 Differential Geometry (3) Prerequisite: A course in Analysis. A course in the differential geometry of curves and surfaces. Both modern and classical aspects will be covered.

MATH 646 Difference Equations and Chaos (3) Applications of difference equations in problem solving and modeling, especially in the area of chaos.

MATH 678 Mathematical Logic (3) The notion of proof, first order logic, set theory, ordinals, cardinals and an overview of the most important recent results in the field.

MATH 691 Number Theory (3) Prerequisite: MATH 632. A survey of topics in arithmetic and analytic number theory, such as Eulers' function, quadratic reciprocity, continued fractions and the distribution of prime numbers.

MATH 695 Special Topics (3) Topics from various fields of mathematics, for example, algebraic topology, functional analysis, Lie groups and algebras or nonlinear analysis. Repeatable, may be taken two times, under different subtitles.

MATH 700 Advanced Seminar (2) Consent of Instructor. An advanced seminar in an active area of mathematical research. Content depends upon instructor's choice. Repeatable, may be taken two times, under different subtitles.

MATH 727 Representation Theory (3) Introduction to Representation Theory of various mathematical structures. Emphasis is on group representations.

MATH 728 Topics in Discrete Mathematics (3) Prerequisite: MATH 678. A broad yet deep survey of current topics in combinatorics and graph theory essential for teachers K-16, including applications to probability, coding theory, sorting and matching algorithms and optimization.

MATH 736 Real Analysis II (3) Prerequisite: MATH 635. Topics from real and functional analysis such as: measure theory, distributions, metric spaces and other topics of the instructor's choice.

MATH 797 Doctoral Proposal Research (1-4) Required of all doctoral students. Four hours of credit for doctoral dissertation proposal research must be earned in partial fulfillment of requirements before admission to candidacy. Repeatable, maximum of four credits.


MED — Mathematics Education

MED 508 Workshop (1-3) A variety of workshops on special topics within the discipline. Goals and objectives will emphasize the acquisition of general knowledge and skills in the discipline. Repeatable, under different subtitles.

MED 509 Advanced Placement Program AB and BC Calculus (1-3) Topics in calculus and pedagogical information related to establishing and maintaining a calculus advanced placement program. S/U graded. Repeatable, no limitations.

MED 513 Professional Renewal (1-3)
Update skills and knowledge of professionals in the discipline. Goals and objectives will be specifically directed at individual professional enhancement rather than the acquisition of general discipline knowledge or methodologies. S/U or letter graded. Repeatable, under different subtitles.

MED 528 Teaching of Discrete Mathematics (2)
Graduates only. Methods of teaching discrete mathematics including using technology, projects, cooperative groups and the use of problem solving and cognitive issues. Topics include the teaching of existence problems, counting problems and optimization problems.

MED 534 Teaching Algebra and Trigonometry (2)
Graduates only. Current research on instruction in algebra/trigonometry; current curricular issues. Approach teaching of Algebra and Trigonometry from a conceptual and problem solving point of view.

MED 543 Teaching Geometry (2)
Graduates only. Students will develop teaching models and themes based on current theories of cognition and recommendations of professional societies.

MED 550 Teaching Applied Probability and Statistics (2)
Graduates only. Methods of teaching probability and statistics including hands-on experience in collecting and analyzing data. Topics include descriptive techniques, random variables, curve fitting and use of technology.

MED 557 Teaching of Mathematics (2)
Graduates only. Methods of teaching advanced topics in secondary school mathematics. Classrooms use of mathematics software, calculators, pattern blocks, attribute blocks, geoboards, geometric solids, MIRA’s and others presented to teach problem solving, skills and concepts. S/U graded.

MED 595 Teaching Advanced Topics in Secondary School Mathematics (2)
Graduates only. Methods of teaching advanced mathematics topics in high school mathematics with emphasis on teaching such topics as vectors, fractals and transformations.

MED 599 Action Research Project (1)
Graduates only. Research a current problem in secondary mathematics education relevant to their own teaching situation. Develop goals, review relevant literature and plan the project while progressing through the program. Repeatable, may be taken three times.

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 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

MED 630 Technology in Mathematics Education (2)
Prerequisite: MED 600 or consent of instructor. Graduates only. Hands-on training in using new software tools for the instruction of mathematics. Current research and curriculum reform efforts concerning technology in teaching will be examined. Repeatable, may be taken two times.

MED 654 Seminar in College Mathematics Teaching (1)
Prerequisite: Graduates only. Improvement of undergraduate mathematics 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 700 Cognitive Processes in Mathematics (3)
Prerequisite: Consent of instructor. Analyze research concerning cognitive science in mathematics education. Conduct case study on cognition in mathematics.

MED 701 Educational Mathematics Research (3)
Learn advanced research concepts and methods that are unique in the study of educational mathematics. Includes data analysis and advanced statistical techniques.

MED 702 Qualitative Research in Mathematics Education (3)
Prerequisites: MED 700. 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)
Prerequisites: MED 610, MED 700, or consent of instructor. A focus on issues relevant to working with preservice and inservice 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 historical development, perspectives and schools of thought that have influenced the teaching of mathematics.

MET — METEOROLOGY

MET 507 Dynamic Meteorology I (4)
(3 lecture, 2 laboratory) Prerequisite: MET 306. Atmospheric motion and laws governing it. Planetary and secondary circulations, jet streams, vorticity, cyclogenesis, air masses and fronts.

MET 521 Climatology (3)
Prerequisite: MET 205, STAT 150 or take concurrently. Factors of climate, analytical methods of climatology, climatic classification. Regional distribution of climates around the world. Applied climatology.
MUS 501 18th Century Counterpoint (2)
Prerequisite: MUS 202. Study of two- and three-voice counterpoint as found in the invention, canon, fugue and choral prelude.

MUS 502 Harmony and Form I (3)
Study 18th and early 19th century harmonic practice and tonality concepts.

MUS 503 Harmony and Form II (3)
Prerequisite: MUS 502 or consent of instructor. The study of late 19th and 20th century harmonic and formal concepts.

MUS 505 Sixteenth Century Counterpoint (3)
Study the style of 16th century polyphonic music, emphasizing actual period music as well as theoretical concepts. Compose two-, three- and four-voice counterpoints.

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 (1-3)
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.

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 History and Literature of the Wind Band (2)
A survey of the origins, development and historical significance of the wind band, including an overview of its literature, instrumentation and growth in Europe and in the United States.

MUS 512 Symphonic Repertoire (2)
Historical overview of the symphony orchestra and its literature. Addresses questions of style, performance, practice and programming. Includes a unit of study on music for younger orchestras.

MUS 513 Professional Renewal (1-3)
Update skills and knowledge of professionals in the discipline. Goals and objectives will be specifically directed at individual professional enhancement rather than the acquisition of general discipline knowledge or methodologies. S/U or letter graded. Repeatable, under different subtitles.

MUS 515 Keyboard Literature I (2)
Sightreading at Level III or above required. The study of keyboard music from its earliest beginnings through the works of Frederic Chopin and Robert Schumann. Offered every other year.

MUS 516 Keyboard Literature II (2)
Sightreading at Level III or above required. Concentrate on keyboard works from Franz Liszt and Johannes Brahms through the twentieth century. Offered every other year.

MUS 519 Foundations of Music Education (3)
Study historical, philosophical and psychological issues and principles that provide the context for contemporary music education.

MUS 521 Saxophone Pedagogy (2)
Consent of instructor. Develop teaching techniques for the saxophone in the areas of performance, style, repertoire, intonation and historical perspective.

MUS 524 Flute Pedagogy (2)
Consent of instructor. Majors only. Develop teaching techniques for the flute in the areas of performance, style, repertoire, intonation and historical perspective. Repeatable, no limitations.

MUS 525 Oboe Pedagogy (2)
Consent of instructor. Majors only. Develop teaching techniques for the oboe in the areas of performance, style, repertoire, intonation and historical perspective. Repeatable, no limitations.

MUS 533 Curriculum Trends in Music Education (3)
Study curriculum trends in music education, including methods of teaching, curriculum development and aesthetic education.

MUS 534 Acting for Singers (2)
Instruction in the special needs of the singer/actor: staging of arias, improvisation, freeing the voice through movement.

MUS 536 German Art Song (3)
An introduction to the origins of the art song form with in-depth study of the German art song from its historical beginnings through the present day.

MUS 538 French/Italian Art Song (2)
Course in the performance of 19th and 20th century French and Italian Art Song with particular emphasis upon style, technical requirements and diction.

MUS 539 British/American Art Song (2)
In-depth study of British and American art song. Emphasis will be on research and performance of 20th century materials.

MUS 542 Jazz Pedagogy (2)
Graduate and qualified senior music majors only. Takes a pedagogical approach to the analysis of jazz ensemble scores, rehearsal techniques and rhythm sections. Looks at concert planning and audience building.

MUS 543 Jazz Program Administration, Planning and Development (2)
Graduate students and qualified senior Music majors. Deal with public relations, grant writing, promotion, programming, recruiting and other aspects of the development of a Jazz Studies Program. Learn planning and follow-through of the annual Jazz Festival.

MUS 546 Jazz Arranging, Small Ensembles and Big Bands (2)
Prerequisite: MUS 202 or consent of instructor. Learn the basics for arranging for small jazz ensembles and work with big band scoring.

MUS 547 Jazz Arranging, Vocal Jazz and Studio Orchestra (2)
Prerequisite: MUS 546 or consent of instructor. Continuation of MUS 546 with focus on vocal jazz and studio orchestra composition. Performance of material at end of semester by studio orchestra and vocal jazz ensemble.
MUS 548 Accompanying and Coaching I (2)
Consent of instructor. Acquaint students with necessary skills for collaborative performance through the study of listening, rhythm, sightreading, technique and 4-hand repertoire. Class performances required. Repeatable, no limitations.

MUS 549 Accompanying and Coaching II (2)
Prerequisite: MUS 348/MUS 548 or consent of instructor. Acquaint students with skills needed for collaborative performance through score reduction and discussion, listening and performance of song and instrumental literature. Class performances required. Repeatable, no limitations.

MUS 550 Score Reading and Analysis (1)
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 Performance in Conducting (2)
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 Principles of Piano Teaching I (2)
Compare current piano methods. Study technical and musical problems with a beginning student. Offered every other year.

MUS 553 Principles of Piano Teaching II (2)
Prerequisite: MUS 352/MUS 552 or consent or instructor. A study of the methods of teaching musicianship and pianistic skills. Observe private and group lessons. Supervised teaching internship required. Offered every other year.

MUS 554 Pedagogical Approaches to Keyboard Literature I (2)
Evaluate various approaches to the study of keyboard literature through student participation in teaching and performing. Repeatable, no limitations.

MUS 558 Choral Masterworks (2)
Examine selected large works for chorus and orchestra from the Baroque to the present.

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 theater performance experience. Consent of instructor. Study repertoire, floor plans, stage properties, hand properties, costume needs, make-up needs, and staging.

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 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 Masters 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 Seminar in Schenker Analysis (2)
A study of the application of the ideas of Heinrich Schenker to music analysis, performance and music theory.

MUS 607 Graduate Seminar in Junior and Senior High School Instrumental Music (3)
Address problems encountered by instrumental music teachers in public schools. Participate as a contributor or lecturer in a seminar on topics chosen by class.

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 621 Small Jazz Ensembles (1)
Open to any student by audition. Groups consist of rhythm section plus 3 or 4 horns. Groups are listed in Music degree section of this Catalog. Repeatable, no limitations.

MUS 622 Directed Studies in Music (1-4)
Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

MUS 623 Individual Studies in Effective Teaching (1-3)
Designed according to candidate's primary emphasis and satisfies the Seminar in Teaching (discipline) required of all D.A. candidates in Music. Repeatable, maximum of three credits.

MUS 624 Vocal Jazz Ensembles (1)
Audition required. Graduate student only. Each ensemble limited to 20 voices: 4 sopranos, 4 altos, 4 tenors, 4 baritones, 4 basses, plus rhythm section and horns. Repeatable, no limitations.

MUS 625 Jazz Ensembles (1)
Audition required. Instrumentation is brass, woodwind and rhythm. Concentrate on jazz idiom music: show and dance music and concert jazz. Receive thorough preparation for teaching at both secondary and college levels. Repeatable, no limitations.

MUS 628 Collegium Musicum (1)
Audition required. Majors only. This performing group specializes in historically informed performance of early music. Historical treatises, appropriate ornamentation and improvisation and pre-19th century styles are the focus of the class. Repeatable, no limitations.

MUS 630 String Ensemble (1)
Small chamber groups that rehearse regularly and are coached by a faculty member. Repeatable, no limitations.

MUS 631 Brass Ensemble (1)
Small chamber groups that rehearse regularly and are coached by a faculty member. Repeatable, no limitations.

MUS 632 Woodwind Ensemble (1)
Small chamber groups that rehearse regularly and are coached by a faculty member. Repeatable, no limitations.

MUS 633 Percussion Ensemble (1)
Small chamber groups that rehearse regularly and are coached by a faculty member. Repeatable, no limitations.

MUS 635 Classical Guitar Ensemble (1)
Audition required. Perform in an ensemble in which music is arranged for classical guitar. Concentrate on music for classical guitar.

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.

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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, their works, related literary movements, aesthetic theories and musical criticism of the period will be researched and discussed.

MUS 648 Seminar: Music in the Twentieth Century (3)
Study of major trends in this music, accompanied by investigation into their social and cultural bases. Technical aspects of this music are more thoroughly investigated in the course, MUS 503.

MUS 650 Seminar: Choral Music (2)
A seminar to allow discussion of a variety of subjects related to choral literature. Individual projects will be assigned, calling for creative research.

MUS 653 Vocal Literature and Styles (3)
A study of the stylistic, aesthetic and repertorial aspects of vocal music, including opera and choral music, through the various historical periods in music.

MUS 657 Instrumental Literature and Styles (3)
A study of the stylistic, aesthetic and repertorial aspects of instrumental music, including orchestral and chamber music, through the various historical periods in music.

MUS 658 Brass Pedagogy (3)
Prerequisite: MUS 364 or consent of instructor. In-depth study of brass materials and performance techniques. Examines brass teaching problems encountered by teachers at the K-12 and college levels.

MUS 661 Percussion Pedagogy (2)
Prerequisite: MUS 364 or consent of instructor. Explore advanced techniques, methods and materials related to all the percussion instruments.

MUS 662 Woodwind Pedagogy (2)
Prerequisites: MUS 361, MUS 362 or consent of instructor. Majors only. In-depth study of teaching material and techniques related to the flute, clarinet, saxophone, oboe and bassoon.

MUS 665 Individual Performance in Collaborative Piano (2-4)
Prerequisites: MUS 348, MUS 349 and MUS 465 or consent of instructor. In-depth study of repertoire and refinement of skills for the collaborative pianist. Repeatable, no limitations.

MUS 666 Madrigal Singers (1)
Membership in the Concert Choir required or by special permission. The UNC Madrigal Singers is a highly select group of 16 to 20 performers. The group performs a wide variety of choral chamber works in concerts throughout the year. Repeatable, no limitations.

MUS 667 University Symphony Orchestra (1-3)

MUS 668 Chamber Orchestra (1)
Audition required. Comprised of outstanding strings and selected winds. Performs chamber orchestra literature from Baroque to the present. Presents concerts on and off campus. Repeatable, no limitations.

MUS 669 Individual Performance in Voice for Those with Non-Voice Emphasis (2-4)
Consent of instructor. Instruction concentrates on the production of voice and diction. Development of expressive power and melodic accuracy receives primary consideration. Repeatable, no limitations.

MUS 670 Individual Performance in Voice (2-4)
Consent of instructor. Repeatable, no limitations.

MUS 671 Individual Performance in Piano (2-4)
Consent of instructor. Repeatable, no limitations.

MUS 673 Individual Performance in Strings (2-4)
Consent of instructor. Repeatable, no limitations.

MUS 674 Individual Performance in Woodwinds (2-4)
Consent of instructor. Repeatable, no limitations.

MUS 675 Individual Performance in Brass (2-4)
Consent of instructor. Repeatable, no limitations.

MUS 676 Individual Performance in Percussion (2-4)
Consent of instructor. Repeatable, no limitations.

MUS 677 Individual Instruction in Composition (2-4)
Consent of instructor. Repeatable, no limitations.

MUS 678 Individual Performance in Harp (2-4)
Consent of instructor. Repeatable, no limitations.

MUS 679 Individual Performance in Guitar (2-4)
Consent of instructor. Repeatable, no limitations.

MUS 680 Mixed Concert Choir (1)
Audition required. Limited to approximately 60-65 singers. Open to all students. The Choir performs a wide range of literature: classics to contemporary works. Widely recognized for its excellence, the 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)
Audition required. Membership in Concert Choir required or consent of instructor. This select group of 25 singers performs an extremely varied repertoire from Renaissance motets to contemporary works. Repeatable, no limitations.

MUS 684 Men's Glee Club (1)
Audition required. Open to all 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 687 Summer Symphonic Band (1-3)
Audition required. Open to all students interested in performing the highest quality literature available. The Summer Season consists of five outdoor concerts. Repeatable, no limitations.

MUS 688 Concert Band (1-3)
Audition required. Comprised of music majors and students from other disciplines. Members perform a wide variety of interesting literature selected from standard and current repertoire. Repeatable, no limitations.

MUS 689 University Brass Choir (1)

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 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)

MUS 700 Introduction to Doctoral Research (3)
Analytical studies in music writing and research techniques for dissertation and field studies; survey critical problems in music; prepare research and proposal outlines.

MUS 794 Supervised Practicum in College Teaching (2)
Observe and practice college teaching under supervision and as a basis for analysis of learning experiences. Repeatable, maximum six credits.

MUS 797 Doctoral Proposal Research (1-4)
Required of all doctoral students. Repeatable, maximum of four credits.

MUS 799 Doctoral Dissertation (1-12)
Required of all doctoral candidates. Repeatable, no limitations.

NURS — NURSING

NURS 505 Nursing Research (3)
Introduction of advanced research and methodology. Curgence of selected nursing research projects to determine cost effective outcome, relevance to nursing practice, contribution to theory development.

NURS 507 Leadership and Nursing Issues (3)
Involves comprehensive investigation and analysis of health care issues and leadership theory and skills which are imperative in today's health care environment.

NURS 508 Workshop (1-3)
A variety of workshops on special topics within the discipline. Goals and objectives will emphasize the acquisition of general knowledge and skills in the discipline. Repeatable, under different subtitles.

NURS 510 Concepts in Transcultural Nursing (3)
For seniors, post-B.S. or M.S. in nursing students. Summers only. Focuses on transcultural nursing and cultural assessment for the purpose of providing culturally congruent and competent nursing care. Describes culture care beliefs, values and practices of specific cultures.

NURS 511 Advanced Transcultural Nursing and Research (2)
Prerequisites: NURS 510 and a graduate elective; SRM 680 or others with instructor approval. Summers only. The use of ethnonursing, ethnography and other qualitative research methods to generate and analyze cultural differences and similarities in care, health beliefs, values and practice of various cultures.

NURS 512 Transcultural Nursing Field Experience (2-3)
Pre or corequisite: NURS 511. Summers only. The application of the ethnonursing research methodology to analyze differences and similarities within a cultural experience as determined by the student and faculty. S/U graded.

NURS 600 Nursing Theory (3)
Admission to Master's Program required. Introduction to theoretical foundations for advanced nursing practice. Application of theory to clinical nursing practice and to nursing education. Emphasis on the development, application and critique of nursing models.

NURS 602 Concepts in Chronic Illness (4)
Admission to master's program required. Required laboratory arranged. The impact of chronic illness across the lifespan is examined using a conceptual approach. Health promotion and illness management are emphasized through case management care delivery.

NURS 604 Care of Chronically Ill Adult and Child (4)
Prerequisites: NURS 600, NURS 602; NURS 505 or take concurrently. Required laboratory arranged. Application of the nursing process and case management is examined in the development of health promotion and illness management strategies for the chronically ill adult and child.

NURS 607 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 610 Health Assessment (3)
Majors only. Required laboratory arranged. Emphasis in health history taking, physical assessment and interviewing of individuals across the life span. Spends 45 hours with an MD or NP in clinical application.

NURS 612 Advanced Pharmacology (4)
Examine clinical pharmacokinetics and pharmacotherapeutics on selected drug groups and their safe and appropriate utilization in primary care practice.

NURS 614 Advanced Pathophysiology (3)
Focus on pathophysiology, symptomology and etiology of commonly encountered acute and chronic clinical entities of children and adults.

NURS 622 Directed Studies (1-3)
Graduate students only. Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

NURS 630 Teaching Strategies in Nursing (3)
Prerequisites: EPSY 540, EPSY 674 or permission of instructor. Practice teaching of nursing students, practicing nurses and/or clients. Analyze teaching strategies in academic and clinical settings.

NURS 640 Health Care of Families I (4)
Majors only. Required laboratory arranged. Prerequisites: NURS 600, NURS 610, NURS 612 and NURS 614. Application of theoretical and research based developmental approaches to primary health care of families with particular emphasis on childhood/adolescence.

NURS 645 Health Care of Families II (4)
Majors only. Required laboratory arranged. Prerequisites: NURS 600, NURS 612 and NURS 614. Application of theoretical and research based developmental approaches to primary care of families with particular emphasis on women's health and adult episodic care.

NURS 650 Health Care of Families III (4)
Majors only. Required laboratory arranged. Prerequisites: NURS 505, NURS 507. Majors only. Required laboratory arranged. Application of theoretical and research based developmental approaches to primary care of families with particular emphasis on chronically ill and older adults and psychosocial adjustment disorders.

NURS 660 Nursing Education Seminar (3)
Synthesis of concepts from nursing theory, research and education courses. Experience with curriculum development and analysis.

NURS 680 Advanced Practice Role Practicum (1-9)
Graduates and Majors only. Final clinical experience provides students an opportunity to practice advanced roles in underserved and/or rural areas. S/U graded.
NURS 680 The Professorial Role in Nursing Education (3)
Prerequisites: 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 797 Doctoral Proposal Research (2-4)
Majors only. All doctoral students must earn four hours as partial fulfillment of requirements for the doctorate. Explores dissertation research problems, theoretical framework, methodology and data analysis methods. Launch dissertation research. S/U graded. Repeatable, maximum of 4 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.

PPSY 601 Practicum (1-3)
Consent of instructor. Graduate students only. Clinical practicum offers supervised professional activity in nursing education, administration, research, and public response. Implications for nursing research and practice are explored.

PPSY 608 Workshop (1-3)
A variety of workshops on special topics within the discipline. Goals and objectives will emphasize the acquisition of general knowledge and skills in the discipline. Repeatable, under different subtitles.

PPSY 513 Professional Renewal (1-3)
Update skills and knowledge of professionals in the discipline. Goals and objectives will be specifically directed at individual professional enhancement rather than the acquisition of general knowledge or methodologies. S/U or letter graded. Repeatable, under different subtitles.

PPSY 558 Abnormal Psychology (3)
Graduate students only. Study of abnormal behavior, causes, symptoms, characteristics, classifications, prevention and treatment.

PPSY 559 Introduction to Clinical Hypnosis (2)
Prerequisites: PPSY 612 or equivalent. Consent of instructor. Graduate students only. Introduction to techniques and applications of hypnosis in academic and mental health settings. Achievement of competence with basic hypnotic techniques and the appropriate utilization in psychotherapeutic processes.
PPSY 603 Counseling Children and Adolescents (3)
Prerequisite: PPSY 607, and PPSY 558 or equivalent. 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.

PPSY 605 Group Laboratory Experience (1)
Corequisite: PPSY 606 or PPSY 662.
Consent of practicum coordinator. Provides an opportunity to participate in a group experience facilitated by an advanced doctoral student or faculty member. S/U graded.

PPSY 606 Theories and Practices in Group Counseling (3)
Prerequisite: PPSY 607. Corequisite: PPSY 605. Study theories and methods of group counseling including applications in school settings for educational planning, career decisions and interpersonal relationships, and forming and facilitating guidance groups in educational settings.

PPSY 607 Theories of Counseling (3)
Majors only. The study and critical analysis of the major counseling theories and elements of effective psychotherapy as they apply to the counseling process.

PPSY 608 Organization, Administration and Consultation in Guidance Services (3)
Prerequisite: PPSY 602. Organization, administration and consultation in guidance services within institutions and agencies with emphasis on the use of personnel services, effective utilization of leadership skills, consultation and management techniques.

PPSY 610 Theories of Personality (2)
An overview of the psychological factors underlying personality and its development. Theories, critical periods, applications to counseling and education are addressed.

PPSY 612 Practicum in Individual Counseling (5)
Prerequisites: PPSY 607 and consent of practicum coordinator. Requires 15 hours per week minimum. Majors only. Receive supervised experience in counseling and interview analysis, including use of audio and video tapes, client and supervisor feedback and weekly seminar. S/U graded. Repeatable, maximum of 10 credits.

PPSY 613 Internship: Guidance and Counseling with Children (5)
Consent of instructor. Minimum of 300 on site hours required. Majors only. A culminating field experience for counseling students engaged in counseling elementary school children under supervision. Permission must be obtained by the end of the seventh week of the preceding semester. S/U graded.

PPSY 614 Internship in School Counseling and Guidance (1-9)
Prerequisite: PPSY 605, PPSY 606, PPSY 608, PPSY 612, PPSY 657 and consent of instructor by the end of the fifth week of preceding semester. 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.

PPSY 615 Supervision in Agencies and Schools (1)
Prerequisite: PPSY 612 and consent of instructor. Provides an overview of the supervision process and the theoretical orientation and practical skills necessary to function effectively as a supervisor of counselors.

PPSY 616 Career Theory, Counseling and Assessment (3)
Study theory and methods of career counseling, introduce and become familiar with career assessment instruments, and discuss current issues in the field of career counseling.

PPSY 617 Play Therapy: Theory and Practice (3)
Prerequisites: PPSY 612 and consent of instructor. Study theoretical bases for play therapy and conduct play therapy under faculty supervision.

PPSY 618 Practicum in Child, Adolescent, and Family Interventions (5)
Prerequisite: PPSY 607 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 weekly seminars.

PPSY 622 Directed Studies (1-3)
Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours per credit hour.) Repeatable, maximum concurrent enrollment is two times.

PPSY 623 Counseling Diverse Populations (3)
Majors only. An examination of counselor training issues and skills relevant to working with diverse cultural backgrounds. Emphasis on American minorities, other groups discussed. Sensitizes students to concerns of various cultural groups.

PPSY 624 Assessment and Treatment of Substance Abuse (3)
Majors only. 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.

PPSY 627 Counseling Interventions and Techniques for Talented and Gifted Students (2)
Study counseling interventions and techniques appropriate for talented and gifted students, their parents, siblings, peers, teachers and other school personnel.

PPSY 638 Human Behavior Analysis (3)
Overview of human behavior analysis, with a focus on school-based behavioral assessment and intervention.

PPSY 650 Orientation to Community 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.

PPSY 654 Child Abuse and Neglect (3)
Prerequisite: PPSY 607 or consent of instructor. Introduction to major issues in the child abuse field, including definitions, causes, effects, assessment, prevention, treatment, and legal issues. Secondary traumatic stress and self-care will be emphasized.

PPSY 655 Community Psychology and Social Systems (3)
Graduate students only. Examine psychological (emphasis on social psychology) principles, theories and practices as applied to individual, family and community mental health problems.

PPSY 657 Legal and Ethical Aspects of Counseling and Psychology (3)
Covers the interrelationship of ethical standards and legal requirements in professional counseling, education and psychology. Ethical standards, litigation and legal regulation are examined in regard to professional practice.

PPSY 658 Ethics and Law in Schools for Psychologists and Counselors (3)
Considers legal and ethical issues affecting professional practice in public school and higher education settings. State and federal legislation, special and regular education law, psychological practice law, ethical codes and professional standards are considered.

PPSY 660 Psychological Consultation: Theory and Practice (3)
Overview of consultation theory and practice. Mental health, expert, collaborative, behavioral and organizational models will be discussed and applied to problems in school and agency settings.

PPSY 662 Group Dynamics and Facilitation (3)
Prerequisite or concurrent enrollment in PPSY 607. Concurrent enrollment in PPSY 605. Consent of practicum coordinator. Majors only. Course features an examination of theoretical bases of group counseling including group types, group development, leadership styles and skills, and application to various populations. Ethical group leadership is emphasized.
PSY 663 Research Apprenticeship: School Psychology (1-2) Consent of instructor. Serve as research apprentice to faculty member; must complete minimum of 2 semester credits, 75 clock hours each. Repeatable, maximum of two credits.

PSY 664 Therapeutic Parenting (2) The application and appropriate utilization of therapeutic parenting techniques in academic and mental health settings.

PSY 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.

PSY 666 Couples and Marriage Therapy (2) Prerequisite: PSY 665. Majors only. Study basic theories of relationship therapy and technical interventions utilized within the major approaches to couples/marriage therapy. Also includes spouse abuse, divorce mediation and adjustment and ethical considerations.

PSY 667 Crisis Intervention in the Schools (2) Examination of crisis intervention theory and strategies in school settings. Emphasis on application to child-centered crises such as abuse, divorce, family violence, loss, school-based suicide and violence.

PSY 668 Sexuality Counseling (3) 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.

PSY 669 Advanced Methods: Couples and Family Therapy (3) Prerequisites: PSY 612, PSY 662 and PSY 665. Course expands on family therapy models presented in PSY 665 and includes other significant models. Training activities include diagnosis, assessment, case presentations, enactments, video use and case analysis.

PSY 670 Psychological Testing and Measurement (2) Understanding psychological testing through an overview of measurement principles, the psychological assessment process, test construction and development and the use of test results in individual psychological evaluations.

PSY 671 Appraisal and Assessment: School Counseling (3) Investigate standardized and non-standardized psychological instruments, including aptitude, achievement, interest, intelligence and personality tests and analyze them in terms of use, interpretation, ethics, testing programs and case studies.

PSY 672 Neuropsychologically-Based Interventions for Educational Difficulties (3) Strategies for intervening in neuropsychologically based educational difficulties. Covers interventions of neuropsychological processes including perceptual, expressive, attentional, and emotional abilities; emphasizes remedial and compensatory strategies for learners with special needs.

PSY 673 Appraisal and Assessment: Community Counseling (3) Survey course of major intelligence and personality tests used by professional counselors. Test interpretation and utilization of reports are addressed. Some test administration is taught within established eligibility guidelines.

PSY 674 Assessment for Intervention: Cognitive and Academic (5) Prerequisites: PSY 670 and consent of instructor. Covers the historical and theoretical bases of psychological and educational assessment concentrating primarily in the areas of cognitive abilities and academic achievement and their relation to interventions.

PSY 676 Assessment for Intervention: Infant and Toddler (3) Prerequisites: PSY 660, PSY 674 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.

PSY 678 Assessment for Intervention: Personality and Behavior (5) Prerequisites: PSY 674 and consent of instructor. Supervised experience in administration and interpretation of ecologically valid psychological data including personality, behavioral, cognitive and academic. Emphasis on designing, implementing and evaluating ecologically-based interventions.

PSY 680 Special Populations Practicum (1-3) Prerequisite: PSY 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 PSY 678. S/U graded. Repeatable, maximum of three credits.

PSY 681 Practicum in Consultation (3) Prerequisite: PSY 660. 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.

PSY 691 Internship in Community Counseling: Marriage and Family Therapy (1-9) Prerequisites: Consent of practicum coordinator. Majors only. Permission of instructor must be obtained by the end of the seventh week of the preceding semester. Minimum of 600 hours on-site required. A culminating field experience for qualified students in the area of community counseling: marriage and family therapy. S/U graded. Repeatable, maximum of 18 credits.

PSY 692 Internship in Community Counseling (1-9) Prerequisites: Consent of practicum coordinator required by the seventh week of the preceding semester. Majors only. 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.

PSY 694 Practicum in Family Therapy (4) Prerequisites: PSY 612, or PSY 712, PSY 666. Consent of practicum coordinator. Majors only. Repeatable, maximum of 18 credits.

PSY 695 Seminar: Contemporary Issues in Couples and Family Therapy (3) Prerequisites: PSY 665. Majors only. Study of interventions utilized within the major approaches to couple and marital therapy. Covers current issues and research in family therapy.

PSY 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.

PSY 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.

PSY 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.

PSY 707 Seminar in Personality and Counseling Theories (3) Majors only. A comparative and critical in-depth analysis of personality and counseling theories including the interrelationship, philosophical foundations and practical applications.
PPSY 712 Advanced Practicum in Individual Counseling (4)  
Prerequisites: PPSY 702, PPSY 707 and consent of practicum coordinator.  
Majors only. For the student with prior counseling experience, this course offers opportunity to develop counseling skills and philosophy in depth with clients in an individual counseling situation. S/U graded.

PPSY 713 Practicum in Supervision of Play Therapy (3)  
Prerequisite: PPSY 617. Consent of practicum coordinator. Majors only.  
Doctoral candidates receive experience in supervising child psychotherapy training through working with a staff member.

PPSY 714 Practicum in Supervision of Counseling (3-6)  
Prerequisites: PPSY 702, PPSY 712 and consent of practicum coordinator.  
Majors only. Students gain experience with supervisor in supervising counseling practice. Repeatable, maximum of six credits.

PPSY 715 Seminar in Counselor Supervision and Theory (2)  
Prerequisites: PPSY 702, PPSY 707, PPSY 712 and consent of practicum coordinator. Consent of PPSY 714.  
Majors only. Study problems involved in training individuals to engage in the therapeutic process.

PPSY 716 Research Seminar in Counselor Education (3)  
Majors only. Review and analysis of reported research in counselor education with special emphasis on research published during the last ten years in the professional journals.

PPSY 733 Research Apprenticeship (1)  
Consent of instructor. Majors only.  
Requires approximately 3-5 hours per week. Serve as an apprentice to a chosen faculty member and work on professional endeavors such as course planning, writing and research, library searches. S/U graded. Repeatable, maximum of two credits.

PPSY 738 Practicum in Evidenced-Based Interventions (3)  
Prerequisites: PPSY 607, PPSY 638, and consent of practicum coordinator.  
Practice implementing interventions with children and adolescents with a variety of behavioral and emotional problems, with special emphasis on identifying and implementing evidenced-based interventions.

PPSY 746 Seminar: Advanced Career Counseling, Theory and Assessment (3)  
Prerequisite: PPSY 616. This advanced seminar course provides in-depth study of career guidance and counseling over the life span. Career theory, resources, assessment, technology, and ethical and legal considerations will be discussed.

PPSY 748 Instruction, Supervision and Leadership in School Counseling (3)  
Prerequisites: PPSY 602, PPSY 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.

PPSY 755 Supervised Practicum in College Teaching (1-6)  
Consent of instructor. Majors only.  
Doctoral students receive experience in observation and supervised practice in college teaching. Repeatable, maximum of six credits.

PPSY 758 Advanced Psychopathology (3)  
Prerequisite: PSY 355 or PPSY 558. Consent of instructor. Acquire understanding of developmental and behavioral disorders of childhood through adulthood. Thorough knowledge of specific pathologies and conditions through intensive reading, research or practical experience.

PPSY 762 Practicum in Group Facilitation (4)  
Prerequisites: PPSY 605 and PPSY 662 or equivalent, PPSY 702, PPSY 712.  
Consent of instructor. Requires a minimum of 12 hours per week. Majors only. Receive supervised experience in the role of group facilitator, including feedback on group process, leadership and intervention skills and problem areas. S/U graded.

PPSY 763 Seminar in School Psychology (3)  
Admission to graduate school psychology program required.  
Professional issues and problems concerning the school psychologist, including certification and licensure requirements, confidentiality, legal and ethical issues, roles and responsibilities. Observations in schools.

PPSY 773 Practicum in Supervision of Group Facilitation (3)  
Prerequisite: PPSY 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.

PPSY 774 Practicum in Supervision of Family Therapy (3)  
Prerequisites: PPSY 694 and consent of practicum coordinator. Majors only.  
Doctoral candidates receive experience in supervision of family therapy practicum, observe techniques and processes, receive feedback on progress.

PPSY 775 Supervision of Psychological Testing (3-9)  
Consent of instructor. Under faculty supervision, participate in instruction and supervision of students in testing courses from test administration to the final reporting of test findings.

PPSY 776 Practicum in Evidenced-Based Interventions (3)  
Prerequisite: PPSY 607, PPSY 638, or consent of instructor.  
Majors only. Receive supervised experience in the role of group facilitator, including feedback on group process, leadership and intervention skills and problem areas. S/U graded.

PPSY 777 Applied Neuropsychology (4)  
Prerequisites: PPSY 612 or PPSY 702; PPSY 674 and PPSY 678. Study of brain-behavior relationships with emphasis on procedures for diagnosing brain dysfunction and developing appropriate neuropsychological interventions. Study of assessment techniques and professional practice issues from conception to adulthood.

PPSY 778 Clinical Neuropsychology Practicum (2)  
Prerequisites: PPSY 612, PPSY 672, PPSY 678, PPSY 777 or consent of instructor. Supervised practice in administering and interpreting neuropsychological tests and procedures for children, adolescents, and adults. Emphasizes rehabilitation, intervention development, neuropsychological report writing and use of the Halstead-Reitan Batteries.

PPSY 779 Practicum in School Psychology (3)  
Prerequisites: PPSY 607, PPSY 638, PPSY 660, PPSY 672, PPSY 674, PPSY 678 and consent of instructor. Supervised practice in providing comprehensive psychological services to children in grades preschool to 12. Experience in public schools or affiliated school-related agencies with supervision by practicing licensed school psychologists. Repeatable, no limitations.

PPSY 781 Evaluation of Psychological Services (3)  
Prerequisite: SRM 602 or consent of instructor. Learn the theory and practice of psychological program evaluation, and monitoring of treatment outcomes for individuals and groups.

PPSY 782 Introduction to Rorschach Administration and Scoring (2)  
Prerequisites: PPSY 558, PPSY 674 and PPSY 678. Learn conceptual basis for comparing projective with traditional psychometric procedures and begin skills in administration and scoring of Rorschach test.

PPSY 789 Internship in School Psychology (2-10)  
Prerequisites: PPSY 674, PPSY 678, or consent of instructor. A minimum of 12 hours credit required.  
Full-time field experience in school psychology under qualified supervisors in selected settings; taken at end of program. S/U graded. Repeatable, maximum of 20 credits.

PPSY 791 Internship in Counseling Psychology (1-5)  
Consent of instructor. Majors only.  
2,000-hour predoctoral internship at a site meeting APPIC and or APA training standards to be completed in 3-6 consecutive semesters after completion of all Psy.D. course work. Repeatable, maximum of 16 credits.

PPSY 792 Internship in Counselor Education and Supervision (2-6)  
Consent of instructor. For the doctoral student in Counselor Education and Supervision. Must complete a total of 1200 on-site hours in an approved setting. Repeatable, maximum of 20 credits.
PPSY 793 Psychological Services Clinic I (1)
Prerequisites: PPSY 702, PPSY 712, and either PPSY 694 or PPSY 617, and consent of practicum coordinator. Majors only. An introduction for students to gain experience as staff clinicians, conducting intake sessions, making recommendations for treatment, participating in clinic administrative duties and providing therapeutic services to clients. S/U graded.

PPSY 794 Psychological Services Clinic II (2)
Prerequisites: PPSY 702, PPSY 712, PPSY 793 and consent of practicum coordinator. Majors only. This course offers the opportunity to refine assessment and therapeutic skills with children, adolescents and adults, couples or families, and refine administrative skills including outreach to community agencies. S/U graded. Repeatable, maximum of four credits.

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 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 590 Seminar in History and Systems (3)
Philosophical perspectives and major theories and systems are reviewed as they contributed to the development of contemporary psychology. Course required for state psychology board licensing eligibility.

PSY 595 Special Topics in Psychology (1-5)
Scheduled on an irregular basis to explore special areas in psychology and carries a subtitle for each offering. Check department office for topics currently planned. Repeatable, under different subtitles.

PSY 600 Graduate Research Methodology (3)
Graduates only. Majors only. Introduction to basic concepts in psychology research, including experimental design, non-experimental methods, statistical analysis and researchers' ethical responsibilities. Overview of ongoing research in Psychology Department.

PSY 620 Assessment and Interviewing (2)
Develop verbal and written skills in interview and assessment procedures; study related ethical and legal issues.

PSY 621 Practicum in College Teaching of Psychology (2)
Master's students arrange with individual faculty to receive experience in observation and supervised practice. S/U graded. Repeatable, maximum of four credits.

PSY 622 Directed Studies (1-3)
Individualized investigation under the direct supervision of a faculty member. Minimum of 25 clock hours per credit hour. Repeatable, maximum concurrent enrollment is two times.

PSY 625 Principles of Neuropsychology (3)

PSY 626 Introduction to Neuropsychological Assessment (3)

PSY 627 Psychometrics (3)
Survey of psychometric considerations within areas of personality, psychopathology, intelligence, neuropsychology. Topics include domain theory test construction, test operating characteristics, multivariate methods within psychometrics, exemplars across major areas.

PSY 643 Theories of Motivation (3)
Biological, learned, social, cognitive, operational and stimulus-based approaches to motivation; emphasis on implications for study of human behavior.

PSY 644 Advanced Social Psychology (3)
Examine major areas of social psychology e.g., aggression, attraction, cooperation, attitude change, and impression management; learn about observation and other data-collection techniques. Possible laboratory observations.

PSY 680 Neuroscience Seminar (3)
Graduates only. Reviews current theories and research regarding neurophysiological underpinnings of typical and atypical human behavior. Topics include neuroscientific investigation of behavioral domains, cognitive models, genetic contributions, and developmental influences.

PSY 693 Research Practicum (1-3)
Each student will collaborate in research with a psychology professor. The research topic and nature of involvement are determined by consultation between student and professor. S/U graded.

PSY 694 Practicum (3)
Consent of instructor. Majors only. Supervised experiences in diagnostics of neuropsychological deficits. Individual and group supervision emphasizing behavioral interview and psychometric data. S/U graded.

PSY 697 Master's Project in Psychology (3-6)
Majors only. Consent of advisor. For Master's students in psychology as an approved alternative to the written comprehensive examination. Students will enroll with major advisor to develop research proposal, conduct project and report results. S/U graded. Repeatable, maximum of six credits.

PSY 699 Thesis (1-6)
Recommended in place of M.A. project, especially for students applying to doctoral programs. S/U graded. Repeatable, no limitations.

SCED — SCIENCE EDUCATION
SCED 513 Professional Renewal (1-12)
Update skills and knowledge of professionals in the discipline. Goals and objectives will be specifically directed at individual professional enhancement rather than the acquisition of general discipline knowledge or methodologies. S/U or letter graded. Repeatable, under different subtitles.

SCED 541 Methods of Teaching Secondary School Science (3)
Full admittance to PTEP or certification at the undergraduate level required. Prerequisite to student teaching. Consider curriculum and classroom organization, testing and evaluation, procedures and materials, relationship of subject area to total secondary program, emphasizing teaching techniques.

SCED 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.
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.

SCED 570 Teaching Science in the Elementary School (3) (2 lecture, 1 laboratory) Full admittance to PTEP or certification at the undergraduate level required. Develop a knowledge of objectives, methods and materials needed for teaching a functional elementary science program. Laboratory activities included.

SCED 622 Directed Studies (1-4) Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

SCI 591 Computer Applications in Education, record keeping and word equipment, data management, software classroom for interfacing with (1 lecture, 2 laboratory) Science teachers for specific courses.

SCI 536 Principles of Physics II (3) A survey of contemporary trends and issues associated with designing, implementing and evaluating science curricula at the secondary and tertiary levels.

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: SMR 502 or equivalent. An introduction to research in discipline-based science education, providing background and experience in the major activities associated with current practice in both field-based and quantitative studies.

SCI — SCIENCE

SCI 560 Issues and Ethics in Sport Management (3) An exploration of major issues, ethical theories, moral reasoning and their impact on the administration of programs in sport, physical education, fitness, athletics and recreation.

SES — SPORT AND EXERCISE SCIENCE

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 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 Cardiac Rehabilitation (3) Prerequisite: SES 322 or SES 626 or equivalent. Majors only. Basic electrocardiography and EKG interpretation will be studied. Emphasis is placed on interpretation of resting and exercise EKG's and monitoring procedures. Interpretation of abnormalities and drugs that may affect exercise.

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 520 Marketing of Sport (3) Develop an understanding of and skill in the marketing process as it relates to promotion and public relations activities in physical education athletics and commercial sport operations. Cannot be taken in lieu of SES 576 required in the Sport Administration graduate programs.

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 Program Management (3) Develop an understanding of theories and principles involved in managing a program in human performance and leisure studies.

SES 576 Sport Promotion and Marketing (3) Develop skill and understanding in the marketing process relating to promotion and public relations activities in physical education, 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 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, recreation and kinesiology.

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 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)
Prerequisite: 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 620 Advanced Anatomical Kinesiology (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 621 Advanced Biomechanics (3)
Prerequisite: SES 221 or equivalent. Make an advanced study of the mechanical components of human movement, stressing the analysis of movement problems.

SES 622 Directed Studies (1-4)
Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

SES 623 Advanced Neuromotor Kinesiology (3)
Prerequisite: SES 323 or equivalent. Advanced study of the neuropsychological components of motor learning and control with an emphasis on physical activity applications.

SES 624 Advanced Developmental Kinesiology (3)
Prerequisite: SES 323 or equivalent. Advanced study of the influence of developmental and aging processes upon movement across the lifespan.

SES 625 Laboratory Techniques in Kinesiological Research (3)
Consent of instructor. Titles: Laboratory Techniques in Biomechanics; Techniques in Exercise Physiology; and Laboratory Techniques in Social Psychological Kinesiology. Repeatable, under different subtitles.

SES 626 Advanced Physiological Kinesiology I (3)
Prerequisite: SES 322 or equivalent. Advanced study of energy metabolism and exercise nutrition involved with human movement.

SES 627 Advanced Physiological Kinesiology II (3)
Prerequisite: SES 626 or equivalent. Advanced study of the muscular and endocrine systems involved with human movement.

SES 628 Facilitating the Adventure Experience (3)
Introduction of the philosophy, goals, and standards of adventure activities with specific emphasis on challenge course facilitation. Skills include knowledge, technique and awareness for conducting safe, ethical, and effective programs.

SES 629 Concepts in Kinesiology (3)
Experiences provided are: Biomechanics of Locomotion, Cardiopulmonary Physiology and Motivation. Repeatable, under different subtitles.

SES 630 Challenge Course Programming (3)
Study the history, philosophy and principles of adventure ropes courses. Construction, maintenance and risk management will be stressed for public school educators.

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 635 Exercise and Sports Psychology (3)
Application of psychological concepts, principles and empirical findings to exercise programs and organized sport settings.

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 650 Financial Management for Sport Organizations (3)
Develop an understanding of and skill in financial resource management for the operation of programs in sport, physical education, fitness, athletics and recreation.

SES 660 Sport Personnel Management (3)
Develop understanding of and skill in human resource management for the operation of programs in sport, physical education, fitness, athletics and recreation.

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)
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 675 Management of Sports Facilities and Equipment (3)
An examination of the functions of planning, management, evaluation, maintenance operations and situational analysis as they relate to management of sport facilities and equipment.

SES 676 Sport Public Relations and Information Systems (3)
Presentation of principles, standards and guidelines in sport public relations and information systems involved in sport information management.

SES 678 Event Development and Management (3)
Provide student with the skills necessary to develop, propose and conduct sport-related contests and special events including game management and facility management.

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)
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 Kinesiology (1)
Consent of advisor. Examine professional and scholarly issues in kinesiology, physical education and sport administration through readings, discussions, laboratory tutorials and presentations of current research topics. S/U graded. Repeatable, maximum of three credits.

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 Kinesiology (1-3)
Engage in a course of study designed to investigate a special topic. Repeatable, maximum of three credits.

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 count up to 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.
SOC — Sociology

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 (2)
Student will undertake an in-depth study of current topics related to the administration and management of sport, physical education, fitness and athletic programs.

SES 755 Supervised Practicum in College Teaching (1-6)

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

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 523 Violence and the Family (3)
Examine major issues in family violence such as domestic 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 and Group Dynamics (3)
Consent of instructor. Analyze and discuss issues, trends, paradigms and applications. Includes social interaction theories, small group dynamics and group based methodologies.

SOC 539 Seminar in Clinical Sociology (3)
Examine important issues and activities related to clinical sociology, survey research methods and intervention techniques used by sociologists, consider ethics of sociology, emphasize critical thinking, research and writing.

SOC 544 Sociology of Criminal Law (3)
Graduates only. Focus on substantive and procedural criminal law in the context of sociological theory, research and jurisprudence.

SOC 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 554 Criminological Theories (3)
Analyze and evaluate the major historical and contemporary theories of criminal behavior.

SOC 555 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 556 Qualitative Methods (3)
Examination of major qualitative methods in sociology: ethnography, participant observation, phenomenological sociology, ethnomethodology, Verstehen sociology, hermeneutics and other methods. Emphasis is on field research and application of specific qualitative methods.

SOC 571 Sociology of Aging (3)
Survey theories and research on the social aspects of aging with emphasis on later maturity and old age.

SOC 580 Social Policy Analysis (3)
Examines 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 622 Directed Studies (1-3)
Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

SOC 660 Applied Social Research (3)
Apply techniques of applied sociological research to an approved community project in applied social research, understand the relationship between basic and applied social research.

SOC 690 Practicum in College Teaching of Sociology (2)
Masters students contact graduate coordinator regarding desire to take course. Student is assigned to assistant professor and will receive experience in observation and supervised practice in lower division course. S/U Graded.

SOC 691 Research Internship (1-9)
Prerequisites: Nine hours of graduate credit in sociology and consent of instructor. S/U graded. Put classroom learning into practice with research in an organizational setting. Repeatable, maximum of nine credits.

SOSC — Social Science

SOSC 699 Thesis (1-6)

SPAN — Spanish

SPAN 501 Spanish Grammar (3)
A systematic study of the more complex theories and forms of Spanish grammar with emphasis on mood, tense and voice.

SPAN 502 Spanish Composition (3)
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)
Students will be introduced to techniques, theory and history of translation in understanding the complexities involved in the translation of English to Spanish or Spanish to English.
SPAN 507 Spanish for Oral Proficiency (3)
A course designed to develop oral proficiency by exposing students to advanced and superior linguistic functions.

SPAN 508 Workshop (1-3)
A variety of workshops on special topics within the discipline. Goals and objectives will emphasize the acquisition of general knowledge and skills in the discipline. Repeatable, under different subtitles.

SPAN 510 Advanced Placement Program-Spanish (1-3)
Consent of instructor. A course designed to provide content and pedagogical information related to the teaching of grammar and literature in the secondary school Spanish advanced placement program. S/U graded. Repeatable, no limitations.

SPAN 513 Professional Renewal (1-3)
Update skills and knowledge of professionals in the discipline. Goals and objectives will specifically directed at individual professional enhancement rather than the acquisition of general discipline knowledge or methodologies. S/U or letter graded. Repeatable, under different subtitles.

SPAN 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-Columbian period to the present.

SPAN 551 Masterpieces of Spanish Literature (3)
Chronological study of Spanish literary movements, schools and their literary masterpieces from Middle Ages to XXI Century. Celestina, 'el picaro', Don Juan, and Don Quijote will be presented.

SPAN 551 Latin American Literature (3)
Chronological study of American literary movements, schools and their literary masterpieces from Pre-Colombian texts to XXI Century authors. Includes poetry, novel, essay and drama.

SPAN 555 Spanish Readings (3)
Designed to accommodate the works by authors who are included in Advanced Placement reading list. Includes poetry, novel, essay and drama. Reading content is variable and determined by instructor.

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 historical 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 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 (2)
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 and selected structures of the language, which traditionally present problems; such as: the subjunctive mood, ser and estar, preterite vs. imperfect and others. Repeatable, maximum of six credits.

SPAN 581 Advanced Spanish Grammar (2)
An intensive study of the more complex theories and forms of Spanish grammar, with emphasis on mood, tense and voice.

SPAN 582 Spanish for Oral Proficiency (2)
A course designed to develop oral proficiency by exposing students to advanced and 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 622 Directed Studies (1-3)
Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

SRM — STATISTICS AND RESEARCH METHODS

SRM 502 Applied Statistics (4)
Hypothesis formulation and testing: estimation and confidence limits; one- and two-sample tests and statistical decision theory. Study inferences arising from distribution functions: t, F, chi-square, binomial, normal.

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 551 Mathematical Statistics with Applications I (4)
Prerequisite: MATH 233 or Consent of instructor. Study of probability, random variables, distributions, moments, expected values and standard probability laws, probability bounds and point estimation.

SRM 552 Mathematical Statistics with Applications II (4)
Prerequisite: SRM 551. Continuation of SRM 551. Sampling distributions, estimation techniques, maximum likelihood, tests of hypothesis, confidence intervals, regression and chi-square tests.

SRM 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)  
Prerequisite: Consent of instructor. Read and critique published research. Required of all first year graduate students except those with one or more semesters of substitute courses. Taught every semester.

SRM 602 Statistical Methods I (3)  
Prerequisite: SRM 600. Brief review of descriptive statistics. Covers probability, sampling distributions, and hypothesis testing. Students will be required to perform sample size determination, one-way ANOVA, and regression analysis with the software. Repeatable, maximum of 10 hours per week for each hour of credit.\[\text{SRM 607 Non-Parametric Statistics (3)}\]
Prerequisite: SRM 502 or Consent of instructor. Study of 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 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 as missing data, "dirty" data, rounding errors, storage issues, and the like.

SRM 614 Linear Models (3)  
Prerequisite: MATH 525, 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 619 Resampling Methods (3)  
Prerequisite: SRM 502 or Consent of instructor. Use of computer simulation techniques to investigate problems in probability and statistics. Topics include jackknife procedures, bootstrap procedures, and randomization tests.

SRM 622 Directed Studies (1-3)  
Consent of instructor. Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

SRM 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 627 Survey Research Methods (3)  
Prerequisites: SRM 600, SRM 602 and EPSY 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. Emphasis on loglinear and logit modeling techniques, which parallel many features of the general linear model in the continuous case. Taught alternate years.

SRM 641 Special Topics (1-4)  
Consent of instructor. Advanced topics in applied statistics, measurement theory and research. Specific topics will be determined by the instructor and by current student needs. Repeatable, under different subtitles.

SRM 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 masters and doctoral students. Students present the results of their own research and critique and discuss the presentations of other students and faculty. S/U graded. Repeatable, no limitations.

SRM 670 Evaluation: Models and Designs (3)  
Prerequisite: SRM 600. Theories and methods of program evaluation, models of evaluation and the social context of evaluation. Nature and types of evaluation, planning, proposal writing and measurements.

SRM 680 Introduction to Qualitative Research (3)  
Prerequisite: SRM 600 or equivalent. This course introduces qualitative research. Students will explore the foundations, methods and processes of qualitative research and will learn to evaluate published research.

SRM 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 benefitting participants will be emphasized.

SRM 688 Writing as Analysis of Qualitative Research (3)  
Prerequisite: 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 qualitative 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 10 credits.
SRM 694 Practicum (1-9)
Consent of instructor. Experiential learning in 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 credit. S/U graded. Repeatable, maximum of 18 credits.

SRM 700 Advanced Research Methods (3)
Prerequisites: SRM 600 and either SRM 502 or SRM 602. Advanced research designs, concepts and methods. Required of all specialist and doctoral candidates.

SRM 705 Advanced Issues in Research Methods (3)
Prerequisites: SRM 602, SRM 603, SRM 610, and EPSY 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 742 Seminar (3)
Prerequisite: SRM 502 or consent of instructor. Study advanced topics in statistics, mathematics, research design and information processing.

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 of 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.

TED — TEACHER EDUCATION

TED 600 Professional Seminar I (1)
This course is designed to provide students with information regarding program procedures and expectations, development of professional portfolios, and implementation of a teacher-researcher project.

TED 601 Conceptions of Schooling (3)
Examination and analysis of the nature and scope of American education, the common school tradition and what today's schools are for; becoming a citizen in a democratic society.

TED 602 Teacher Leadership (3)
Assist teachers in exploring their professional context (socially, politically and organizationally) and their role in enhancing, general schooling conditions, learning processes and outcomes.

TED 603 Alternative Teaching and Assessment Strategies (3)
The content of this course is intended to expand teacher's repertoires in the classroom by helping them develop facility with alternate assessment and instruction strategies.

TED 605 Professional Seminar II (2)
Prerequisites: SRM 600, TED 600. This course is designed to be a capstone experience. Synthesize and integrate what has been learned in the content and pedagogy coursework with classroom teaching and other work related experiences.

THEA — THEATRE ARTS

THEA 500 Graduate Individual Performance in Theatre (1)
Participation in Little Theatre of the Rockies productions. Open to graduate students. Students must participate in 90 hours. Repeatable, no limitations.

THEA 508 Workshop (1-3)
A variety of workshops on special topics within the discipline. Goals and objectives will emphasize the acquisition of general knowledge and skills in the discipline. Repeatable, under different subtitles.

THEA 513 Professional Renewal (1-3)
Update skills and knowledge of professionals in the discipline. Goals and objectives will be specifically directed at individual professional enhancement rather than the acquisition of general discipline knowledge or methodologies. S/U or letter graded. Repeatable, under different subtitles.

THEA 601 Graduate Practicum in Theatre (1-4)
Qualified graduate, permission of instructor, advisor and department. This specialized, supervised field work course involves theory and methodology in practice. Copies of written evaluation must be filed with instructor and department. Repeatable, maximum of four credits.

THEA 622 Graduate Directed Research in Theatre (1-4)
Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

THEA 650 Graduate Summer Theatre (10)
Acceptance by Theatre Arts staff only. Graduate workshop in acting and technical theatre, with 8-hour daily rehearsals for 8 weeks for summer productions. Repeatable, maximum of 30 credits.

WS — WOMEN'S STUDIES PROGRAM

WS 508 Workshop (1-3)
A variety of workshops on special topics within the discipline. Goals and objectives will emphasize the acquisition of general knowledge and skills in the discipline. Repeatable, under different subtitles.