## THE UNIVERSITY of NORTH CAROLINA GREENSBORO



# THE GRADUATE SCHOOL BULLETIN 

Catalog Issue for the Year 2012-2013
Announcements for 2013-2014

This catalog is intended for informational purposes only. Requirements, rules, procedures, courses, and informational statements are subject to change. The University reserves the right to revise any part without notice or obligation.

Policies approved by the Graduate Studies Committee become effective upon the publication of The University of North Carolina at Greensboro's Graduate School Bulletin.

The University reserves the right to make changes as required in course offerings, curriculum, academic policies and other rules and regulations affecting students, to be effective whenever determined by the University. These changes will govern current and formerly enrolled students. Enrollment of all students is subject to these conditions.

## THE GRADUATE SCHOOL MISSION STATEMENT

The Graduate School at The University of North Carolina at Greensboro promotes excellence in graduate education through leadership and service within the University and greater community. Leadership is provided through initiation of dialog regarding issues and trends in higher education; the development of innovative and timely graduate programs; support for improvement of existing, viable programs; the endorsement of policies and practices contributing to high quality education endeavors; and proactive advocacy for graduate faculty and students. Service is provided through recruitment and enrollment of well qualified students; professional, accurate, and timely response to requests and concerns; the maintenance of processes and procedures that are efficient and consistent with academic policies; and responsible use of resources. The Graduate School is committed to building collegial and mutually supportive relationships with all constituencies to create learning environments that contribute to outstanding achievement in learning, discovery, scholarship, and service.

## EQUALITY OF EDUCATIONAL OPPORTUNITY

The University of North Carolina at Greensboro is committed to equality of educational opportunity and does not discriminate against applicants, students or employees based on race, color, national origin, religion, gender, age, or disability. Moreover, The University of North Carolina at Greensboro is open to people of all races and actively seeks to promote racial integration by recruiting and enrolling a larger number of black students. This commitment is in keeping with Title IX of the Educational Amendments of 1972 and Section 504, Rehabilitation Act of 1973. The Affirmative Action Officer, 123 Mossman Building (336-334-5167), is responsible for coordinating compliance and investigating complaints.

## STATEMENT OF NONDISCRIMINATION ON THE BASIS OF SEXUAL ORIENTATION

The University of North Carolina at Greensboro regards discrimination on the basis of sexual orientation to be inconsistent with its goal of providing an atmosphere in which students, faculty, and staff may learn, work and live. The University of North Carolina at Greensboro values the benefits of cultural diversity and pledges to students, prospective students, faculty, staff, and the public that it will defend pluralism in the academic community and welcomes all men and women of good will without regard to sexual orientation.

Students who believe they have been treated unfairly on the basis of sexual orientation should contact the Associate Vice Chancellor for Student Affairs at (336) 334-5513. Staff, faculty or members of the public may contact the UNCG AA/EEO Officer at (336) 334-5009.

The Graduate School's Internet Address is as follows: grs.uncg.edu<br>The University of North Carolina at Greensboro, The Graduate School, 241 Mossman Building, PO Box 26170<br>Greensboro, NC 27402-6170<br>VOICE 336-334.5596<br>FAX 336.334.4424<br>ADMISSIONS FAX 336.256.0109<br>EMAIL inquiries@uncg.edu

# Calendar of Events 2013-2014 

Contact the UNCG Counseling and Testing Center for exact dates of qualifying examinations.
Students are responsible for complying with all deadlines for their individual programs of study.

## Summer 2013

First Session: May 13-June 21


## Fall 2013

August 12-16, Monday-Friday ........ Orientation, Advising, Registration for all students based on student population
and classification


## Spring 2014

January 6-10, Monday-Friday $\ldots$
January 13, Monday ............................. Crientation, Advising, Registration for all students based on student population 8 a.m.
and classification

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Welcome to the Graduate Bulletin of the University of North Carolina at Greensboro. The bulletin serves as the student's contract with the University and provides guidance relating to policies, procedures, and deadlines regarding graduate study. The Bulletin also provides descriptions of our post baccalaureate and graduate certificates, master's degrees, and doctoral degree programs. Included are course descriptions, degree requirements, and other regulations.
For the first time in our history we have gone from a print version of our bulletin to an electronic version. This change will provide two major benefits to the academic community. First, the electronic version will allow students and advisors to use key words to quickly and easily search and find the exact sections that pertain to questions at hand. No longer will an individual have to thumb through a booklet to locate the desired sections. Second, the electronic version will be easier to maintain and thus will be a more up-to-date compendium of all things graduate.
UNCG has a graduate enrollment of over 3,600 students. The University has grown over the years and there are now approximately 40 certificate, 65 master's, and 30 doctoral programs available to students. In addition to being directly admitted into our programs, some students dip their toes into the academic water by taking courses as non-degree students (VISIONS program) and later applying up to 9 hours toward a master's degree. Still other students begin their studies in certificate programs and later work to complete a master's degree.


The University is classified by the Carnegie Foundation as a doctoral granting institution with high research. UNCG is also among a small group of universities that has earned the community engagement classification. The combination of these two designations is unique and affords students the benefits of research, outstanding teaching, and engagement with the community. Faculty bring the results of their research and community work into the classroom to make their teaching relevant to today's problems. This multi-dimensional approach results in quality teaching that is supported through discovery of new knowledge and cooperative work with the community.

Please view this graduate bulletin as one of many resources available to you. If you have unanswered questions or want to explore further, please do not hesitate to visit The Graduate School or call our office at (336) 334-5596.

William R. Wiener, PhD Dean of The Graduate School

## GRADUATE PROGRAMS

The University is organized into the College of Arts and Sciences, five professional schools, and one joint professional school with North Carolina A\&T State University: Joseph M. Bryan School of Business and Economics; School of Education; School of Health and Human Sciences; School of Music, Theatre and Dance; Joint School of Nanoscience and Nanoengineering; and School of Nursing.

The Graduate School has general supervision of graduate study throughout the College and schools. The University offers four doctoral degrees in 26 areas of study, five Master of Fine Arts degrees, Master of Arts in Teaching degree, master's degrees in a wide variety of majors, and a number of Post-Baccalaureate and Post-Master's Certificates. Each of these programs is described in detail in the following departmental listings.

The Graduate Dean is the chief administrative officer of The Graduate School, taking general responsibility for the development, improvement, and administration of all graduate study at the University. The Dean of The Graduate School serves as admissions officer and administers services to graduate students and programs. All matters of policy, procedures, and graduate curriculum are developed, approved, and implemented in consultation with programs and the Graduate Studies Committee.

## Accreditation

The University of North Carolina at Greensboro is accredited by the Southern Association of Colleges and Schools Commission on Colleges to award baccalaureate, masters, specialist and doctoral degrees. Contact the Commission on Colleges at 1866 Southern Lane, Decatur, Georgia 30033-4097, or call 404-679-4500 for questions about the accreditation of The University of North Carolina at Greensboro.

The Commission is to be contacted only if there is evidence that appears to support an institution's significant non-compliance with a requirement or standard. All other inquiries, such as admission requirements, financial aid, educational programs, etc., should be made directly to The University of North Carolina at Greensboro, 336-334-5000.

## Graduate Degree Programs

## College of Arts and Sciences

Art
MFA in Studio Arts
Biology
MS in Biology
PhD in Environmental Health Science
Chemistry and Biochemistry
MS in Biochemistry
MS in Chemistry
PhD in Medicinal Biochemistry
Classical Studies
MEd in Latin
Communication Studies
MA in Communication Studies
Computer Science
MS in Computer Science
English
MA in English
PhD in English
MFA in Creative Writing
Geography
MA in Applied Geography
(Geosciences Education for Teachers or Urban Planning
and Economic Development optional concentrations)
PhD in Geography
History
MA in History
Museum Studies concentration (jointly with Department of Interior Architecture)
PhD in History
Interior Architecture
MFA in Interior Architecture
MS in Interior Architecture
(*Historic Preservation, Interior Product Design, or
*Museum Studies optional concentrations)
(*jointly with Department of History)

## Languages, Literatures, and Cultures

MA in Romance Languages and Literatures (French and Francophone Studies or Spanish concentration)
MEd in Curriculum and Instruction
(French Education or Spanish Education concentration)
Mathematics and Statistics
MA in Mathematics
(Applied Statistics optional concentration)
PhD in Computational Mathematics
Media Studies

MFA in Drama
(Film and Video Production concentration)

## Political Science

MA in Political Science
MPA in Public Affairs
(Community and Economic Development, Local
Government Management, or Nonprofit Management optional concentrations)

## Psychology

MA in General Experimental Psychology
MA/PhD in Clinical Psychology
PhD in Psychology
(Cognitive, Developmental, General Experimental, or Social Psychology concentration)

## Sociology

MA in Sociology
(Criminology optional concentration)
Women's and Gender Studies
MA in Women's and Gender Studies

## Joseph M. Bryan School of Business and Economics

Accounting
MS in Accounting
Master of Business Administration

## MBA

MSN/MBA in Health Management
(jointly with School of Nursing)
MS (Gerontology)/MBA
(jointly with Gerontology Program)
Consumer, Apparel, and Retail Studies
MS in Consumer, Apparel, and Retail Studies
(Integrated Apparel and Related Industries optional concentration)
MS in Global Apparel Supply Chain Management
PhD in Consumer, Apparel, and Retail Studies

## Economics

MA in Applied Economics
MA/PhD in Economics
PhD in Economics
Information Systems and Supply Chain Management
MS in Information Technology and Management
PhD in Information Systems

## School of Education

Counseling and Educational Development
MS in Counseling
(Clinical Mental Health, College Counseling and Student Development, Couple and Family Counseling, or School Counseling concentration)

MS/EdS in Counseling
(Clinical Mental Health, Couple and Family Counseling, College Counseling and Student Development, or School Counseling concentration)
EdD in Counseling and Counselor Education
PhD in Counseling and Counselor Education
Educational Leadership and Cultural Foundations
MSA in School Administration
EdS in Educational Leadership
(Advanced Principal and Superintendent licensure)
EdD in Educational Leadership
(non licensure)
PhD in Educational Studies
(Cultural Studies concentration)
Educational Research Methodology
MS in Educational Research, Measurement, and Evaluation
MS/PHD in Educational Research, Measurement, and Evaluation
PhD in Educational Research, Measurement, and Evaluation

## Library and Information Studies

MLIS in Library and Information Studies
(Instructional Technology and Media Coordinator optional licensures)

## Specialized Education Services

MEd in Birth-Kindergarten: Interdisciplinary Studies in Education and Development
(jointly with Department of Human Development and Family Studies)
MEd in Special Education
(General Curriculum, Behavioral and Emotional Disabilities or Learning Disabilities concentrations)
PhD in Special Education
Teacher Education and Higher Education
MA in Teaching
(Elementary Education K-6, Middle Grades Education, Science Education, Social Studies Education, Teaching English to Speakers of Other Languages)
MEd in Teacher Education and Higher Education (Elementary Education K-6, Elementary Mathematics, Instructional Technology, Middle/Secondary English Language Arts, Middle/Secondary Mathematics Education, Reading Education K-12, Middle/Secondary Science Education, Middle/Secondary Social Studies Education, or Teaching English to Speakers of Other Languages concentrations)
MEd in Educational Supervision
(Instructional Design concentration)
MEd in Student Personnel Administration in Higher Education

PhD in Educational Studies
(Teacher Education and Development or Higher Education concentration)

## School of Health and Human Sciences

## Communication Sciences and Disorders

MA in Speech-Language Pathology
PhD in Communication Sciences and Disorders

## Community and Therapeutic Recreation

MS in Parks and Recreation Management
(Licensure Services Management or Therapeutic
Recreation concentration)

## Peace and Conflict Studies

MA in Conflict and Peace Studies
(Professional Conflict Practice, Education, or International
Peace Development optional concentrations)

## Genetic Counseling

MS in Genetic Counseling

## Gerontology

MS in Gerontology
(Aging and Business or Nonprofit Management optional concentrations)
MS/MBA in Gerontology
(jointly with MBA Program)

## Human Development and Family Studies

MEd in Birth-Kindergarten: Interdisciplinary Studies in Education and Development
(jointly with the Department of Specialized Education
Services)
MS in Human Development and Family Studies
PhD in Human Development and Family Studies

## Kinesiology

MEd in Kinesiology
MS in Kinesiology
(Applied Neuromechanics, Exercise Physiology,
Community Youth Sport Development, Motor Behavior,
Pedagogical Kinesiology, Sport and Exercise
Psychology and Sports Medicine optional concentrations)
MSAT in Athletic Training
EdD in Kinesiology
MS/PhD in Kinesiology
PhD in Kinesiology
(Applied Neuromechanics, Exercise Physiology,
Pedagogical Kinesiology, and Sport and Exercise
Psychology optional concentrations)

## Nutrition

MS in Nutrition
PhD in Nutrition
Public Health Education
MPH in Community Health Education
DrPH in Community Health

## Social Work

MSW in Social Work
(Advanced Standing optional concentration)
(jointly with North Carolina A\&T State University)

## School of Music, Theatre and Dance

## Dance

MA in Dance
(Dance Education, or Dance Theories and Practices
concentration)
MFA in Dance
(Choreography or Design concentration)
Music
MM in Composition Error! Bookmark not defined.
MM in Music Education
MM in Music Performance
(Accompanying and Piano Chamber Music,
Conducting/Choral, Conducting/Instrumental, Early
Keyboard Instruments, Organ, Piano, Piano Pedagogy,
Strings/Winds/Percussion, Vocal Pedagogy, Voice, or
Multiple Woodwinds concentration)
MM in Music Theory
DMA in Performance
(Conducting, Instrumental, or Vocal concentration)
PhD in Music Education
Theatre
MEd in Drama
MFA in Drama
(Acting, Directing, Design or Theatre for Youth concentration)

## Joint School of Nanoscience and Nanoengineering

Nanoscience
Professional MS in Nanoscience
PhD in Nanoscience

## School of Nursing

Nursing
MSN
(Adult/Gerontological Nurse Practitioner-Primary Care, Nursing, Nursing Outreach, Nursing Administration, Nurse
Anesthesia, or Nursing Education concentration)
MSN/MBA in Health Management
(jointly with MBA Program)
PhD in Nursing

## Special Academic Programs

Liberal Studies
MA in Liberal Studies

## Post-Baccalaureate and Post-Master's Certificates

Graduate certificates offer structured and applied instruction directly related to the needs of working professionals. See departmental listings for further details. Post-Baccalaureate and Post-Master's certificates are offered in the following areas:

## College of Arts and Sciences

African American Studies Program
Post-Baccalaureate Certificate in African American Studies

## Geography

## Post-Baccalaureate Certificates

Global and Regional Studies Geography
Urban and Economic Development (jointly with Department of Political Science)

## History/Interior Architecture

## Post-Baccalaureate Certificate

Historic Preservation
(jointly with Department of Interior Architecture)

## Languages, Literatures and Cultures

Post-Baccalaureate Certificate in Advanced Spanish Language and Hispanic Cultural Studies

## Mathematics and Statistics

Post-Baccalaureate Certificate in Statistics

## Political Science

## Post-Baccalaureate Certificates

## Nonprofit Management

Urban and Economic Development
(jointly with Department of Geography)

## Women's and Gender Studies

Post-Baccalaureate Certificate in Women's and Gender Studies

## Joseph M. Bryan School of Business and Economics

## Consumer, Apparel, and Retail Studies

Post-Baccalaureate Certificate in Global Apparel Supply Chain Management
Information Systems and Supply Chain Management
Post-Baccalaureate Certificates
Healthcare Information Technology Management Information Assurance, Security, and Privacy

Information Technology
Supply Chain, Logistics, and Transportation Management
Post-Master's Certificate in Information Technology

## MBA Program

Post-Baccalaureate Certificate in Business Foundations

## School of Education

## Counseling and Educational Development

Post-Master's Certificates
Advanced School Counseling
School Counseling

## Educational Research Methodology

Post-Baccalaureate Certificate in Educational Assessment

## Educational Leadership and Cultural Foundations

Post-Master's Certificates
School Administration
School Administration - Specialized Education
Urban School Leadership and Administration
Library and Information Studies
Post-Baccalaureate Certificate in Special Endorsement for Computer Education
(jointly with Department of Teacher Education and Higher Education)

## Specialized Education Services

Post-Baccalaureate Alternative Initial Teacher Licensure (PAIL)

Post-Baccalaureate Certificate Birth-Kindergarten PB Initial Licensure Certificate (jointly with Department of Human Development and Family Studies)

Post-Baccalaureate Certificate in Leadership in Early Care and Education
(jointly with Department of Human Development and Family Studies)

Teacher Education and Higher Education
Post-Baccalaureate Certificates
Special Endorsement for Computer Education
(jointly with Department of Library and Information Studies)

Teaching English to Speakers of Other Languages
Teachers Academy
NC TEACH Alternative Licensure Program

## School of Health and Human Sciences

## Community and Therapeutic Recreation

Post-Baccalaureate Certificates
Animal Assisted Therapy
Geriatric Recreational Therapy

## Peace and Conflict Studies

Post-Baccalaureate Certificate in Conflict and Peace Studies

## Gerontology

Post-Baccalaureate Certificate in Gerontology
Human Development and Family Studies
Post-Baccalaureate Certificate in Leadership in Early Care and Education
(jointly with Department of Specialized Education Services)

Post-Baccalaureate Certificate Birth-Kindergarten PB Initial Licensure Certificate
(jointly with Department of Specialized Education Services)

## Nutrition

Post-Baccalaureate Certificate - Dietetic Internship
Post-Baccalaureate Certificate - Didactic Program in Nutrition and Dietetics

## School of Music, Theatre and Dance

## Dance

Post-Baccalaureate Licensure in Dance Education

## Music

Post-Baccalaureate Certificates
BioMusic
Composition
Jazz Studies
Music Education
Music Theory
Musicology
Ethnomusicology
Music Theory Pedagogy
(within the PhD or DMA)

## School of Nursing

## Nursing

Post-Baccalaureate Certificates

Gerontological Nursing
Nursing Administration
Nursing Case Management
Nursing Education

## Post-Master's Certificates

Adult/Gerontological Nurse Practitioner - Primary Care
Nurse Anesthesia

## Special Academic Programs

## Liberal Studies Program

Post-Baccalaureate Certificate in Global Studies

## Licensure for Teachers and Professional School Personnel

## Licensure-only Programs

Persons who hold a baccalaureate degree and would like to complete a licensure program in art, birthkindergarten, dance, middle grades, music, secondary theatre, physical education, and education of the deaf should contact the Teachers Academy Licensure Advisor at (336) 334-3415. Persons interested in licensure-only in special education should contact the Department of Specialized Education Services at (336) 334-5843.

## Advanced Licensure

UNCG offers a number of options for advanced study in professional education. Master's degree programs are offered in 26 professional licensure areas, including teaching, school counseling, media, administration, and social work. Several departments offer programs for students who have completed a bachelor's degree but not a professional education program. Students in these programs earn a master's degree along with initial and advanced licensure. Departments also offer master's degrees for students who hold initial teaching licensure but who would like to pursue advanced study in education. Music, School Administration, Special Education, and School Counseling have programs leading to Specialist in Education degrees and/or doctorates. Requirements for each program are aligned with the standards of its professional organization and the State Department of Public Instruction.

Upon completion of their programs, students should download an application for state licensure at www.uncg.edu/ted and submit it to the Teachers Academy, 319 Curry Building.

| Graduate programs for the preparation of teachers and other professional school personnel are approved by the National Council for the Accreditation of Teacher | School Counselor Doctoral Level |
| :---: | :---: |
| Education and the North Carolina State Board of | K-12 Specialties |
| Education, which grants licensure as fo | Music |
|  | Special Education |
|  | Special Service Personnel |
| Master's Licensure ("M") |  |
| Pre-Kindergarten (В-K) |  |
| Elementary Education |  |
| Elementary Math |  |
| Middle Grades Education |  |
| Secondary Education |  |
| Latin |  |
| Mathematics |  |
| Comprehensive Social Studies |  |
| Comprehensive Science |  |
| K-12 Special Subject Areas |  |
| Dance |  |
| French |  |
| Music |  |
| Reading |  |
| Spanish |  |
| Theatre |  |
| English as a Second Language |  |
| Exceptional Children ( K -12) |  |
| Special Education with Licensure in Learning Disabilities or Behavior/Emotional Disabilities |  |
| Special Service Personnel |  |
| Media Coordinator |  |
| Media Supervisor |  |
| School Administrator |  |
| School Counselor |  |
| School Social Work |  |
| Speech-Language Pathology |  |
| Instructional Technology Specialist |  |
| Specialist in Education (EdS) |  |

Special Service Personnel
School Administrator

## APPLICATION, ADMISSION, AND REGISTRATION

## Applying for Admission

All applicants are encouraged to read carefully the Guide for Graduate Admissions published annually by The Graduate School in print and electronic form. The online version is located on The Graduate School's website, grs.uncg.edu. The printed version can be requested on The Graduate School's website. Persons who seek admission to graduate study at UNCG must submit a completed online application, a nonrefundable application fee of $\$ 60.00$ (USD), and the following supporting credentials:

1. One official transcript of the applicant's academic record from every college and university previously attended. If credit from one institution has been transferred to another, a transcript from the original institution is not required. If an applicant is currently enrolled in a degree program and will not graduate prior to an admission deadline, transcripts should be provided that reflect courses in progress. Prior to enrollment, a final, official transcript indicating the degree earned and date of award is required if admitted.

Applicants whose baccalaureate degree is from a college or university outside the United States will be required to submit the transcript to a third party credential evaluation service recognized by UNCG. See Credential Evaluations below.
2. Three letters of recommendation from former professors, employers, or persons well acquainted with the applicant's academic potential.
3. Official copies of GRE scores or results from other authorized examinations as required by the program to which one applies. Scores are valid for five years from the time originally taken.
4. Any additional materials required by the program or department, such as audition, interview, portfolio, resume, writing sample, personal statement, etc. Please refer to the Guide for Graduate Admissions or the departmental/program website for specific instructions and/or requirements.

All credentials must be in English and received by The Graduate School by the posted deadline. International applicants should refer to the following section entitled Additional Requirements for International Applicants. Applicants are strongly encouraged to have recommenders utilize the option to submit letters of recommendation electronically. In addition, copies of official academic transcripts may be uploaded to the application electronically by converting the paper
document to a pdf file and submitting it in the appropriate section of the application. Resumes, personal statements, and requested forms also may be provided electronically by uploading the documents into the application prior to submission. Uploading required credentials and having recommenders provide recommendations electronically speeds the processing of applications. Applicants who cannot utilize these features may submit credentials by mail and are not disadvantaged in the admission process by choosing to do so.

## Application Deadlines

Unless otherwise stated in the Application and Admission section of the appropriate program or the Guide for Graduate Admissions, the application, including supporting credentials, must be received by the following deadlines:
Fall Semester July 1

Spring Semester
October 1

Summer Session
April 1

## Campus Safety

As part of the admissions process, each applicant is required to answer six questions related to campus safety. A "yes" answer to one or more of the questions will not necessarily preclude an applicant being admitted. However, failure to provide complete, accurate, and truthful information will be grounds to deny or withdraw admission, or to dismiss a student after enrollment.

## Additional Requirements for International Applicants

International applicants include citizens or permanent residents of a country other than the United States. International applicants may be in the United States on an educational, worker, or visitor visa, or be residing in their home country. International applicants must submit all application materials as described above. All supporting credentials must be in English and transcripts must be evaluated by one of the suggested third-party credential evaluators.

International applicants on, or intending to be on, an F-1 or J-1 visa are required to certify that they have adequate financial resources to cover the cost of tuition and fees, accommodation and meals, insurance, and other living
expenses. Financial forms and supporting bank/sponsor documents may be downloaded from www.uncg.edu/ipg.

## Application Deadlines

Unless otherwise stated in the Application and Admission section of the appropriate program or the Guide for Graduate Admissions, the application, including supporting credentials, must be submitted by the following deadlines.

Fall Semester
May 15

Spring Semester
September 15

Summer Session
February 15

Deadlines may be extended one month if the international applicant is already in the U.S.

## English Proficiency

Non-native speakers of English must validate proficiency in the English language by one of three means.

1. Submit a satisfactory score on a language proficiency test. If the TOEFL is the chosen test, the minimum required score depends on the form of the exam taken (internet based - 79 or paper based - 550). A score of at least 6.5 is required on the IELTS.
2. Have earned a baccalaureate or graduate degree from an accredited college or university in the United States.
3. Complete INTERLINK, the intensive English language program located on UNCG's campus (uncg.interlinkesl.com).

The English language proficiency requirement may be waived if the applicant is a graduate of a university in a country where English is the official language.

## Credential Evaluations

All supporting credentials must be in English. Applicants must arrange for The Graduate School to receive official or certified copies of transcripts of academic records from every college and university previously attended. Transcripts must be evaluated by a NACES-affiliated credential evaluation service, preferably Educational Credential Evaluators (ECE), Educational Perspectives (EP), International Education Research Foundation (IREF), or World Education Services (WES). The web site should be consulted to determine whether a general or detailed report is required. Graduate students coming to UNCG through exchange programs or through formally established relationships between a foreign university and UNCG are exempt from this requirement. For a transcript
or diploma to be official it must contain the name of the degree and date on which it was awarded.

## Accelerated Bachelor's to Graduate Degree Program (ADP)

The Accelerated Bachelor's to Graduate Degree Program (ADP) is designed to provide a more efficient means to obtain a graduate degree. The program is for students who have a high GPA and want to start taking courses that will count towards both their undergraduate and graduate degrees. The University benefits from retaining its best students for advanced study and students benefit from the shortened time to degree.

The ADP allows a student to begin accumulating credits towards completion of a graduate degree while still enrolled as an undergraduate. Undergraduates participating in this program are given an early decision on their graduate application pending successful completion of the baccalaureate and are allowed to take specified graduate level courses during the spring semester of their junior year and/or during their senior year.

A maximum of 12 graduate credits taken during their undergraduate career may be applied towards completion of their graduate degree as long as the following criteria are met:

1. The courses must be appropriate to attain the necessary competencies for the graduate degree,
2. The student must earn a grade of "B" (3.0) or better in each course,
3. The courses must be at the 500-level or above, and the student must fulfill the graduate level requirements of those courses.

These graduate-level courses will count towards the baccalaureate degree and the graduate degree, and the grades will be recorded on the undergraduate transcript and later on the graduate transcript. The Graduate School will authorize the acceptance of this credit on the student's graduate record after the student has completed the undergraduate degree and has been admitted to the graduate program.

Individual programs that adopt this policy may elect to accept fewer than 12 graduate credit hours to be applied towards completion of both their baccalaureate and graduate degrees. In no circumstance may the number of ADP credits exceed 12 credit hours.

Academic units interested in participating in the ADP must provide a proposal to both the Undergraduate Curriculum Committee and the Graduate Studies Committee that indicates how the necessary courses will be incorporated into this accelerated program. Specific graduate courses (some may be at the 500 level) must be identified for the
accelerated program rather than permitting the selection of electives.

## Admission Procedure

Participation in the ADP by any academic unit is optional. Each academic unit will develop admission criteria based on the following guidelines:

1. Minimal criteria for admission will include a cumulative undergraduate GPA of at least 3.5 based on at least 30 hours earned at the University of North Carolina, Greensboro (UNCG), and any additional criteria as determined by the academic unit.
2. The undergraduate student may not apply for admission to the ADP before the first semester of the junior year and must have completed at least 60 semester credits.
3. The student must apply for admission to the ADP through The Graduate School. This admission, if approved, will include admission to the graduate degree granting academic unit after the baccalaureate degree is awarded. After admission into the ADP, the student will be identified as having ADP status through a student group within the records management system.
International students who are admitted into the ADP will work with The Graduate School and the Office of International Affairs in order to apply for a visa extension.

## Academic Advising and Records

Academic units that want to participate in the ADP will develop a clear admissions and advising process for the ADP. The academic unit will send an admitted student a letter listing both the undergraduate and graduate courses from which he or she may compose a program of study. A copy of this letter will be placed in the student's graduate record and will be provided to the student's undergraduate school/college.
In departments where a formal ADP arrangement does not exist, a student may petition the department to offer an individualized ADP. In such cases at the discretion of the department, the student may be granted permission to negotiate an individualized ADP that is within the framework of the existing guidelines. The individualized ADP must be approved by both the department Director of Undergraduate Study and Director of Graduate Study, and then be submitted to The Graduate School. All students must submit the Request for Accelerated Degree Program to the Graduate School and must simultaneously apply for admission to the appropriate graduate degree program.
To avoid losing eligibility for financial aid as an undergraduate student, ADP students should work with their advisers and develop individual graduation plans
showing that the courses taken at the graduate level will meet requirements in their bachelor degree program.

## Program Requirements

A student admitted into the ADP will complete up to twelve graduate credit hours that can be applied toward the undergraduate degree during the second-semester junior and senior year. Following admission to the graduate program, those courses may be transferred into a graduate program. While an undergraduate, the student must enroll for graduate credit but will pay the appropriate undergraduate tuition for the specified graduate courses. Differential tuition fees will apply for those courses in programs that have been approved for these special fees.

Only courses in which a " $B$ " or above have been earned will be transferred into the graduate program of study. Students who complete the undergraduate degree may claim their status as graduate students (with the appropriate graduate credit) in the next semester or session after receiving the bachelor's degree. Students who have completed the ADP will have it noted on their transcript as part of their concentration code.

Admission to the ADP is a promise of formal admission to the Graduate School and the academic unit after completion of the bachelor's degree. Students will not be required to take the GRE or other entrance examination unless stipulated by the department for the ADP. ADP students will still be considered undergraduate students until the baccalaureate degree is officially awarded. At that time, those students will be formally admitted into the Graduate School, and the credits will then be moved from their undergraduate career into their graduate career.

## Admission

Each application to The Graduate School will result in one admission decision. Applicants are notified of offers of admission by letter from The Graduate School. Successful applicants are offered full graduate admission or provisional admission for a specific program in a specific term. If the admitted applicant does not register for the term specified in the admission letter, the admission may be subject to subsequent review.

Students may not be admitted to and graduate from the same degree or certificate program in the same academic term.

## Full Graduate Admission

All applicants must have obtained the following:

1. A bachelor's degree from an accredited college or university or appropriately-evaluated credentials for non-U.S. schools.
2. Satisfactory academic standing as an undergraduate: "B" (3.0 GPA) average or better in the undergraduate major and in courses prerequisite to the proposed graduate study.
3. Approval of the academic department in which the graduate student will major. (Assumes an undergraduate major appropriate to the proposed graduate study.)
4. Satisfactory scores on the Graduate Record Examination (GRE) (verbal, quantitative, and analytical writing) or other authorized examination as required by the respective graduate degree programs.

## Provisional Admission

Promising applicants who hold a baccalaureate degree but do not meet the formal requirements listed above may be granted provisional admission. Full graduate standing is granted when these students satisfactorily complete prescribed courses or otherwise remove deficiencies. They must meet any special conditions attached to their admission, by either The Graduate School or their major department, no later than upon the completion of 15 semester hours of graduate credit.
Among provisionally admitted applicants may be the following:

1. Applicants with a bachelor's degree from a nonaccredited institution.
2. Applicants with a bachelor's degree from an accredited institution who lack undergraduate work considered essential for graduate study.
3. Applicants whose scholastic records are below admission standards but who show promise for success.

A graduate student admitted provisionally is not eligible for appointment to an assistantship or fellowship until full graduate standing is achieved. Provisionally admitted students will have specifically stated conditions that must be met to progress in the program. Provisionally admitted students who are dismissed for failing to meet the provisions of their admission will be eligible to submit a new application to The Graduate School after two semesters or the equivalent and may be admitted only upon the recommendation of the major department Head or Director of Graduate Study and with the approval of the Dean of The Graduate School. While on academic dismissal, students are not eligible to take courses through the VISIONS program.

## Deferral of Admission

Graduate admission to a degree or certificate program may be deferred for a maximum of one year from the initial term of admission. The student is responsible for contacting the department to determine if admission for subsequent terms is allowed.

To request a deferral of admission, admitted students must submit a completed Deferral of Admission Form found at to the admitting department's Director of Graduate Study no later than the first day of classes of the term of initial admission. The deferral request must be for a specific term and may not exceed one year from the original term of admission. After considering the request, the department will forward the form to The Graduate School for processing and The Graduate School will notify the student of the decision. Merit-based financial aid (teaching/research assistantships, scholarships, and fellowships) will not be deferred and the student must compete again for the awards for the term of deferral (if approved).
Students who have not enrolled after one year and have not requested a deferral of admission will be required to reapply.

## Registration

Dates for registration periods for each semester are published in the University's Academic Calendar, pages 23 of the Graduate Bulletin, and on the University Registrar's website (www.uncg.edu/reg). Registration at UNCG is an automated process conducted online through UNCGenie.

Prior to the assigned registration access window, all new and continuing students will receive an email from the University Registrar's Office. The email will be sent to the @uncg.edu address and will contain the method to request a randomly assigned personal identification number (PIN). The email may also include a preassigned advising code; however, in certain programs students must see their advisors to obtain advising codes.

Continuing students who do not pre-register for the next semester during the Early Registration periods in November (for spring semester) and in April (for summer/fall semester) will be required to pay a late registration fee.

## Immunization Clearance

Students who have been admitted to UNCG are required by North Carolina State law to submit an immunization form with appropriate verification of immunizations. This form is available online and must be satisfactorily completed and returned to Student Health Services.

Failure to comply with this requirement within 30 calendar days from the first day of each semester will result in the student's being administratively withdrawn from the University.
Students registered for four hours or less, or enrolled in only evening classes, are exempt from this requirement. If enrollment status changes (e.g., enrolled for more than four hours or daytime classes), students should consult with Student Health Services.

This requirement applies to all students, regardless of whether they are part-time or full-time. Students subjected to an administrative withdrawal for failure to comply with medical clearance requirements are entitled to a refund, subject to the guidelines of the University's Refund Policy (p.452) (see the section on Tuition and Fees (p. 450)).

## Bryan Prelude

The Bryan Prelude program is a non-degree status designed for individuals who wish to explore a potential degree program in Business Administration (MBA), Information Systems and Operations Management (MSITM), or MS in Accounting. Admitted applicants to the Bryan Prelude may enroll in select courses as outlined in the course requirements listed below. The abbreviated application is found on-line under the Bryan Prelude program listing. Participants in the Bryan Prelude program must apply each semester in which they intend to enroll by using the online application. A $\$ 25.00$ non-refundable fee is charged each semester an application is submitted.
Bryan Prelude students who subsequently are admitted and enrolled in the Master of Business Administration, the Master of Science in Information Technology \& Management (MSITM), or the Master of Science in Accounting program may include no more than 6 hours of graduate level coursework earned while enrolled in the Bryan Prelude program. Bryan Prelude courses taken in preparation for the Bryan MS in Accounting are intended for individuals whose undergraduate degree is not in accounting and who wish to take undergraduate-level, prerequisite coursework for the Bryan MS in Accounting.

## Requirements for Admission

Admission to the Bryan Prelude program is selective. To be considered all applicants must meet the following minimum standards: (1) an official undergraduate transcript, verifying an earned baccalaureate degree from an accredited college or university with an undergraduate grade point average of 3.00 or higher (on a 4.00 scale); (2) a clearly articulated statement of purpose indicating degree program interest; (3) a current resume.

A combination of work experience and education could on rare occasions possibly substitute for GPA requirements. Personal statement of interest and resume are not
required for prerequisite, undergraduate accounting courses taken in preparation for the Bryan MS in Accounting.

## Course Offerings

Students admitted to the Bryan Prelude program may enroll in the following courses. Course selection and sequence is determined by applicant designation of interest in the MBA, MSITM, or MS in Accounting program.
For Business Administration
MBA $701 \quad$ Quantitative Analysis for Decision Making

MBA $702 \quad$ Financial and Managerial Accounting
MBA 703 Economic Policies and Impact on Global Outcomes

MBA $706 \quad$ Marketing Management
MBA $710 \quad$ Ethical Leadership and Sustainable Business

For Information Technology and Management
The following courses are recommended for students applying to MSITM without a business background. These are prerequisite courses and cannot be applied toward the master's degree:

ACC 202 Managerial Accounting
SCM 302 Operations Management
For Accounting
The following prerequisite courses are recommended for students applying to Accounting without a baccalaureate in Accounting. These courses cannot be applied toward the master's degree:

| ACC 202 | Managerial Accounting | 3 |
| :--- | :--- | :--- |
| ACC 218 | Financial Statement Preparation and | 3 |
|  | Disclosures | 3 |
| ACC 318 | Intermediate Accounting I | 3 |
| ACC 319 | Intermediate Accounting II | 3 |
| ACC 325 | Accounting Transaction Processing | 3 |
| ACC 330 | Systems | 3 |
| ACC 420 | Cost Accounting | 3 |
| ACC 440 | Federal Tax Concepts | 3 |

For additional information on these courses along with potential undergraduate course prerequisite options, see the Bryan Prelude web-site.
Academic Eligibility to Continue in the Graduate School

Bryan Prelude students will become academically ineligible to continue in The Graduate School under any of the following circumstances:

When grades of $\mathrm{U}, \mathrm{F}$, or WF (or D in an undergraduate course) are received in any 6 semester hours.

When Grades of $\mathrm{C}+$ or C are received in 9 semester hours of any course work taken (graduate or undergraduate).
When any grade of $U, F$, or WF (or $D$ in an undergraduate course) is received in combination with 6 semester hours of $\mathrm{C}+$ or C grades.

## Visiting and Non-degree Seeking Students (VISIONS)

Visiting and non-degree seeking students who wish to pursue graduate studies for personal enrichment, professional knowledge, renewal of licensure, or any other reason are categorized as VISIONS students and must hold a baccalaureate degree from a recognized accredited college or university. A $\$ 25.00$ non-refundable fee is charged each semester a VISIONS enrollment form is submitted.

## VISIONS students are not eligible for financial aid.

Individuals who are permitted to enroll at the University as VISIONS students may take courses numbered 100-749 that have not been restricted by the departments (see The Graduate School Bulletin and the Schedule of Courses). Students wishing to enroll in graduate courses in the Department of Art or the Bryan School of Business and Economics must obtain permission from the appropriate graduate program director. Visiting students who wish to enroll in MBA classes must provide a letter of good standing, signed by the dean of their graduate program, prior to registration. With the instructor's approval, VISIONS students may submit a written petition to the Director of Graduate Study or the Department Head to enroll in a restricted course; however, independent study is reserved for only degree seeking students. Graduate credits earned as a VISIONS student may be applicable to a graduate degree. Should a VISIONS student wish to apply for admission to The Graduate School, subject to the written recommendation of the major department and the approval of the Dean of The Graduate School, up to nine (9) semester hours of such credit may be accepted toward a degree and up to three (3) semester hours of such credit may be accepted toward a certificate. Credit earned must fall within the timeline for completing the degree.

## Public School Personnel

Public school teachers and administrators who wish to take courses solely for licensure renewal credit may do so as VISIONS students. If, however, credit is to be applied
to a graduate degree, the student must submit an application to The Graduate School before the completion of the course and meet all requirements for full admission as a graduate degree student.

## Dual Registration

Undergraduate students at UNCG who plan to undertake graduate study at UNCG and who need no more than 12 semester hours of work to fulfill all requirements for the bachelor's degree, may enroll in The Graduate School. Total graduate credit obtained in this dual status may not exceed 12 semester hours. Courses at the 600 level or above are applied to the graduate degree only. Students must apply for admission to a graduate program before requests for dual registration can be approved but do not have to be formally admitted until the end of the semester in which credit is earned. For dual registration status, the approvals of The Graduate School, the University Registrar's Office, and the student's major advisor are required. Contact the University Registrar's Office (336-334-5946) for more information.

Approval for dual registration does not guarantee or constitute acceptance into any graduate program.

## Cross Registration

Students taking courses through an interinstitutional agreement must meet the standards for participation in the program as set by their home institution, including the transfer credit policies of The Graduate School, and must follow the rules and policies of both campuses. Students must be registered for at least half of their hours at UNCG the same semester in which they register through either the Interinstitutional or the Consortium agreement. Under Interinstitutional Registration and the Greater Greensboro Consortium, enrollment and payment of tuition and fees take place on the home campus. Students must pay the appropriate tuition and fees to the visited institution when participating in the UNC Online Interinstitutional Agreement. Application forms and information are available at The Graduate School and the University Registrar's Office. Unlike other courses accepted for transfer, grades received through an interinstitutional course are recorded on the student's UNCG transcript and calculated into the student's overall GPA.

The Graduate School participates in the following three interinstitutional agreements.

## Interinstitutional Registration

The Interinstitutional Registration program with North Carolina State University, University of North Carolina at Chapel Hill, University of North Carolina at Charlotte, North Carolina Central University, and Duke University allows degree-seeking graduate students at UNCG, with the approval of the Dean of The Graduate School and
upon recommendation of their advisors, to take courses at one of the above campuses. Eligible courses are limited to traditional, campus-based courses. Distance learning, extension, and online courses are not eligible.

## UNC Online Interinstitutional Agreement

The UNC Online Interinstitutional Agreement allows degree-seeking graduate students at UNCG, with the approval of the Dean of The Graduate School and upon recommendation of their advisors, to take online courses at the 15 other UNC system schools. Students must pay the appropriate tuition and fees to the visited institution. Requests should be submitted through The University of North Carolina Online web site online.northcarolina.edu/index.php.

## Greater Greensboro Consortium

Through membership in the Greater Greensboro Consortium (GGC), UNCG also participates in an openaccess agreement with North Carolina Agricultural and Technical State University, located in Greensboro, whereby degree-seeking students enrolled at UNCG may take courses at NC A\&T upon recommendation of their advisors and with the approval of the Dean of The Graduate School. Eligible courses are limited to traditional, campus-based courses. Distance learning, extension, and online courses are not eligible.

## Distance Learning/Off-Campus Credit

Most off-campus and distance education courses are classified as "distance." Distance learning courses are identified in UNCGenie by having " $D$ " or " $X$ " suffixes on the section number and in the campus code field and are managed through the Division of Continual Learning. These courses carry residence credit for students admitted to UNCG.
In Fall and Spring semesters graduate students taking 9 or more main ( M ) campus hours may take as many online distance (D) courses as their schedule will allow. (Effective Fall 2011).
Students wishing to take off-campus or distance learning courses should contact the Division of Continual Learning. Academic credit cannot be applied to degree requirements until the student is fully admitted to UNCG as a degree-seeking student.

## Auditing

Auditing a course is the privilege of being present in the classroom when space is available. No credit is involved, no examinations are required, no grades are reported, and no computer access is available. Attendance, preparation, and participation in classroom discussion and activities are at the discretion of the department and the instructor. The deadline to register for an audit course or
to change an audit course to credit is the last date courses can be added as specified in the official academic calendar. A UNCG student who is registered for 12 hours or more may audit one course per semester without charge. A UNCG student who is registered for less than 12 hours may audit no more than two courses per semester. For auditing fees, see the section on Special Fees under Auditing Fees. (p. 455)

## ACADEMIC REGULATIONS

## General Information

## Semester Hours

The unit of academic work is the semester hour, defined as one 50-minute lecture period (or at least two such periods of laboratory or field work) per week throughout one semester.

## Course Loads

Graduate students are considered full-time if enrolled in at least 6 semester hours per semester. Graduate students holding assistantships are restricted in course load depending upon the extent of their service.

## Pursuing Multiple Programs

Students may pursue only one degree program of a given level at a time. Graduates who have been awarded a degree by UNCG will not be able to convert that degree to another if later the name of the degree is changed.
Students may pursue one or more graduate certificates simultaneously with a graduate degree program.

## Policy on Continuous Enrollment

Pursuit of a graduate degree should be continuous. Students pursuing a graduate degree program should normally be enrolled each Fall and Spring semester, or one semester during the academic year in combination with Summer Session, for course work that is approved for their program of study and selected in consultation with the departmental Director of Graduate Study.

The policy on continuous enrollment normally requires that a student be enrolled continuously, as defined above, from the time of entry into a graduate degree program through the completion of all required course work, including the required hours of 699 and 799. Students who have already enrolled in the maximum number of 699/799 hours but who have not yet completed the requirements for thesis/dissertation are required to enroll in additional course work as described below.

Students completing their thesis or dissertation must enroll in and pay tuition and fees for not less than one nor more than three hours of thesis/dissertation extension credit each semester, after consultation with and approval by their faculty advisor. These hours will not count toward the degree. Students required to enroll in additional hours to complete their master's thesis will enroll in departmental 801 (example: ART 801-Thesis Extension), and doctoral students completing their dissertation will enroll in departmental 802 (example: ENG 802-

Dissertation Extension). All thesis and dissertation students must be enrolled in thesis/dissertation preparation (699/799) or the thesis/dissertation extension courses (801/802) for credit during the semester in which they complete their graduate work and are scheduled to receive their degrees.

A graduate student who has been admitted with full graduate standing to a graduate degree program but has not completed any 500-level or above courses at the University for two consecutive semesters (or a semester and Summer Session) is considered to have withdrawn from the curriculum. The student will be required to file an application for readmission to The Graduate School to resume the course of study. A student who withdraws will be required to comply with regulations and requirements in effect at the time of readmission to The Graduate School.

Students in planned summer-only programs of study should maintain annual summer session patterns of enrollment and course completion throughout the program of study for the degree.

## Leave of Absence

The University of North Carolina at Greensboro supports a leave of absence policy to assist graduate students who are temporarily unable to continue their programs. The leave of absence may extend for up to one academic year. Acceptable reasons for requesting such a leave usually include military service, bereavement, illness, care giving, maternity, and paternity. Students requesting a leave of absence must submit an application to their department/school/unit chairperson or director.

## Preparing the Application for Leave of Absence

In consultation with the supervising faculty member, the Application for Leave of Absence form is to be completed by the student, and signed by both the student and the advisor or supervising faculty member. The application is to be submitted to the chairperson/director for review and signature before being forwarded to the Dean of the Graduate School. Whenever possible, application should be made in advance of the anticipated leave or as soon as possible after commencement of the leave. Whenever possible, it is helpful if the commencement and termination of the leave coincides with the beginning of a semester or session.
It is the student's responsibility to ensure that the proposed leave is compatible with the regulations of any granting agency from which funding would normally be received during the leave period and that such agencies are informed of the proposed leave. Students on student
loan programs should clarify the consequences that such a leave may have on their repayment status. International students are advised to consult with the Office of International Students regarding their immigration status during a proposed leave.

Students granted a leave of absence will have their time-to-completion of degree extended by the amount of time granted in the leave of absence. The continuous enrollment policy will also be held in abeyance during this time.

Graduate student appointees who are granted a leave of absence will have their salary and stipend suspended during the period of their leave. If feasible, the remainder of their appointment will be held for them upon their return to the next term. In the event that a student appointee and chairperson/director disagree on the leave or its arrangements, students may appeal to The Graduate School. See Appeals Procedure.

## Readmission

A student who fails to enroll in courses for more than one semester without an official leave of absence must file an application for readmission and pay the $\$ 60.00$ application fee.

## Grades

Beginning with courses taken in Fall 2004, plus/minus grades are incorporated into the GPA for all graduate level courses according to the following scale:

| Grade | Grade Points Awarded Per Hour of Credit |
| :--- | :--- |
| A | 4.0 |
| A- | 3.7 |
| B+ | 3.3 |
| B | 3.0 |
| B- | 2.7 |
| C+ | 2.3 |
| C | 2.0 |
| F/WF | 0.0 |
| NR | 0.0 |

- Grades of NR, not reported, are assigned in instances in which the instructor does not report a grade and the semester has officially closed.
- Grades of S, satisfactory, or U, unsatisfactory, are reported on all workshops and institutes, and certain seminars, field projects, internships, practica, music groups, and others.
- The grade point average is determined by dividing the accumulated number of grade points earned by the accumulated number of semester hours undertaken. Hours attempted but not passed must be included in this calculation. Courses graded $S / U$ and courses transferred from another institution (except those courses taken through cross registration) may not be used in determining the UNCG grade point average.
- If a student receives a course grade other than Incomplete (I) and later submits additional work (whether that work is specified in the syllabus or not) after grades are posted, this work cannot be used as a basis for changing the assigned grade. Except for independent study or where specific provision is made in the course description, no student may repeat for credit a course for which he/she has earned credit. If a student repeats such a course, the grade will be recorded on the transcript, but no additional credit will be allowed toward graduation or toward the grade point average. A failing grade remains on the student's academic record permanently.


## Withdrawal

Graduate students who must withdraw from the University may do so by dropping all courses online through UNCGenie until the last day to drop without academic penalty. Students whose registration for all courses is cancelled must seek reactivation or readmission through The Graduate School to return to school in subsequent terms. After the deadline to withdraw without penalty, and no later than the last day of classes, a W may be granted only with the permission of the Dean of The Graduate School and if status in the course at the time of withdrawal is satisfactory. If the student is in failing status at the time of withdrawal, a grade of WF is given. A course abandoned with insufficient reason for withdrawal is assigned the grade of $F$. In certain cases, faculty may initiate the withdrawal procedure for cause.

## Incomplete

The symbol I indicates inability, for reasons beyond the student's control, to complete course requirements by the end of the term in which the course was offered. The I may be removed by completion of the deferred requirements within six months from the last day of examinations in the term in which the course was taken. An I not removed within this time limit automatically becomes an F. A grade of I on any course, including work
not required for the student's program, must be removed before graduation. A grade of I cannot be removed with a grade of W.

In the case of a thesis, master's production, or dissertation in progress, a grade of IP (in progress) will be recorded each semester of registration for credit until completion of the thesis, master's production, or dissertation, when a final grade of $S$ (satisfactory) will be assigned. Extension of thesis, research extension, and extension of dissertation courses also may be graded with IP on a limited basis, but faculty advisors may be required to provide documentation of the student's satisfactory progress toward completion of the program.

## S-U Courses

Grades for the following courses are reported as S , satisfactory, or U, unsatisfactory:

- All Practicum and Internship courses in Education and Library and Information Studies
- All Workshops and Institutes
- All thesis and dissertation courses $(699,799)$
- All 800 -level courses $(801,802,803)$
- Other courses as indicated in the departmental listings.


## Appeal of Grades

A current student may appeal a grade within 90 calendar days of the date the grade was posted. The process of appeal must adhere to the following steps. An informal complaint is initiated by the student with the instructor assigning the grade. If the instructor endorses the change, the department/program head must also review the request. If approved, a Grade Change is initiated. If the informal appeal is not endorsed at the department/program level, the student may initiate a formal appeal. See Appeals Procedure.

## GPA Requirement for Graduation

For the completion of graduate programs, the overall GPA for graduate courses taken at UNCG must be at least 3.0. Additionally, the overall GPA for all courses included on the student's final Plan of Study must be at least 3.0. A GPA of 3.0 or better may be required in the major field at the option of the major department.
In the case of a student who has attempted the minimum number of semester hours for the degree or certificate without achieving the required GPA, the Dean of The Graduate School, upon the recommendation of the department, may permit the student to continue. If permission is granted, a maximum of $25 \%$ of the course work hours required for the program may be added to the
plan of study, not to exceed 12 hours. The additional hours may not be independent study.

## Academic Eligibility to Continue in Graduate School

Persons enrolled in The Graduate School are regarded as members of the student body of The University of North Carolina at Greensboro and are held responsible for conducting themselves in conformity with the moral and legal restraints found in any law-abiding community. Continued enrollment in The Graduate School is at all times subject to review of the student's academic record and of the student's actions with regard to observance of University rules and regulations.

## Degree Programs

Fully admitted students will become academically ineligible to continue in The Graduate School under any of the following circumstances:

1. Grades of $U, F$ or $W F$ are received in any 6 semester hours.
2. Grades of $\mathrm{C}+$ or C are received in 9 semester hours.
3. Any grade of $U, F$ or $W F$ is received in combination with 6 semester hours of $C+$ or $C$ grades.

## Certificate Programs

Fully admitted students in Post-Baccalaureate and PostMaster's Certificate programs will become academically ineligible to continue in an approved certificate program under any of the following circumstances:

1. Any grade of $U, F$, or $W F$ is received.
2. Grades of $\mathrm{C}+$ or C are received in more than 3 semester hours.

## Readmission after Academic Dismissal

A fully admitted student who is dismissed for academic reasons will be eligible to submit a new application after two semesters or the equivalent and may be admitted only upon the recommendation of the major department head or Director of Graduate Study and with the approval of the Dean of The Graduate School. While on academic dismissal, students are not eligible to take courses through the Visions program. The policy on Academic Eligibility to Continue in Graduate School does not apply to provisionally admitted students. See Provisional Admission.

## VISIONS Program (Visiting Students)

VISIONS/visiting students will become academically ineligible to continue in The Graduate School under any of the following circumstances:

1. When grades of $U, F$ or $W F$ (or $D$ in an undergraduate course) are received in any 6 semester hours.
2. When grades of $\mathrm{C}+$ or C are received in 9 semester hours of any course work taken (graduate or undergraduate.
3. When any grade of $U, F$ or $W F$ (or $D$ in an undergraduate course) is received in combination with 6 semester hours of $C+$ or $C$ grade.

## Denial of Enrollment

UNCG reserves the right to deny enrollment of any student, even though the student has met the minimum grade point average required, if it is apparent from the student's academic record that the student will not be able to meet the graduation requirements.

## Appeal of Regulations

An appeal (see Appeals Procedure) of the application of a rule or regulation must be made by the student within 90 calendar days as determined by the date of the letter from The Graduate School informing the student of the decision in question.

## Appeals Procedure

## Applicability

This section applies when a student wants to appeal a final course grade that has been recorded by the Registrar on the student's academic record or when a student wants to appeal the application of a Graduate School regulation.

## Criteria for Appeals

1. Grade Appeals

A currently enrolled student may appeal a grade within 90 calendar days of the date the grade was posted.

A grade appeal under this policy may be based on one or more of the following criteria:

- The grade(s) was/were calculated in a manner inconsistent with University policy, the syllabus, or changes to the syllabus.
- The grade(s) was/were erroneously calculated.
- Grading/performance standards were arbitrary.
- The instructor failed to assign or remove an Incomplete ("।") or to initiate a grade change as agreed upon with the student.

A grade appeal cannot be made in response to a grade penalty assessed as a result of a violation of the Academic Integrity Policy.
2. Regulation Appeals

A currently enrolled student may appeal the application of a Graduate School regulation within 90 calendar days from the date of the letter from the Graduate School informing the student of the decision in question.

A regulation appeal under this policy may be based on one or both of the following criteria:

- The regulation(s) was/were applied in a manner inconsistent with University policy, the syllabus, or changes to the syllabus.
- The regulation(s) was/were arbitrarily or unequally applied.


## Informal Procedure

Before initiating a formal appeal, a student is encouraged to initiate discussions with the instructor or, in the case of an appeal of regulations, with a Graduate School official. A written appeal is not necessary in the informal stage. During the informal procedure, the student discusses the appeal with the instructor or Graduate School official. Such meetings often help students understand the practices of instructors and other Graduate officials and often lead to resolution of disputes with students. If the instructor endorses the change, the department/program head must also review the request. If approved a Grade Change is initiated. In the case of an informal appeal of regulations, the Graduate School official will forward recommendations to the Dean of the Graduate School for a final decision.

## Formal Procedure

If there is no resolution at the informal stage or the student wishes to pursue a formal appeal, the following processes must be followed:

1. Step 1 - Written appeal and conference with the department/program head: Under Step 1, the student must submit a written appeal to the department/program head. The formal letter must identify the basis of the appeal and must state in detail the applicable criteria for the appeal and why the student believes that the grade should be changed or the regulation should not be applied against the student.

The department/program head reviews the written appeal and uses normal administrative methods to learn of the facts and make a decision regarding it. Within a reasonable time, normally no longer than fifteen (15) calendar days, the department/program head sends a written response to the student, with a copy to the instructor or Graduate School official. The Step 1 response shall include a recommendation of whether or not the instructor should re-evaluate the student's work in the course(s) or the application of the regulation against the student should be reevaluated. The department/program head cannot change the student's grade without the instructor's agreement. The instructor will determine if a grade change is warranted, and if so will submit a Grade Change.
The granting of exceptions to Graduate School regulations must receive the approval of the Graduate Dean. Therefore after approval of the exception by the department/program, the appeal must be sent to the Graduate Dean for consideration.
2. Step 2 - Appeal to The Graduate Studies Committee: If the student is not satisfied with the outcome at Step 1, the student may proceed to Step 2. The final date to initiate the Step 2 appeal is fifteen (15) calendar days after the student receives a response under Step 1. Failure to observe this time frame will result in a waiver of the right to proceed to Step 2.

Under Step 2, the student sends a copy of the formal appeal request and the decision of the instructor/Graduate School official from Step 1 to the Dean of the Graduate School. If the student attempts to raise a new basis for an appeal after the original appeal at Step 2, he/she must present a new appeal under Step 1.

The Dean of the Graduate School will transmit the appeals materials to the Chair of the Graduate Studies Committee and will send a copy of it to the Dean of the student's academic unit as notification of a pending grade appeal.
After conferring with the Chair of the Graduate Studies Committee, the Dean of the Graduate School will notify the student, the instructor, and any witnesses who will be needed, of the time and place of the hearing. Each party shall be notified at least fifteen (15) calendar days in advance of the scheduled date of the hearing.

## Conduct of the Hearing

The Chair of the Student Affairs Subcommittee of the Graduate Studies Committee has responsibility for ensuring that the proceedings are conducted in an orderly and fair manner. The Dean of the Graduate School may be present during the hearing but will not take part in the questioning of witnesses or deliberations. The Dean may,
however, provide a brief impartial overview of the appeal at the beginning of the hearing. The Dean's statement shall be limited to a summary of the facts and issues present in the appeal and shall not include any opinions regarding the appeal. All evidence including personal testimony will be heard by the Committee in the presence of the student, the instructor, and/or the Dean of the Graduate School or his or hers designee. Since the hearing is a normal part of the educational process and not a legal proceeding, neither the student nor the university shall have an attorney present. Following the presentations, the Subcommittee members will have an opportunity to ask questions of the presenters and witnesses. The student, the instructor, and/or appropriate representatives will have reasonable time, as determined by the Subcommittee Chair, to question witnesses and respond to evidence. At the completion of the questioning all presenters, witnesses, and the Dean, will leave the room and deliberation by the Subcommittee will begin.

At the conclusion of the hearing, the Chair of the Student Affairs Subcommittee of the Graduate Studies Committee will prepare a report describing the facts of the appeal as determined by the Committee after hearing the evidence and the Committee's recommendations for the action which should be taken. The Chair of the Subcommittee will send the report within fifteen (15) calendar days, to the Dean of the Graduate School.

## Final Decision

The Dean of the Graduate School has responsibility under this policy to make the final University decision in Graduate School appeals, subject only to the authority of the Chancellor. The Dean's decision will be communicated to the student and the instructor/Graduate School official within a reasonable time, normally no more than fifteen (15) calendar days, after receipt of the report from the Committee.

## Applying for Graduation

Students must formally apply for graduation to The Graduate School by the end of the first week of classes during the term in which they plan to graduate. Degrees are awarded at the end of each semester and the second summer session (i.e., in December, May, and August). Diplomas and transcripts of students owing money to the university will be withheld until the account is cleared. Students may not be admitted to and graduate from the same degree or certificate program in the same academic term.

Students who do not apply for graduation before the published deadline for any semester may apply for graduation during the next semester. Students who have applied for graduation but fail to meet the requirements must reapply for graduation by the published deadline for the semester in which they will fulfill the requirements.

Degrees are conferred only after all requirements are completed and the Board of Trustees has taken official action.

## Commencement Participation Policy

Students completing all degree requirements by the end of the spring semester are encouraged to participate in the May Commencement ceremony. Students completing all degree requirements by the end of the fall semester are encouraged to participate in the December Commencement ceremony. Students completing all degree requirements by the end of the Summer Session may participate in either the May or December Commencement ceremony by applying to graduate, paying the graduation fee, and notifying The Graduate School. Degree candidates will not earn degrees nor be graduated from the University until they have completed all degree requirements. Participation in a commencement ceremony does not presume graduation from the University.

Only those doctoral candidates whose degree requirements are completed by the established deadlines (see the Academic Calendar) are authorized to participate in the University's formal December or May Commencement ceremony.

## Continual Learning

Through the Division of Continual Learning, The University of North Carolina at Greensboro offers graduate credit as well as a variety of special programs that extend its academic resources to meet professional and personal learning needs of individuals. These programs may be offered on or off campus and include regular University academic credit and non-credit courses in formats such as shortened courses, workshops, institutes, conferences, teleconferences, and distance learning.
The State requires that non-credit programs and selected credit courses such as Study Abroad be self-supporting; therefore, fees are assessed for the cost of such programs. Other academic credit courses or programs are assessed according to a tuition and fee schedule established by General Administration of The University of North Carolina.
Graduate credit for academic courses completed through UNCG Division of Continual Learning (distance learning) can be applied to a degree at UNCG only if the student has been admitted to The Graduate School before the completion of 9 cumulative semester hours of credit. Students wishing to include distance learning work in their program should consult their advisors.

## Independent Study

Independent study is reserved for certificate or degree seeking students. VISIONS/visiting students are not
eligible to register for independent study. To be eligible for independent study, a student must have completed several regular courses of graduate work and attained at least a 3.0 average. Students may not register for independent study as a substitute for existing courses. Registration for independent study must have the approval of the instructor, the department head or dean, and the Dean of The Graduate School.

## Post-Baccalaureate and Post-Master's Certificate

students may count no more than 3 semester hours of independent study toward certificate requirements.

Master's students may register for no more than 3 semester hours of independent study per semester and may count no more than 6 semester hours of independent study toward satisfying the minimum requirements for the master's degree. At the discretion of the department, MFA students may earn up to a maximum of $20 \%$ of their required hours as independent study credits.

Doctoral students may count no more than 15 semester hours of independent study toward degree requirements.

## Summer Session

The University operates a Summer Session with classes beginning on a schedule of varying dates throughout the summer, thus enabling students to pursue a program of study best suited to their needs. Courses are open to graduate students desiring credit towards their advanced degree, certificate, or renewal of their teaching licensure. Special workshops and conferences enrich the opportunities for Summer Session study. A normal course load is six credit hours per five week session.

Students whose programs require that specific faculty members be available to them should determine that these faculty members will be on campus during the summer.

## Student Responsibilities

Each graduate student's program is planned with an advisor who is a graduate faculty member appointed by the department head or dean. The advisor interprets departmental requirements and arranges an orderly sequence of activities for the student's progress toward the anticipated degree. The student is responsible for continuing in satisfactory academic standing and for meeting all the degree requirements and deadlines for graduation or licensure. Therefore, students are advised to consult with their advisors frequently and to request their advisors to develop a tentative written plan of study. This plan is to be placed on file in The Graduate School.

The Academic Integrity Policy states the precepts, violations, and obligations of academic integrity. In addition, graduate students are expected to comply with the social regulations of the University as set forth in the

UNCG Policies for Students available online at deanofstudents.uncg.edu.

## University Policies

All students at UNCG, graduate and undergraduate, are responsible for observing all federal, state, and local laws as well as the regulations of The University. The University has developed policies relating to certain kinds of behavior and circumstances, some of which are of particular interest or significance to graduate students. Judicial policies related to student conduct and full statements of the following policies may be found at deanofstudents.uncg.edu.

1. Academic Integrity Policy
2. Student Code of Conduct
3. Drug Policy and Operational Procedures
4. Copyright Compliance Policy
5. Discriminatory Conduct
6. Sexual Harassment
7. Traffic Procedures
(including motor vehicle registration and parking regulation)
8. Student Records
(academic and nonacademic)

## Conflict of Interest

## Student-Instructor Relationship

It is essential to the promotion of high academic standards and maintenance of sound professional practice that the student-instructor relationship be free of real or apparent conflicts of interest based on familiar relationships. To this end, a member of the faculty shall not serve in any capacity that will involve evaluating the academic performance of a graduate student when there exists between them a relationship in the first or second degree of affinity or consanguinity or when they otherwise are so closely identified with one another as to suggest a possible conflict of interest.

## Faculty as Student

Members of the voting and non-voting faculty (as identified in sections 2.1 and 2.2 of the Constitution of the Faculty: The University of North Carolina at Greensboro) may not pursue a graduate degree or certificate in their home department or degree-offering unit. For exceptions, the unit Dean may petition the Dean of The Graduate School.

## Student as Faculty

Graduate students should not be assigned to graduate assistantships that generate conflicts of interest. If a graduate student is assigned to teach a graduate level course, the department must seek permission from the Dean of The Graduate School, providing rationale for the assignment and a plan to ensure that the assignment will not generate conflicts of interest.

## Post-Baccalaureate and Post-Master's Certificates

The following policies apply to Certificate students:

1. Certificate students must maintain a minimum GPA of 3.0 in all certificate course work and achieve a minimum overall GPA of 3.0 to graduate.
2. Only three semester hours with a grade of $C+(2.3)$ or $\mathrm{C}(2.0)$ will count towards a certificate.
3. With the exception of internship, practicum, independent projects or clinical work, all courses for a certificate will be letter graded.
4. A maximum of three semester hours of transfer credit will be accepted toward a certificate.
5. No more than 3 semester hours of independent study may be applied to the minimum number of semester hours required for completion of the graduate certificate program.
6. A plan of study must be submitted to The Graduate School when a student in a certificate program applies for graduation.
7. A student may apply course work from a certificate program toward a graduate degree at UNCG with the approval of the department offering the degree and The Graduate School.

## Time Limits

Certificates awarded from UNCG indicate that our students have current, usable knowledge in their field; therefore, the certificate curriculum, including the capstone, must be completed within five academic years, from the date the first courses carrying graduate degree credit applicable to the student's program are begun. However, if study for the program extends beyond three years, the student may need to meet new requirements.

## Master's Degrees

Programs at UNCG leading to a master's degree hold the objective of a reasonable, comprehensive mastery of the subject matter in a chosen field, accomplished through study, training, and experience in research or other scholarly activities.

## Summary of Requirements for Master's Degrees

1. Satisfaction of all requirements for admission.
2. Submission of plan of study to The Graduate School prior to 50\% of program completion.
3. Satisfactory completion of all course requirements.
4. Achievement of the required $B(3.0)$ GPA overall, for courses listed on the plan of study, and, if required by the department, for the major.
5. An applied knowledge of one modern foreign language, or approved option, in programs having this requirement.
6. Capstone Experience: The nature of this experience (or combination of experiences) will be left to the discretion of individual academic units. They may include some combination of (a) comprehensive written or oral examination, (b) thesis or research paper, (c) portfolio, (d) creative work, and/or (e) internship experience.
7. Filing of an application for graduation and the final plan of study with The Graduate School by the end of the first week of classes of the term in which the degree will be granted and payment of the graduation fee.
8. Payment of all accounts owed the University. Diplomas and transcripts of students owing money to the University will be held until the account is cleared.

All the above requirements must be met by the deadlines stated in the Academic Calendar (p. 3). Some special programs may have additional requirements not listed above but explained in materials supplied by the major department or school.

## Time Limits

Advanced degrees awarded from UNCG indicate that our students have current, usable knowledge in their field; therefore, the master's curriculum, including the thesis, must be completed within five academic years, from the date the first courses carrying graduate degree credit applicable to the student's program are begun. However, if study for the program extends beyond three years, the student may need to meet new requirements.

## Semester Hours Required

Minimum semester-hour requirements, which vary with the degree, are stated under the respective departmental program description. Credit that is applied to one master's degree cannot be applied to another master's degree. No course below the 500 level will be counted towards graduate degree requirements. In all programs, at least one half the work credited toward the degree must be in 600-level courses or above.

## Plan of Study

A plan of study for the master's degree (or Specialist in Education degree) must be outlined and signed by the student and director of graduate study/designee at the earliest practical time following the student's admission to The Graduate School, but no later than $50 \%$ of the program's completion. The plan must indicate the following:

- All courses the student is expected to complete as a minimum requirement, including courses required for the major, supporting courses, number of elective hours, and courses recommended for transfer.
- Courses required by the department but not counted toward the degree, including prerequisite courses.
- Capstone Experience.
- No more than 6 semester hours of independent study. At the discretion of the department, MFA candidates may earn up to a maximum of $20 \%$ of their required hours as independent study hours.
- No more than six semester hours of credit evaluated as $C+$ (2.3) and/or C (2.0) applied toward the minimum hours required for the degree.
- Credit earned for STA 667 Statistical Counseling is not applicable to a graduate plan of study.
Copies of the approved plan of study must be filed in the student's permanent folder in The Graduate School, in the department's files, and with the student. If changes have been made to the plan of study, a revised plan of study must be submitted to The Graduate School by the end of the third week of classes of the semester in which the student applies for graduation.


## Independent Study

Upon meeting the requirements to pursue independent study, master's candidates may register for no more than 3 semester hours of independent study per semester and may count no more than 6 semester hours of independent study toward satisfying the minimum requirements for the master's degree. At the discretion of the department, MFA students may earn up to a maximum of $20 \%$ of their required hours as independent study credits.

## Language Requirements

Some programs require the student to demonstrate an applied knowledge of a modern foreign language. Exceptions are made at the discretion of the major department.
Foreign students whose native language is not English, who are seeking a master's degree in which a reading knowledge of a modern foreign language is required, may not offer their native language as satisfaction of this
requirement. They may offer a reading knowledge of any other approved modern language, including English. When English is offered, the examination will be of the traditional type and will be administered by the Department of English or by the student's major department in consultation with the Department of English.
Upon the recommendation of the department, The Graduate School may approve requests for graduate students to pass a maximum of 12 semester hours of undergraduate level language courses by special examination. The results of the examination ( $\mathrm{S}-\mathrm{U}$ ) will be posted to the student's graduate transcript. Permission will be limited to language skills courses.

## Capstone Experience

The capstone experience may consist of a comprehensive written or oral examination, thesis or research paper, portfolio, creative work, internship, or some combination of these experiences. The requirement can be satisfied after the student has completed at least two-thirds of the minimum program hours. If an unsatisfactory grade is given on the first attempt to satisfy the requirement, no more than one additional attempt is permitted. If the student fails to meet the department's minimum criteria for the capstone experience on the second attempt, The Graduate School will be notified and will send the student a letter of dismissal from the program.

## The Thesis

Some master's programs require a thesis; some offer a thesis or nonthesis option. A student in a thesis program prepares a thesis under the guidance of a thesis committee consisting of a chair and two other members appointed by the head of the major department or school. The committee members must hold membership on the graduate faculty. Although all members of the committee may come from the major department, appointment of one member from another department is encouraged.
The thesis must conform to rules established by the Graduate Studies Committee in the Guide for Preparation of Theses and Dissertations. The guide can be printed from The Graduate School's web site or paper copies can be obtained from the office at no cost.

An oral examination on the thesis may be required at the discretion of the major department or school, either for the individual or all students in a thesis program.
The process for submitting the thesis to The Graduate School has two components: submitting the approval copy and submitting the final copy. Specific instructions and deadline dates affiliated with each step are available in the Guide and the Academic Calendar (p. 3).

Students file the thesis electronically via the online submission system available on The Graduate School's web site. The approved electronic submission must conform to the format requirements stated in the guide and must be uploaded by the deadline dates as specified in the Academic Calendar (p. 3). Publication of the thesis by UMI Dissertation Publishing/ProQuest Information and Learning is required by The Graduate School. There is no charge for traditional publishing. However, optional services requested by the candidate during submission may have associated charges.

Maximum credit allowed for the thesis is 6 semester hours. Additional 801 hours may be required but will not count toward the degree.

## Transfer Credit

At the master's and specialist's levels, credit may be given for graduate work taken at other institutions (including credit earned through the Greater Greensboro Consortium), but certain conditions must be met:

1. Transfer credit may not exceed one-third of the minimum number of hours required by the student's program.
2. All credit offered in transfer must have been taken at an accredited graduate school and not have been used to complete the requirements for a degree.
3. Such work must have been taken within the five-year time limit.
4. The student must have earned a grade of $B$ (3.0) or better on all transfer credit. In a four-letter grading system, only credit earned with either of the top two grades is transferable. The transfer of credit where a grade of $P$ or its equivalent is received in a two-or-three-letter grading system (such as P-F, S-U, or H-P-F) reduces hour for hour the number of $C$ grades earned that may count toward the minimum requirement for the degree.
5. The credit must be recorded on an official transcript placed on file with The Graduate School.
6. It must be approved both by the student's major department and by the Dean of The Graduate School.
7. It must be necessary to meet specific degree requirements.

Hours only, not grades, may be transferred from other institutions. Quarter-hours do not transfer as semester hours. A fraction of an hour of credit will not be transferred. See sample below:
2 quarter hours transfer as 1 semester hour.

## 3-4 quarter hours transfer as 2 semester hours.

## 5 quarter hours transfer as $\mathbf{3}$ semester hours.

## 6-7 quarter hours transfer as 4 semester hours.

8 quarter hours transfer as 5 semester hours.

## 9-10 quarter hours transfer as 6 semester hours.

Students must secure approval from their major advisor and the Dean of The Graduate School in advance of registration at other universities. In general, however, not less than two-thirds of the total program for the master's and specialists degrees must be completed at The University of North Carolina at Greensboro.

All credit to be transferred must come within the time limit described above and must be supported by placing an official copy of the transcript on file in The Graduate School. No credit will be transferred unless it is required to meet specific degree requirements.

No more than 3 semester hours of institute and workshop credit may be counted towards satisfying the minimum requirements for the master's and specialists degrees.

## Specialist in Education Degree

Regulations specified above that govern the master's degrees apply also to the Specialist in Education degree.

## Doctoral Degrees

## Doctor of Philosophy

The degree of Doctor of Philosophy is conferred upon those students who have completed, with high distinction, a prescribed period of intensive study and investigation in a single field of learning. Students must master the methods of study in the chosen field and demonstrate familiarity with what has been done and with the potentialities for further progress in the field. They must also demonstrate capacity for original and independent study or creative work and must present evidence of such investigation in a scholarly dissertation.
A PhD may be earned in communication sciences and disorders; computational mathematics; consumer, apparel, and retail studies; counseling and counselor education; economics; educational research, measurement and evaluation; educational studies; English; environmental health science; geography; history; human development and family studies; information
systems; kinesiology; medicinal biochemistry; music education; nanoscience; nursing; nutrition; psychology; and special education.

## Doctor of Education

The major premise of the Doctor of Education degree program is that students receive depth in subject matter as well as professional development. Therefore, the program is purposely flexible, allowing the students to develop under careful advisement a course of study best suited to their ability, personality, experience, and major professional goal. It is expected that each student will make a significant research contribution to the discipline culminating in a scholarly -dissertation.

An EdD may be earned in counseling and counselor education and educational leadership.

## Doctor of Musical Arts

The Doctor of Musical Arts degree program is a performance degree offered only in the School of Music, Theatre and Dance. The requirements of The Graduate School stated below apply to the Doctor of Musical Arts; however, due to the highly specialized nature of the degree, the student should consult the Director of Graduate Study in the School of Music, Theatre and Dance for specific requirements and procedures.

## Doctor of Public Health

The Doctor of Public Health degree is offered through the Department of Public Health Education. The course of study focuses on applied research of community health topics often in partnership with community organizations. Students must master all aspects of scientific investigation into public health issues and develop the needed skills to produce a portfolio of community-based research on disease prevention. The DrPH is an innovative program designed to prepare individuals for careers in universities, private research institutions, public health agencies, and community-based organizations engaged in applied research and evaluation.

## Summary of Requirements for Doctoral Degrees

1. Satisfaction of all requirements for admission to a doctoral program, including the removal of any deficiencies identified at the time of admission.
2. An approved advisory/dissertation committee, to be filed in The Graduate School by the end of 18 semester hours.
3. An approved plan of study, to be filed in The Graduate School by the end of 18 semester hours.
4. Satisfactory completion of any language requirement or approved option.
5. Satisfaction of the residence requirement.
6. Satisfactory completion of any diagnostic qualifying examination that may be required by the major department or school.
7. Satisfactory completion of all course requirements in the student's approved program of study.
8. Satisfactory completion of the preliminary written and oral examination and any additional work that may be required as a result of this examination.
9. An approved dissertation topic, to be filed in The Graduate School.
10. Admission to candidacy upon the satisfaction of the above requirements (formal application to be made in The Graduate School).
11. Submission of a dissertation acceptable to the advisory/dissertation committee.
12. Satisfactory oral defense of the dissertation.
13. Acceptance of the dissertation by The Graduate School.
14. Filing of an application for graduation with The Graduate School by the end of the first week of classes of the term in which the degree will be granted and payment of the graduation fee.
15. Payment of all accounts owed in the University. Diplomas and transcripts of students owing money to the University will be held until the account is cleared.

The above requirements must be met by the deadlines stated in the Academic Calendar (p. 3). Detailed explanations of these requirements follow. Some programs may have additional requirements not listed above but explained in materials supplied by the major department or school.

## Admission Requirements

Admission to the doctoral program is distinct and separate from any previous admission to The Graduate School. For this reason, a student who has been admitted to a master's degree program must reapply for doctoral study by notifying The Graduate School of the desire to be considered for admission to the advanced program. Admission to study for the doctorate normally follows completion of the master's degree or its equivalent course work, but some departments will consider admission directly from an undergraduate program in the case of exceptionally well-qualified applicants. Applicants who hold the master's degree or its equivalent, however, are not automatically eligible for admission to doctoral study.

In addition to satisfactory entrance examination scores and recommendations (explained in the application materials), final approvals of the major department or
school and of the Dean of The Graduate School are required.

## Advisory/Dissertation Committee

The advisory/dissertation committee, consisting of at least four members of the graduate faculty, shall assist the student with the preparation of the plan of study and shall guide and evaluate the doctoral dissertation. This committee will be appointed by the Dean of The Graduate School upon the recommendation of the major department head or dean and must be mutually acceptable to the student and all committee members.

Of the four members, the chair must hold an Endorsement to Chair Doctoral Committees, and no more than one may be an Adjunct Member of the graduate faculty. The committee chair must be from the major department, and it is recommended that when appropriate, one member be selected from the minor area of study. If at any time the advisory/dissertation committee decreases in number to fewer than four members, additional members of the graduate faculty must be approved by the Dean of The Graduate School to bring the number to at least four. See Policy on Appointment to the Graduate Faculty for further details.

The student must request the appointment of this committee no later than upon completion of the first 18 semester hours of graduate courses. Any subsequent changes in the advisory/dissertation committee must be submitted to The Graduate School for approval.

## Minor

Certain doctoral programs may permit, encourage, or require a minor, which is a formalized curricular sequence of advanced work in one or more areas outside the major field but cognate to it. The student should ask the chair of his advisory/dissertation committee if a minor is appropriate or required. The minor must consist of at least 12 hours of study. The student's advisory/dissertation committee approves the minor, and it must appear on the doctoral plan of study.
For information concerning the doctoral minor in educational research and methodology (p. Error! Bookmark not defined.), in human development and family studies (p. Error! Bookmark not defined.), in information systems (p. Error! Bookmark not defined.), and in statistics (p. Error! Bookmark not defined.).

## Research Competence

Competence in research is required of all doctoral students. Whereas the specific requirements will vary from field to field and according to the student's professional objective, the plan of study must provide for mastery of techniques of research that not only are appropriate to the particular field of study but also will
help prepare prospective holders of the doctorate to continue their intellectual and professional growth.

## Plan of Study

A plan of study for the doctoral degree must be outlined by the student and the advisory/dissertation committee at the earliest possible time following admission of the student to The Graduate School, preferably at the end of the first semester of residence or not later than the completion of 18 semester hours. The plan must indicate the following:

- Major and minor fields of study.
- Specific courses the student is expected to complete as a minimum requirement.
- All specific core, seminar, language, and research requirements of the major department.
- No more than one quarter of the course work credited to the degree, exclusive of the dissertation, at the 500 level.
- No more than 15 semester hours of independent study, exclusive of the dissertation.
- No credit evaluated as B- (2.7) or less. All courses applied toward the degree must be $B(3.0)$ or better, and additional hours must be taken for any hours earned with a grade of B- (2.7) or less.
- Credit earned for STA 667 Statistical Counseling is not applicable to a graduate plan of study.

A record of all graduate work the student has taken must accompany the proposed program. It is at this time that the advisory/dissertation committee evaluates the student's qualifications to be recommended for further study in The Graduate School, further preparation for such study, or withdrawal. The committee may propose prerequisite course work to be taken if it believes the student shows weaknesses that might be corrected by additional formal study.

The plan of study must be submitted to the Dean of The Graduate School for approval. The Dean reserves the right to refer any or all plans of study to the Graduate Studies Committee for review and recommendation.

Copies of the approved plan of study must be filed in the student's permanent folder in The Graduate School, in the department's files, with the chair and each member of the advisory/dissertation committee, and with the student. Any subsequent changes in the plan of study or in the subject of the dissertation must be submitted to The Graduate School for approval.

## Language Requirement

Each candidate for the doctorate must show either a satisfactory reading knowledge of at least one modern
foreign language relevant to the student's major area of study, or, where approved, a satisfactory mastery of research skills at an appropriate level of competence.

The language or languages used to satisfy a language requirement must be approved by the student's major advisor. French, German, and Spanish are most frequently used.

The language requirements must be passed prior to the preliminary examinations, and prior to admission to candidacy.

A student whose native tongue is a language other than English may use English, but not the native language, to satisfy a language requirement. When English is offered, the examination will be administered by the Department of English or by the student's major department in consultation with the Department of English. A statement certifying the candidate's proficiency in English must be filed in The Graduate School before the preliminary examinations may be taken.

## Residence Requirement

Doctoral students are expected to satisfy a residence requirement, which provides them the opportunity for an extended period of intensive study and intellectual and professional development among a community of scholars.

The basic requirement is two consecutive full-time semesters (minimum of 6 hours per semester) of graduate coursework (excluding independent study and dissertation hours) on this campus after admission to a doctoral program. The two sessions of summer school count as one semester. Undergraduate courses taken in support of a graduate program cannot count towards residence.

## Time Limits

Advanced degrees awarded from UNCG indicate that our students have current, usable knowledge in their field; therefore, all requirements for the doctorate, including the dissertation, must be completed within seven academic years. Post-master's (or equivalent) credit that is to be applied to the student's doctoral program must be no more than seven years old when the degree requirements are completed. This means that all course work to be credited to the student's doctoral program must fall within a seven-year period of time beginning with the date the first courses carrying graduate degree credit applicable to the student's program are begun. If credit to be transferred was earned before enrollment at this University, the seven-year period of time commences with the beginning date of the term in which the transfer credit was earned.

The seven-year time limit does not apply to students who are admitted directly to a doctoral program upon completion of the baccalaureate. In this case, the time limit is ten years.

## Transfer Credit

In some instances, work done in other institutions may be counted toward the degree, particularly work culminating in a master's degree from a regionally accredited institution and representing an appropriate area of study. If the student proposes the transfer of credit from another graduate school, the work for which credit was received must be covered by the preliminary examination, and the transfer must be recommended by the student's advisory/dissertation committee before The Graduate School will credit the work to the student's doctoral program.
In no case will more than one third of non-dissertation course credit hours beyond the master's degree be transferred to doctoral program.

The following conditions apply to transfer credit for doctoral programs:

1. All credit offered in transfer must have been taken at an accredited graduate school.
2. Such work must have been taken within the time limit described above.
3. The student must have earned a grade of $B(3.0)$ or better on all transfer credit. In a four-letter grading system, only credit earned with either of the top two grades is transferable.
4. The credit must be recorded on an official transcript placed on file with The Graduate School.
5. The credit must be approved by both the student's doctoral advisory/dissertation committee and the Dean of The Graduate School.
6. The credit must be necessary to meet specific degree requirements.
Hours only, not grades, may be transferred from other institutions. Quarter-hours do not transfer as semester hours. A fraction of an hour of credit will not be transferred. See sample below:
2 quarter hours transfer as 1 semester hour.

## 3-4 quarter hours transfer as 2 semester hours.

5 quarter hours transfer as $\mathbf{3}$ semester hours.

## 8 quarter hours transfer as 5 semester hours.

## 9-10 quarter hours transfer as 6 semester hours.

Students must secure approval from their doctoral advisory/dissertation committee and the Dean of The Graduate School in advance of registration at other universities. In general, however, not less than two-thirds of the total non-dissertation credit hours of doctoral degrees must be completed in residence courses at UNCG.

In order to ensure that the courses fall within the time limit permitted, the transfer credit will be accepted finally and posted to the transcript only at the time of completion of the degree requirements.

## Preliminary Examination

When a student has removed any provisions or special conditions that may have been attached to admission, completed a minimum of $3 / 4$ of the course work contained in the program of study, passed any foreign language requirements, and completed the research skill requirements, that student is then eligible to take the preliminary examination. Individual departments may have additional requirements. Each doctoral student is required to pass the doctoral preliminary examination which consists of both a written and oral examination. The written part is scheduled and prepared by the dissertation advisor with the assistance of the advisory/dissertation committee. The questions may cover any aspect of the course work taken by the student during the period of this graduate study or any subject logically related and basic to an understanding of the subject matter of the major and minor areas of study. Any transferred course work is subject to examination at the time of the preliminary examination. The oral examination should be scheduled within one month following the written examination.
Unanimous approval is required for passing the preliminary examination. Approval may be conditional, however, upon the satisfactory completion of such additional work as may be required by the committee. However, if the student does not pass the preliminary examination, no more than one re-examination will be allowed. The re-examination will not be permitted during the semester in which the preliminary examination was failed. If the student fails to pass the re-examination, The Graduate School will send the student a letter of dismissal from the program.
The complete advisory/dissertation committee of at least four must participate in the holding of the preliminary oral examination.

## 6-7 quarter hours transfer as 4 semester hours.

## Admission to Candidacy

When a student has completed all major and minor required courses, has passed the preliminary written and oral examinations, satisfied any language or skill requirements, and submitted a dissertation research outline that has been approved by his dissertation advisor and advisory/dissertation committee, that student may then make formal application in The Graduate School for admission to candidacy for the doctoral degree.

## The Dissertation

The dissertation is the product of a thorough investigation of a basic and significant problem or question within the major area of study. An appropriate plan of research must be developed and executed by the student under the general guidance of the chair and the advisory/dissertation committee. The dissertation requirement is designed to develop the capacities of originality and generalization in the candidate. It should foster and attest to the development in the candidate of ability in scientific inquiry, understanding, and mastery of the techniques of scholarship, and the art of exposition within the field of specialization. The advisory/dissertation committee, with such other professors as may be appointed by the Dean of The Graduate School, shall examine the dissertation. No dissertation shall be accepted unless it secures unanimous approval of the advisory/dissertation committee.

Students file the dissertation electronically via the online submission system available on The Graduate School's web site. In final form, the dissertation must comply with the rules prescribed by the Graduate Studies Committee in the Guide for the Preparation of Theses and Dissertations. The approved electronic submission must be uploaded by the deadline dates as specified in the Academic Calendar. Publication of the dissertation by UMI

Dissertation Publishing/ProQuest Information and Learning is required by The Graduate School. There is no charge for traditional publishing. However, optional services requested by the candidate during submission may have associated charges.

The process for submitting the dissertation to The Graduate School has two components: submitting the signed approval copy and submitting the final copy. The specific instructions and deadline dates affiliated with each step are available in the Guide and the Academic Calendar (p. 3).

Dissertation hours vary according to the program but are never less than 12 semester hours, normally taken in units of three semester hours. For a complete explanation of requirements affecting dissertation registration, see the Policy on Continuous Enrollment (p. 20).

## Oral Defense

The doctoral candidate who has successfully completed all other requirements for the degree must defend the dissertation orally. The defense will be scheduled by the chair of the advisory/dissertation committee in consultation with the other committee members. The Graduate School will publish the dissertation title, date, time and location of the oral defense at least two weeks prior to the defense. The defense is open to all members of the University community who may wish to attend as required by state laws on public meetings. The oral defense is administered by the advisory/dissertation committee according to program guidelines. The defense is largely related to the dissertation field of study including courses taken here and elsewhere. Approval of the defense must be attested to by all members of the advisory/dissertation committee. The results of the defense are to be reported in writing to the Dean of The Graduate School.

## DEPARTMENTAL AND PROGRAM LISTINGS

## Graduate Faculty

Graduate faculty members whose appointments are current as of the publication date of this Bulletin are listed by academic rank in the department(s) in which they serve. Each faculty member's area of specialization is listed.

Course Numbers and Credit
This section sets forth UNCG's graduate degree programs and descriptions of the courses of instruction offered. Each course description is represented by a three-letter symbol (indicating the department directing the course) and a three-digit number. Courses numbered 500-599 are open to advanced undergraduates and graduate students; courses numbered 600-749 are open only to graduate

## Examples of Credit Structures

(1:1) = 1 credit hour : 1 lecture hour per week
(1:0:3) 1 credit hour : 0 lecture hours : 3 lab hours = perweek
$(2: 2)=2$ credit hours : 2 lecture hours per week
(2:1:3) 2 credit hours : 1 lecture hour : 3 lab hours per week
(2:0:6) 2 credit hours : 0 lectures hours: 6 lab = hours per week
$(3: 3)=3$ credit hours : 3 lecture hours per week
(3:1:6) $\quad 3$ credit hours : 1 lecture hours : 6 lab
students; and courses numbered 750-799 are open only to doctoral students.

The first of the figures enclosed in parentheses immediately following the course title indicates the number of semester hour credits given for the course. A semester hour credit corresponds, unless otherwise stated, to one 50-minute class period per week through one semester. The second and third figures indicate the number of lecture and laboratory hours, respectively.

Prerequisites for a course are indicated in the course description by "Pr ." followed by appropriate requirements which must be met before that course may be taken. A hyphen (-) between course numbers indicates that no credit toward a graduate degree will be given for either course until both are successfully completed. A comma (,) between course numbers indicates that independent credit is granted for the work of one semester.
$(1-3)=1$ to 3 credit hours

## Example

MST 528 Studies in Media Genres (3:2:3)
In this example, the course is open to advanced undergraduate students and graduate students and has several prerequisites. It carries 3 semester hours of credit and meets for 2 lecture hours and 3 laboratory hours each week.

## Service Learning Courses

UNCG defines Academic Service Learning as a teaching method that links community action and academic study so that each strengthens the other. Students, faculty, and community partners collaborate to enable students to address community needs, initiate social change, build effective relationships, enhance academic skills, and develop civic literacy. Service Learning encourages critical consideration of the ethical dimensions of community engagement.

Service Learning courses are marked (svl) after the course title and incorporate 15-20 hours of service.

## Accounting and Finance, Department of

383 Bryan Building • (336) 334-5647•
www.uncg.edu/bae/acc

## Graduate Program

- Master of Science (MS) in Accounting, 30 hours


## Graduate Faculty

## Professors

William O. Brown, PhD, Financial management, financial markets, investments.

Venkataraman M. Iyer, PhD, Accounting information systems and auditing, behavioral and empirical issues related to audit firms and audit market.

Daniel T. Winkler, PhD, Corporate finance, investments, market efficiency, financial education.

## Associate Professors

J. William Harden, PhD, Federal income taxation, multijurisdictional tax issues.

Dayong Huang, PhD, Investments, asset pricing, international finance.

## Assistant Professors

Linda Hughen, PhD, Financial accounting and derivatives.

Ambrose Jones III, PhD, CPA, Auditing, accounting behavior, corporate social responsibility reporting, and international financial reporting standards.

Ayalew Lulseged, PhD, Auditing and financial accounting

## Accounting, MS

The MS in Accounting requires 30 semester hours and is designed to provide students with the necessary technical knowledge, communication skills, and critical thinking abilities for successful careers in public accounting, industry, government, and not-for-profit organizations. The program also satisfies the 150 -hour educational requirement adopted by a number of states, including North Carolina, for certification and licensure as a CPA and is one of only 168 programs worldwide to have separate accounting accreditation from the AACSB.

The flexible nature of the program allows for both fulltime and part-time students. The length of the program depends on the accounting and business administration
background the student possesses. The program has close ties with accounting firms and private industry in the Triad and has an excellent placement record.

## Application and Admission

Applicants must submit all application materials by the appropriate deadline for the Fall, Spring, or Summer admission.

The program admits students with diverse backgrounds. Students admitted without the necessary accounting and/or business background will be required to take prerequisite courses in those areas based on the UNCG Bachelor of Science in accounting curriculum before enrolling in graduate accounting courses. Individual prerequisite needs are assessed by the program committee when admission decisions are made.

## Degree Requirements

Accounting Courses ( 21 to 24 hours)
Students are required to take the following courses, which comprise the capstone experience (students with equivalent course work may seek a waiver of any of these required courses):
ACC 600 Professional Accounting Research 3
$\begin{array}{ll}\text { ACC } 630 & \begin{array}{l}\text { Seminar in Contemporary Accounting } \\ \text { Issues }\end{array}\end{array}$
ACC 642 Specialized Accounting Entities 3
ACC 655 Taxation of Corporations and Shareholders
and one of the following:
ACC 631 Advanced Auditing 3
ACC 638 Information Systems Auditing 3
The remaining 6 to 9 hours are selected from the following:

| ACC 613 | Directed Studies in Accounting | $1-3$ |
| :--- | :--- | ---: |
| ACC 621 | Accounting Internship | 3 |
| ACC 628 | Accounting Information Systems | 3 |
| ACC 631 | Advanced Auditing | 3 |
| ACC 638 | Information Systems Auditing | 3 |
| ACC 645 | Seminar in Financial Accounting Theory | 3 |
| ACC 652 | Taxation of Estates, Gifts and Trusts | 3 |
| ACC 656 | Taxation of Flow-Through Business |  |
|  | Entities | 3 |
| ACC 688 | Advanced Business Law | 3 |
| Electives $(6$ to 9 hours) |  |  |

Students select 6 to 9 hours of graduate courses outside accounting with prior approval of the program director.

## African American Studies Program

349 Curry Building • (336) 334-5507 •
www.uncg.edu/afs

## Graduate Program

- Post-Baccalaureate Certificate in African American Studies, 15 hours


## Graduate Faculty

## Program Director

Tara T. Green, PhD, African American literature, gender studies, Black leadership, African Diaspora in the U.S.

## Associate Professor

Omar H. Ali, PhD, African American history, independent political movements, Islam, Afro-Latin America (Director of Graduate Study).

## Assistant Professor

Sarah Jane Cervenak, PhD, Black Performance Studies, feminist theory.

African American Studies, PBC
The Post-Baccalaureate Certificate in African American Studies requires 15 semester hours of course work. At least half of the total hours of course work must be at the 600 level or above. Online curriculum requirements consist of five core course ( 15 hours). Additional courses through other programs and departments may be taken upon approval by the Director of Graduate Studies. Residential curriculum requirements consist of a core course ( 3 hours) and 12 hours of AFS-related electives. Students who are also enrolled in a degree program must take at least 6 hours of course work outside the degreegranting department. Course work must be successfully completed within five academic years. Courses fulfilling the certificate program may be used to meet the requirements in a degree program in accordance with the policies of The Graduate School.

## Application and Admission

In addition to the application materials required by The Graduate School, applicants must submit a 500 -word statement.

Note: GRE is not required.

## Online Certificate Requirements

Required Core Courses (15 hours)

|  | Century |  |
| :--- | :--- | ---: |
| AFS 610 | African American Theoretical <br> Perspectives | 3 |
| AFS 650 | Topics in African American Gender <br> Studies | 3 |
| AFS 652 | Topics in Black Performance Studies |  |
| AFS 653 | Perspectives on the African American <br> Experience | 3 |

## Residential Certificate Requirements

Required Core Course (3 hours)

$$
\begin{aligned}
& \text { AFS } 610 \quad \begin{array}{l}
\text { African American Theoretical } \\
\text { Perspectives }
\end{array} \\
& \text { Electives (12 hours) } \\
& \text { With the approval of the program graduate advisor, } \\
& \text { students choose } 12 \text { hours of electives from the following: }
\end{aligned}
$$

| AFS 554 | Independent Black Politics in the 19th Century | 3 |
| :---: | :---: | :---: |
| AFS 650 | Topics in African American Gender Studies | 3 |
| AFS 652 | Topics in Black Performance Studies | 3 |
| AFS 653 | Perspectives on the African American Experience | 3 |
| ART 501 | Topics in the History of Art | 3 |
| ART 618 | Topics in the History of Art | 3 |
| ENG 650 | Modern Literary and Cultural Theory | 3 |
| ENG 663 | Postcolonial Literary and Cultural Theory | 3 |
| ENG 705 | Cultural Studies | 3 |
| ENG 729 | Postcolonial Literatures | 3 |
| ENG 730 | Studies in American Literature | 3 |
| ENG 735 | Studies in African-American Literature | 3 |
| ENG 737 | Studies in Multi-Ethnic American Literature | 3 |
| GEO 522 | Seminar in Population and Urban Studies | 3 |
| HIS 502 | African American History: Selected Topics | 3 |
| HIS 520 | Southern History: Selected Topics | 3 |
| HIS 546 | American Cultural History: Selected Topics | 3 |
| HIS 581 | African History: Selected Topics | 3 |
| HIS 710 | Colloquium in the Atlantic World | 3 |


| HIS 712 | Slavery in the Americas | 3 |
| :--- | :--- | :--- |
| HIS 713 | African Americans after Slavery | 3 |
| HIS 715 | Atlantic World: Selected Topics | 3 |
| HIS 723 | Selected Topics in Nineteenth-Century |  |
|  | United States History | 3 |
| MUS 625 | Music and Culture of Sub-Saharan Africa | 3 |
| PSC 520 | Urban Political System | 3 |
| PSC 620 | Urban Development Policy | 3 |
| SOC 526 | Comparative Minority Relations | 3 |
| SOC 628 | Social Movements | 3 |
| SOC 643 | Urban Sociology | 3 |
| SOC 651 | Criminology | 3 |
| WGS 650 | Feminist Theory: Intersections of | 3 |
|  | Gender, Race and Class | 3 |
| WGS 651 | Feminist Research Analysis | 3 |
| ART 501, ART 618, ENG 650, ENG 663, ENG 705, ENG 729, |  |  |
| ENG 730, ENG 737, GEO 522, HIS 520, HIS 546, HIS 581, <br> HIS 710, HIS 715, HIS 723, MUS 638, PSC 520, PSC 620, |  |  |
| SOC 526, SOC <br> 628, SOC 643, SOC 651, WGS 650, WGS 651: |  |  |
| when relevant |  |  |

## Anthropology, Department of

426 Graham Building • (336) 334-5132 •
http://www.uncg.edu/ant

## Graduate Programs

- No graduate degree programs offered.


## Graduate Faculty

## Professor

Robert Anemone, PhD, Physical anthropology, vertebrate paleontology, primate evolution, functional morphology (Head of Department).
Susan L. Andreatta, PhD, Political ecology, applied anthropology, Caribbean and U.S., Latin America.

Arthur D. Murphy, PhD, Political economy, modern Mexico, immigration, the cultural consequences of disasters.

## Assistant Professors

Charles P. Egeland, PhD, Paleoanthropology, zooarchaeology, paleolithic, vertebrate taphonomy, Africa, Western Asia, U.S.

Donna J. Nash, PhD, Early states and empire, political economy, household archaeology, women and gender studies, Andean South America.

Linda F. Stine, PhD, Historic landscapes, social inequality through historical archaeology, S.E. archaeology. applied archaeology.

## Art, Department of

138 Gatewood Studio Arts Building • (336) 334-5248• www.uncg.edu/art

## Graduate Programs

- Master of Fine Arts (MFA) in Studio Arts, 60 hours


## Graduate Faculty

## Professors

Carl Goldstein, PhD, Art history from Renaissance to modern, art criticism.
A. Lawrence Jenkens, PhD, Art history of the Italian Renaissance (Head of Department).
Billy Lee, MFA, Sculpture; drawing, design.
John Maggio, MFA, Tamarind Master Printer, printmaking, painting, mixed media.

## Associate Professors

Michael Ananian, MFA, Figurative painting and drawing.

Nikki L. Blair, MFA, Ceramics and mixed media sculpture.

Christopher Cassidy, MFA, Intermedia, video, installation.

George Dimock, PhD, Modern art and critical theory, with emphasis on constructions of childhood.

Andrew M. Dunnill, MFA, Steel, cast metal and mixed media sculpture, drawing.

Amy Lixl-Purcell, MFA, Intermedia art, work with computer and electronic media and installations.
Mariam A.L. Stephan, MFA, Painting and drawing (Director of Graduate Study).
Patricia Wasserboehr, MFA, Sculpture and drawing.
Assistant Professors
Heather Holian, PhD, Ancient through Renaissance art history.
Eun-Hee Lim, EdD, Art education.
Sarah Martin, MFA, Photography/video.
Jennifer Meanley, MFA, Painting and drawing.
Sheryle Oring, MFA.
Elizabeth Perrill, PhD, African art history.

Barbara Thomas, MFA, Drawing and painting.
Lee Walton, MFA, Printmaking, performance, social practice.

## Adjunct Faculty

Nancy Doll, MA, Museum studies (Director, Weatherspoon Art Museum).

Xandra Eden, MA, Museum studies (Curator of Exhibitions, Weatherspoon Art Museum).
Ann Grimaldi, MEd, Museum studies (Curator of Education, Weatherspoon Art Museum).

Elaine D. Gustafson, Museum studies (Curator of Collections, Weatherspoon Art Museum).

The Department of Art offers graduate work leading to a Master of Fine Arts with a major in studio arts. Only those students enrolled in a degree program with a full-time load of courses may use space, equipment, and facilities of the Art Department. Part-time students may use only the facilities directly connected with the courses in which they are enrolled.

## Studio Arts, MFA

## Application and Admission

In addition to the application materials required by The Graduate School applicants should have a Bachelor's degree in a visual arts discipline and must submit a CD or DVD with 20 images of recent work. Applicants with Bachelor's degrees in other fields will be considered for admission if their portfolio demonstrates the ability to pursue work at the graduate level.

## Degree Requirements

To complete the MFA program, the student must complete 60 hours of course work in studio art, art criticism, art history and electives, pass all required examinations, and complete thesis work.
Required Core Courses ( 9 hours)
ART $605 \quad$ Perspectives in Contemporary Art 3
ART 600 Writing Art Criticism 3
ART 622 Drawing Marathon 3
Studio Courses (26-30 hours)
To be selected from the following:
ART 520 Anatomy for the Artist 3
ART 525 Advanced Metal Casting 3
ART 529 The Multi-Media Print 3

| ART 540 | Digital Visualization and Methods | 3 |
| :---: | :---: | :---: |
| ART 545 | Interactive Web Design | 3 |
| ART 550 | Sculpture/Installation | 3 |
| ART 557 | Site-Specific Sculpture | 3 |
| ART 589 | Experimental Course |  |
| ART 592 | Professional Practices, Aesthetics, and Preparation for the Visual Artist | 3 |
| ART 620 | Drawing | 3 |
| ART 626 | Woodcut and Wood Engraving | 3 |
| ART 627 | Lithography | 3 |
| ART 628 | Etching | 3 |
| ART 629 | Studio Problems in Drawing, Painting, or Printmaking | 3 |
| ART 631 | Painting and Drawing | 3 |
| ART 632 | Painting and Drawing | 3 |
| ART 633 | Painting and Drawing | 6 |
| ART 634 | Painting and Drawing | 6 |
| ART 635 | Painting | 6 |
| ART 636 | Painting Research Seminar | 6 |
| ART 637 | Painting Research Seminar | 6 |
| ART 641 | New and Expanded Media | 6 |
| ART 649 | Studio Problems in New Media | 3 |
| ART 655 | Sculpture | 3 |
| ART 656 | Sculpture | 3 |
| ART 657 | Sculpture | 6 |
| ART 658 | Sculpture | 6 |
| ART 659 | Studio Problems in Sculpture | 3 |
| ART 682 | Ceramics | 6 |
| ART 685 | Photography | 6 |
| ART 699 | Thesis | 1-6 |
| ART 711 | Experimental Course |  |
| ART 589, ART 711: when topic is appropriate |  |  |
| Art History Courses (6 hours) |  |  |
| To be selected from the following: |  |  |
| ARH 500 | Traditions of Art Criticism | 3 |
| ARH 501 | Topics in the History of Art | 3 |
| ARH 502 | Historiography and Methodology | 3 |
| ARH 590 | Museum Studies | 3 |

ARH 601 Public Art 3 ARH 602 The Teaching of Art from Vasari to
Albers

ARH 606 A Study of the Artist 3
ARH 618 Topics in the History of Art 3
ARH 619 Research Problems in Art History, Art Criticism

Electives (12 hours)
Elective hours may be selected from any of the courses listed above, from other 500- and 600-level courses taught in the Department of Art, or from 500- and 600-level courses taught in related areas with the permission of the student's advisor and the Department Head.

Admission to Candidacy
To be formally admitted to candidacy for the MFA degree, students must have successfully completed two semesters of full-time graduate work, including ART 622, removed all deficiencies, possess a B (3.0) average in all courses taken during the first two semesters, and have an overall grade record consistent with the regulations stated in The Graduate School Bulletin. In addition, the application to candidacy must be approved by a committee of the Art Department graduate faculty to be appointed by the department head. The committee will meet with students to review work and sign candidacy forms early in the fall semester of the second year of graduate work. Students are limited to two candidacy reviews. If a student is not admitted to candidacy during the first review, the review team will issue written recommendations for further studies. The second review will take place within a year of the first. Failure to pass candidacy for the second time will prohibit the student from continuing in the program.
Comprehensive Examination
Oral Thesis Presentation
In the spring semester of the graduating year, each MFA candidate will give a formal oral presentation to their thesis committee prior to the installation of their thesis exhibition at the Weatherspoon Art Museum.

Thesis (2-6 hours) (Capstone Experience)
After passing candidacy review in the fall semester of the final year, the student and the Thesis Chair consult together to name the remaining members of the committee. The Department Head and the Director of Graduate Study review the membership of the committee before the student begins thesis work. The committee consists of four to five faculty members who hold graduate faculty status in the University. Part-time faculty do not serve on thesis committees. At least one member of the committee is a studio faculty member who teaches in the same discipline as the student's studio practice.

One other member is an art historian. It is optional for the student to select a graduate faculty member from another department in the University. This faculty member should pursue scholarly research that relates to the student's field of interest. Thesis Chairs are selected from the studio art or art history faculty.

Early in the final semester of thesis work, the student arranges a meeting with the thesis committee to discuss all aspects of final thesis work, including the thesis paper, the oral presentation, the comprehensive art history exam, and the thesis exhibition. The thesis paper should be five to ten pages in length, conform to Graduate School requirements, and be signed by all committee members before it is electronically submitted to The Graduate School. The body of work submitted for the thesis exhibition must receive final approval of all thesis committee members.

## Biology, Department of

312 Eberhart Building • (336) 334-5391•
www.uncg.edu/bio

## Graduate Programs

- Master of Science (MS) in Biology, 30 hours
- Doctor of Philosophy (PhD) in Environmental Health Science, 55 hours


## Graduate Faculty

## Professors

Robert E. Cannon, PhD, Microbiology.
Stanley H. Faeth, PhD, Community ecology, ecology and evolution of species interactions, urban ecology (Head of Department).

Vincent C. Henrich, PhD, Molecular aspects of hormonal regulation in development.

Anne E. Hershey, PhD, Aquatic ecology, lake trophic interactions, nutrient limitation and organic matter processing in arctic lakes, urban streams, and reservoirs.

Bruce K. Kirchoff, PhD, Evolution of development, plant morphology and systematics, biological pedagogy.

Elizabeth P. Lacey, PhD, Evolutionary plant ecology, parental/maternal effects, phenotypic plasticity, reproductive thermoregulation.

Esther M. Leise, PhD, Neurobiology, settlement and metamorphosis of marine invertebrates.

Parke A. Rublee, PhD, Microbial food webs in aquatic ecosystems.

Olav Rueppell, PhD, Honey bee health, evolutionary genetics and genomics, life history and behavior, and aging.

Robert H. Stavn, PhD, Aquatic ecology, optical oceanography, ecology, zooplankton and lake optics.

## Adjunct Professors

Timothy Johnston, PhD, Comparative studies of behavioral development and evolution, and the history of developmental theories in psychology and biology.

Michael K. McIntosh, PhD, Nutritional regulation of adipocyte growth, differentiation, metabolism, and inflammation.

## Associate Professors

Amy L. Adamson, PhD, Virus-host cell interactions.
Mark D. Hens, PhD, Cell and molecular biology of vertebrate development.

Matina C. Kalcounis-Rüppell, PhD, Mammal behavior and ecology (Director of Graduate Study).

Karen S. Katula, PhD, Gene regulation, cell cycle control.

Dennis R. LaJeunesse, PhD, Developmental genetics and cell biology.

John J. Lepri, PhD, Coordination of reproductive behavior and physiology of mammals, chemical senses.

Yashomati M. Patel, PhD, Diabetes, obesity and breast cancer biology.

David L. Remington, PhD, Genetics of complex traits and adaptive evolution in plants.

Malcolm Schug, PhD, Population genetics and evolutionary biology.
Paul A. Steimle, PhD, Molecular mechanisms of cell motility.

John E. Tomkiel, PhD, Mechanisms of chromosome segregation, Drosophila genetics.

## Adjunct Associate Professor

Promod R. Pratap, PhD, Biophysical dynamics of active-transport systems, kinetics of the sodium pump ( $\mathrm{Na}+-\mathrm{K}+-\mathrm{ATPase}$ ) in mammalian kidney.

## Assistant Professor

Zhenquan Jia, PhD, Molecular toxicology.
Martin Tsz-Ki Tsui, PhD, Water resources.
Gideon Wasserberg, PhD, Ecology of infectious diseases, community ecology, ecological modeling.

## Biology, MS

The 30-hour MS in Biology prepares students for careers in biological research, and it provides a strong foundation for further academic training, such as medical school or a doctoral program. Faculty work closely with each student to tailor a specific curriculum to meet that student's needs and interests. Students typically complete work for the master's degree in 2-3 years.

Reflecting the diverse interests of faculty members within the Department, students in the biology master's program have research opportunities in molecular biology, biochemistry, genetics, cell biology, developmental biology, microbiology, animal and plant physiology, invertebrate and vertebrate zoology, plant morphology and systematics, plant biotechnology, limnology, stream ecology, neurobiology, marine biology, molecular ecology, behavior ecology, and evolution. The research experience provides graduates with specific knowledge and skills to be competitive in the life-sciences workplace.

## Application and Admission

In addition to the application materials required by The Graduate School, applicants must submit a personal statement explaining how the master's degree at UNCG will help them achieve their career ambitions.
Qualified applicants will have a strong undergraduate background in biology and science.

Applicants must submit all application materials by the appropriate deadline for Fall, Spring, or Summer admission.

## Degree Requirements

The MS in Biology requires 30 semester hours. At least 15 hours (including 6 hours of thesis) must be in 600-level courses.
Biology Electives (24-27 hours)
Students will select 24-27 hours from 500- and 600-level biology courses; up to 8 of these hours can be taken at the 500 and 600 level in other departments with the prior approval of the Director of Graduate Study.

Thesis (3-6 hours) (Capstone Experience)
BIO 699 Thesis 1-6

Prior to the end of the second semester of enrollment, each student is expected to identify a Thesis Advisory Committee composed of a thesis advisor and two other faculty; the composition of the committee must be approved by the Director of Graduate Study. Prior to the end of the third semester of enrollment, each student is expected to present a thesis proposal to the Department. Only after these requirements have been met can a student enroll for credit in BIO 699 Thesis.

## Environmental Health Science, PhD

The PhD in Environmental Health Science requires a minimum of 55 semester hours and prepares students for senior-level positions in professions related to environmental health science in its broadest sense. The program trains students to become leaders in biological research relevant to environmental issues that directly and/or indirectly affect human health, and the program
trains students to convey information effectively to the public. Students acquire an understanding of the multidisciplinary nature of environmental health issues from ecosystem to molecular levels. Students learn relevant research skills and conduct research under the guidance of one or more faculty members in the department.

## Application and Admission

In addition to the application materials required by The Graduate School, applicants must submit a Curriculum Vitae and a personal statement that includes educational background, professional activities, research interests, career goals, reasons for choosing the program, and UNCG faculty whose research is of interest.

## Degree Requirements

The departmental Graduate Studies Committee determines the number of non-dissertation credit hours required based on a student's prior course work. No more than $25 \%$ of total hours (exclusive of dissertation hours) may be at the 500 level.

Required Core Courses (17 hours)

| BIO 600 | Introduction to Graduate Studies | 1 |
| :---: | :---: | :---: |
| BIO 607 | Seminar in Environmental Health Science | 2 |
| BIO 631 | Environmental Health Science I: Ecosystems to Individuals | 3 |
| BIO 632 | Environmental Health Science II: Individuals to Molecules | 3 |
| BIO 634 | Current Research in Environmental Health Science | 1 |
| BIO 649 | Research Lab Rotations | 1 |
| STA 661 | Advanced Statistics in the Behavioral and Biological Sciences I | 3 |
| Electives (Minimum of 9 hours) |  |  |
| Students, with the approval of the departmental Graduate Studies Committee, research advisor, and/or Dissertation Committee, will select additional courses that pertain to their area of research to fulfil their degree requirements. A minimum of 9 hours of biology courses at the 500-700 level must be earned and a maximum of 6 credit hours can be at the 500 level. |  |  | can be at the 500 level.

Research and Dissertation (Minimum of 29 hours)

| BIO 790 | Directed Study in Environmental Health |
| :--- | :--- |
|  | Science |

BIO 791 Independent Doctoral Research 1-6
BIO 799 Dissertation 1-18

Comprehensive Examination
The comprehensive examination consists of a written research proposal that must be orally defended in a public seminar and before a student's dissertation committee. Successful completion and defense of the proposal allows the student to achieve candidate status, and thus, register for BIO 791 Independent Doctoral Research and BIO 799 Dissertation.

Dissertation Defense
Students must present a seminar that is open to the public and satisfactorily defend their completed dissertation research to her/his dissertation committee.

## Chemistry and Biochemistry, Department of

435 Patricia A. Sullivan Science Building • (336) 334-5714

- www.uncg.edu/che

Graduate Programs

- Master of Science (MS) in Biochemistry, 30 hours
- Master of Science (MS) in Chemistry, 30 hours
- Doctor of Philosophy (PhD) in Medicinal Biochemistry, 56 hours


## Graduate Faculty

## Professors

Alice E. Haddy, PhD, Biophysical chemistry, electron paramagnetic resonance studies of transition metals in biological systems.

Patricia H. Reggio, PhD, Physical chemistry, computational chemistry, G protein-coupled receptor modeling (cannabinoid CB1 and CB2 receptors) (Head of Department).

Jerry L. Walsh, PhD, Inorganic chemistry, coordination chemistry of transition metal complexes, synthesis, photochemistry, reaction mechanisms, science education.

## Senior Research Professor

Ethan Will Taylor, PhD, Medicinal biochemistry, molecular modeling and bioinformatics, molecular virology, biochemistry of selenium, nanobiotechnology.

## Associate Professors

R. Bruce Banks, PhD, Bioorganic chemistry, chemical carcinogenesis, xenobiotic metabolism.

Nadja B. Cech, PhD, Analytical chemistry, electrospray ionization mass spectrometry, liquid chromatography, medicinal plant chemistry.

Norman H. L. Chiu, MSc, PhD, Bioanalytical chemistry, technology development for monitoring biomarkers (Director of Graduate Study, PhD Program).

Nicholas Oberlies, PhD, Isolation and characterization of bioactive natural products.
Gregory M. Raner, PhD, Bioinorganic chemistry, enzymology, mechanistic studies and industrial applications of cytochrome P450 monooxygenase enzymes.

Jason J. Reddick, PhD, Bioorganic chemistry, biochemistry, bacterial metabolic pathways,
antibiotics (Director of Graduate Study, MS Programs).

## Assistant Professors

Mitchell P. Croatt, PhD, Organic synthesis, organometallics, new reaction design and development.

Liam M. Duffy, PhD, Physical chemistry, gas-phase chemical reaction dynamics probed by millimeter wavelength spectroscopy.

Kimberly Petersen, MS, PhD, Organic synthesis, asymmetric methodology development, novel drug scaffolds.

## Biochemistry, MS

The MS in Biochemistry gives students the opportunity to demonstrate and develop their potential for work in biochemistry and attracts individuals who have been out of an academic environment for some time or who wish to bolster their undergraduate science experience. The successful candidate will be prepared for positions of responsibility in industry or government or for further study toward a doctoral degree.

The required 30 semester hours include a core of introductory and advanced biochemistry courses, courses in chemistry and other areas, and a research thesis based on original research carried out under the direction of a faculty advisor. In addition, the student gains experience in professional speaking by preparing and presenting two public seminars.

## Application and Admission

In addition to the application materials required by The Graduate School, applicants must submit a one-page personal statement by the appropriate deadline to be considered for Fall, Spring, or Summer admission.

## Degree Requirements

Required Core Courses (12 hours)

| CHE 556 | Biochemistry I | 3 |
| :--- | :--- | :--- |
| CHE 557 | Biochemistry II | 3 |
| CHE 656 | Enzyme Mechanisms | 3 |
| CHE 663 | Spectroscopy and Analysis of <br> Biomolecules | 3 |

Research Techniques (6-13 hours)
Students take CHE 691 before beginning research. Students must carry out a research project under the supervision of a faculty member and write a thesis on the
research (CHE 699) (Capstone Experience). Students may take additional research hours of CHE 680 and up to 6 hours of CHE 699 for a total of 12 hours.

CHE 691 Introduction to Graduate Research
CHE 680 Research Problemsin Chemistry and Biochemistry

CHE 699 Thesis 1-6
Seminar (2 hours)
All graduate students must present two seminars, the first on a literature topic (CHE 601) and the second on their thesis research (CHE 602), normally given during the last semester of study.

CHE 601
Graduate Seminar I
CHE 602 Graduate Seminar II
Chemistry Core Elective (3 hours)
Students must select one of the chemistry core courses.
CHE 553 Advanced Organic Chemistry I 3
CHE 632 Advanced Analytical Chemistry 3
CHE 641 Advanced Inorganic Chemistry II
CHE 661 Advanced Physical Chemistry I
Electives (3 hours minimum)
Students must select 3 hours of elective courses in biochemistry or from a list of approved (by the Department Graduate Studies Committee) courses in areas related to biochemistry (cell biology, genetics, microbiology, metabolism, biophysics, or other areas). Additional courses needed to bring the total credit hours up to at least 30 should be chosen from graduate level chemistry and biochemistry courses offered by the Department or from the list of approved biochemistryrelated courses.

Comprehensive Examination
The comprehensive examination consists of a research proposal on the student's thesis research, including a literature review. The proposal must be approved by the student's thesis committee before the student may enroll in CHE 699 Thesis.

Thesis Defense
Students must defend the completed thesis before the thesis committee.

## Chemistry, MS

The MS in Chemistry gives students the opportunity to demonstrate and develop their potential for work in biochemistry and attracts individuals who have been out of an academic environment for some time or who wish
to bolster their undergraduate science experience. The successful candidate will be prepared for positions of responsibility in industry or government or for further study toward a doctoral degree.
The required 30 semester hours includes courses in the four major areas of chemistry (analytical, inorganic, organic, and physical), courses in other areas, and a research thesis based on original research carried out under the direction of a faculty advisor. In addition, the student gains experience in professional speaking by preparing and presenting two public seminars.

## Application and Admission

In addition to the application materials required by The Graduate School, applicants must submit a one-page personal statement by the appropriate deadline to be considered for Fall, Spring, or Summer admission.

## Degree Requirements

Required Core Courses (12 hours)
CHE 553 Advanced Organic Chemistry I 3
CHE 632 Advanced Analytical Chemistry 3
CHE 641 Advanced Inorganic Chemistry II 3
CHE 661 Advanced Physical Chemistry I 3
Research Techniques (6-13 hours)
Students take CHE 691 before beginning research. Students must carry out a research project under the supervision of a faculty member and write a thesis on the research (CHE 699) (Capstone Experience). Students may take additional research hours of CHE 680 and up to 6 hours of CHE 699 for a total of 12 hours.

CHE 691 Introduction to Graduate Research 1

CHE 680 | Research Problemsin Chemistry and |
| :--- | :--- |
| Biochemistry |$\quad 1-6$

CHE 699 Thesis 1-6
Seminars (2 hours)
Students must present two seminars, the first on a literature topic (CHE 601) and the second on their thesis research (CHE 602), normally given during the last semester of study.

| CHE 601 | Graduate Seminar I | 1 |
| :--- | :--- | :--- |
| CHE 602 | Graduate Seminar II | 1 |
| Electives (6 hours minimum) |  |  |
| Students select 6 hours of electives. Up to 9 hours may be |  |  |
| earned in approved (by Department Graduate Studies |  |  |
| Committee and student's research advisor) graduate |  |  |
| courses in biology, mathematics or physics. |  |  |

## Comprehensive Examination

The comprehensive examination consists of a research proposal on the student's thesis research, including a literature review. The proposal must be approved by the student's thesis committee before the student may enroll in CHE 699 Thesis.

Thesis Defense
Students must defend the completed thesis before the thesis committee.

## Medicinal Biochemistry, PhD

The PhD in Medicinal Biochemistry requires 56 semester hours in advanced biochemical and medicinal chemistry course work and a dissertation culminating from extensive laboratory research experience carried out under the direction of a faculty advisor. Additional course work is offered in specialized areas such as synthetic chemistry, bioanalytical chemistry, and computational chemistry. The student gains experience in professional speaking by giving public oral scientific presentations through the departmental seminar program. The successful candidate will be well prepared for careers in biotechnology, pharmaceutical or medical research, or academia.

## Application and Admission

In addition to the application materials required by The Graduate School, applicants must submit a one-page personal statement by the appropriate deadline to be considered for Fall or Spring admission. A minimum of a BS in Chemistry, Biochemistry or related field is required.

## Degree Requirements

## Required Core Courses

Any two of the following (6 hours)
CHE 651 Advanced Medicinal Chemistry 3

CHE 656 Enzyme Mechanisms 3
CHE 658 Nucleic Acid Biochemistry 3
CHE 659 Receptor Biochemistry 3
CHE 660 Biochemical Pharmacology and Disease Targets

3
Research Techniques (25-37 hours)
Students take CHE 691 before beginning research. Students must carry out a research project under the supervision of a faculty member and write a dissertation on the research (CHE 799).

CHE 691 Introduction to Graduate Research

CHE 780 Research Problems in Medicinal Biochemistry

| CHE 799 | Dissertation Research in Medicinal <br> Biochemistry | 1-18 |
| :--- | :--- | :--- |

Seminars (2 hours)
Students must present two seminars, the first on a literature topic (CHE 751) and the second on their dissertation research (CHE 752), normally given during the last semester of study.

CHE 751 Literature Seminar 1
CHE 752 Dissertation Seminar 1
Electives (12 hours minimum)
A minimum of 12 hours may be earned in approved (by Department Graduate Studies Committee and student's research advisor) elective graduate courses in chemistry, biology, mathematics or physics. Students who plan to pursue employment in industry are encouraged to enroll in CHE 790 Medicinal Biochemistry Internship.
Comprehensive Examination
The comprehensive examination consists of a research proposal on the student's dissertation research, including a literature review and a public oral presentation. The proposal must be presented and orally defended before the student may enroll in CHE 799 Dissertation.

## Dissertation Defense

Students must defend the completed dissertation before the dissertation committee.

## Classical Studies, Department of

1104 Moore Humanities and Research Administration Building • (336) 334-5214• www.uncg.edu/cla

## Graduate Programs

- Master of Education (MEd) in Latin, 30 hours


## Graduate Faculty

## Professors

Susan Shelmerdine, PhD, Homeric and Archaic Greek poetry, Greek tragedy, mythology and religion, Greek and Latin pedagogy.

Jeffrey Soles, PhD, Aegean archaeology (Minoans and Mycenaeans), Greek and Roman archaeology.

## Associate Professors

Maura Heyn, PhD, Art and archaeology of the Roman Empire, archaeological theory and culture change.
Hugh Parker, PhD, Latin poetry, Silver Latin literature, Medieval Latin (Head of Department).

David B. Wharton, PhD, Linguistics, literary criticism, Greek -philosophy (Director of Graduate Study).

Jonathan Zarecki, PhD, Roman philosophy, oratory and rhetoric, Greek epic.

## Assistant Professor

Joanne Murphy, PhD, Aegean archaeology, archaeology of religion, archaeological methods and theory.

## Visiting Assistant Professor

Robert Holschuh Simmons, PhD, Greek and Roman drama, Greek and Roman epic

## Latin, MEd

The MEd in Latin is a part-time, online degree program designed for Latin teachers who already have initial licensure. The degree requires 30 semester hours of coursework and concentrates on the study of Latin language and literature, with additional study required in the areas of history, classical civilization, and professional education. The online format of the courses is typically a mixture of synchronous and asynchronous instruction using the Blackboard Learn web platform, which is provided by the university to all enrolled students. The successful candidate will be eligible to apply for advanced teacher licensure in North Carolina.

## Application and Admission

Applicants must submit all application materials required by The Graduate School by the appropriate deadline to be considered for Fall, Spring, or Summer admission.

Qualified applicants should have a bachelor's degree with a B average in at least 12 hours of Latin beyond the first year.

## Degree Requirements

Study in Latin (12-15 hours)
In consultation with the Director of Graduate Study, a student will select a minimum of 12 hours from courses in Latin (LAT) at the 500 level or above.

Core Courses (9 hours)
CCI $502 \quad$ History of Latin Literature 3
LAT 552 Teaching Secondary-Level Latin: Current Trends

CCI $579 \quad$ Readings in Roman History
Professional Education (6 hours)

| TED 676 | Teacher as Researcher and Leader I | 3 |
| :--- | :--- | :--- |
| TED 677 | Teacher as Researcher and Leader II | 3 |

Electives (0-3 hours)
In consultation with the Director of Graduate Student, a student may select 3 hours from courses in classical civilization (CCI) or another appropriate filed at the 500 level or above to complete a total of 30 hours toward the degree.

## Electronic Portfolio

Students will develop an electronic portfolio consisting of evidence of teacher leadership and action research in accordance with the graduate teaching standards set by the North Carolina State Department of Public Instruction.
The portfolio and the comprehensive exam comprise the program's capstone experience.

## Non-Course Requirements

1. Diagnostic translation exam to be given in the first semester of participation in the program and reviewed by members of the Department of Classical Studies.
2. Attendance at a minimum of one professional conference to be approved in advance by the graduate advisor.
3. Attendance at two area Latin teacher meetings or pedagogical presentations approved in advance by the graduate advisor and documented with a written reflective assessment.
4. Comprehensive exam to be given within the last two semesters of a student's enrollment in the program.

The portfolio and the comprehensive exam comprise the program's capstone experience.

## Communication Sciences and Disorders, Department of

300 Ferguson Building • (336) 334-5184 •
www.uncg.edu/csd
Graduate Programs

- Master of Arts (MA) in Speech-Language Pathology, 62 hours
- Doctor of Philosophy (PhD) in Communication Sciences and Disorders, 66 hours


## Graduate Faculty

## Professors

Celia R. Hooper, PhD, CCC-SLP, Prevention of communication disorders, adult neurogenic speech and language disorders, voice disorders and care of the professional voice.

Alan G. Kamhi, PhD, CCC-SLP, Speech, language, reading development and disorders.

Robert Mayo, PhD, CCC-SLP, Fluency disorders, adult neurogenic disorders, public perceptions of communication disorders and differences.

## Associate Professors

Virginia A. Hinton, PhD, CCC-SLP, Normal speech physiology, craniofacial anomalies, neuromotor control for speech production, voice disorders.

Kristine Lundgren, ScD, CCC-SLP, Adult neurogenic communication disorders.

Susan L. Phillips, PhD, CCC-A, Psychoacoustics, speech perception (Clinical Supervisor in Audiology).
Denise A. Tucker, PhD, CCC-A, Auditory electrophysiology, audiology, hearing aids, pediatric aural rehabilitation, cochlear implants, tinnitus (Department Chair and Clinical Supervisor in Audiology).
Academic Professional Associate Professors
Perry F. Flynn, MEd, CCC-SLP, Adolescent language and reading, public school service delivery.
Lyn B. Mankoff, MA, CCC-SLP, Clinical supervision (Coordinator of Speech-Language Pathology Internships).

Louise F. Raleigh, MEd, CCC-SLP, Clinical supervision, early intervention, adolescent and adult
language/literacy (Director of Speech and Hearing Center).

## Assistant Professor

Elena Patten, PhD, CCC-SLP, Autism, childhood speech and language disorders.

## Academic Professional Assistant Professors

Colette M. Edwards, MA, CCC-SLP, Clinical supervision, preschool/school-aged language and literacy.

Lisa G. Fox-Thomas, PhD, CCC-A, Central auditory processing, tinnitus evaluation and treatment, hearing aids (Coordinator of Audiology Services and Clinical Supervisor in Audiology).
Lisa McDonald, MA, CCC-SLP, Clinical supervision, school-age language and literacy, public school service delivery.

Terri Ramsey, MEd, CCC-SLP, Diagnostics, phonology.
Visiting Assistant Professors
Sandra Barrie-Blackley, MA, CCC-SLP, Language and literacy.
Kelly D. Hall, PhD, CCC-SLP, Dysphagia and adult neurogenic disorders (Director of Graduate Study).

## Speech-Language Pathology, MA

The MA in Speech-Language Pathology is accredited by the Council of Academic Accreditation of the American Speech-Language-Hearing Association (ASHA) and provides academic and clinical instruction sufficient for the Certificate of Clinical Competence (CCC) in speechlanguage pathology awarded by ASHA and licensure in the state of North Carolina.

The program requires 62 semester hours ( 34 hours in academic course work and 28 hours in clinical course work, excluding clinical practicum hours earned) and provides a lifespan approach for advanced study of language, speech, swallowing, non-speech communication systems, and hearing in persons of all ages. The UNCG Speech and Hearing Center, the hearing and speech laboratories, and a variety of human service agencies provide ample practica and research experiences.

## Application and Admission

In addition to the application materials required by The Graduate School, applicants must submit a written personal statement, not to exceed two double-spaced typed pages, focusing on the applicant's unique qualifications and interests in the field of speech-language pathology and the master's program at UNCG. The deadline to apply for Fall admission is February 1.

Students are admitted for full-time study only. Permission for exceptions must be approved by faculty. Typically, students are enrolled full-time for two consecutive academic years including one summer session.
Students without an undergraduate degree in communication sciences and disorders should expect to spend approximately one year taking pre-professional courses (see Undergraduate Bulletin, CSD major) required for graduate course work and should consult with advisors in this program for course selection that will meet degree, certification, and licensure requirements.

Upon admission, students will be assigned an academic advisor, who will provide information regarding academic and clinical aspects of the program.

## Degree Requirements

$\begin{array}{ll}\text { Research Techniques (minimum of } 6 \text { hours) } \\ \text { CSD } 632 & \text { Introduction to Research in } \\ & \text { Communication Sciences and Disorders }\end{array}$
Non-thesis students must also take the following:

## CSD 633 Special Projects in Communication Sciences and Disorders

Thesis students must also enroll in:
CSD 699 Thesis 1-6
for one or more semesters.
Required Professional Area Courses (28 hours)
Students must complete the following courses:

| CSD 600 | Professional Issues and Ethics in SpeechLanguage Pathology | 3 |
| :---: | :---: | :---: |
| CSD 604 | Fluency Disorders | 2 |
| CSD 606 | Cognitive-Linguistic Disorders in Adults | 3 |
| CSD 612 | Augmentative and Alternative Communication | 1 |
| CSD 614 | Language Learning Disabilities | 3 |
| CSD 616 | Motor Speech Disorders | 3 |
| CSD 627 | Multicultural Issues in Communication Sciences and Disorders | 1 |
| CSD 629 | Dysphagia | 3 |
| CSD 636 | Prevention, Assessment, and Intervention of Communication Disorders: Birth - 5 | 3 |
| CSD 637 | Prevention, Assessment, and Intervention of Communication Disorders: School Age | 3 |

And select one of the following topical seminars:

| CSD 602 | Seminar in Speech Pathology: Organic |
| :--- | :--- |
| Disorders $(3: 3)$ |  |

CSD 603 Seminar in Voice Problems 3

| CSD 605 | Seminar in Speech and Language <br> Pathology |
| :--- | :--- |

CSD 608 Seminar in Cleft Palate 3
CSD 650 Independent Study 1-3

Electives in Speech-Language Pathology
Students may select, in consultation with an academic advisor in the discipline, courses in the elective professional areas:

| CSD 619 | The Supervisory Process in <br> Communication Sciences and Disorders | 1 |
| :--- | :--- | ---: |
| CSD 630 | Fundamentals for Speech and Language |  |
|  | Analysis |  |$\quad 3$


| CSD 571 | Beginning Clinical Practice in Speech- <br> Language Pathology | 3 |
| :--- | :--- | ---: |
| CSD 638 | Minor Area Clinical Practicum for <br> Speech-Language Pathology Majors | 1 |
| CSD 677 | Internship in Communication Disorders | $3-9$ |
| CSD 678 | Advanced Clinical Practice in Speech- <br> Language Pathology | 3 |

Collateral Expertise
Additional courses may be selected to meet basic science requirements for certification or licensure from the following:

| CSD 552 | Communication and Aging | 3 |
| :--- | :--- | ---: |
| CSD 554 | Advanced Speech Science | 3 |
| CSD 588 | Neurology of Speech, Language and <br> Hearing | 3 |
| CSD 601 | Special Topics in Communication <br> Sciences and Disorders | $1-3$ |

Capstone Experience

Non-thesis degree candidates will complete the research courses CSD 632 and 633 as capstone experiences. Thesis students will complete CSD 632 and 699.

In most cases, students will enroll as full-time students in the fall semester and continue full-time enrollment for the subsequent four semesters.

Fully admitted students will become academically ineligible to continue in the Department of Communication Sciences and Disorders under any of the following circumstances:

## Residence Requirement

In most cases, students will enroll as full-time students in the fall semester and continue full-time enrollment for the subsequent four semesters.

## Academic Ineligibility

1. Grades of $U, F$, or WF are received in any course;
2. Grades of $\mathrm{C}+$ or C are received in more than 6 semester hours;
3. Grades of C+ or C are received in CSD 678; or
4. The required 3.0 for graduation is not achieved within the minimum number of semester hours required for the degree.

## Communication Sciences and Disorders, PhD

The PhD in Communication Sciences and Disorders is designed for advanced study in communication sciences and disorders, intersecting disciplines, and development of research and teaching strategies. Students with backgrounds in speech language pathology, audiology, or other disciplines are encouraged to explore with the faculty the new frontiers in scientific discovery that link previous academic achievement and future study. Partand full-time study is available.

The program requires a minimum of 66 semester hours. Students who enter with a master's degree are required to earn 54 hours of course credit and 12 hours minimum of dissertation.

## Application and Admission

In addition to the application materials required by The Graduate School, applicants must submit a current curriculum vitae describing all educational and work experience and be interviewed by UNCG faculty (prospective mentors) in the student's area of special interest. The deadline to apply for Fall admission is February 1.

Doctoral students will complete 18 hours of course work in the discipline of communication sciences and disorders.

Intersecting Disciplines (12 hours)
With the approval of the Individual Program Planning Committee (IPPC), the student will select at least 12 hours of course work in a related discipline. Examples of related fields include linguistics, gerontology, genetics, neuroscience, psychology, public health, and sociology.

Professional Development (3 hours)
Doctoral students will complete three hours of professional seminar courses, wherein current topics related to the CSD profession are studied.

Tools (21 hours)
With the approval of the IPPC, the student is expected to complete a minimum of 21 hours in doctoral "tool" courses. This course work includes instruction in teaching practices, grant writing, statistics, clinical supervision, and practicum courses. The CSD department will offer handson practicum courses in the areas of teaching, grant writing, clinical supervision, and academic administration.

Dissertation (12 hours minimum)
CSD 799 Dissertation 1-12

## Formal Reviews and Examinations

The student must pass each of the reviews and examinations listed below.

1. Approval of Plan of Study: Each doctoral student will have an Individual Program Planning Committee (IPPC) assigned by the Department Chair. The IPPC helps evaluate the student's needs and assists in developing the Plan of Study.
2. Qualifying exams. The IPPC will prescribe the areas and elements of the exams. The exams will take place after at least $3 / 4$ of the course work in the Plan of Study is completed.
3. Dissertation Proposal Approval
4. Advancement to Candidacy: Following completion of course work, qualifying exams, and approval of dissertation proposal, the student may make application to The Graduate School for admission to candidacy for the doctoral degree.
5. Final Oral Examination

## Degree Requirements

## Communication Studies, Department of

102 Ferguson Building • (336) 334-5297 •
www.uncg.edu/cst

## Graduate Program

- Master of Arts (MA) in Communication Studies, 30 hours


## Graduate Faculty

## Professor

Spoma Jovanovic, PhD, Communication and communities, communication ethnics, social justice, service learning.
Roy Schwartzman, PhD, Figurative language, rhetoric of science and technology, computer-mediated communication, critical theory, Holocaust studies, public address.

## Associate Professors

Sharon L. Bracci, PhD, Communication ethics, environmental ethics, argumentation, health communication.

David Carlone, PhD, Organizational communication, social and cultural theory, cultural studies of work and organization (Director of Graduate Study).

Peter M. Kellett, PhD, Conflict analysis and management, narrative methodology.

Etsuko Kinefuchi, PhD, Intercultural communication, language and culture, cultural identity and identity negotiation.

Marianne E. LeGreco, PhD, Public health, organizational policy, nutrition promotion and practice.

Elizabeth J. Natalle, PhD, Gender and communication theory, interpersonal processes, feminist criticism.

Loreen Olson, PhD, Family/interpersonal communication, dark side of communication, gender communication.

Christopher N. Poulos, PhD, Relational communication, ethnography, philosophy of communication, film, dialogue (Head of Department).

## Assistant Professor

Cerise Glenn, PhD, Cultural identity and negotiation, African American communication and culture, organizational culture, third wave feminism,
occupational socialization, identification of diverse groups.

## Lecturers (Adjunct Graduate Faculty)

Patricia Fairfield-Artman, PhD, Strategic communication, crisis and media communication, identity negotiation in encultured organizations, gendered leadership and military

Jessica McCall, PhD, Communication pedagogy, experimental education, relational communication, small group and team communication.

## Mission

We research, teach, and practice communication to cultivate the ethical voices of people that speak in critical, constructive, and transformative ways to identities, relationships, and communities.

## Scholarship in the Department

We believe that communication is formative and foundational to human identities, relationships, and communities-and that ethical and strategically effective communication can be the means of critiquing, constructing, and transforming identities, relationships, and communities.

We engage in communication scholarship in the form of research, teaching, and service that:

- Integrates dialogue and other approaches to communication as the foundation for scholarly inquiry and application to the world
- Cultivates diversity and respect for differences
- Promotes change that leads to more democratic, just, and peaceful relationships and communities
- Engages creative partnerships of faculty, students, and other stakeholders in addressing contemporary challenges and opportunities for improving communication

We value students who are able to blend theory, research, and application in a variety of communication environments. We also value self-motivated students who are research focused and who are already good writers and speakers. Students develop the in-depth theoretical knowledge and research skills in the core courses and then apply this to the subject matter of the elective courses they take. Every elective course synthesizes communication theory, research, and application because we regard theory, research, and application as interdependent and necessary aspects of scholarship.

## Scholarly Focus Areas

These beliefs and values are articulated in the following ongoing scholarly focus areas of the department:

- Public Voice: How can communication scholarship help us to understand and improve the quality of public discourse in the world around us?
- Voices of Change, Diversity and Difference, and Conflict: How can communication scholarship help people to engage with diversity, differences, and divisions in ways that promote understanding and collaborative/democratic change?
- Voices of Identity and Relationships: How can communication scholarship help us understand how people create and sustain desired identities and healthy relationships?
- Voices of Discovery: How can communication scholarship help us understand how people learn to co-construct, share, and critique knowledge?


## Communication Studies, MA

The MA in Communication Studies requires 30 semester hours of the mandatory core courses, elective course work, and the capstone experience.

## Application and Admission

In addition to the application materials required by The Graduate School, applicants must submit a 2-3 page personal statement explaining their qualifications and interests in the program and a writing sample such as an academic paper. An interview (phone or in person) with the Director of Graduate Study or a member of the graduate faculty is also required. The fall admission deadline for those applicants interested in an assistantship is March 1. For all other applicants the fall admission deadline is April 1. The spring admission deadline is October 1. Generally, assistantships are not available to spring admission applicants.

## Degree Requirements

## Procedural Guidelines

1. Upon admission to the Department, the Director of Graduate Study will advise students on Departmental and Graduate School processes and procedures.
2. After completing the core requirements, students will be informed by the Director of Graduate Study if they are or are not meeting the academic standards and requirements of the program. At that time, students may be allowed to continue in the program, be placed on academic probation, or be asked to leave the program.
3. In the semester immediately prior to their final semester, students will form an advisory committee to assist with completion of the Final Research Project.

The committee, ideally, will consist of two faculty members with whom the student has taken courses toward the degree (and with whom the student shares common research interests), one of whom will serve as the major guiding professor on the project. The committee will guide the student through the development and execution of a research project appropriate to the culmination of the MA degree. The final product will be a scholarly essay. Satisfactory projects, with revisions, are typically suitable for submission for presentation at a local, regional, or national conference. To allow for adequate planning, the committee should be formed before either fall or spring break in the semester prior to the final semester.

Mandatory Core Courses (6 hours)
CST 601 Engaging Communication Theories
CST 602 Engaging Communication Research Methodology

The core courses form the foundation for effective scholarship and inquiry. During their first year in the program, students are required to take CST 601 in the fall semester and CST 602 in the spring semester to introduce students to the theories and methodologies necessary to engage in communication scholarship.
Elective Course Work (21 hours)
Satisfactory completion of 21 hours in CST cognate, graded courses is required. All new teaching assistants are required to take CST 599 Communication Pedagogy (3) in the fall of their first semester in the program. CST 599 is included in these 21 hours. A maximum of 9 semester hours of electives may be taken at the 500-level.
Capstone Experience (Final Research Project) (3 hours)
CST 698 Capstone Experience in Communication (Final Research Project)

All students must complete a final research project, in consultation with the Graduate Faculty, as a demonstration of mastery of the arts of communication scholarship (see Procedural Guidelines above for more information). All students must enroll for a total of 3 hours in CST 698.

Independent Study and Course Work outside the Department
Students are permitted to take independent studies and course work outside the department when additional course work is required for a student's plan of study, as determined by the Director of Graduate Study and the student. Up to three hours of course work outside the department may be included in the minimum 30-hours requirement for the MA degree.

SACS 18-Hour Requirement

Community college instructors interested in earning 18 semester hours in communication to satisfy SACS requirements should consult the Director of Graduate Study for guidance in course selection.

## Community and Therapeutic Recreation, Department of

200B Ferguson Building • (336) 334-5327•
www.uncg.edu/ctr
Graduate Programs

- Post-Baccalaureate Certificate in Geriatric Recreational Therapy, 15 hours
- Post-Baccalaureate Certificate in Animal Assisted Therapy, 15 hours
- Master of Science (MS) in Parks and Recreation Management: Community Recreation Management or Therapeutic Recreation concentration, 36 hours


## Graduate Faculty

## Professors

Leandra A. Bedini, PhD, Therapeutic recreation, family caregivers, women with disabilities, perceived stigma.

Stuart J. Schleien, PhD, Therapeutic recreation, community inclusion, intellectual and developmental disabilities, family advocacy (Head of Department \& Director of Graduate Study).

## Associate Professors

Nancy J. Gladwell, ReD, Management, commercial recreation, organizational behavior, community recreation.

Charlsena F. Stone, PhD, Therapeutic recreation, cultural competence, cultural diversity training.

## Geriatric Recreational Therapy, PBC

The online Post-Baccalaureate Certificate in Geriatric Recreational Therapy (GRT) requires 15 semester hours and is designed for the practicing recreational therapist who is interested in specializing in practice with older adults. The certificate will fulfill the requirement for geriatric specialization recently established by the National Council of Therapeutic Recreation Certification (NCTRC).

## Application and Admission

Certified Therapeutic Recreation Specialist (CTRS) status or permission of program directors is required for admission. In addition to the application materials required by The Graduate School, applicants must submit a current resume and a professional statement including geriatric recreational therapy goals. Interviews are encouraged for all applicants.

## Certificate Requirements

Required Courses ( 15 hours)

| CTR 630 | Geriatric Recreational Therapy Practice: <br> Roles and Responsibilities | 3 |
| :--- | :--- | :--- |
| CTR 631 | Geriatric Assessment for Therapists | 3 |
| CTR 632 | Evidence-based Practice in Geriatric <br> Recreational Therapy | 3 |
| GRO 501 | Seminar: Critical Issues of Aging | 3 |
| GRO 631 | Planning and Evaluation for | Professionals in Aging |

## Animal Assisted Therapy, PBC

The Post-Baccalaureate Certificate in Animal Assisted Therapy requires 15 semester hours and is designed for the practicing health and human service professional who is interesting in specializing in using therapy animals within their professional practice. The basics of animal assisted therapy, its history, and instrumentation and intervention techniques, including assessment, treatment and evaluation processes are introduced. It includes field experiences in both clinical (AAT approaches for specific disabilities) and non-clinical (classroom) applications of AAT. Courses are taught online and face-to-face field experiences are required.

## Application and Admission

In addition to the application materials required by The Graduate School, applicants must submit a current resume and a professional statement including animal assisted therapy goals. Interviews are encouraged for all applicants.

## Certificate Requirements (15 hours)

Required Courses

| CTR 535 | Animal Assisted Therapy | 3 |
| :--- | :--- | ---: |
| CTR 697 | Internship in Recreation and Parks | $3-6$ |
|  | Two approved supportive courses | 6 |

RPM 535: This course requires a weekend Pet Partners workshop for handlers only.

Approved Supportive Courses: (e.g. animal behavior, animal psychology, abnormal psychology, assessment for geriatric therapists, special education, nursing, or advanced professional practice course) related to scope of Animal Assisted Therapy practice which must be 500-level or above.

## Parks and Recreation Management, MS

The MS in Parks and Recreation Management requires 36 semester hours. Students may choose one of the following two concentrations: leisure services management or therapeutic recreation.

The student, after discussing career goals with his/her advisor, may choose either the thesis or non-thesis option. If the student selects the non-thesis option, the advisor will determine (based on amount of professional experience) whether the student completes a project, an internship, or a combination of a project and an internship. For example, a student choosing the nonthesis option and having minimal professional experience will be required to complete an internship. Students must meet with their advisor or the Director of Graduate Study before registering for any coursework.

## Application and Admission

In addition to the application materials required by The Graduate School, applicants must submit a current resume and a professional statement including career goals. Interviews are encouraged for all applicants and required for graduate assistants. Students who do not have an undergraduate degree in recreation and parks and/or appropriate professional experience will be required to take one undergraduate course from their concentration; i.e., RPM 241. Students in the therapeutic recreation concentration will be required to take two of the following three courses; i.e., RPM 231, RPM 332, RPM 338.

## Degree Requirements

Required Core Courses (9 hours)

| CTR 611 | Foundations of Recreation and Parks |
| :--- | :--- |
| CTR 613 | Recreation and Parks Management |

CTR 613 Recreation and Parks Management
Select one of the following:

| CTR 614 | Organizational Behavior in Recreation <br> and Parks |
| :--- | :--- |
| CPS 606 | Organizational Conflict: Theories and <br> Practices |
| MBA 710 | Ethical Leadership and Sustainable <br> Business |
| SOC 605 | Sociology of Organizations |
| Concentration (6-9 hours) |  |
| Community Recreation Management (9 hours) |  |

CTR $645 \quad$ Financial Trends in Recreation and Parks
CTR 646 Seminar: Community Recreation Management

| PSC 520 | Urban Political System | 3 |
| :--- | :--- | :--- |
| PSC 540 | Nonprofit Management and Leadership | 3 |
| PSC 600 | Public Administration and Management | 3 |
| PSC 601 | Politics of Public Policy | 3 |
| PSC 613 | Local Government Administration | 3 |
| PSC 615 | Human Resource Development and <br> Performance Management | 3 |
| CPS 600 | Fundamentals of Conflict <br> Transformation and Peace Studies | 3 |
| CPS 601 | Global Intercultural Conflict <br> Transformation |  |
| CPS 606 | Organizational Conflict: Theories and <br> Practices | 3 |

Therapeutic Recreation (9 hours)

| CTR 633 | Professional Issues in Therapeutic <br> Recreation | 3 |
| :--- | :--- | ---: |
| CTR 634 | Advanced Procedures in Therapeutic <br> Recreation | 3 |
| CTR 637 | Advanced Facilitation Techniques in <br> Therapeutic Recreation | 3 |

Research Techniques (9 hours)

| CTR 612 | Research Applications in Recreation and <br> Parks |
| :--- | :--- | :--- |

Select one of the following:
ERM 517 Statistical Methods in Education 3
HEA 604 Public Health Statistics 3
KIN $610 \quad$ Statistical Methods for Kinesiology 3
Select one of the following:

| ERM 604 | Methods of Educational Research | 3 |
| :--- | :--- | :--- |
| GRO 620 | Research Methods in Gerontology | 3 |
| SOC 616 | Advanced Research Methods | 3 |
| KIN 601 | Applying Research to Professional <br> Practice | 3 |
| Specialized Line of Study (3-9 hours) |  |  |
| With the approval of his/her advisor, the student selects <br> to 9 <br> a specialized knowledge base relevant to the student's <br> academic and professional interests and goals. |  |  |

Select one of the following:

## Capstone Experience (6 hours)

Select one of the following:

| CTR 697 | Internship in Recreation and Parks | $3-6$ |
| :--- | :--- | :--- |
| CTR 698 | Field Project in Recreation and Parks | $3-6$ |
| CTR 697 | Internship in Recreation and Parks | $3-6$ |
|  | and |  |
| CTR 698 | Field Project in Recreation and Parks | $3-6$ |
| CTR 699 | Thesis | $1-6$ |

## Computer Science, Department of

167 Petty Building • (336) 256-1112•www.uncg.edu/cmp

## Graduate Program

- Master of Science (MS) in Computer Science, 30 hours


## Graduate Faculty

## Professors

Francine Blanchet-Sadri, PhD, Combinatorics on words, formal languages, string algorithms.

Fereidoon Sadri, PhD, Database systems, XML information integration, modeling and management of inaccurate and uncertain data (Director of Graduate Study).

Stephen R. Tate, PhD, Computer security, cryptography, algorithms, data compression (Head of Department).

## Associate Professors

Lixin Fu, PhD, Datamining, databases, algorithms.
Nancy Green, PhD, Artificial intelligence, humancomputer interaction.

Shan Suthaharan, PhD, Digital water-marking, video coding and compression, computer networks and security, wireless communications, image processing.
Jing Deng, PhD, Wireless networking and security, information assurance.

## Computer Science, MS

The MS in Computer Science requires 30 semester hours with at least 24 hours in computer science (CSC) courses. Three options for the capstone experience are offered: comprehensive examination, project, or thesis.

## Application and Admission

Applicants must submit all application materials required by The Graduate School by the appropriate deadline to be considered for Fall, Spring, or Summer admission.

## Degree Requirements

Core Courses (6-21 hours)
Every student must complete:
CSC 640
Software Engineering

Foundations of Computer Science
Advanced Courses
Every student must either present evidence of having completed at least one advanced course in each of the following areas during the undergraduate program or take an advanced course in each of the following areas as part of the graduate program:

Operating Systems (CSC 562)
Computer Networks (CSC 567)
Theory of Computation (CSC 553)
Algorithm Analysis (CSC 555)
Advanced Database Systems (CSC 671)
Electives (9-24 hours)
With prior approval of the Director of Graduate Study, a student will select 9-24 hours of other 500- or 600-level CSC courses. A number of selected courses from other departments are also available. Interested students should contact the Director of Graduate Study.

Thesis, Project, or Comprehensive Examination (Capstone Experience)

Each candidate may elect to prepare a thesis, prepare a project, or pass a comprehensive examination on the program of course work.
Thesis (6 hours)
The candidate may prepare a thesis based on the investigation of a topic in computer science. A thesis director will be appointed by the Department Head after consultation with the student and the Director of Graduate Study. The writing of a thesis requires the scholarly exposition and documentation of a substantial problem. In some cases this may lead to a new solution to the problem and to original results. While writing the thesis, candidates may include up to 6 hours of CSC 699 in the required 30 hour program. An oral examination on the thesis is required.
Project (3-6 hours)
The candidate may prepare a project (theoretical or programmed) based on a topic in computer science. The project may be work-related. A project director will be appointed by the Department Head after consultation with the student and the Director of Graduate Study. The preparation of a project requires a description of the problem and documentation of any software products or description of theoretical solutions. While preparing the project, candidates may include 3 to 6 hours of CSC 698 in the required 30 hour program. An oral examination on the project is required.
Comprehensive Examination

A candidate may elect to pass a written comprehensive examination on the program of study. Please consult with the Director of Graduate Study for information concerning the comprehensive examination.

## Consumer, Apparel, and Retail Studies, Department of

210 Stone Building • (336) 334-5250 • www.uncg.edu/crs
Graduate Programs

- Post-Baccalaureate Certificate in Global Apparel Supply Chain Management, 15 hours
- Master of Science (MS) in Consumer, Apparel, and Retail Studies, thesis option, 30 hours minimum
- Master of Science (MS) in Global Apparel Supply Chain Management, (online, non thesis option), 31 hours
- Doctor of Philosophy (PhD) in Consumer, Apparel, and Retail Studies, 58 hours


## Graduate Faculty

## Professors

Nancy Hodges, PhD, Social psychological issues of dress, identity, and consumer behavior; epistemological and methodological components of apparel consumer research; qualitative and interpretive inquiry; gender, education, and apparel industry employment (Director of Graduate Study).

Byoungho Jin, PhD, International apparel merchandising, cross-cultural consumer and retail studies, supply chain management issues in apparel industry, competitiveness of the apparel industry in global markets.

Gwendolyn O'Neal, PhD, Meanings assigned to apparel products and their impact on preferences and behavior, consumer perception of apparel quality, clothing related violence, African-American aesthetics of dress (Chair of Department).

## Associate Professors

Melanie Carrico, MFA, Wearable arts, textile design, computer-aided apparel and textile design, digital textile printing for use in wearable art and historical reproductions, analysis of 3-D body scanning data in relation to apparel sizing systems.
Kittichai Watchravesringkan, PhD, Cross-cultural consumer and retail studies (inter-country and intra-country analysis), internet retailing, marketing communications, service quality and customer satisfaction, adolescents, consumer complaint behavior, measurement issues.

Jennifer Yurchisin, PhD, Identity and consumption; the influence of social psychological characteristics on the acquisition, use, and disposition of apparel products; apparel brand and retail store image; employee-organization identification in the apparel design, production, and retailing industry.

The Department of Consumer, Apparel, and Retail Studies offers graduate programs leading to a Post-Baccalaureate Certificate and the Master of Science and Doctor of Philosophy degrees. Course work and research focus on primary concepts in the study of consumer, apparel, and retailing, integrating perspectives from the social sciences, business, economics, and humanities.

Graduate courses focus on consumer, apparel, and retail issues with emphasis on consumer behavior and marketing. Students are encouraged to select supporting course work in related disciplines such as business, economics, sociology, psychology, anthropology, statistics, and information science.

## Global Apparel Supply Chain Management, PBC

## Certificate Requirements

The online graduate certificate in Global Apparel Supply Chain Management consists of a minimum of 15 semester hours of coursework. It is intended for professionals with a bachelor's degree from an accredited institution working in any field who are interested in gaining state-of-the-art, product-specific knowledge to address issues and problems within the global industry supply chain.
Required Core Courses ( 9 hours)

| CRS 620 | Analysis of Apparel and Related <br> Industries | 3 |
| :--- | :--- | :--- |
| RCS 662 | Behavior of Soft Lines Consumers | 3 |
| RCS 584 | Retail Strategy | 3 |

or
RCS 560 Advanced Retail Buying and Planning

Electives (6 hours)

SCM $650 \quad$| Supply Chain Management Concepts |
| :--- |
| and Principles |
| and |

Choose one of the following courses:

| SCM 651 | Transportation.Logistics and Distribution <br> in Supply Chain Management |
| :--- | :--- |
| SCM 652 | Strategic Cost, Design, Procurement and <br> Contracts |
| SCM 655 | Global Supply Operations Strategy |

## Consumer, Apparel, and Retail Studies, MS

## Application and Admission

In addition to the application materials required by The Graduate School, applicants must submit a current resume and a one to two-page goals statement. Statements should clearly outline career goals, relevant work experience, and reasons for pursuing a graduate degree; address why the Consumer, Apparel and Retail Studies program is of interest; and include specific areas of research interest related to the department's graduate program emphasis. Of the three letters of reference, one should be written by a former instructor or academic contact.

## Thesis Option

The MS in Consumer, Apparel, and Retail Studies, thesis option, requires a minimum of 30 semester hours and focuses on research issues in consumer, apparel, and retailing. It is designed to provide students with the necessary knowledge and skills to pursue careers in academics and business.

Required Core Courses (10 hours)

| RCS 662 | Behavior of Soft Lines Consumers |
| :---: | :--- |
| CRS 620 | Analysis of Apparel and Related <br> Industries |
| CRS 630 | Economic Dynamics of the Retail <br> Complex |
| CRS 682 | Graduate Seminar in Consumer, <br> Apparel, and Retail Studies |

Required Research Techniques (9-11 hours)
CRS 605 Research Methodology in Consumer, Apparel, and Retail Studies
and one of the following options:

Option 1

ERM 681

Option 3
MBA $701 \quad$ Quantitative Analysis for Decision Making

Electives (6 hours)
The student will select 6 hours, as approved by the student's chair in consultation with the committee, from available CRS 600- and 700-level courses.

Thesis (6 hours) (Capstone Experience)
CRS 699 Thesis 1-6
Thesis Advisory Committee
The student will select a graduate advisor and two other graduate faculty members to serve as a Thesis Advisory Committee. The graduate advisor must be from the Department of Consumer, Apparel, and Retail Studies. The committee must be chosen and a program of study approved no later than the second semester enrolled in graduate courses.

## Global Apparel Supply Chain Management Concentration (31 hours)

The concentration in Global Apparel Supply Chain Management requires 31 semester hours of online coursework and provides state-of-the-art skills for decision making in global apparel supply chain management with a consumer focus. Additionally the concentration requires an applied industry practicum which serves as a capstone experience.

Required Core Courses (13 hours)

| CRS 620 | Analysis of Apparel and Related |  |
| :--- | :--- | :--- |
|  | Industries |  |

RCS 560 Advanced Retail Buying and Planning

## The

| RCS 584 | Retail Strategy |
| :---: | :---: |
| RCS 662 | Behavior of Soft Lines Consumers |
| Applied Research Techniques (3 hours) |  |
| CRS 605 | Research Methodology in Consumer, Apparel, and Retail Studies |
| Required Supporting Courses (12 hours) |  |
| SCM 650 | Supply Chain Management Concepts and Principles |
| SCM 651 | Transportation.Logistics and Distribution in Supply Chain Management |
| SCM 652 | Strategic Cost, Design, Procurement and Contracts |
| SCM 655 | Global Supply Operations Strategy |
| Capstone (3 hours) |  |
| CRS 632 | Supervised Industry Practicum in Consumer, Apparel, and Retail Studies |

Students must demonstrate a broad knowledge of the material covered in the curriculum by undertaking an approved industry practicum. A formal contract will be established between the CARS graduate program committee and each student to clearly define the scope and requirements for the project. The student will be permitted to enroll in CRS 632 once the Required Core Courses are complete.

## Consumer, Apparel, and Retail Studies, PhD

## Application and Admission

In addition to the application materials required by The Graduate School, applicants must submit a current resume and a one to two-page goals statement. Statements should clearly outline career goals, relevant work experience, and reason for pursuing a graduate degree; address why the Consumer, Apparel and Retail Studies program is of interest; and include specific areas of research interest related to the department's graduate program emphasis. Of the three letters of reference, one should be written by a former instructor or academic contact.

## Degree Requirements

The PhD requires minimum of 58 hours (minimum of 90 hours beyond the BS).
Required Core Courses (19 hours)
$\begin{array}{lll}\text { CRS } 682 & \text { Graduate Seminar in Consumer, } & \\ & \text { Apparel, and Retail Studies } & 1\end{array}$
CRS 701
Literature and Thought in Consumer,

Apparel, and Retail Studies
CRS 712 Theory Development in Consumer, Apparel, and Retail Studies

CRS 713 Qualitative Methodology in Consumer, Apparel, and Retail Studies

CRS 714 Advanced Quantitative Methods in Consumer, Apparel, and Retail Studies

CRS 721 Consumer Behavior in Apparel and Retailing

RCS 662

Cognate Area (9 hours)
In consultation with the student's chair and
Advisory/Dissertation Committee, the student will identify a supporting area that will enrich and expand his or her research interest. The student will take a minimum of 9 hours within this area.

Electives (3 hours)
The student will select 3 hours, as approved by the student's chair in consultation with the
Advisory/Dissertation Committee, from available CRS 600and $700-l e v e l ~ c o u r s e s . ~$

Research and Dissertation (15 hours)
CRS 790 Independent Doctoral Research (3 hours)
CRS 799 Dissertation (12 hours)
Teaching (3 hours)
CRS $765 \quad$ College Teaching Practicum in Consumer, Apparel, and Retail Studies

Preliminary and Final Oral Examination
Advisory/Dissertation Committee
The student should consult the Advisory/Dissertation Committee section of The Graduate School Bulletin. The graduate advisor must be from the Department of Consumer, Apparel, and Retail Studies and one member must be from outside the CARS Department. The committee must be chosen no later than upon the completion of the first 18 semester hours.

## Counseling and Educational Development, Department of

228 Curry Building • (336) 334-3434 • www.uncg.edu/ced

## Graduate Programs

- Master of Science (MS) in Counseling, Clinical Mental Health Counseling, College Counseling and Student Development, or School Counseling concentration, 60 hours
- Master of Science (MS) in Counseling, Couple and Family Counseling, 66 hours
- Master of Science and Specialist in Education dual degree (MS/EdS) in Counseling, Clinical Mental Health Counseling, Couple and Family Counseling, College Counseling and Student Development, or School Counseling concentration, 72 hours
- Post-Master's Certificate in School Counseling, 27 hours
- Post-Master's Certificate in Advanced School Counseling, 12 hours
- Doctor of Education (EdD) in Counseling and Counselor Education, 82-88 hours
- Doctor of Philosophy (PhD) in Counseling and Counselor Education, 82-88 hours


## Graduate Faculty

## Professors

James M. Benshoff, PhD, NCC, ACS, LPC, Group counseling and process, leadership and consultation, teaching and technology, globalization of counseling, counseling supervision, student development in higher education.
L. DiAnne Borders, PhD, LPC, NCC, ACS, Counseling supervision, mentoring new and future counselor educators, adoptive families (including transcultural adoptive families), ethics, school counseling.

Craig S. Cashwell, PhD, LPC, NCC, ACS, Spirituality in counseling, couples counseling, sexual addiction counseling, counseling skills development, accreditation in counselor education, professional identity supervision.
Jane E. Myers, PhD, LPC, NCC, NCGC, Developmental counseling and wellness over the lifespan, neuroscience and neurofeedback, mid-life and aging issues, Adlerian counseling, assessment, counselor education and supervision, cross cultural wellness assessment and counseling.
J. Scott Young, PhD, LPC, NCC, The interface of spirituality, religion, and the counseling process; experiential approaches to counseling; the use of art in counseling; and community-based counseling (Chair of Department).

## Associate Professors

Todd F. Lewis, PhD, LPC, NCC, Adolescent substance use and risk taking behavior, social norms and collegiate drinking behavior, theoretical foundations of drinking among college students, Adlerian theory, motivational approaches to counseling, survey and clinical trials, quantitative design and multivariate analyses.

Christine Murray, PhD, LPC, LMFT, NCC, Family violence, bridging research and practice, preventive interventions, the role of resources in couple relationships, family systems and health, service learning in counselor education.

Kelly L. Wester, PhD, LPC, NCC, Self-injurious behaviors, research integrity and the responsible conduct of research, evidence-based treatments, professional development of counselor educators, gender identity, body image.

## Assistant Professors

Laura Gonzalez, PhD, NCC, College student development, college access; persistence and success/educational progress of Latino students; multiculturalism in counseling, Social Cognitive Career Theory.
Erik M. Hines, PhD, Parental involvement, African American male student academic achievement, college readiness and post-secondary opportunities for K-12 minority students, academic achievement gap, issues in school counseling, data driven strategies in school counseling, urban school counseling, multicultural counseling.

## Clinical Associate Professor

Keith Mobley, PhD, LPC, NCC, ACS, Community counseling, adolescence and adolescent development, wellness, men's studies.

There are three primary program areas in counselor education for which the Master's, Specialist, and Doctorate degrees are offered: clinical mental health counseling, college counseling and student development, and school counseling. Within these three program areas, the Council for Accreditation of Counseling and Related Educational Programs (CACREP), a specialized accrediting body recognized by the Council on Postsecondary Accreditation (COPA), has conferred accreditation to the following programs and specializations in the Department of Counseling and Educational Development at UNCG:
clinical mental health counseling (MS), college counseling and student development (MS), school counseling (MS), couple and family counseling (MS), and counseling and counselor education (PhD and EdD). Applicants admitted to a program are expected to enroll as full-time students, registering for a minimum of 12 credit hours each semester. Students appointed to graduate assistantships, however, may reduce their credit load and retain full-time status. All students admitted to the program have as their objective the completion of the entry-level MS degree or dual MS and EdS degrees, or the advanced PhD or EdD degree.

## The Curriculum

The Counselor Education program faculty adheres to the scientist problem-solver model of training. Consistent with this approach is the program's goal of graduating students who have broad knowledge of counseling theory and process, possess a high level of competency in providing professional services to diverse client populations, and view assessment and research in counseling as a continuous cyclical activity throughout the counseling process. Research is a means for obtaining and using information to generate and establish counseling goals and strategies, and for identifying "best practices" or empirically-based practices that are integral to effectiveness in counseling. The focus of this ongoing process is to bring about client change. The major tenets underlying the program include (a) exposure to a variety of theoretical orientations to counseling, (b) reliance on both the clinical-counseling and vocational-educational approaches in designing counseling and programmatic interventions, (c) a commitment to developing the student's skills as a clinician who uses research methodology in practice, and (d) a strong emphasis on the normal developmental issues of the individual as opposed to an approach based on pathology.

Especially important to the program faculty are the commitment to mental "health" (or wellness) and the value attached to understanding the common developmental themes throughout a person's life. An appealing feature is the diversity of the faculty's theoretical orientations, which translates into a variety of research opportunities available to creative students, as well as varied counseling approaches and different applied settings for gaining training experience.
To achieve the program's curriculum goals of the scientist problem-solver model of training, students are required to demonstrate satisfactory knowledge in each of the following core areas: the helping relationship; group dynamics, process, and counseling; social and cultural diversity; career and lifestyle development; appraisal of individuals; research and evaluation; and professional orientation. Available within the program requirements are courses offered by other departments that enable
students to benefit from the resources of the entire University.

Required professional core courses constitute the cognitive foundation for the development of skills in providing professional services. Also available are specialized courses dealing with particular groups and environmental settings, such as courses in family intervention, multicultural counseling, and substance abuse. Supervised clinical experience in the Vacc Counseling and Consulting Clinic is offered throughout the program parallel to core and specialty courses. Experience in applied settings is available on the campus as well as at off-campus sites; these include community mental health services; career counseling and placement; student affairs; inpatient facilities; college counseling centers; child, youth, and family agencies; and sports, outreach, and alcohol and drug programs. Students are encouraged to explore internship experiences specifically tailored to their individual needs and interests. This diversity of opportunities allows students to develop programs consistent with their own particular goals and talents.
Students are given strong encouragement to participate in professional organizations and collaborate on original research projects. Opportunities for professional involvement and leadership development include the student organization in the Department as well as state and national counseling organizations. Research courses are available at the entry level and required at the doctoral level. To help students design and complete high quality relevant dissertations, doctoral students are required to take courses in research design and statistical methods of data analysis. In addition to being given strong encouragement to participate in original research projects and presentations at professional meetings, students are expected to work closely with their selected professors in conducting their research projects. Close consultation with the faculty is strongly encouraged, particularly for students working on doctoral dissertations. The faculty views doctoral research as providing students with a starting point for developing an ongoing research program that continues beyond completion of their degree.
Mechanisms for student evaluation include progress evaluations by instructors, practicum supervisors, and internship supervisors, and reports from host internship supervisors. Comprehensive exams provide valuable feedback to students regarding their progress in the program. Faculty supervisors appraise the student's clinical skills, and this feedback is available to students.

A majority of master's degree students complete the required curriculum in two years, although students are encouraged to attend summer school after their first year in the program. A majority of dual degree MS and EdS students finish in two and one-half years, and doctoral students generally complete their degree in three years. Although a few doctoral students complete their
dissertations after their full-time study at the University, students are strongly encouraged to complete all degree requirements before leaving.

Graduates are eligible for one or more state and national credentials. Because the program is CACREP-approved, all fully enrolled master's students can take the National Counselor Examination for Licensure and Certification (NCE) during their last semester of the program. The NCE is the first step toward becoming a National Certified Counselor (NCC) and a Licensed Professional Counselor (LPC) in North Carolina. In addition, the post-master's experience requirement for the NCC credential is waived. The NCC credential is a prerequisite for several national specialty certifications offered by the National Board of Certified Counselors (NBCC), including school counseling, clinical mental health counseling, and addictions counseling. School counseling graduates are eligible for the " S " state school counseling license. Graduates of the clinical mental health counseling specialization in couple and family counseling (MS and MS/EdS dual degrees) qualify for the National Academy for Certified Family Therapist (NACFT) credential. Preparation for American Association of Marriage and Family Therapy (AAMFT) membership (see Departmental secretary for additional information) and for the Certified Substance Abuse Counselor (CSAC) in North Carolina also is available.
Recent graduates of the program have accepted positions in diverse settings similar to the breadth of internships available for students. The interest and talents of the students have served as the major criteria for determining the type of internship and employment obtained.

## Counseling, MS

The MS in Counseling requires 60 semester hours and offers concentrations in clinical mental health counseling, college counseling and student development, and school counseling. The MS in Counseling with a specialization in couple and family counseling requires 66 semester hours.

## Application and Admission

In addition to the application materials required by The Graduate School, applicants must submit a current resume/vita and a personal statement by February 15 to be considered for Fall admission.

Applicants should have vocational goals compatible with the selected program and subspecialty. Program standards are competitive and not all applicants may be admitted. Preference is given to students desiring fulltime study.

## Clinical Mental Health Counseling Concentration (60 hours)

Required Core Areas

Human Growth and Development (3 hours as advised)
Counseling individuals at all developmental levels, e.g., CED 612 Developmental Counseling (3)

Social and Cultural Diversity (3 hours as advised)
Counseling in a multicultural and diverse society, e.g., CED 605 Counseling Diverse Populations (3)

Professional Core (18 hours as advised)

| CED 610 | Helping Relationships | 3 |
| :--- | :--- | :--- |
| CED 620 | Counseling Theories and Practice | 3 |
| CED 650 | Group Counseling Theory and Practice | 3 |
| CED 669 | Career Development and Career <br> Counseling | 3 |
| CED 678 | Professional Orientation | 3 |
| CED 682 | Application of Measurement and Clinical <br> Appraisal Techniques | 3 |

Research (3 hours as advised)
Research methods used in counseling practice, ethical and legal considerations in counseling research, e.g., CED 611 The Counselor as Scientist-Practitioner (3)

Specialized and Environmental Curricular Studies (12 hours as advised)

Twelve (12) hours, as advised, in one of the following areas (see departmental program planner for specific courses):

Child and youth settings
Clinical mental health settings
Employment settings
Older adult settings
Organizational development/business and industrial settings
Public offender settings
Substance abuse settings
Sports counseling settings (Students should meet with faculty in Kinesiology to plan course of study.)
Supervised Practica and Internships (18 hours)
Twelve (12) hours of counseling internship across two (2) semesters, plus three (3) hours of field practicum, three (3) hours of advanced counseling practicum, and other practicum experiences across the curriculum as required in the Schedule of Courses.

| CED 653 | Practicum in Counseling | 1 |
| :--- | :--- | :--- |
| CED 675 | Counseling Field Practicum | 3 |
| CED 679 | Advanced Counseling Practicum | 3 |

CED 680a Counseling Internship
CED 680b $\quad 6$
Curricular Electives (3 hours)
Under advisement, a student will select from courses in
Required Core Areas.
Collateral Expertise
A student must demonstrate satisfactory performance in
professional practice. This requirement is satisfied by
successfully completing practicum and internship
requirements.
Comprehensive Examination (Capstone Experience)
Please consult with Departmental office for dates of this
eexamination.
College Counseling and Student Development
Concentration (60 hours)

Required Core Areas
Human Growth and Development (3 hours as advised)
Counseling individuals at all developmental levels, e.g., CED 612 Developmental Counseling (3)

Social and Cultural Diversity (3 hours as advised)
Counseling in a multicultural and diverse society, e.g., CED 605 Counseling Diverse Populations (3)

Professional Core (18 hours as advised)

| CED 610 | Helping Relationships | 3 |
| :--- | :--- | :--- |
| CED 620 | Counseling Theories and Practice | 3 |
| CED 650 | Group Counseling Theory and Practice | 3 |
| CED 669 | Career Development and Career |  |
|  | Counseling | 3 |
| CED 678 | Professional Orientation | 3 |
| CED 682 | Application of Measurement and Clinical |  |
|  | Appraisal Techniques | 3 |

Research (3 hours as advised)
Research methods used in counseling practice, ethical and legal considerations in counseling research, e.g., CED 611 The Counselor as Scientist-Practitioner (3)

Specialized and Environmental Curricular Studies (9 hours as advised)

Nine (9) hours, as advised, in student development in higher education (see departmental program planner for specific courses).
Supervised Practica and Internships (18 hours)

Twelve (12) hours of counseling internship across two (2) semesters, plus three (3) hours of field practicum, three (3) hours of advanced counseling practicum, and other practicum experiences across the curriculum as required in the Schedule of Courses.

| CED 653 | Practicum in Counseling | 1 |
| :--- | :--- | :--- |
| CED 675 | Counseling Field Practicum | 3 |
| CED 679 | Advanced Counseling Practicum | 3 |
| CED 680a | Counseling Internship | 6 |
| CED 680b | Counseling Internship | 6 |

Curricular Electives (6 hours)
Under advisement, a student will select from courses in Required Core Areas.

Collateral Expertise
A student must demonstrate satisfactory performance in professional practice. This requirement is satisfied by successfully completing practicum and internship requirements.

Comprehensive Examination (Capstone Experience)
Please consult with departmental office for dates of this -examination.

## Couple and Family Counseling Concentration (66 hours)

Required Core Areas
Human Growth and Development (3 hours as advised)
Counseling individuals at all developmental levels, e.g., CED 612 Developmental Counseling (3)

Social and Cultural Diversity (3 hours as advised)
Counseling in a multicultural and diverse society, e.g., CED 605 Counseling Diverse Populations (3)

Professional Core (18 hours as advised)

| CED 610 | Helping Relationships | 3 |
| :---: | :---: | :---: |
| CED 620 | Counseling Theories and Practice | 3 |
| CED 650 | Group Counseling Theory and Practice | 3 |
| CED 669 | Career Development and Career Counseling | 3 |
| CED 678 | Professional Orientation | 3 |
| CED 682 | Application of Measurement and Clinical Appraisal Techniques | 3 |

Research (3 hours as advised)

Research methods used in counseling practice, ethical and legal considerations in counseling research, e.g., CED 611 The Counselor as Scientist-Practitioner (3)

Specialized and Environmental Curricular Studies (12 hours as advised)

| CED 644 | Counseling in Community Settings |
| :--- | :--- |
| CED 642 | Substance Abuse Counseling |
| CED 687 | Diagnosis and Treatment Planning in <br> Counseling |
| CED 690 | Counselors Working with Families |
| CED 691 | Advanced Clinical Topics in Couple and <br> Family Counseling/Therapy |

Supervised Practica and Internships (18 hours)
Twelve (12) hours of counseling internship across two (2) semesters, plus three (3) hours of field practicum, three (3) hours of advanced counseling practicum, and other practicum experiences across the curriculum as required in the Schedule of Courses.

| CED 653 | Practicum in Counseling | 1 |
| :--- | :--- | :--- |
| CED 675 | Counseling Field Practicum | 3 |
| CED 679 | Advanced Counseling Practicum | 3 |
| CED 680a | Counseling Internship | 6 |
| CED 680b | Counseling Internship | 6 |

Collateral Expertise
A student must demonstrate satisfactory performance in professional practice. This requirement is satisfied by successfully completing practicum and internship requirements.

Comprehensive Examination (Capstone Experience)
Please consult with Departmental office for dates of this -examination.

## School Counseling concentration

Required Core Areas
Human Growth and Development (3 hours as advised)
Counseling individuals at all developmental levels, e.g., CED 612 Developmental Counseling (3)
Social and Cultural Diversity ( 3 hours as advised)
Counseling in a multicultural and diverse society, e.g., CED 605 Counseling Diverse Populations (3)
Professional Core (18 hours as advised)

| CED 610 | Helping Relationships | 3 |
| :--- | :--- | :--- |
| CED 620 | Counseling Theories and Practice | 3 |


| CED 650 | Group Counseling Theory and Practice | 3 |
| :--- | :--- | :--- |
| CED 669 | Career Development and Career <br> Counseling | 3 |
| CED 678 | Professional Orientation | 3 |
| CED 682 | Application of Measurement and Clinical <br> Appraisal Techniques | 3 |

Research (3 hours as advised)
Research methods used in counseling practice, ethical and legal considerations in counseling research, e.g., CED 611 The Counselor as Scientist-Practitioner (3)

Specialized and Environmental Curricular Studies (15 hours as advised)
Fifteen (15) hours across elementary, middle and high school:

| CED 641 | Counseling Children | 3 |
| :--- | :--- | :--- |
| CED 648 | Foundations of School Counseling | 3 |
| CED 671 | Understanding and Counseling <br> Adolescents | 3 |
| CED 698 | Implementing and Evaluating School <br> Counseling Programs | 3 |
| SES 540 | Introduction to Exceptional Individuals | 3 |
| Supervised Practica and Internships (18 hours) |  |  |
| Twelve (12) hours of school counseling internship across <br> two (2) semesters, plus three (3) hours of CED 677 School |  |  |
| Certification (counseling field practicum), three (3) hours <br> of advanced counseling practicum and other practicum <br> experiences across the curriculum as required in the |  |  |
| Schedule of Courses. |  |  |


| CED 653 | Practicum in Counseling | 1 |
| :--- | :--- | :--- |
| CED 677 | School Certification | 3 |
| CED 679 | Advanced Counseling Practicum | 3 |
| CED 680a | Counseling Internship | 6 |
| CED 680b | Counseling Internship | 6 |

Collateral Expertise
A student must demonstrate satisfactory performance in professional practice. This requirement is satisfied by successfully completing practicum and internship requirements.
Comprehensive Examination (Capstone Experience)
Please consult with departmental office for dates of this -examination.

## Counseling, MS/EdS

The dual degree MS and EdS in Counseling sequence allows students the opportunity to achieve a level of professional attainment beyond the MS degree and recognition of that higher level of professional attainment by receiving the EdS degree. A student admitted to the dual degree program will be awarded the MS and EdS degrees concurrently after successful completion of all prescribed course work beyond the bachelor's degree.

Concentrations are offered in clinical mental health counseling, school counseling, college counseling and student development, and couple and family counseling. All concentrations require 72 semester hours.

On average, the completion of a dual degree program takes two and one-half years.

## Application and Admission

In addition to the application materials required by The Graduate School, applicants must submit a current resume/vita and a personal statement by February 15 to be considered for Fall admission.

Applicants should have vocational goals compatible with the selected program and subspecialty. Program standards are competitive and not all applicants may be admitted. Preference is given to students desiring fulltime study.

## Clinical Mental Health Counseling concentration

| Required Core Courses |  |  |
| :---: | :---: | :---: |
| Human Growth and Development (3 hours as advised) |  |  |
| Counseling individuals at all developmental levels, e.g., CED 612 Developmental Counseling (3) |  |  |
| Social and Cultural Diversity (3 hours as advised) |  |  |
| Counseling in a multicultural and diverse society, e.g., CED 605 Counseling Diverse Populations (3) |  |  |
| Professional Core (21 hours as advised) |  |  |
| CED 610 | Helping Relationships | 3 |
| CED 620 | Counseling Theories and Practice | 3 |
| CED 642 | Substance Abuse Counseling | 3 |
| CED 650 | Group Counseling Theory and Practice | 3 |
| CED 669 | Career Development and Career Counseling | 3 |
| CED 678 | Professional Orientation | 3 |
| CED 682 | Application of Measurement and Clinica Appraisal Techniques | 3 |

Research (3 hours as advised)

Research methods used in counseling practice, ethical and legal considerations in counseling research, e.g., CED 611, The Counselor as Scientist-Practitioner (3)

Specialized and Environmental Curricular Studies (18 hours as advised)
(Prerequisite: A course in abnormal behavior.)
Choose one of the following nine areas as an emphasis:
Child and youth settings
Clinical mental health settings
Employment settings
Older adult settings
Organizational development/business and industrial settings

Public offender settings
Substance abuse settings
Sports counseling settings (Students should meet with faculty in Kinesiology to plan course of study.)

Supervised Practica and Internships (18 hours)
Twelve (12) hours of counseling internship across two (2) semesters, plus three (3) hours of field practicum, three (3) hours of advanced counseling practicum and other practicum experiences across the curriculum as required in the Schedule of Courses.

| CED 653 | Practicum in Counseling | 1 |
| :--- | :--- | :--- |
| CED 675 | Counseling Field Practicum | 3 |
| CED 679 | Advanced Counseling Practicum | 3 |
| CED 680a | Counseling Internship | 6 |
| CED 680b | Counseling Internship | 6 |
| CED 680c | Counseling Internship | 6 |
| CED 680d | Counseling Internship | 6 |

Curricular Electives (6 hours)
Under advisement, a student will select from courses in Required Core Areas.

Collateral Expertise
A student must demonstrate satisfactory performance in professional practice. This requirement is satisfied by successfully completing practicum and internship requirements.
Comprehensive Examination (Capstone Experience)
Please consult with departmental office for dates of this -examination.

## Couple and Family Counseling Concentration

The couple and family counseling program requires that students follow the basic plan of study for clinical mental health counseling but with specialized studies in couple and family counseling. Students in couple and family counseling enroll in specialized course work to include CED 690 Counselors Working with Families, CED 691 Advanced Clinical Topics in Couples and Family Counseling/Therapy, and internships in family counseling. Other couple and family counseling course work is selected under advisement.

## College Counseling and Student Development Concentration

Required Core Areas
Human Growth and Development (3 hours as advised)
Counseling individuals at all developmental levels, e.g., CED 612 Developmental Counseling (3)

Social and Cultural Diversity (3 hours as advised)
Counseling in a multicultural and diverse society, e.g., CED 605 Counseling Diverse Populations (3)

Professional Core (21 hours as advised)

| CED 610 | Helping Relationships | 3 |
| :--- | :--- | :--- |
| CED 620 | Counseling Theories and Practice | 3 |
| CED 642 | Substance Abuse Counseling | 3 |
| CED 650 | Group Counseling Theory and Practice | 3 |
| CED 669 | Career Development and Career |  |
|  | Counseling | 3 |
| CED 678 | Professional Orientation | 3 |
| CED 682 | Application of Measurement and Clinical | 3 |

Research (3 hours as advised)
Research methods used in counseling practice, ethical and legal considerations in counseling research, e.g., CED 611 The Counselor as Scientist-Practitioner (3)
Specialized and Environmental Curricular Studies (15 hours as advised)

Selections are to be made under advisement.
Supervised Practica and Internships (18 hours)
Twelve (12) hours of counseling internship across two (2) semesters, plus three (3) hours of field practicum, three (3) hours of advanced counseling practicum, and other practicum experiences across the curriculum as required in the Schedule of Courses.

| CED 675 | Counseling Field Practicum | 3 |
| :--- | :--- | :--- |
| CED 679 | Advanced Counseling Practicum | 3 |
| CED 680a | Counseling Internship | 6 |
| CED 680b | Counseling Internship | 6 |
| CED 680c | Counseling Internship | 6 |
| CED 680d | Counseling Internship | 6 |

Curricular Electives (9 hours)
Under advisement, a student will select from courses in Required Core Areas.

Collateral Expertise
A student must demonstrate satisfactory performance in professional practice. This requirement is satisfied by successfully completing practicum and internship requirements.
Comprehensive Examination (Capstone Experience)
Please consult with departmental office for dates of this -examination.

## School Counseling Concentration

## Required Core Areas

Human Growth and Development (3 hours as advised)
Counseling individuals at all developmental levels, e.g., CED 612 Developmental Counseling (3)

Social and Cultural Diversity ( 3 hours as advised)
Counseling in a multicultural and diverse society, e.g., CED 605 Counseling Diverse Populations (3)

Professional Core ( 21 hours as advised)
CED 610 Helping Relationships 3

CED 620 Counseling Theories and Practice 3
CED 642 Substance Abuse Counseling 3
CED 650 Group Counseling Theory and Practice 3
$\begin{array}{ll}\text { CED } 669 & \begin{array}{l}\text { Career Development and Career } \\ \text { Counseling }\end{array}\end{array}$
CED 678 Professional Orientation 3
CED 682 Application of Measurement and Clinical Appraisal Techniques

Research (3 hours as advised)
Research methods used in counseling practice, ethical and legal considerations in counseling research, e.g., CED 611 The Counselor as Scientist-Practitioner (3)
Specialized and Environmental Curricular Studies (15 hours)

Fifteen (15) hours across elementary, middle and high school:

| CED 641 | Counseling Children | 3 |
| :--- | :--- | :--- |
| CED 648 | Foundations of School Counseling | 3 |
| CED 671 | Understanding and Counseling <br> CED 698 | Adolescents |
|  | Implementing and Evaluating School | 3 |
| SES 540 | Counseling Programs | 3 |
|  | Introduction to Exceptional Individuals | 3 |

Supervised Practica and Internships (18 hours)
Twelve (12) hours of school counseling internship across two (2) semesters, plus three (3) hours of field practicum, three (3) hours of advanced counseling practicum, and other practicum experiences across the curriculum as required in the Schedule of Courses.

| CED 653 | Practicum in Counseling | 1 |
| :--- | :--- | :--- |
| CED 677 | School Certification | 3 |
| CED 679 | Advanced Counseling Practicum | 3 |
| CED 680a | Counseling Internship | 6 |
| CED 680b | Counseling Internship | 6 |
| CED 680c | Counseling Internship | 6 |
| CED 680d | Counseling Internship | 6 |
| Curricular Electives (9 hours) |  |  |
| Under advisement, a student will select from courses in |  |  |
| Required Core Areas. |  |  |

Collateral Expertise
A student must demonstrate satisfactory performance in professional practice. This requirement is satisfied by successfully completing practicum and internship requirements.
Comprehensive Examination (Capstone Experience)
Please consult with departmental office for dates of this -examination.

## School Counseling, or Advanced School Counseling, PMC

Post-Master's Certificate programs are designed to meet practicing counselors' needs for professional development, in response to advances and greater specialization in the profession.
The curriculum for each certificate is based on national accreditation standards, competency statements, and/or certification standards for each of the areas. Each Certificate consists of 12-24 semester hours of required course work, including internship requirements.

Internships involve a 300- to 600-hour supervised clinical experience across one or two semesters in an appropriate setting. In addition, co-requisite hours may be required for students whose master's degree was not completed in a CACREP-accredited counseling program. Prerequisite courses and certificate courses are usually offered during morning and afternoon hours. Typically, students can complete a program in three semesters; students have five academic years to complete a program.

## Application and Admission

Post-Master's Certificate applicants must hold a Master's degree in counseling. Corequisite hours are required for students whose Master's degree was not completed in a CACREP-accredited counseling program. Students need to enroll in regular department courses in order to fulfill these corequisites.

## School Counseling

Applications are reviewed during the weeks preceding the start of classes for fall and spring semesters. The deadline for fall admission is July 1, for spring admission, November 1; for summer admission, April 1. In addition to the application materials required by The Graduate School, applicants should indicate the certificate of interest and submit a resume and a personal statement, including personal and professional qualifications and professional goals relevant to the certificate. All applicants should consult with the Department of Counseling and Educational Development for additions to the above requirements.

## Advanced School Counseling

In addition to the application materials required by The Graduate School, applicants should submit a complete vita/resume, a statement of professional goals in applying for this certificate, a copy of the school counseling license, and a letter of endorsement from current principal or other school administrator.

A cohort model is used in the PMC in advanced school counseling. The application deadline is December 1; cohorts begin each spring semester. Applications remain active for 1 year; if not accepted for one cohort, the application is considered for the next cohort.

## School Counseling (27 hours)

Internships involve a 600-hour supervised experience across two semesters in an appropriate setting.

Required Courses - Elementary/Middle School
CED $648 \quad$ Foundations of School Counseling
CED 677 School Certification

CHE 653 Physical Organic Chemistry


CED 677: Taken in conjunction with CED 648. Course does not count towards the hours required for the Certificate.

CED 680c, CED 680d: school counseling setting
Electives
A minimum of one elective (3 semester hours), selected under advisement, must be completed.

Note: Some counseling courses have a one-hour corequisite counseling practicum; hours for that practicum do not count towards the hours required for the Certificate.

Note: This Certificate would be classified as a licensureonly program at the graduate level.

## Advanced School Counseling (12 hours)

The online advanced school counseling certificate is designed to allow fully licensed, practicing school counselors with at least 2 years experience as a school counselor to move from the " $M$ " level license to the " S " level license.

All students take the required 12 hours of course work.

| CED 661 | Group Counseling in Schools | 3 |
| :--- | :--- | :--- |
| CED 662 | Multicultural Considerations in School <br> Counseling | 3 |
| CED 663 | School Counselors as Consultants in <br> Educational Settings | 3 |
| CED 664 | Advanced Contemporary Topics in <br> School Counseling | 3 |

## Counseling, EdD or PhD

The PhD or EdD in Counseling requires 82-88 semester hours beyond the master's or, for those students entering the program in the MS/PhD enrollment option, a minimum of 108 semester hours beyond the baccalaureate degree. Students enrolling in the MS/PhD option must hold an appropriate baccalaureate degree combined with superior ability and a high level of motivation and dedication to learning. After completing the MS degree, MS/PhD students continue study toward the PhD contingent on strong progress throughout their previous course work. Because entry-level (master's level) preparation programs vary, the doctoral program requirements are cumulative from the baccalaureate degree for entering PhD students who have completed a master's degree program at another institution. The doctoral program focuses on developing professional competencies of the student through advanced study of theory and practice of counseling as it relates to research, the behavioral sciences, and supervision.

## Admission Requirements

In addition to the application materials required by The Graduate School, doctoral applicants are required to have graduated from a master's program in counseling or acceptable equivalent that is accredited by the Council for Accreditation of Counseling and Related Educational Programs. They also may present evidence of an appropriate degree from a regional accredited university. (CACREP requirements for a master's program are needed; if missing, these are prerequisites for admission.)

Applicants to all graduate counseling programs should have vocational goals compatible with the selected program and subspecialty.

Program standards are competitive and not all applicants may be admitted. Preference is given to students desiring full-time study.

## Degree Requirements

Professional Core (19 hours)

| CED 756a | Advanced Counseling Theory and Research |
| :---: | :---: |
| CED 756b | Advanced Counseling Theory and Research |
| CED 760a | Consultation in Counseling and Counselor Education |
| CED 760b | Leadership in Counseling and Counselor Education |
| CED 777a | Seminar in Counseling |
| CED 777c | Seminar in Counseling |
| CED 781a | Counseling Supervision |
| CED | Elective |
| Cognate (12 hours as advised) |  |
| To be selected under advisement. |  |
| Supervised Practica and Internships (15 hours) |  |
| CED 779 | Advanced Counseling Practicum |
| CED 757 | Internship in University Teaching in Counseling |
| CED 780a | Advanced Counseling Internship |
| CED 781b | Counseling Supervision |

Students who enter the doctoral program directly from their master's program will be required to complete an additional semester of internship CED 780b.

Students may enroll in additional semesters of teaching (CED 757) and supervision (CED 781c and d), assuming successful experience in prior semesters.

Research Techniques (24 hours)

| CED 720a | Research Apprenticeship | 3 |
| :--- | :--- | :--- |
| CED 720b | Research Apprenticeship | 3 |
| CED 740 | Research Practicum in Counseling | 3 |
| CED 777b | Seminar in Counseling | 3 |
| CED 777d | Seminar in Counseling | 3 |
|  | ERM or STA sequence | 9 |

Comprehensive Examination
Requires consultation with major advisor concerning format and dates of this examination.

Dissertation (12 hours)
It is expected that doctoral students will be continuously enrolled in course work until graduation. Students will maintain continuous enrollment after course work has been completed by enrollment in CED 775 Directed Doctoral Research.

## Dance, Department of

323 Health and Human Performance Building • (336) 3345570 • www.uncg.edu/dce

## Graduate Programs

- Post-Baccalaureate Licensure in Dance Education
- Master of Fine Arts (MFA) in Dance, Choreography or Design concentration, 60 hours
- Master of Arts (MA) in Dance, Dance Education or Theories and Practices concentration, 36 hours


## Graduate Faculty

## Professors

Jill Green, PhD, Dance education, somatics (body-mind practice), creativity, feminist and post-positivist research, socio-cultural issues of the body (Director of Graduate Study).

Larry E. Lavender, MFA, PhD, Choreography, dance criticism, aesthetics, creative process.

Janet Lilly, MFA, Choreography, technique, lyengar yoga (Head of Department).
Jan E. VanDyke, EdD, Choreography, social and economic issues in dance.

## Associate Professors

Duane Cyrus, MFA, Dance technique, performance, and choreography. Interdisciplinary integration of theatre, technology, and dance. African-American dance and theatre history. Issues of representation in media and performance.
Robin M. Gee, MFA, African and American dance, choreography, historical and cultural studies in dance.

Mila Parrish, PhD, Curricular issues in dance education, reconstruction, creative process, Laban Movement Analysis, dance technology (Director, MA Dance Education).
Elizabeth J. Sullivan, MFA, Choreography, somatic practices, application of alternative approaches to movement technique.

## Academic Professional Professor

R. Mitchell Fore, MFA, Resident technical director and lighting designer.

## Academic Professional Assistant Professor <br> Melinda Waegerle, MA, Dance education. <br> Academic Professional Instructor <br> Frank Vulpi, MA, Music Coordinator.

## Dance, PBL

Students in the MFA or the MA in dance with a concentration in theories and practices may complete additional course work to be eligible for Standard Professional I licensure.

## Requirements

The following courses must be completed prior to graduate admission or as part of or in addition to the degree requirements.

|  | Ballet |  |
| :---: | :---: | :---: |
|  | Contemporary Dance at the intermediate level or higher |  |
|  | Jazz |  |
|  | African Dance |  |
|  | One additional global dance form |  |
|  | Choreography |  |
|  | Music for dance |  |
| DCE 359 | Foundations for Dance Education | 2 |
| DCE 505 | Contemporary Dance: Aesthetic and Cultural Practice | 3 |
| DCE 662 | Practicum in Teaching Dance | 1-3 |
| DCE 663 | PreK-12 Dance Education Practicum | 3-6 |
| ELC 401 | Schooling in a Democratic Society | 1 |
| ERM 401 | Assessment I: Accountability in Our Nation's Schools | 1 |
| SES 401 | Understanding and Teaching Students with Disabilities in Inclusive Settings | 1 |
| TED 401 | Child and Adolescent Development and Learning | 1 |
|  | or |  |
| TED 669 | Educational Implications of Learning and Developmental Theory | 3 |
| TED 402 | Student Engagement in the Classroom | 1 |
|  | or |  |
| TED 545 | Diverse Learners | 3 |

Teaching English Learners with Diverse Abilities
or

TED 650
The Interaction of Classroom Management and Instruction

DCE 662, DCE 663: for a total of 6 semester hours
Note: Completion of these courses does not guarantee licensure. Students are advised of additional requirements for documenting the evidence required for licensure.

## Dance, MFA

## with Concentrations in Choreography or Design

The MFA in Dance requires 60 semester hours and is normally completed over three years, culminating in a dance concert or project designed and carried out by the student with the support of faculty. Concentrations in choreography or design are available. Students develop and clarify their choreographic voices and deepen their understandings of dance making as a personal, aesthetic, cultural, and social process and product through guided investigations of choreographic methods, practices in coaching and performing movement, and theories and practices in dance research. The MFA is a terminal degree commonly held by studio teaching faculty at the university level.

## Application and Admission

Prospective students should contact the department before submitting an application.

In addition to the application materials required by The Graduate School, applicants should submit a personal statement and samples of work directly to the department. The deadline for apply for Fall admission is December 1. An audition is also required.

Admission to graduate study in dance is on the basis of competence as evidenced by the undergraduate record and demonstrated proficiency and potential in the field of dance.

## Choreography Concentration

Required Courses (31 hours)
DCE 555 Technology in the Creation and Preservation of Dance Works (3)

DCE 610 Dance: The Phenomenon I (3)
DCE 622 Dance Criticism (3)
DCE 624 Movement for Dance (1, three times)
DCE 630 Advanced Body Theories and Practices in Dance (4)

DCE 651 Choreographic Practice ( 2 , four times)

DCE 661 Dance Pedagogy in Higher Education (2)
DCE 662 Practicum in Teaching Dance (1)
Electives (23 hours)
Students select 23 hours of electives, including 17 hours in dance and 6 hours outside of the department.

Culminating Project (6 hours) (Capstone Experience)
For a full-length concert or equivalent artistic presentation:

DCE 697 Masters Production Project (6)
For significant research that directly informs a major choreographic work (or series of works) equivalent to half a concert:

DCE 697 Masters Production Project (3)
DCE 698 Field Project in Dance (3)
Program Progression and Reviews
All students are reviewed by the dance faculty in the Spring semester of their first year. Faculty assess student progress and promise in their degree program and make recommendations for improvement. Students receive a letter from the Director of Graduate Study reporting faculty recommendations.

After removal of all deficiencies, three semesters of choreography practica (DCE 651), and at the completion of at least 30 graduate hours, MFA students undergo portfolio review and apply for admission to candidacy. Admission is based on a variety of criteria, including a minimum overall 3.0 GPA. Students submit a portfolio of work to the Director of Graduate Study, usually by December 1 of their third semester, for review by the Graduate Committee. See the Department's Graduate Handbook for portfolio contents and process.

When the student has been in residence for at least two semesters and passed candidacy, he/she assembles a committee of at least three members of the graduate dance faculty to review his or her culminating concert or project proposal. Proposal guidelines are included in the Graduate Handbook. Once the Committee approves the proposal, the student may register for DCE 697 or DCE 698 and work towards culmination of study.

## Design Concentration

Required Courses (27 hours)
DCE 610 Dance: The Phenomenon I
DCE 611 Dance: The Phenomenon II 3
DCE 555 Technology in the Creation and Preservation of Dance Works

DCE 624
Movement for Dance
Dance Design Practicum

DCE 650: (three times - 9)
Electives (27 hours)
Students select 27 hours of electives, 9 hours of which must be outside of the department.

Culminating Project (6 hours) (Capstone Experience)
DCE 697 Masters Production Project 1-
Program Progression and Reviews
At the completion of at least 30 graduate credit hours, including removal of all deficiencies and three semesters of design practica (DCE 651), MFA students undergo portfolio review and apply for admission to candidacy. Admission is based on a variety of criteria, including a minimum overall 3.0 GPA. Students submit a portfolio of work to the Director of Graduate Study, usually by December 1 of their third semester, for review by the Graduate Committee. See the Department's Graduate Handbook for portfolio contents and process.
When the student has been in residence for at least two semesters and passed candidacy, he/she assembles a committee of at least three members of the graduate dance faculty to review his or her culminating concert or project proposal. Proposal guidelines are included in the Graduate Handbook. Once the Committee approves the proposal, the student may register for DCE 697 or DCE 698 and work towards culmination of study.

## Dance, MA

## with a concentration in Dance Education

The MA in Dance with a concentration in dance education requires 36 semester hours and is designed for public school dance educators. Entering students who already hold the North Carolina Standard Professional I license in Dance will be eligible for advanced (M) licensure upon completion of the degree.

The degree is available through a combination of online courses at UNCG, summer study on campus, and selected courses taken on campus or online from other institutions. Designed for part-time students, the degree requires $31 / 2-4$ years for completion.

## Application and Admission

Students are admitted only in alternate (even) years and must begin their study with a required summer course on campus. The deadline to apply is April 1.

In addition to the application materials required by The Graduate School, additional materials are required by the Department. Prospective students should contact the Department before submitting an application.
Admission to graduate study in dance is on the basis of competence as evidenced by the undergraduate record and demonstrated proficiency and potential in the field of dance.

## Degree Requirements

Required Courses (36 hours)
With or Without Licensure

| DCE 560 | The Dancer's Body | 3 |
| :---: | :---: | :---: |
| DCE 610 | Dance: The Phenomenon I | 3 |
| DCE 611 | Dance: The Phenomenon II | 3 |
| DCE 646 | Reflective Practice in P-12 Dance Education | 3 |
| DCE 651 | Choreographic Practice | 3 |
| DCE 654 | P-12 Dance Education: Technique and Performance | 1 |
| DCE 655 | P-12 Dance Education: Choreography | 1 |
| DCE 656 | P-12 Dance Education: Critical Thinking/Literacy | 1 |
| DCE 660 | Issues in Planning the Dance Curriculum | 3 |
|  | Undergraduate credits in dance technique | 4 |

DCE 560, DCE 651: summer courses
Undergraduate Credits in dance technique: (or equivalent in approved professional study)
Additional Requirements for Students NOT seeking Licensure
Electives in Dance Education or related area (9)
DCE 698 Field Project in Dance (3-6)
Students who have not completed coursework in educational psychology and diverse learners will be required to do so for elective credit.

Electives: (approved by advisor)
DCE 698: (Culminating Project/Capstone Experience)
Additional Requirements for Students Seeking M Licensure
One graduate course in Teacher
Leadership
One graduate course in Human
Development and Learning
One additional graduate course in
education

DCE 693 Portfolio in K-12 Dance Education 1-6
Graduate course in education: (approved by advisor)
DCE 693: (Culminating Project/Capstone Experience)

## Reviews

All students are reviewed by the dance faculty when 9-15 hours of graduate course work are complete. Faculty assess student progress and promise in their degree program and make recommendations for improvement. Students receive a letter from the Director of Graduate Study reporting faculty recommendations.

Once students have completed at least two-thirds of the course work, including DCE 610, and they have achieved a minimum overall 3.0 GPA, a Portfolio and Project Proposal Review is scheduled. Students must pass this Review before they can begin their culminating projects. Guidelines are listed in the Graduate Handbook.
The final review takes place at the end of the semester when DCE 693 or 698 is completed.

## Dance, MA

## with a concentration in Theories and Practices

The MA in Dance with a concentration in theories and practices requires 36 semester hours.

## Application and Admission

Prospective students should contact the department before submitting an application.
In addition to the application materials required by The Graduate School, applicants should submit a personal statement and samples of work directly to the department). The deadline to apply for Fall admission is December 1. An audition is also required.
Admission to graduate study in dance is on the basis of competence as evidenced by the undergraduate record and demonstrated proficiency and potential in the field of dance.

## Degree Requirements

| Required Courses (12-13 hours) |  |  |
| :--- | :--- | :--- |
| DCE 505 | Contemporary Dance: Aesthetic and <br> Cultural Practice | 3 |
| DCE 560 | The Dancer's Body | 3 |
| DCE 630 | or  <br>  Advanced Body Theories and Practices in <br> Dance  | 4 |



DCE 610 Dance: The Phenomenon I
DCE 611 Dance: The Phenomenon II
Electives (17-21 hours)
Students select electives with the approval of the advisor, at least 9 hours of which are in dance. A research course outside the department is recommended.
Culminating Project (3-6 hours) (Capstone Experience)
Students choose one of the following:

| DCE 663 | PreK-12 Dance Education Practicum | $3-6$ |
| :--- | :--- | :---: |
| DCE 698 | Field Project in Dance | $1-6$ |
| DCE 699 | Thesis | $1-6$ |

## Reviews

All students are reviewed by the dance faculty when 12 hours of graduate course work are complete. Faculty assess student progress and promise within the degree program and make recommendations for improvement.

Once students have completed at least two-thirds of the course work and DCE 610 and have achieved a minimum overall 3.0 GPA, students select a committee of at least three members of the graduate dance faculty and schedule a Portfolio and Project Proposal Review. Students must pass this Review before they can begin their culminating projects. Guidelines are listed in the Graduate Handbook.

## Economics, Department of

462 Bryan Building • (336) 334-5463 •
www.uncg.edu/bae/econ

## Graduate Programs

- Master of Arts (MA) in Applied Economics, 33 hours
- Master of Arts/Doctor of Philosophy (MA/PhD) in Economics, 75 hours
- Doctor of Philosophy (PhD) in Economics, 60 hours


## Graduate Faculty

## Professors

Stuart D. Allen, PhD, Macroeconomics, monetary economics (Head of Department).

Albert N. Link, PhD, R\&D, innovation and science policy, productivity analysis.
John L. Neufeld, PhD, Energy economics, microeconomics, economic history.

David Ribar, PhD, Labor economics, demographic economics, applied econometrics, microeconomics.

Joseph Terza, PhD, Health economics, applied economics.

## Associate Professors

Peter M. Bearse, PhD, Econometrics, public economics.

Stephen P. Holland, PhD, Natural resources and environmental economics, industrial organization.

Stephen Layson, PhD, Microeconomic theory, economics of crime.

Dennis P. Leyden, PhD, Public finance, economics of public education, public choice.

Kenneth A. Snowden, Jr., PhD, Economic history, financial economics, macroeconomics (Director of Graduate Study).
Christopher Swann, PhD, Labor economics, applied economics.

Assistant Professors
Dora Gicheva, PhD, Labor economics, macroeconomics personnel economics.

Garth Heutel, PhD, Environmental and natural resources, public economics.

## Adjunct Professors

Jeremy Bray, PhD, Health economics, labor economics, applied microeconomics.

Charles Courtemanche, PhD, Health economics, applied microeconomics.

The faculty of the Department of Economics has an established national reputation for scholarship in applied microeconomic research. The department's graduate programs are specially focused on developing the theoretical and econometric tools required to formulate and interpret quality empirical research and the data handling and communication skills required to conduct and disseminate the outcomes of that research.

## Mission Statement

The Department of Economics supports the teaching, research, and service missions of the University and the Bryan School of Business and Economics. The Department's undergraduate courses and programs prepare students for the competitive global marketplace, career and professional development, and graduate education. Its innovative graduate programs, the MA in Applied Economics and the PhD in Economics with a focus on applied microeconomics, provide students with a mastery of advanced empirical and analytical methods so they can conduct high-quality research and contribute to the knowledge base in business, government, non-profit, and research settings. The Department conducts highquality nationally-recognized research that supports its academic programs, promotes economic understanding, and fosters economic development in the Triad and the state.

## Applied Economics, MA

The MA in Applied Economics is designed for students who seek careers in business, finance, or government as economists, forecasters, policy analysts, economic researchers, or managers with strong quantitative skills. Students who expect to work in the financial sector may elect to complete the financial economics concentration. Excellent training is also provided for students who wish to enter the PhD program at UNCG or to pursue additional graduate education at other institutions.
Course work for the 33-hour degree combines core knowledge in economic theory and econometrics, specialized applied research methods, advanced electives, and a capstone research seminar focused on either public policy or forecasting. The concentration in financial economics incorporates course work in finance and related areas.

## Application and Admission

Applicants must submit all application materials required by The Graduate School by the appropriate deadline for Fall or Spring admission.

Students may apply directly to the combined MA/PhD at any time while enrolled in the MA program.

## Degree Requirements

Core Knowledge Requirement (18 hours)
ECO 619 Mathematical Economics 3
ECO 641 Microeconomics I 3
ECO 642 Microeconomics II 3
ECO 643 Econometric Methods 3
ECO 644 Econometric Theory 3
ECO 646 Macroeconomics
Applied Research Methods (6 hours)
ECO 725 Data Methods in Economics 3
ECO 731 Applied Policy Methods
Electives (6 hours)
At least 3 hours must be earned with an advanced graduate economics course (ECO 730 or above). The remaining 3 hours may be earned with 500-, 600-, or 700level economics courses or with approved graduate courses taken outside the department. Electives in economics include:

| ECO 510 | Law and Economics | 3 |
| :--- | :--- | ---: |
| ECO 518/HIS | American Economic History: 1865 to | 3 |
| 518 | Present | 3 |
| ECO 523 | Topics in Public Policy | 3 |
| ECO 555 | History of Economic Thought | $1-4$ |
| ECO 722 | Time Series and Forecasting | 2 |
| ECO 733 | Special Topics in Applied Public Policy | $1-4$ |
| ECO 735 | Labor Economics | $1-4$ |
| ECO 736 | Public Economics | $1-4$ |
| ECO 737 | Health Economics | $1-4$ |
| ECO 738 | Topics in Economics | $1-4$ |
| ECO 739 | Independent Field Course | 3 |
| ECO 741 | Advanced Mathematical Economics | 3 |
| ECO 742 | Advanced Microeconomic Theory | 3 |
| ECO 743 | Advanced Microeconomic Theory II | 3 |
| ECO 745 | Advanced Econometric Theory | 3 |
| ECO 746 | Advanced Econometric Theory II | 3 |

Research Seminar (3 hours) (Capstone Experience)

Students take one of the following:

| ECO $721 \quad$ Empirical Microeconomics | $1-4$ |
| :--- | :--- |
| ECO $723 \quad$ Predictive Data Mining |  |
| Qualifying Examinations |  |
| As a requirement for graduation each student must |  |
| successfully complete two qualifying examinations-one |  |
| in economic theory and one in econometrics. Both |  |
| examinations are administered during the first two weeks |  |
| of the spring semester, and students must pass each with |  |
| a minimum grade of B- (2.7). Students who do not pass |  |
| either or both examinations may retake the |  |
| examination(s) one time. |  |

## Economics, MA/PhD

The curricula of the MA and PhD are closely integrated and mutually support the integrated MA/PhD degree track. Within this 75 hour program the student completes all the requirements of the MA program (see above) and the requirements of the 60 hour PhD program outlined below. Courses marked (*) below fulfill the requirements for the 33 hour MA degree program.

## Application and Admission

Well-qualified applicants with a baccalaureate degree in economics must submit all application materials required by The Graduate School by the appropriate deadline for Fall or Spring admission.
Students may apply directly to the combined MA/PhD program or at any time while enrolled in the MA program.

## Degree Requirements

Economic Theory and Mathematical Economics Courses (18 hours)

| ECO 619 | Mathematical Economics | 3 |
| :--- | :--- | :--- |
| ECO 641 | Microeconomics I | 3 |
| ECO 646 | Macroeconomics | 3 |
| ECO 741 | Advanced Mathematical Economics | 3 |
| ECO 742 | Advanced Microeconomic Theory | 3 |
| ECO 743 | Advanced Microeconomic Theory II | 3 |

ECO 741: MA elective
ECO 742: substitutes for MA requirement ECO 642
All courses except ECO 743: courses fulfill the requirements for the 33 hour MA degree program.

Econometrics Courses (12 hours)

| ECO 643 | Econometric Methods | 3 |
| :--- | :--- | :--- |
| ECO 644 | Econometric Theory | 3 |
| ECO 745 | Advanced Econometric Theory | 3 |
| ECO 746 | Advanced Econometric Theory II | 3 |

ECO 745: MA elective
ECO 643, ECO 644, ECO 745: courses fulfill the requirements for the 33 hour MA degree program.

Research Methods (9 hours)

| ECO 721 | Empirical Microeconomics | $1-4$ |
| :--- | :--- | ---: |
| ECO 725 | Data Methods in Economics | 3 |
| ECO 731 | Applied Policy Methods | 3 |

Courses fulfill the requirements for the 33 hour MA degree program.

Empirical Field Courses (12 hours)
Students must complete at least 12 hours chosen from the following:

| ECO 733 | Special Topics in Applied Public Policy | 2 |
| :--- | :--- | ---: |
| ECO 735 | Labor Economics | $1-4$ |
| ECO 736 | Public Economics | $1-4$ |
| ECO 737 | Health Economics | $1-4$ |
| ECO 738 | Topics in Economics | $1-4$ |
| ECO 739 | Independent Field Course | $1-4$ |
| Supervised Independent Field Research (12 hours) |  |  |
| ECO 797 | Seminar in Empirical Economics | $3-6$ |
| ECO 798 | Seminar in Economic Research | $3-6$ |

## Comprehensive Examinations

As a requirement for the MA degree, students must successfully complete the comprehensive examination in economic theory and econometrics after their first semester of course work. That examination is described more fully in the description of the MA program.

For the PhD degree, students are required to successfully complete a qualifying examination in economic theory and econometrics after completion of the PhD core (ECO 741, ECO 742, and ECO 745). The qualifying examinations are administered in the summer after completion of the first year of course work, and students who do not pass this examination may retake it once the following December.

PhD students must also pass a written and oral preliminary examination administered by their dissertation committee before being admitted to
candidacy for the doctoral degree and before registering for dissertation credit. The preliminary examination is administered after the student has completed the required field courses.

## Dissertation Research (12 hours)

Each candidate for a doctoral degree must prepare and present a dissertation that reflects an independent investigation of an economic topic that is acceptable in form and content to the student's advisory/dissertation committee and The Graduate School.

## Economics, PhD

The PhD in Economics is offered to superior applicants who seek careers in academic departments with a strong focus on public policy and applied microeconomics, in nonacademic research organizations, in business and financial institutions, and in agencies of federal, state and local governments. The program is structured to develop the theoretical, quantitative, and statistical skills that are required to perform and interpret economic analyses on a wide range of policy-oriented issues. The program's focus on applied microeconomics and its highly structured curriculum represents an innovative alternative to more traditional doctoral programs in economics that are generally broader in scope and more flexible in structure. Our doctoral program is specifically designed to train students in the fields of labor, health, and public economics (including the economics of education, science and technology policy, and urban economics).

The degree requires 60 semester hours. Up to 18 of the 60 hours may be accepted from UNCG's MA in economics program or from a comparable master's program.

## Application and Admission

Applicants must submit all application materials required by The Graduate School by the appropriate deadline for Fall or Spring admission.

Students with a completed master's degree in economics may enter the PhD program directly. Students who enter the program with a master's degree from another institution may be required to take additional courses if their prior degree does not adequately cover the required material in the core requirements of the UNCG MA program as stated above. All other students enter the PhD program by applying to the combined MA/PhD in Economics.

## Degree Requirements

Core Courses in Microeconomic and Econometric Theory (9 hours)

ECO $741 \quad$ Advanced Mathematical Economics

Advanced Microeconomic and Econometric Theory Courses (6 hours)
ECO 743 Advanced Microeconomic Theory II 3

ECO 746 Advanced Econometric Theory II 3
Research Methods (9 hours)
ECO 721 Empirical Microeconomics 1-4

ECO 725 Data Methods in Economics 3
ECO 731 Applied Policy Methods 3
Empirical Field Courses (12 hours)
Students choose 12 hours from the following courses, which may be repeated for credit.

| ECO 733 | Special Topics in Applied Public Policy | 2 |
| :--- | :--- | ---: |
| ECO 735 | Labor Economics | $1-4$ |
| ECO 736 | Public Economics | $1-4$ |
| ECO 737 | Health Economics | $1-4$ |
| ECO 738 | Topics in Economics | $1-4$ |
| ECO 739 | Independent Field Course | $1-4$ |
| Supervised Independent Field Research (12 hours) |  |  |
| ECO 797 | Seminar in Empirical Economics | $3-6$ |
| ECO 798 | Seminar in Economic Research | $3-6$ |

## Comprehensive Examinations

Students are required to successfully complete a qualifying examination in economic theory and econometrics after completion of the PhD core. The qualifying examinations are administered in the summer after completion of the first year of course work, and students who do not pass this examination may retake it once the following December.

Students must also pass a written and oral preliminary examination administered by their dissertation committee before being admitted to candidacy for the doctoral degree and before registering for dissertation credit. The preliminary examination is administered after the student has completed the required field courses.

## Dissertation Research (12 hours)

Each candidate for a doctoral degree must prepare and present a dissertation that reflects an independent investigation of an economic topic that is acceptable in form and content to the student's advisory/dissertation committee and The Graduate School.

## Educational Leadership and Cultural Foundations, Department of

366 School of Education Building • (336) 334-3490 • www.uncg.edu/elc<br>Graduate Programs

- Master of School Administration (MSA), 42 hours
- Post-Master's Certificate in School Administration, 2427 hours
- Post-Master's Certificate in School Administration Specialized Education, 15 hours
- Post-Master's Certificate in Urban School Leadership and Administration, 27 hours
- Specialist in Education (EdS) in Educational Leadership, Advanced Principal and Superintendent concentration, 33 hours
- Doctor of Education (EdD) in Educational Leadership (non licensure), 54 hours
- Doctor of Philosophy (PhD) in Educational Studies, Cultural Studies concentration, 60 hours


## Graduate Faculty

## Professors

Glenn M. Hudak, PhD, Interdisciplinary studies in philosophy of education, autism/disabilities studies, Buddhist and psychoanalytic theory, digital technology, epistemology, ethics, phenomenology.
Carol A. Mullen, PhD, Mentoring leadership theory and practice, community-engaged scholarship, faculty and graduate student development, curriculum studies, writing development.
Ulrich C. Reitzug, EdD, Schools as centers of inquiry and change, school renewal, qualitative inquiry, principal leadership (Chair of Department).
Svi Shapiro, EdD, Social foundations of education, political change and educational policy, critical pedagogy and social theory, interpretive methods of research.

## Associate Professors

David F. Ayers, EdD, Critical discourse analysis; globalization, cultural economy, and government of higher education; critical realism and organization studies.

Silvia C. Bettez, PhD, Sociology of education; social justice education, critical multicultural education; qualitative research methods; and critical community building.
Kathleen Casey, PhD, Curriculum theory, poverty and education, political analysis of education, narrative research.

Carl Lashley, EdD, Critical practice of administration, university-school partnerships, legal and ethical dimensions of education, special education administration, disability studies and policy.

Leila E. Villaverde, PhD, Curriculum studies, cultural studies, feminist theory, aesthetics, social foundations of art, critical pedagogy (Director of Graduate Study - PhD).

## Assistant Professors

Kimberly Kappler Hewitt, PhD, qualitative and quantitative research methods, curriculum and instructional leadership, feminist studies.
Craig Peck, PhD, History of education, the principalship, educational technology, educational reform, and social change.

## Clinical Assistant Professors

Brian Clarida, EdD, School law, principal leadership, community engagement, student achievement.
Ann W. Davis, EdD, Instructional technology, school improvement, leadership capacity building in school district-university partnerships (Director of Graduate Study - EdS).

The Department of Educational Leadership and Cultural Foundations is concerned with issues of educational theory, practice, policy, leadership, curriculum, and administration. The department offers interdisciplinaryfocused studies that emphasize questions of moral concern and the cultural context of education. There is a strong interest in issues of educational change as this relates to matters of human and social vision.

## Master of School Administration (MSA)

The Master of School Administration meets state standards for North Carolina Level I administrator licensure (school principal). The degree requires 42 semester hours. Students engage the content of leadership preparation through graduate classroom engagement and assignments, observing schools and school leaders in their practice, and performing tasks under the supervision of a school-based and university mentor during the internship.

Courses are offered in the evenings during the Fall and Spring terms and at various times in the Summer term. Courses are offered off campus or in blended, online formats. Most students are enrolled part-time.

## Application and Admission

In addition to the application materials required by The Graduate School, applicants must submit a resume or curriculum vitae and a personal statement (see departmental website for topic and details). Qualified applicants will have at least 3 years of licensed teaching experience or eligibility for teaching licensure if not currently licensed. One of the required recommendations should come from a principal with whom you have worked in the last 3 years.
Admissions decisions are made in April each year for Fall admission. Applicants must submit all application materials by March 31.

## Degree Requirements

Required Courses (12 hours)

| ELC 660 | The School Principalship | 3 |
| :--- | :--- | :--- |
| ELC 670 | Leadership for Teaching and Learning | 3 |
| ELC 684 | Teacher Rights, Recruitment, Retention, <br> and Evaluation | 3 |
| ELC 694 | Cultural and Political Dimensions of <br> Schooling | 3 |

Specialization (9 hours)
In addition to the required and research courses, students will work with their departmental advisors to choose a three-course specialization that matches the student's interests and provides content and activities that are necessary for rounding out the student's preparation. Courses in the specializations will be aligned with the School Executive Standards and the ELCC Standards.

Students at the Margins
Students will engage in content and activities focused on culturally relevant leadership, critical pedagogy, inclusive practice, and issues related to the education of students from diverse racial, ethnic, gender, sexual orientation, ability, language learning, and socioeconomic groups. Examples of courses are:

| ELC 616 | Culturally Responsive Leadership | 3 |
| :--- | :--- | :--- |
| ELC 673 | Principal Leadership for Special | 3 |
| ELC 683 | Education | 3 |
| ELC 693 | Engaging the Public in Education | 3 |

ELC 697 Selected Critical Issues in American Education

Curriculum and Pedagogy
Students will engage in content and activities related to curriculum theory, instructional approaches, and technology integration. Examples of courses are:

| ELC 615 | Foundations of Curriculum | 3 |
| :--- | :--- | :--- |
| ELC 616 | Culturally Responsive Leadership | 3 |
| ELC 672 | Technology and Administrative <br> Leadership | 3 |

Law, Policy, and Politics
Students will engage in content and activities related to legal and ethical dimensions of leadership, power, politics, and policy. Examples of courses are:

| ELC 616 | Culturally Responsive Leadership | 3 |
| :--- | :--- | :--- |
| ELC 662 | Power, Politics, and Schools | 3 |
| ELC 687 | Legal and Ethical Dimensions of <br> Leadership | 3 |
| ELC 697 | Selected Critical Issues in American <br> Education | 3 |

## Electives (6 hours)

Students will work with their advisors to choose two electives (6 hours) - either in the Department or outside it-that match the student's interests and provide both content and activities that are necessary to complete the student's preparation. Advisors will encourage students to choose electives that create interdisciplinary and interprofessional connections in the student's preparation.

Research (3 hours)
ELC $675 \quad$ Schools as Centers of Inquiry
or another appropriate research course selected with prior approval from the student's advisor.

Required Field Experiences (12 hours)
Students are required to complete an internship experience that is the equivalent of one year of full-time administrative field experience.

ELC $690 \quad$ Practicum in Educational Administration 3-6
Capstone Experience
To be eligible to receive NC state licensure as a principal, students must submit a Licensure Portfolio to the department for review. The portfolio will include material drawn from the student's course work and internship and provide documentary evidence of meeting state leadership standards. ELC faculty members will review the student's portfolio for approval.

## School Administration, PMC

The Post-Master's Certificate in School Administration requires 24-27 semester hours and is designed to prepare students for positions as principals or assistant principals and meets the requirements of the state legislation that supports an alternative path to school administration licensure (also known as "add-on" principal licensure).

## Application and Admission

In addition to the application materials required by The Graduate School, applicants must submit a current resume that details all previous leadership and professional roles and a personal statement (see departmental website for topic and details). One of the required recommendations must come from a principal or education supervisor. Some applicants may be requested to participate in an interview.

Qualified applicants will have a master's degree in education or a field closely affiliated with youth or adult development and at least 3 years of teaching or other professional educational experience (not limited to public schools).

Admissions decisions are made in April each year for Fall admission. Applicants must submit all application materials by March 31.

## Certificate Requirements

Required Courses (12-15 hours)

| ELC 660 | The School Principalship | 3 |
| :--- | :--- | :--- |
| ELC 670 | Leadership for Teaching and Learning | 3 |
| ELC 684 | Teacher Rights, Recruitment, Retention, <br> and Evaluation | 3 |
| ELC 694 | Cultural and Political Dimensions of <br> Schooling | 3 |

Based on an assessment of a student's academic and professional background as reflected in the application, the PMC committee may require students to take an additional course in the ELC department to help prepare them for a school leadership role.

Required Field Experiences (12 hours)
Students are required to complete an internship experience equivalent to one year of full-time administrative field experience.

ELC $690 \quad$ Practicum in Educational Administration 3-6
Capstone Experience
To be eligible to receive NC state licensure as a principal, students must submit a Licensure Portfolio to the department for review. The portfolio will include material drawn from the student's course work and internship and
provide documentary evidence of meeting state leadership standards.

ELC faculty members will review the student's portfolio for approval.

## School Administration - Specialized Education, PMC

The Post-Master's Certificate in School Administration Specialized Education Focus requires 15 semester hours and is specifically designed for students graduating from the UNCG MEd in special education curriculum who have completed the leadership emphasis area of focused study. The certificate meets the requirements of the state legislation that supports an alternative path to school administration licensure (also known as "add-on" principal licensure).

## Application and Admission

In addition to the application materials required by The Graduate School, applicants must submit a current resume that details all previous leadership and professional roles and a personal statement (see departmental website for topic and details). One of the required recommendations must come from a principal or education supervisor. Some applicants may be requested to participate in an interview.
Qualified applicants will hold an MEd in special education and have at least 3 years of teaching or other professional educational experience (not limited to public schools).

Admissions decisions are made in April each year for Fall admission. Applicants must submit all application materials by March 31.

## Certificate Requirements

Required Courses (3 hours)
Students will complete the courses below that were not taken as part of the MEd in Special Education, leadership emphasis.

| ELC 660 | The School Principalship | 3 |
| :--- | :--- | :--- |
| ELC 670 | Leadership for Teaching and Learning | 3 |
| ELC 684 | Teacher Rights, Recruitment, Retention, <br> and Evaluation | 3 |
| ELC 694 | Cultural and Political Dimensions of <br> Schooling | 3 |
| Required Field Experiences (12 hours)  <br> Students are required to complete an internship <br> experience equivalent to one year of full-time <br> administrative field experience. <br> ELC 690 Practicum in Educational Administration | $3-6$ |  |

## Licensure Portfolio/Capstone Experience

To receive NC state licensure as a principal, students must submit a Licensure Portfolio to the department for review. The portfolio will include material drawn from the student's course work and internship and provide documentary evidence of meeting state leadership standards. ELC faculty members will review the student's portfolio for approval.

## Urban School Leadership and Administration, PMC

The Post-Master's Certificate in Urban School Leadership and Administration requires 27 semester hours and is designed to prepare students for positions as principals or assistant principals in urban schools. The certificate meets the requirements of the state legislation that supports an alternative path to school administration licensure (also known as "add-on" principal licensure).

## Application and Admission

In addition to the application materials required by The Graduate School, applicants must submit a current resume that details all previous leadership and professional roles and a personal statement (see departmental website for topic and details). One of the required recommendations must come from a principal or education supervisor. Some applicants may be requested to participate in an interview.

Qualified applicants will have a master's degree in education or a field closely affiliated with youth or adult development and at least 3 years of teaching or other professional educational experience (not limited to public schools).

Admissions decisions are made in April each year for Fall admission. Applicants must submit all application materials by March 31.

## Certificate Requirements

Required Courses (15 hours)

| ELC 660 | The School Principalship |
| :--- | :--- |
| ELC 670 | Leadership for Teaching and Learning |
| ELC 684 | Teacher Rights, Recruitment, Retention, <br> and Evaluation |
| ELC 691 | Urban School Organizational Leadership: <br> Best Practices |
| ELC 694 | Cultural and Political Dimensions of <br> Schooling |
| Required Field Experiences (12 hours) |  |

Students are required to complete an internship experience in an urban educational setting equivalent to one year of full-time administrative field experience.

ELC 690 Practicum in Educational Administration 3-6
Capstone Experience
To receive NC state licensure as a principal, students must submit a Licensure Portfolio to the department for review. The portfolio will include material drawn from the student's course work and internship and provide documentary evidence of meeting state leadership standards. ELC faculty members will review the student's portfolio for approval.
Prior to program completion, each student will prepare a portfolio that describes and reflects on his/her development during the certificate program. ELC faculty members will review the student's capstone experience for approval.

## Educational Leadership, EdS

## Application and Admission

In addition to the application materials required by The Graduate School, the applicant must submit a resume or curriculum vitae and a personal statement (see departmental Web site for topic and details). Admissions decisions are made in April each year for Fall admission. Applicants must submit all application materials by March 31.

## Degree Requirements

The Ed.S. in Educational Leadership is 33 hour degree program intended for students with a previous Master of School Administration degree and/or P licensure who seek preparation for advanced building-level administrator, district-level administrator, and superintendent positions. The degree leads to eligibility for specialist-level principal licensure and superintendent licensure (AP and AS licensure).

| Administration and Leadership Courses (21 hours) |  |  |
| :--- | :--- | ---: |
| ELC 700 | Critical Perspectives in Education, | 3 |
| ELC 701 | Leadership, and Culture | 3 |
| ELC 750 | The School Superintendency |  |
|  | Advanced Seminar in School Law | 3 |
| ELC 752 | Research | 3 |
| ELC 790 | Theories in Educational Administration | $3-18$ |

ELC 701: to be taken in conjunction with ELC 790 Internship.

| Students may select 3 hours from the following |  |  |
| :---: | :---: | :---: |
| ELC 659 | Education Finance | 3 |
| ELC 683 | Engaging the Public in Education | 3 |
| ELC 751 | Cases and Concepts in Educational Leadership | 3 |
| ELC 754 | Personal Leadership Assessment and Enhancement | 3 |
| Additional courses as approved by the student's advisor |  |  |
| Minimum 9 semester hours from the following two areas: |  |  |
| Curricular and Instructional Leadership (3-6 hours) |  |  |
| 3-6 semester hours from the following or from other courses in curriculum \& instructional leadership |  |  |
| ELC 615 | Foundations of Curriculum | 3 |
| ELC 672 | Technology and Administrative Leadership | 3 |
| ELC 675 | Schools as Centers of Inquiry | 3 |
| ELC 685 | Passionate Pedagogies | 3 |
| ELC 686 | Curriculum Theory | 3 |
| ELC 693 | Introduction to Critical Pedagogy | 3 |
| ELC 755 | Law and Policy in Special Education |  |
| Social and Cultural Foundations (3-6 hours) |  |  |
| ELC 676 | Educational Sociology: Race, Class, and Gender Power Dynamics or | 3 |
| ELC 679 | History of Education in the United States or | 3 |
| ELC 696 | Philosophies in Education and <br> Electives approved by the student's advisor | 3 |
| Research (3 hours) |  |  |
| 3 semester hours from the following or from other courses in research: |  |  |
| ELC 664 | Foundations of Interpretive Inquiry | 3 |
| ELC 665 | Approaches to Qualitative Inquiry | 3 |
| ELC 688 | Contemporary Problems Seminar | 1-3 |
| ERM 604 | Methods of Educational Research | 3 |
| ERM 605 | Educational Measurement and Evaluation | 3 |

ERM 642
ERM 668
Capstone Experience
The EdS Capstone experience consists of an essay and hearing.

## Essay

The student will write a paper that responds to the following:

- Reflect on the ways in which your approach to leadership practice in schools (or other contexts) has changed as a result of your learning experiences in the Specialist in Education program.
- Reflecting on your course work and the literature on education, leadership, and culture, describe the core values you want to promote in your professional practice, and discuss how they would be reflected in your response to several challenges you expect to face in your work.
- Discuss some of the lingering questions you still have about education, leadership, and culture and society, questions that may frame your personal and professional learning in the future.

The capstone essay should be both reflective and scholarly. It should include reference citations to works that were influential in the student's development, and a properly-formatted reference list (that is, using APA format, as detailed in the 6th edition of the Publication Manual of the American Psychological Association). The essay should reflect growth beyond the student's master's degree work. A copy of the capstone paper is due to each of the 2 faculty members participating in the student's capstone hearing 2 weeks prior to the capstone hearing.
The discussion of the capstone essay prompts (see above) should be thoroughly grounded in the professional literature. The essay should provide evidence not only of the student's professional growth in the Ed.S. program, but it should also document how the professional literature contributed to that growth. It is likely that in order to adequately address the prompts and to ground them in the professional literature, the capstone essay will be 15-20 double-spaced pages in length, plus references.

## Hearing

The capstone hearing may be an individual hearing with the student's advisor, or a group hearing with multiple students and faculty members participating in each hearing. During individual CAP hearings, the student will discuss the essay with the advisor. During group CAP hearings, each student will have 10 minutes to make a presentation about the content in their CAP essay. The student will answer questions specific to his/her
presentation and dialogue about it with fellow students and faculty members. Students are welcome to use PowerPoint or other media for their individual presentations, but they are not obligated to do so.
Capstone hearings will take place during late October/November (Fall semester) or March/April (Spring semester). Students will typically be notified of the date and time for their capstone hearing by early October (Fall) or mid to late February (Spring).

## Applying for the Ed.S. Capstone

The student should provide notice of intent to complete the Capstone Experience at the beginning of the semester in which they intend to do so by submitting a written memo to their advisor and to the Coordinator of the Ed.S. program.

## Educational Leadership, EdD

Application and Admission
In addition to the application materials required by The Graduate School, the applicant must submit a resume or curriculum vitae and a personal statement (see departmental website for topic and details). Admissions decisions are made in April each year for Fall admission. Applicants must submit all application materials by March 31.

## Degree Requirements

The Ed.D. in Educational Leadership is 54 hour degree program.
Foundational Coursework (18 hours)
Coursework from the areas of administration and leadership, curriculum and instruction, social and cultural foundations, or research that provides a foundation for the student's in-depth inquiry in the major focus area (see below). Coursework in this category may be counted from the EdS program if courses meet Graduate School regulations and are approved by the student's doctoral committee.

Major Focus Area Coursework (12 hours)
Coursework in this category should be carefully selected to help the student develop scholarly expertise in her/his chosen area of focus within educational leadership. Focus areas and supporting coursework include the following:

Organizational and Leadership Studies

| ELC 662 | Power, Politics, and Schools | 3 |
| :--- | :--- | ---: |
| ELC 688 | Contemporary Problems Seminar | $1-3$ |
| ELC 691 | Urban School Organizational Leadership: |  |
|  | Best Practices | 3 |
| ELC 752 | Theories in Educational Administration | 3 |


| ELC 754 | Personal Leadership Assessment and |
| :--- | :--- | :--- |
|  | Enhancement |

Law, Policy and Finance

| ELC 659 | Education Finance | 3 |
| :--- | :--- | ---: |
| ELC 688 | Contemporary Problems Seminar | 1 -3 |
| ELC 751 | Cases and Concepts in Educational |  |
|  | Leadership | 3 |
| ELC 755 | Law and Policy in Special Education |  |

Curricular and Instructional Leadership

| ELC 615 | Foundations of Curriculum | 3 |
| :--- | :--- | ---: |
| ELC 672 | Technology and Administrative |  |
|  | Leadership | 3 |
| ELC 673 | Principal Leadership for Special | 3 |
|  | Education | 3 |
| ELC 675 | Schools as Centers of Inquiry | 3 |
| ELC 686 | Curriculum Theory | 3 |
| ELC 688 | Contemporary Problems Seminar | $1-3$ |
| ELC 693 | Introduction to Critical Pedagogy | 3 |

Social, Cultural, Historical, and Ethical Foundations of Educational Leadership

| ELC 604 | Moral Dimensions of Education | 3 |
| :--- | :--- | :--- |
| ELC 616 | Culturally Responsive Leadership | 3 |
| ELC 661 | Ethics and Education | 3 |
| ELC 663 | Educational Administration in Historical |  |
|  | Perspective | 3 |
| ELC 683 | Engaging the Public in Education | 3 |
| ELC 688 | Contemporary Problems Seminar | $1-3$ |
| ELC 697 | Selected Critical Issues in American | 3 |
|  | Education | 3 |

## Research (12 hours)

Coursework in this category should be carefully selected to help the student develop research expertise that facilitates the completion of a high-quality dissertation. Courses may be selected from a single or multiple methodological perspectives.

Students pursuing a qualitative track would typically complete the following course:

ELC 665
Approaches to Qualitative Inquiry
or
ELC 664
Foundations of Interpretive Inquiry

9 additional hours from those listed below would be selected by the student in consultation with her/his committee chair:

| ELC 767 | Qualitative Data Collection and Analysis | 3 |
| :--- | :--- | ---: |
| ELC 688 | Contemporary Problems Seminar | $1-3$ |
| ELC 666 | Writing Preparation and Proposal |  |
|  | Development | 3 |
| ELC 775 | Directed Doctoral Research | 3 |

ELC 775 should not be taken until 9 hours of research courses have been completed.

Other research courses pre-approved by the advisor and committee.

Students pursuing a quantitative track would typically select, in consultation with their committee chair, from courses such as the following:

| ELC 688 | Contemporary Problems Seminar | $1-3$ |
| :--- | :--- | ---: |
| ERM 604 | Methods of Educational Research | 3 |
| ERM 605 | Educational Measurement and |  |
|  | Evaluation | 3 |
| ERM 642 | Evaluation of Educational Programs | 3 |
| ERM 668 | Survey Research Methods in Education | 3 |
| ERM 680 | Intermediate Statistical Methods in |  |
|  | Education | 3 |
| ERM 682/STA | Multivariate Analysis |  |
| 671 |  | 3 |
| ERM 732 | Hierarchical Linear Modeling | 3 |
| ERM 750 | Case Study Methods in Educational |  |
|  | Research | 3 |

Dissertation (12 hours)
ELC 799 Dissertation 1-12

## Educational Studies, PhD

## Cultural Studies Concentration

The framework of the 60-hour PhD degree revolves around fundamental issues of social justice as they pertain to educational theory and practice-its ideology, philosophical assumptions, moral claims and social analysis.
Within this concentration, the program of study is negotiated between the student and his or her individual doctoral advisory/dissertation committee. Although the program involves course recommendations, every effort is made to avoid rigidity and repetition. The program has both formal and informal dimensions-course work, comprehensive examinations, doctoral dissertation, as well as discussions with faculty and other students, reflections, attending lectures and performances, etc.

## Application and Admission

In addition to the application materials required by The Graduate School, applicants must submit a resume or curriculum vitae and a personal statement (see departmental website for details). Applicants must submit all application materials by December 1 to be considered for Fall admission.

## Degree Requirements

## Course Areas

Educational Foundations (18 hours)
Normally students take the courses reflecting social, philosophical, and historical dimensions of education.

Curriculum and Teaching (15-24 hours)
Normally students take courses that encourage a broad, critical understanding of school, pedagogy, and society:

Research (15 hours)
Normally students take courses from a variety of qualitative and epistemological methodologies to guide in dissertation research.

The following courses are required:

| ERM 517 | Statistical Methods in Education | 3 |
| :---: | :---: | :---: |
|  | or |  |
| ERM 680 | Intermediate Statistical Methods in |  |
|  | Education | 3 |
|  | or |  |
|  | Acceptable substitute pending approval of advisor and The Graduate School |  |
| Dissertation (12 hours) |  |  |
| ELC 799 | Dissertation | 1-12 |

## Educational Research Methodology, Department of

254 School of Education Building • (336) 334-3471• www.uncg.edu/erm

## Graduate Programs

- Post-Baccalaureate Certificate in Educational Assessment, 15 hours
- Master of Science (MS) in Educational Research, Measurement, and Evaluation, 30 hours
- Master of Science/Doctor of Philosophy (MS/PhD) in Educational Research, Measurement, and Evaluation, 84 hours
- Doctor of Philosophy (PhD) in Educational Research, Measurement, and Evaluation, 66 hours
- Doctoral Minor in Educational Research Methodology, 15 hours

Graduate Faculty

## Professors

Terry Ackerman, PhD, Educational measurement and practical applications of item response theories, including computerized adaptive testing, test construction, equating, differential item/test functioning and ability estimation; theory and application of multidimensional item response theory; applied statistics.

Micheline Chalhoub-Deville, PhD, Second/foreign language testing and assessment, including proficiency, performance-based, computerbased/adaptive, and achievement testing; largescale/standardized testing, especially in international contexts; the assessment of less commonly taught languages, and language policy and planning in educational testing.

Richard Luecht, PhD, Educational measurement, employment and professional testing; performance assessments; standard setting; design of computerized testing systems; integration of cognitive science and measurement; assessment engineering, automated test assembly; structural equation modeling; experimental design; multivariate statistics.

Randy Penfield, PhD, Educational measurement, item response theory, statistical methods for evaluating test fairness and measurement invariance, differential item functioning, equity of test-based educational accountability policies, test construction, computer adaptive testing, applied statistics, experimental design, cluster, randomized control trails in education settings (Chair of Department).

## Associate Professors

Bob Henson, PhD, Development and application of cognitive diagnosis models (also known as diagnostic classification models), in addition to generalizing concepts such as test construction and item information to CDMs; latent variable modeling; classification analysis; hierarchical linear models (Director of Graduate Studies).

John Willse, PsyD, Educational measurement and statistics; latent variable modeling, including structural equation modeling, item response theory, and diagnostic classification models; outcomes assessment in higher education.

## Assistant Professor

Holly Downs, PhD, Evaluation of Science, Technology, Engineering \& Mathematics Education Initiatives (ISTEM), mixed methods, case studies.

Graduates of the degree programs offered by the Department of Educational Research Methodology are prepared for careers in such settings as universities and colleges, school systems, state and federal departments of education, social service agencies, educational research and development centers, and the corporate sector. Course work is supplemented with research experience on grants and funded projects that include measurement research and evaluation that are being conducted by individual faculty and the UNCG Center for Educational Research and Evaluation.

## Educational Assessment, PBC

The Post-Baccalaureate Certificate in Educational Assessment requires 15 semester hours and provides school district testing coordinators or school administrators the opportunity to acquire focused education in educational assessment and evaluation.

## Application and Admission

Applicants must submit all application materials required by The Graduate School by the appropriate deadline to be considered for Fall, Spring, or Summer admission.

## Certificate Requirements

Required Core Courses (15 hours)

| ERM 517 | Statistical Methods in Education | 3 |
| :--- | :--- | :--- |
| ERM 604 | Methods of Educational Research | 3 |
| ERM 605 | Educational Measurement and |  |
|  | Evaluation | 3 |
| ERM 642 | Evaluation of Educational Programs | 3 |
| ERM 675 | Data Presentation and Reporting | 3 |

## Educational Research, Measurement, and Evaluation, MS

The MS in Educational Research, Measurement, and Evaluation requires 30 semester hours.

## Application and Admission

Applicants must submit all application materials required by The Graduate School by the appropriate deadline to be considered for Fall, Spring, or Summer admission.

## Degree Requirements

Required Core Courses (24 hours)
In cases where students have previously satisfied these requirements, course substitutions may be allowed with the approval of the major advisor.

| ERM 600 | Validity and Validation | 3 |
| :--- | :--- | :--- |
| ERM 604 | Methods of Educational Research | 3 |
| ERM 642 | Evaluation of Educational Programs | 3 |
| ERM 667 | Foundations of Educational | 3 |
| ERM 668 | Measurement Theory | 3 |
| ERM 675 | Survey Research Methods in Education | 3 |
| ERM 680 | Intermediate Statistical Methods in | 3 |
|  | Education | 3 |
| ERM 681 | Design and Analysis of Educational 3 |  |

Electives (6 hours)
Students must complete a combination of 6 hours in elective courses at the 600-749 level. With the approval of the major advisor, 6 hours may be selected from among the following educational research courses. Courses not listed below may serve as electives with the approval of the major advisor.

| ERM 633 | Second Language Assessment and <br> Testing | 3 |
| :--- | :--- | :--- |
| ERM 636 | Advanced Studies in Second Language <br> Testing | 3 |
| ERM 643 | Applied Educational Evaluation | 3 |
| ERM 669 | Item Response Theory | 3 |
| ERM 682/STA | Multivariate Analysis | 3 |
| 671 |  | 3 |
| ERM 685 | R for Education and the Social Sciences | 3 |
| ERM 725 | Applied Methodsof Educational <br> Research | 3 |
| ERM 728 | Exploratory and Confirmatory Factor | 3 |

Analytic Methods for Scale Construction
ERM 731 Structural Equation Modeling in Education

ERM 732
Hierarchical Linear Modeling
Comprehensive Examination (Capstone Experience)
The student will successfully complete a written comprehensive examination to be arranged by the major advisor, usually in the semester in which course work is completed.

## Educational Research, Measurement, and Evaluation, MS/PhD

The PhD in Educational Research, Measurement, and Evaluation requires 84 semester hours beyond the baccalaureate degree (for student's entering the program in the MS/PhD track).

## Application and Admission

Applicants must submit all application materials required by The Graduate School by the appropriate deadline to be considered for Fall, Spring, or Summer admission.

## Degree Requirements

Required Core Courses (48 hours)
In cases where students have previously satisfied these requirements, course substitutions may be allowed with the approval of the major advisor.

| ERM 600 | Validity and Validation | 3 |
| :---: | :---: | :---: |
| ERM 604 | Methods of Educational Research | 3 |
| ERM 633 | Second Language Assessment and Testing | 3 |
| ERM 642 | Evaluation of Educational Programs | 3 |
| ERM 643 | Applied Educational Evaluation | 3 |
| ERM 667 | Foundations of Educational Measurement Theory | 3 |
| ERM 668 | Survey Research Methods in Education | 3 |
| ERM 669 | Item Response Theory | 3 |
| ERM 675 | Data Presentation and Reporting | 3 |
| ERM 680 | Intermediate Statistical Methods in Education | 3 |
| ERM 681 | Design and Analysis of Educational Experiments | 3 |
| $\begin{aligned} & \text { ERM 682/STA } \\ & 671 \end{aligned}$ | Multivariate Analysis | 3 |
| ERM 727 | Computer-Based Testing: Methods and Applications | 3 |


| ERM 728 | Exploratory and Confirmatory Factor |  |
| :--- | :--- | :--- |
|  | Analytic Methods for Scale Construction | 3 |
| ERM 729 | Advanced Item Response Theory | 3 |
| ERM 731 | Structural Equation Modeling in |  |
|  | Education | 3 |

Electives (24 hours)
Students choose a minimum of 24 hours of elective courses from the list below. Courses not on the list must be approved by the student's doctoral
Advisory/Dissertation Committee.


Comprehensive Examination
Students are required to take the MS comprehensive exam following 24 hours of core courses and 12 hours of electives. Students must successfully pass the MS comprehensive exam and formally apply to graduate from the MS program by The Graduate School deadline before taking courses in the doctoral program.

The student will successfully complete a written comprehensive examination to be arranged by the doctoral advisor, usually in the semester in which course work is completed.

Dissertation (12 hours)

Research that culminates in the preparation of a required doctoral dissertation.

ERM 799 Dissertation 1-12

## Educational Research, Measurement, and Evaluation, PhD

## Application and Admission

Applicants must submit all application materials required by The Graduate School by the appropriate deadline to be considered for Fall, Spring, or Summer admission.

## Degree Requirements

The PhD degree in Educational Research, Measurement, and Evaluation requires 66 semester hours.
Required Core Courses (33 hours)
In cases where students have previously satisfied these requirements, course substitutions must be made pending agreement of the major advisor.

| ERM 633 | Second Language Assessment and Testing | 3 |
| :---: | :---: | :---: |
| ERM 642 | Evaluation of Educational Programs | 3 |
| ERM 643 | Applied Educational Evaluation | 3 |
| ERM 668 | Survey Research Methods in Education | 3 |
| ERM 669 | Item Response Theory | 3 |
| ERM 675 | Data Presentation and Reporting | 3 |
| ERM 682/STA 671 | Multivariate Analysis | 3 |
| ERM 727 | Computer-Based Testing: Methods and Applications | 3 |
| ERM 728 | Exploratory and Confirmatory Factor Analytic Methods for Scale Construction | 3 |
| ERM 729 | Advanced Item Response Theory | 3 |
| ERM 731 | Structural Equation Modeling in Education | 3 |

Electives (21 hours)
Student must complete a minimum of 21 hours in elective courses from the suggested list below. If the student elects to take a course that is not on the list he or she must receive approval from their doctoral Advisory/Dissertation Committee.


Dissertation (12 hours)
Research that culminates in the preparation of a required doctoral dissertation.

ERM 799
Dissertation
1-12

## Educational Research Methodology, Doctoral Minor

The doctoral minor in educational research methodology requires 15 semester hours.

## Minor Requirements

Core (12 hours)

| ERM 667 | Foundations of Educational <br> Measurement Theory | 3 |
| :--- | :--- | :--- |
| ERM 680 | Intermediate Statistical Methods in <br> Education | 3 |
| ERM 681 | Design and Analysis of Educational <br> Experiments | 3 |
| ERM 682/STA | Multivariate Analysis |  |
| 671 | 3 |  |
| Electives (3 hours) |  |  |
| Select one of the following courses: |  |  |

Select one of the following courses:

| ERM 642 | Evaluation of Educational Programs | 3 |
| :---: | :---: | :---: |
| ERM 668 | Survey Research Methods in Education | 3 |
| ERM 675 | Data Presentation and Reporting | 3 |
| ERM 693 | Seminar in Advanced Research Methods | 3 |
| ERM 726 | Advanced Topics in Educational Measurement | 3 |
| ERM 728 | Exploratory and Confirmatory Factor Analytic Methods for Scale Construction | 3 |
| ERM 731 | Structural Equation Modeling in Education | 3 |
| ERM 732 | Hierarchical Linear Modeling | 3 |
| ERM 633 | Second Language Assessment and Testing | 3 |

## English, Department of

3143 Moore Humanities and Research Administration Building • (336) 334-5311 • www.uncg.edu/eng

## Graduate Programs

- Master of Arts (MA) in English, 30-36 hours
- Master of Fine Arts (MFA) in Creative Writing, 36 hours
- Doctor of Philosophy (PhD) in English, 51-57 hours


## Graduate Faculty

## Professors

Denise N. Baker, PhD, Middle English literature, Langland, Chaucer, Julian of Norwich, medieval women writers.

Elizabeth Chiseri-Strater, PhD, Composition theory and pedagogy, language and literacy, portfolio evaluation, ethnography, collaborative learning.

Keith Cushman, PhD, Modern British literature, D.H. Lawrence, modern and contemporary drama.
Stuart L. Dischell, MFA, Poetry writing, poetry and poetics, modern literature, world literature.

James E. Evans, PhD, 18th century British literature, especially fiction, drama and periodicals; theory of comedy.

SallyAnn H. Ferguson, PhD, African-American literature and language, Charles W. Chesnutt, AfricanAmerican women novelists, American literature.
Mary Ellis Gibson, PhD, 19th century British literature, critical theory, Women's Studies, modernism, imperialism, Southern women writers.

Christopher Hodgkins, PhD, Renaissance literature, 17th century lyric poetry, George Herbert, British imperial imagination, Sir Francis Drake, religion and literature, Shakespeare.

Karen L. Kilcup, PhD, 19th and early 20th century American literature, women's and Native American literature, romanticism and regionalism, American Studies and Women's Studies, poetry, humor, critical theory.
Robert Langenfeld, PhD, Late 19th-early 20th century British literature. Editor/Publisher ELT and ELT Press.

Christian Moraru, PhD, Literary and cultural theory, 20th century American literature with emphasis on contemporary narrative, postmodernism, comparative literature.

Craig Nova, MFA, Fiction writing. Class of 1949
Excellence Professor.

Michael F. Parker, MFA, Fiction writing, contemporary fiction, short story, forms in fiction, novella, personal/familiar essay.
Scott B. Romine, PhD, Southern literature, modern American literature, narrative theory, autobiography, Irish literature.

Hephzibah Roskelly, PhD, Rhetoric and composition, reading theory, pedagogy, American literature.
Anne D. Wallace, PhD, 19th-century British literature and culture, poetry and the novel from the Restoration to the Great War, gender studies, aesthetics, historiography (Head of Department).
Stephen R. Yarbrough, PhD, Literacy; critical and rhetorical theory; history of American literature and discourse, especially 18th and 19th centuries.

## Associate Professors

Anthony J Cuda, PhD, Modern American literature, transatlantic literary modernism, 20th century poetry and poetics, T.S. Eliot, W.B. Yeats, Dante, and comparative medieval theology.
Michelle M. Dowd, PhD, Renaissance literature, Shakespeare and early modern drama, early modern women's writing, feminist theory and gender studies. Director of Graduate Studies.
Jennifer M. Keith, PhD, 18th century and Romantic British literature, poetry, satire, gender studies, William Blake.
Alexandra Schultheis Moore, PhD, Postcolonial literatures and theory, human rights, gender studies, 20th century British and American literature, critical theory.
Noelle Morrissette, PhD, African American literature, gender and sexuality studies, American literature, African literature, black diasporic literatures.

Nancy Myers, PhD, Rhetoric and composition theory and pedagogy; history of rhetoric, composition, and English Studies; sociolinguistics; structuralism.
Mark Rifkin, PhD, Native American literature, indigenous studies, queer studies, ethnic studies, American studies, 19th-century U.S. writing, postcolonial and critical race theory, law and literature. Associate Head of Department.

David R. Roderick, MFA Poetry writing, poetry and poetics, modern and contemporary literature.
Maria Sanchez, PhD, 19th century U.S. literatures, including Mexican American, African American, antebellum, and women's.
Amy N. Vines, PhD, Middle English literature, medieval romance, Chaucer, women's writing, readership
and patronage, paleography, Director of Undergraduate Studies.

Karen A. Weyler, PhD, Early and 19th century American literature, women writers, the history and theory of the novel, personal narratives, and the history of the book.

## Assistant Professors

Risa Applegarth, PhD, Rhetoric and composition, rhetorical studies of science, genre theory, nature writing, lifewriting, historiography, women's rhetorics.

Rebecca Black, MFA Poetry Writing, poetry and poetics, art history, creative nonfiction writing, contemporary Irish poetry.

Ben Clarke, PhD, British literature after 1900, working class writing and culture, cultural studies, Marxism and cultural materialism, western representations of Asia-Pacific, George Orwell, Richard Hoggart.

Jennifer Feather, PhD, Early modern British literature; theories of violence and trauma; theories of embodiment, gender, and sexuality; 15th and 16th century British historical writing; early modern anatomies.

Holly Goddard Jones, MFA, Fiction writing, forms in fiction, creative nonfiction, modern and contemporary literature.

## Academic Professionals

James Clark, MFA, Creative writing-fiction. Director of the MFA Creative Writing Program.

Jeanie Reynolds, PhD, Social and cultural aspects of literacy and learning of adolescents (particularly diverse and marginalized students), the role of discourse and identity development in the preservice English teacher education. Director of English Education.

The Department of English offers degree programs leading to the Master of Arts, the Master of Fine Arts, and the Doctor of Philosophy. The department has long published The Greensboro Review, a magazine of poetry and fiction, and since 1986, English Literature in Transition (18801920) , a scholarly journal, has been published here. In 1988, ELT Press began to publish the 1880-1920 British Authors Series.

Scheduling of MA classes and some PhD classes is intended to meet the needs of students already employed in teaching or other professions.

## English, MA

The MA in English requires 30-36 semester hours and is designed for those planning to pursue a doctorate; to teach in community colleges, technical institutes, or some undergraduate colleges; and to work in non-academic settings. Three plans of study beyond the core requirements are offered: (1) thesis plan, (2) teaching composition plan, and (3) minor field plan.

## Application and Admission

In addition to the application materials required by The Graduate School, applicants must submit a 1-2 page Statement of Purpose, a writing sample (less than 30 pages), and a current CV or resume. Applicants must submit all application materials by the appropriate deadline to be considered for Fall or Spring.

## Degree Requirements

No more than three courses at the 500-level may be submitted for the degree. All other work must be at the 600 -level and above.

Required Core Courses (24 hours)
ENG 701 English Studies: Content, Methods, and Bibliography

3 literature courses including one before 1800 and one after

3 electives normally in English or American literature

1 critical theory course selected from the following or from special topics courses approved in advance by the Director of Gradu-ate Study:

| ENG 531 | Feminist Theory and Women Writers | 3 |
| :--- | :--- | :--- |
| ENG 549 | The Critical Canon and Contemporary |  |
|  | Issues | 3 |
| ENG 650 | Modern Literary and Cultural Theory | 3 |
| ENG 663 | Postcolonial Literary and Cultural Theory | 3 |
| ENG 704 | Studies in Contemporary Literary and |  |
|  | Cultural Theory | 3 |
| ENG 705 | Cultural Studies | 3 |

Alternative Plans of Study (6-12 hours)
In the remaining semester hours beyond the core courses, students should elect one of the following alternative plans of study:

Thesis plan
ENG 699
Thesis 6

MA students in the thesis plan must demonstrate reading knowledge of a foreign language. A level of proficiency in one foreign language, equivalent to completion of the first semester of an intermediate course (such as 203 at UNCG), must be documented either by previous course work completed during the last five years and approved by the Director of Graduate Study, or by course work while enrolled in the MA program, or by an appropriate score on a written examination. Because of the language requirement, a minimum of 30 hours is required for the degree: 24 core hours and 6 thesis hours. Native speakers of other languages can demonstrate foreign language proficiency through their graduate course work in English. Students in the MA/PhD track will ultimately have to fulfill the foreign language requirement for the PhD.
Students who have been admitted into the PhD program and/or who have the permission of their thesis committee and the Director of Graduate Study may elect to write a two-paper thesis instead of the traditional single-topic thesis. Recommended for those students for whom the MA will not be the terminal degree, the two-paper thesis will consist of two graduate papers expanded and revised to publishable quality.

Teaching composition plan
A total of 36 hours is required for the degree, the 24 hour core plus 12 hours distributed as follows:
ENG 680 Teaching Internship in English
ENG 680: (Capstone Experience)
Plus 3 electives in rhetoric and composition or language and linguistics
Chosen from ENG 510, ENG 513, ENG 660, special topics courses approved in advance by the Director of Graduate Study, or from the following:

| ENG 522 | Teaching Composition: Theories and Applications |
| :---: | :---: |
| ENG 590 | Literacy, Learning, and Fieldwork |
| ENG 661 | Second Language Writing |
| ENG 688 | Women's Rhetoric and Feminist Pedagogy |
| ENG 689 | Institutional History of Composition Studies |
| ENG 690 | History of Rhetoric: Classical through Renaissance |
| ENG 691 | History of Rhetoric: Enlightenment through Contemporary |
| ENG 693 | Classical Rhetoric |

ENG 697 Composing Theories in Reading and Writing

ENG 742 Studies in Rhetorical Theory and Practice 3
ENG 744 Seminar in Composition Studies
ENG 746 Studies in Contemporary Rhetorical Theory (3:3)

Plan of study with minor field
A total of 36 hours is required for the degree, the 24 hour core plus 12 hours distributed as follows:

ENG 680 Teaching Internship in English
or
ENG 622 Writing and Editing Internship 3
3 courses in a minor or collateral field
ENG 622: with approval in advance from the Director of Graduate Studies (Capstone Experience)

## Creative Writing, MFA

The MFA in Creative Writing, one of the oldest and most prestigious programs of its kind in the nation, is offered to a limited number of students with superior ability in writing original works of poetry or fiction. The program requires 36 semester hours and permits students to develop particular talents in small classes and in conferences with writers in residence and distinguished visiting writers. The best student work may be published in The Greensboro Review. The most talented students are considered for fellowships as well as research and teaching assistantships. The MFA is a residency program for full-time students.

## Application and Admission

In addition to the application materials required by The Graduate School, applicants must submit a writing sample by March 1 to be considered for Fall admission.

## Degree Requirements

Required Core Courses (12-18 hours)
ENG 625 MFA Fiction Workshop 3
ENG 626 MFA Fiction Workshop 3
ENG 627 MFA Poetry Workshop 3
ENG 628 MFA Poetry Workshop 3
ENG 671 Graduate Tutorial in Writing: Fiction 3
ENG 672 Graduate Tutorial in Writing: Fiction 3
ENG 673 Graduate Tutorial in Writing: Poetry
ENG 674 Graduate Tutorial in Writing: Poetry

ENG 677
Special Problems in Writing
ENG 678
Special Problems in Writing
Elective Academic Courses (12-18 hours)
Students are required to take a minimum of four courses in a related academic field, usually in English or American literature, at the 500,600 , or 700 level. Students may, with permission of the Director of the MFA Writing Program, take 500- and 600-level courses offered by other departments in the College of Arts and Sciences, most often in the departments of Romance Languages, Media Studies, and Art.

Students who plan a career in college teaching should take as many courses as possible in literature, criticism, and composition and rhetoric, including ENG 680 Teaching Internship in English.

Students who plan careers in publishing and editing should select courses focusing on contemporary publishing:

| ENG 620 | Contemporary Publishing | 3 |
| :--- | :--- | :--- |
| ENG 621 | Seminar on Publishing | 3 |
| ENG 622 | Writing and Editing Internship | 3 |

Comprehensive Examination (Capstone Experience)
Please consult with the Director of the MFA Writing Program about dates for this examination.
Thesis (6 hours)
ENG 699 Thesis
May be a novel, a collection of short stories, or a volume of poetry.

## English, PhD

The PhD in English requires 51-57 semester hours and is offered to superior applicants who are preparing for careers in teaching and research in colleges and universities. The program permits specialization in literary studies or rhetoric and composition in small classes and a format conducive to individualized instruction. Full-time doctoral students may be appointed as teaching assistants in the department. The most talented students are recommended for fellowships.

## Application and Admission

In addition to the application materials required by The Graduate School, applicants must submit a writing sample (less than 30 pages), a 1-2 page statement of purpose, and a current CV or resume by January 1 to be considered for Fall admission.

MA/PhD track: Students who enter the doctoral program with a BA are required to complete the MA with a twopaper thesis within five academic years of their initial
enrollment. (For the requirements, see MA Alternative Plans of Study above). These students do not need to reapply for doctoral study after finishing the master's program.
PhD track: Students who enter with an MA in English are required to earn a minimum of 36 hours of course credit, to pass the preliminary comprehensive examination, and to defend successfully their dissertations. Students entering with other advanced degrees will have their transcripts individually evaluated by the Director of Graduate Study to establish the minimum course work required.

## Degree Requirements

No more than three courses at the 500 level may be submitted for the degree. All other work must be at the 600 level and above

Required Core Courses ( $9-12$ hours)
All students have three course requirements in their doctoral program, and all are taken as a part of the 36 hour plan of study. The course requirements are based on the student's declared primary area of specialization from the following options:

Area of Specialization

## Old and Middle English Literature <br> Renaissance/Early Modern Literature

Restoration and Eighteenth-Century Literature
Nineteenth-Century British Literature
Post-1900 British and Anglophone Literature
Postcolonial Literatures and Theory
American Literature Before 1900
American Literature After 1900
African American Literature
Rhetoric and Composition
Literary Theory
If a student's specialization is in literature before 1800, the course requirements are

2 courses in literature after 1800
1 course in rhetoric and composition or literary theory

If a student's specialization is in literature after 1800, the course requirements are

2 courses in literature before 1800
1 course in rhetoric and composition or literary theory

If a student's specialization is in rhetoric and composition, the course requirements are

1 course in literature before 1800
1 course in literature after 1800
1 course in literary theory
If a student's specialization is in literary theory, the course requirements are

1 course in literature before 1800
1 course in literature after 1800
1 course in rhetoric and composition
In addition, all graduate teaching assistants are required to take ENG 747 Teaching College Writing. This course does not fulfill a doctoral course requirement but may be included in the plan of study.

Electives (24-27 hours)
For the remaining hours of electives, students should choose from the graduate offerings that will help them specialize in their primary and secondary areas in English and in supporting fields. These courses, selected in consultation with the Director of Graduate Study and the student's advisory committee, should form a coherent plan to prepare the student in the areas of specialization.

## Minor in a Supporting Field

With the approval of the students' advisory/dissertation committee and the Director of Graduate Study, students may use their electives and additional courses toward achieving a minor in certain supporting fields outside of English. A minor consists of at least 12 hours of advanced work in a single cognate subject. All course work applied toward the minor must be approved by the Director of Graduate Study.

## Foreign Language Requirement

PhD students fulfill the foreign language requirement before taking the preliminary examination. A level of proficiency in one foreign language, equivalent to completion of the second semester of an intermediate course (such as 204 at UNCG), must be documented either by previous course work completed during the last five years and approved by the Director of Graduate Study, or by course work while enrolled in the PhD program, or by an appropriate score on a written examination. Native speakers of other languages can demonstrate foreign language proficiency through their graduate course work in English.

## Preliminary Comprehensive Examination

At the end of the course work and after satisfying the foreign language requirement and other conditions or research skill require-ments, students must pass the preliminary comprehensive examination. In preparation
for the examination, the student prepares reading lists for one primary field and two secondary fields in consultation with the advisory committee.

The written examination is taken on three days within one week and consists of the following:

1. A five-hour examination on the primary field, the specialization chosen from among the following areas: Old and Middle English; Renais-sance/Early Modern English; Restoration and Eighteenth-Century British, Nineteenth-Century British, Post-1900 British and Anglophone Literature, Postcolonial Literatures and Theory, American Literature before 1900, American Literature after 1900, African American Literature, Rhetoric and Composition, Literary Theory.
2. Two three-hour examinations in secondary fields. One of these fields could be either a different area selected from the list of primary fields or a cross-period/critical problem.

The oral examination (two to three hours) is on the primary and secondary fields and is taken within a month after the written examination.

Further guidelines for the preliminary examination and reading lists may be found at
www.uncg.edu/eng/graduate.
Dissertation (15-21 hours)
ENG 799 Dissertation
A dissertation demonstrates ability to do original research and to present this investigation in an orderly, exact, and complete manner.

Final Oral Examination
The examination administered by the advisory committee is largely related to the dissertation but may cover topics from the entire field of the candidate's study, including courses taken here and elsewhere.

## Genetic Counseling

119 Mclver Street • (336) 256-0175 •
www.uncg.edu/gen

## Graduate Program

- Master of Science (MS) in Genetic Counseling, 55 hours


## Interdisciplinary Faculty and Advisors:

## Professors

L. DiAnne Borders, PhD, Counseling supervision, counseling theory and process, ethics, school counseling, adoptive families (Department of Counseling and Educational Development).

Terrance McConnell, PhD, Ethical theory, medical ethics, political philosophy (Department of Philosophy).

## Clinical Professor

Nancy P. Callanan, MS, CGC, Counseling and educational needs in genetic screening programs, clinical supervision, professional issues (Program Director).

## Adjunct Professor

Pamela J. Reitnauer, PhD, MD, Dysmorphology syndromes, primary care of individuals with genetic disorders, epidemiology of birth defects (Program Medical Director).

## Associate Professors

Dennis R. LaJeunesse, PhD, Developmental genetics and cell biology (Department of Biology).

## Clinical Assistant Professor

Randi Culp Stewart, MS, CGC, Clinical supervision, prenatal and pediatric genetic counseling (Assistant Program Director).

An interdisciplinary Master of Science in Genetic Counseling is offered through The School of Health and Human Sciences. The program is accredited by the American Board of Genetic Counseling (ABGC). Applicants admitted to the program are expected to enroll as fulltime students, registering for the required courses for each of the four semesters of the program and the intervening summer sessions.

## Genetic Counseling, M.S.

The MS in Genetic Counseling program was designed in accordance with guidelines provided by the American Board of Genetic Counseling (ABGC) to prepare students with the knowledge and proficiencies necessary to practice as genetic counselors in a variety of settings including prenatal, pediatric, adult, and cancer genetics. Upon completion of the program, students are eligible to apply for certification by the ABGC.

A total of 55 semester hours is required for the MS in Genetic Counseling. The program includes required and elective course work, laboratory experience and clinical internships. Students are also required to complete a research project as the culminating experience for the degree.

## Application and Admission

In addition to the application materials required by The Graduate School, applicants must submit a personal essay, resume, and evidence of successful completion of at least one upper level undergraduate course in general genetics and biochemistry and at least one undergraduate course in statistics. Applicants who are evaluated as meeting the standards for admission will be invited for a required personal interview with the admissions committee.
It is recommended that applicants have previous experience in a volunteer or paid position working in social service agencies or with crisis counseling organizations. It is also recommended that applicants have previous exposure to genetic counseling via shadowing or internship experiences.

## Degree Requirements

## Required Courses

Year One: Fall Semester (13 hours)

| BIO 614/GEN | Prenatal Development: Embryology and |  |
| :---: | :---: | :---: |
| 614 | Teratology | 3 |
| BIO 616/GEN | Human Molecular Genetics |  |
| 616 |  | 3 |
| GEN 601 | Principles of Genetic Counseling I | 3 |
| GEN 610 | Genetic Counseling and the Community | 2 |
| GEN 658/BIO | Molecular Diagnostics |  |
| 658 |  | 1 |
| GEN 688 | Genetics Journal Club | 1 |
| Year One: Spring Semester (13 hours) |  |  |
| GEN 602 | Principles of Genetic Counseling II | 3 |
| GEN 630 | Medical/Clinical Genetics I | 3 |
| GEN 688 | Genetics Journal Club | 1 |


| CSD 632 | Introduction to Research in Communication Sciences and Disorders | 3 |
| :---: | :---: | :---: |
|  | Approved elective | 3 |
| Year One: Summer Session I (2 hours) |  |  |
| GEN 669 | Clinical Skills Seminar | 1 |
| GEN 671 | Quantitative Risks in Practice: Understanding Risk Assessment | 1 |
| Year One: Summer Session II (1 hour) |  |  |
| GEN 698 | Summer Clinical Rotations | 1 |
| Year Two: Fall Semester (13 hours) |  |  |
| GEN 701 | Principles of Genetic Counseling III | 3 |
| GEN 718 | Clinical Rotations I | 4 |
| GEN 730 | Medical/Clinical Genetics I | 3 |
| GEN 748 | Research Project | 3 |
| GEN 748: Comprise Capstone Experience |  |  |
| Year Two: Spring Semester (13-16 hours) |  |  |
| CED 645 | Mental Health Issues for Genetic Counselors | 3 |
| GEN 719 | Clinical Rotations II | 4 |
| GEN 749 | Research Project | 3 |
| PHI 620 | Ethics and Genetics | 3 |
|  | Optional elective | 3 |
| GEN 749: Comprise Capstone Experience |  |  |
| Elective (3-6 hours) |  |  |
| An elective relevant to the student's professional goals will be selected during the second semester of the program. Electives must be approved by the program director. With approval of the program director, students may select an additional (optional) elective in the fourth semester of the program. |  |  |
| Clinical Internships (9 hours) |  |  |
| The clinical rotations will be an integral part of the program and will serve to provide students with opportunities to increase their general clinical knowledge, gain experience with genetic counseling for a variety of indications, and develop the necessary skills and competencies required for the practice of genetic counseling. Under the supervision of on-site, board certified genetic counselors, students will progress from observation to participation in various aspects of clinical genetic services. Evaluation/feedback of the student's activities and progress will be an ongoing component of the clinical rotations. At the end of each rotation, a formal written evaluation will be conducted by the Clinical |  |  |

Supervisor and reviewed with the student. Students will be required to keep an accurate logbook of clinical cases according to guidelines provided by the American Board of Genetic Counseling.
Students will complete a summer clinical rotation (GEN 698) during Summer Session II of the program. Summer clinical rotations will be available at the following sites: Carolinas Healthcare System, Duke University Medical Center, Fullerton Genetics Clinic, Cone Health System, University of North Carolina at Chapel Hill, Wake Forest School of Medicine, and Women's Health Specialties in Wilmington.
Students may also make arrangements for a summer clinical rotation at another site with permission of the program director and provided that the site is approved by the American Board of Genetic Counseling (ABGC) as an ad hoc clinical training site.
During the second year of the program, students will be assigned to four clinical rotations (GEN 718/719). Second year clinical rotations will be available at the following sites: Carolinas Healthcare System, Duke University Medical Center, Cone Health System, University of North Carolina at Chapel Hill, and Wake Forest School of Medicine, and Fullerton Genetics Clinic.

## Research Project (6 hours)

The culminating experience for students in the genetic counseling program will be a formal research project (GEN 748/749). The research project may consist of a detailed case study and library synthesis, a clinical application, or an original clinical or laboratory research project. Students must select a project during the second semester of the program. All projects must be approved by the program director. Projects will be completed under the guidance of a research project committee, which will consist of a chair and two other members. Adjunct clinical faculty may serve on research project committees. Students will be required to submit a detailed written report of their project and to make an oral presentation about their project to their classmates and the faculty.

## Geography, Department of

129 Graham Building • (336) 334-5489 •

www.uncg.edu/geo

## Graduate Programs

- Post-Baccalaureate Certificate in Global and Regional Studies Geography, 18 hours
- Post-Baccalaureate Certificate in Urban and Economic Development, 18 hours (jointly with the Department of Political Science)
- Master of Arts (MA) in Applied Geography, 34 hours (thesis or internship) or 37 hours (non-thesis)
- Master of Arts in Applied Geography, Geosciences Education for Teachers, and Urban Planning and Economic Development concentrations
- Doctor of Philosophy (PhD) in Geography, 48-54 hours


## Graduate Faculty

## Professors

D. Gordon Bennett, PhD, Demographic analysis, world population problems.

Ricky L. Bunch, PhD, Geographic information systems (GIS), spatial cognition, cartography.
Keith G. Debbage, PhD, Urban planning, regional development, tourism.

Paul Knapp, PhD, Biogeography, climatology, dendroecology.
Jeffrey C. Patton, PhD, Cartographic theory, history of cartography, earth science (Head of Department).

Susan M. Walcott, PhD, Regional economic development (Director of Graduate Study).

## Associate Professors

Michael E. Lewis, PhD, Natural resources, environmental management, applied physical geography.
Zhi-Jun Liu, PhD, Environmental geography, GIS, spatial statistics, hydrologic/ecological modeling.
Elisabeth S. Nelson, PhD, Cartographic perception and cognition.
Phillip Royall, PhD, Geomorphology, drainage basin dynamics, soil science, water resources.

Roy S. Stine, PhD, Remote sensing, GIS.
Selima Sultana, PhD, Urban/transport geography and GIS applications, quantitative methods, geography of race/ethnicity.
Assistant Professors

Corey Johnson, PhD, Political geography, economic and urban geography, Europe.<br>Gerald J. Lennartson, PhD, Environmental planning, hazards, meteorology.

The Department of Geography offers the MA in Applied Geography, the PhD in Geography, and PostBaccalaureate Certificates in Global and Regional Studies Geography, and Urban and Economic Development. The programs focus on the application of theory and methods in geography toward the understanding of problems related to economic development, environmental quality, population change, and social well-being in urban, rural, regional, and international contexts.

## Global and Regional Studies Geography, PBC

The Post-Baccalaureate Certificate in Global and Regional Studies Geography emphasizes knowledge and skills needed to prepare students to work in positions in government, international business, and global non-profit organizations. Courses focus on the contemporary political economy of countries in various global regions from East Asia to Europe.

The program requires 18 semester hours of course work ( 15 hours of core courses and 3 hours of approved electives).

## Application and Admission

Applicants must submit all application materials required by The Graduate School by the appropriate deadline. Students are usually admitted in Fall and Spring semesters. Under some circumstances students may be admitted in the Summer term.

## Certificate Requirements

Please consult the department for any prerequisite courses that may be required.

Required Core Courses (15 hours)

| GEO 504 | Political Geography | 3 |
| :--- | :--- | :--- |
| GEO 533 | Regional Economic Development | 3 |
| GEO 602 | Regional Planning | 3 |
| GEO 633 | Advanced Topics in European <br> Geography | 3 |
| GEO 635 | Geography of Asia | 3 |
| Electives (3 hours) |  |  |
| Select one from the following: |  |  |

GEO 560 Seminar in Regional Geography

| HIS 508 | Latin America and Caribbean: Selected <br>  <br>  <br> HIS 564 | 3 |
| :--- | :--- | :--- |
| HIS 574 | Modern Britain: Selected Topics | 3 |
| HIS 575 | Modern Germany: Selected Topics | 3 |
| PSC 610 | Modern Russian History: Selected Topics | 3 |
|  | Public Policy Analysis | 3 |

## Urban and Economic Development, PBC

The Post-Baccalaureate Certificate in Urban and Economic Development is offered jointly by the departments of Geography and Political Science. Courses emphasize the knowledge and skills needed to prepare students to work in organizations focusing on urban planning and community economic development activities in government and nonprofit organizations.
The program requires 18 semester hours of course work ( 12 hours of core courses and 6 hours of approved electives).

## Application and Admission

Applicants must submit all application materials required by The Graduate School by the appropriate deadline. Students are usually admitted in Fall and Spring semesters. Under some circumstances students may be admitted in the Summer term.

## Certificate Requirements

Required Core Courses (12 hours)

| GEO 502 | Urban Planning | 3 |
| :--- | :--- | :--- |
| GEO 533 | Regional Economic Development | 3 |
| PSC 520 | Urban Political System | 3 |
| PSC 630 | Community and Economic Development | 3 |

Electives (6 hours)
Select two from the following:

| GEO 602 | Regional Planning | 3 |
| :--- | :--- | :--- |
| GEO 603 | Understanding Geographic Information <br> Systems | 3 |
| GEO 622 | GIS Applications in Urban Planning | 3 |
| GEO 631 | Transportation Planning | 3 |
| PSC 613 | Local Government Administration | 3 |
| PSC 620 | Urban Development Policy | 3 |

## Applied Geography, MA

The MA in Applied Geography offers three options: a thesis or internship option requiring a minimum of 34 credit hours, including a maximum of 6 hours dedicated to thesis or internship work, or a portfolio option requiring a minimum of 37 credit hours plus completion of a significant project. The two non-thesis options result in a terminal degree.

The program leads to the acquisition of research skills and expertise appropriate to geographic analysis in a range of related fields including: Business site selection, environmental assessment, geographic techniques such as cartography, geographic information systems and remote sensing, transportation planning, as well as urban and regional development. Emphasis is placed in application of theoretical constructs in geography to solve real world problems at a variety of scales from the Triad and state to national and global issues.

## Application and Admission

In addition to the application materials required by The Graduate School, applicants must submit a 250-500 word Personal Statement concerning your interest in geography. Application deadlines for admission beginning Fall are January 30 , the same for students seeking funding, and May 15 for International students; for Spring admission the application deadlines are November 1, September 15 for students seeking funding, and for international students.

## Degree Requirements

Required Core Courses (4 hours)

| GEO 601 | Research Trends in Geography | 1 |
| :--- | :--- | :--- |
| GEO $620 \quad$ Spatial Analysis | 3 |  |
| Electives (24-33 hours) |  |  |
| The student, in consultation with the advisor, will |  |  |
| determine the appropriate courses to be taken in that |  |  |
| individual's program, including any cognate courses. |  |  |

Research courses and comprehensive examination comprise Capstone Experience.

Formal Review and Examinations

1. Approval of master's plan of study.
2. *Comprehensive examination (taken after the completion of 24 hours of course work; administered at midterm of the fall and spring terms).
3. Approval of thesis or internship proposal.
4. Final thesis defense, internship presentation of completion of portfolio.

Details concerning specific core requirements, the comprehensive examination, admission to candidacy, plans of study, theses, internships, and competency portfolios can be obtained from the Director of Graduate Study.
*Research courses and comprehensive examination comprise Capstone Experience.

## Geosciences Education For Teachers Concentration

The Geosciences Education for Teachers concentration is directed towards students and educators interested in expanding their expertise in teaching geosciences. Completing the Master's of Arts in Applied Geography with this concentration requires students to combine the core requirements of the M.A. degree with courses emphasizing the knowledge and skills needed to teach geosciences at the middle grades, secondary grades, and community college levels. The required core courses, formal reviews and examinations are the same as for the Master of Arts degree in Applied Geography, non-thesis, course-work option-with a competency portfolio. Within this framework, students will complete 38 credit hours by taking the required courses specified below. Note that GEO 560 and GEO 570 will be field course experiences for the GET concentration and students will present their portfolios as part of GEO 560 and GEO 570. (Students' competency portfolios will be comprised of self-selected geosciences instructional modules designed while students were enrolled in GEO 607, GEO 608, GEO 609, GEO 610, and GEO 611.

Required Core Courses (38 hours)

| GEO 560 | Seminar in Regional Geography | 3 |
| :--- | :--- | :--- |
| GEO 570 | Applied Physical Geography | 3 |
| GEO 601 | Research Trends in Geography | 1 |
| GEO 607 | Earth Science for Educators | 5 |
| GEO 608 | Weather and Climate for Educators | 5 |
| GEO 609 | Hydrology for Educators | 5 |
| AST 609 | Solar System Astronomy for Teachers | 3 |
| GEO 610 | Physical Geology for Educators | 5 |
| GEO 611 | Natural Hazards and Society for | 5 |
| GEO 620 | Educators | 5 |
|  | Spatial Analysis | 3 |

GEO 560, GEO 570: Field courses

## Urban Planning and Economic Development Concentration

The Urban Planning and Economic Development concentration is directed towards students who have an interest in preserving and enhancing the quality-of-life of urban areas and dealing effectively with growth and development issues. Students completing this concentration will combine the core requirements of the master's degree in applied geography with courses emphasizing the knowledge and skills required to provide effective leadership in urban and economic development for metropolitan areas. The required core courses, electives, research courses, collateral expertise, and formal reviews and examinations are the same as for the MA degree in applied geography. Within this framework, the following 15 hours must be completed.

Required Core Courses (12 hours)

| GEO 502 | Urban Planning | 3 |
| :--- | :--- | :--- |
| GEO 522 | Seminar in Population and Urban |  |
| GEO 533 | Studies | 3 |
| GEO 622 | Regional Economic Development | 3 |
| Elective Courses (3 hours) | 3 |  |
| Choose one from the following: |  |  |
| GEO 602 | Regional Planning | 3 |
| GEO 631 | Transportation Planning | 3 |
| PSC 620 | Urban Development Policy | 3 |
| PSC 630 | Community and Economic Development | 3 |

## Geography, PhD

The PhD in Geography is an innovative program centered on the research-oriented application of geographical concepts and theories to the solving of real-world problems. The program requires 48-54 semester hours.

## Application and Admission

In addition to the application materials required by The Graduate School, applicants must submit a 250-500 word Personal Statement. To be considered for funding through the department, your application materials must be submitted no later than February 28 for the Fall semester or September 30 for the Spring semester. Students are usually admitted in Fall and Spring semesters. Under some circumstances students may be admitted in the Summer term.

## Degree Requirements

At least 27 of the 33 hours in required core and cluster courses (excluding dissertation hours) must be at the 600 level or higher. Up to nine hours of course work may be transferred from another institution on approval of the Department.

Required Core Courses (9 hours)

| GEO 750 | Advanced Spatial Analysis | 3 |
| :--- | :--- | :--- |
| GEO 760 | Research Design | 3 |
| GEO 761 | History of Geographic Thought | 3 |

Courses Required from Geography Clusters (24 hours)
Clusters of courses from three broad areas of applied geography form the basis of the doctoral program. These three clusters are: geographic information sciences (GIS), urban and regional economic development and planning, and earth science and natural resource management. Students are required to complete two courses in each of the three clusters and an additional two courses related to the dissertation research cluster.

Dissertation (15-21 hours)
GEO 799 Dissertation 1-21

Formal Reviews and Examinations

1. Diagnostic Exam.
2. Approval of doctoral plan of study.
3. Comprehensive preliminary examination (taken after the completion of 33 hours of course work).
4. Dissertation proposal approval.
5. Public dissertation defense.

## Gerontology Program

212 Ferguson Building • (336) 256-1020 •
www.gerontology.uncg.edu

## Graduate Programs

- Post-Baccalaureate Certificate in Gerontology, 16 hours
- Master of Science in Gerontology (MS), Aging and Business or Non-Profit Management optional concentration, 37-49 hours
- Master of Science in Gerontology/Master of Business Administration (MS/MBA) dual degree, 58 hours


## Interdisciplinary Faculty and Advisors:

## Program Director

Janice I. Wassel, PhD, Demography; financial resources and the aging family; retirement decisions of professionals, women, and married couples; caregiving and family systems (Gerontology Program).

## Professors

Rebecca G. Adams, PhD, Friendship, popular culture, community, aging (Department of Sociology).
Beth E. Barba, PhD, Human/animal interactions with older adults, Eden Alternative (team care delivery, animals and children) in nursing homes, failure to thrive in older adults (School of Nursing).
Laurie M. Kennedy-Malone, PhD, Communitygerontological nursing (School of Nursing).

William L. Tullar, PhD, Knowledge management, human resource metrics, and employee selection (Department of Business Administration).

## Associate Professors

Kenneth A. Klase, DPA, Public administration, public budgeting and finance, public financial management. (Department of Political Science).
Olav Rueppell, PhD, Life history and behavior of social insects, aging and genetics of complex traits (Department of Biology).
Sudha Shreeniwas, PhD, Gender and family issues among seniors in India and among ethnic groups in the U.S. (Department of Human Development and Family Studies).
Visiting Assistant Professor
Sandra Leak, DrPH, Comparative long term care policy at the community and state level (Department of Public Health Education).

Graduates of the gerontology programs are prepared to meet the growing demand for trained professionals in public service at local, state, and federal agencies and private, nonprofit agencies or organizations or for business professionals educated on aging issues and ready to face the markets and demands of society's changing demographics in areas such as residential options, home care markets, human resource or long term care options. All options include internship/research opportunities. Students work closely with faculty to prepare a customized portfolio according to individual's career goals.

## Gerontology, PBC

The Post-Baccalaureate Certificate in Gerontology requires 16 semester hours that must be successfully completed during four academic years. Courses fulfilling the certificate program may be used to meet requirements in a degree program in accordance with the policies of The Graduate School.

## Application and Admission

In addition to the application materials required by The Graduate School, applicants must submit a personal essay elaborating on their experience and/or interest in working with older adults.

Students wishing to pursue the certificate in gerontology while pursuing a graduate degree should consult with the Director of the Gerontology Program and with the department of interest.

## Certificate Requirements

Required Core Courses (10 hours)

| GRO 501 | Seminar: Critical Issues of Aging | 3 |
| :--- | :--- | :--- |
| GRO 600 | Proseminar in Gerontology | 1 |
| GRO 621 | Health and Aging | 3 |
| GRO 649 | Gerontology Internship or Research | 3 |

GRO 501 and GRO 601 should be completed during the first academic year after acceptance to the certificate program.

Electives (6 hours)
To meet the student's educational objectives, three courses ( 6 hours) are selected under advisement.

## Gerontology, MS

The MS in Gerontology requires 37-49 semester hours of course work and internships/research experiences. The programs offers concentrations in aging and business and nonprofit management (jointly with the Department of Political Science) and thesis and non-thesis options.

## Application and Admission

In addition to the application materials required by The Graduate School, applicants must submit a personal essay elaborating on their experience and/or interest in working with older adults.

Applicants to the nonprofit management concentration must apply simultaneously to the Post-Baccalaureate Certificate in nonprofit management offered by the Department of Political Science.

## Degree Requirements

Required Core Courses (22 hours)

| GRO 501 | Seminar: Critical Issues of Aging | 3 |
| :---: | :---: | :---: |
| GRO 600 | Proseminar in Gerontology | 1 |
| GRO 620 | Research Methods in Gerontology | 3 |
| GRO 621 | Health and Aging | 3 |
| GRO 649 | Gerontology Internship or Research Experience I | 3 |
| GRO 651 | Integrative Seminar in Gerontology | 3 |
| GRO 679 | Gerontology Internship or Research Experience II | 3 |
| ERM 517 | Statistical Methods in Education or | 3 |
| STA 571 | Statistical Methods for Research I and | 3 |
| STA 571L | Statistical Methods Laboratory I | 1 |
| GRO 651 | tone Experience |  |
| Students in the firs Additionall take their semester semester Students course ar enrolling options. | quired to complete GRO 501 and semester enrolled in the program udents will be strongly encourag stics requirement during their first GRO 620 and GRO 621 during the after acceptance into the MS pr ted without an undergraduate st ouraged to complete such a cour graduate statistics course for all |  |

Electives (15 hours)

To meet the student's educational objectives, fifteen (15) hours are selected under advisement.

Thesis Option
GRO 699 Thesis 1-6
With faculty approval, students who are interested in exploring a specific research problem in depth may choose to complete a thesis. Students must register for up to six (6) hours of thesis thereby reducing elective hours.

## Aging and Business Concentration

The Aging and Business concentration requires 49 hours for the thesis option or 43 hours for the non-thesis option. The concentration is designed to prepare graduates to integrate the critical issues of aging and business across a wide-range of settings, including health and wellness programming, older adult housing and retirement communities, product development and marketing, policy and program development, or financial gerontology.

Required Core Courses (22 hours)

| GRO 501 | Seminar: Critical Issues of Aging | 3 |
| :---: | :---: | :---: |
| GRO 600 | Proseminar in Gerontology | 1 |
| GRO 620 | Research Methods in Gerontology | 3 |
| GRO 621 | Health and Aging | 3 |
| GRO 649 | Gerontology Internship or Research Experience I | 3 |
| GRO 651 | Integrative Seminar in Gerontology | 3 |
| GRO 679 | Gerontology Internship or Research Experience II | 3 |
| ERM 517 | Statistical Methods in Education or | 3 |
| STA 571 | Statistical Methods for Research I and | 3 |
| STA 571L | Statistical Methods Laboratory I | 1 |
| GRO 651 | ates Capstone Experience. |  |
| Additiona | g Requirements (9 hours) |  |
| GRO 610 | Life Planning for the Third Age | 3 |
| GRO 622 | Financing Longevity: Topics in Insurance | 3 |
| GRO 631 | Planning and Evaluation for Professionals in Aging | 3 |
| GRO 611 | Issues in Aging and Business | 3 |

Students must choose two:

| GRO 611A | Silver Industries | 1.5 |
| :--- | :--- | :--- |
| GRO 611B | The Boomer Demographic Phenomena | 1.5 |
| GRO 611C | Workforce and Human Resource Polices <br> for Aging Societies | 1.5 |
| Business Applications Requirements (6 hours) |  |  |
| MBA 702 | Financial and Managerial Accounting | 3 |
| MBA 703 | Economic Policies and Impact on Global  <br>  Outcomes | 3 |

1.5
1.5

Electives (6 hours)
Elective courses are selected with faculty advisement to permit tailoring of the program of study to the student's specific interests. With faculty consultation, students select 6 hours of elective courses at the 500 or 600 level from a range of disciplines including gerontology, sociology business administration, counseling, human development and family studies, public health education, and/or social work.

Thesis Option
GRO 699 Thesis 1-6
With faculty approval, students who are interested in exploring a specific research problem in depth may choose to complete a thesis.

## Nonprofit Management Concentration

The Nonprofit Management concentration requires 46 hours for the thesis option and 40 hours for the non-thesis option. The concentration is designed to prepare graduates to meet the growing demand for trained professionals in public service at local, state and federal agencies; private, nonprofit agencies, and voluntary organizations serving the elderly and older adult population and/or meeting the needs of an aging society. Course work fulfills the requirements for the PostBaccalaureate Certificate in Nonprofit Management through the Department of Political Science. Students must submit an application for the certificate.
Required Core Courses (25 hours)

| GRO 501 | Seminar: Critical Issues of Aging | 3 |
| :--- | :--- | :--- |
| GRO 600 | Proseminar in Gerontology | 1 |
| GRO 620 | Research Methods in Gerontology | 3 |
| GRO 621 | Health and Aging | 3 |
| GRO 649 | Gerontology Internship or Research |  |
|  | Experience I | 3 |
| GRO 651 | Integrative Seminar in Gerontology | 3 |
| ERM 517 | Statistical Methods in Education | 3 |


| STA 571 | Statistical Methods for Research I | 3 |
| :--- | :--- | :--- |
|  | and |  |
| STA 571L | Statistical Methods Laboratory I | 1 |
| PSC 540 | Nonprofit Management and Leadership | 3 |
| GRO 651: Capstone Experience |  |  |
| Choice Requirements (3 hours) |  |  |
| Students must choose three of the following: |  |  |
| PSC 511B | Marketing for Public and Nonprofit |  |
|  | Agencies |  |
| PSC 511D | Strategic Planning |  |
| PSC 511G | Grantwriting |  |
| PSC 511N | Nonprofit Law |  |
| PSC 511V | Volunteer Management |  |

Elective Requirements (9 hours)
Elective courses are selected with faculty advisement to permit tailoring of the program of study to the student's specific interests. With faculty consultation, students select 9 hours of elective courses at the 500 or 600 level with at least 3 credit hours in political science and 3 credit hours in gerontology. Other possible electives include courses in business administration, counseling, human development and family studies, public health education, and/or social work.

Internship or Research Experience Requirement (3 hours)
GRO 679 Gerontology Internship or Research Experience II

With advisement of faculty in the Gerontology Program, students select an appropriate structured setting as an experiential learning activity within a public or nonprofit agency. The internship or research experience will provide students with practical experience in the ongoing operations of an agency of government or in an organization engaged in public affairs activities serving the elderly or addressing the needs of an aging society.

Thesis Option
GRO 699 Thesis 1-6

With faculty approval, students who are interested in exploring a specific research problem in depth may choose to complete a thesis.

## Gerontology, MS/MBA

The MS/MBA is offered jointly by the Gerontology Program and the Bryan School of Business and Economics and requires a minimum of 58 semester hours.

## Application and Admission

In addition to the application materials required by The Graduate School, applicants must submit a personal essay elaborating on the applicant's experience and/or interest in working with older adults.

Applicants may take either the GMAT or GRE qualifying exam and must have a minimum of two years of relevant work experience. Applications are reviewed by both the Director of Gerontology Program and the MBA Program Director.

## Degree Requirements

Computer Literacy
Upon entry to the MS/MBA degree program, students should have a working knowledge of word processing and spreadsheet applications in a PC environment. Familiarity with Excel is required. Students must also be familiar with basic probability and statistics as covered in computerbased training modules approved by the MBA Program.

## Required Core Courses (46 hours)

Students are strongly encouraged to enroll in GRO 600 and GRO 501 concurrently.

| MBA 701 | Quantitative Analysis for Decision Making | 3 |
| :---: | :---: | :---: |
| MBA 702 | Financial and Managerial Accounting | 3 |
| MBA 703 | Economic Policies and Impact on Global Outcomes | 3 |
| MBA 704 | Leadership Assessment and Career Enhancement | 3 |
| MBA 705 | Processes, Information Systems and Business Value | 3 |
| MBA 706 | Marketing Management | 3 |
| MBA 707 | Financial Management | 3 |
| MBA 708 | Operations for Competitive Advantage | 3 |
| MBA 709 | Human Capital in Organizations | 3 |
| MBA 710 | Ethical Leadership and Sustainable Business | 3 |
| MBA 712 | Strategic Management or | 3 |
| GRO 679 | Gerontology Internship or Research Experience II | 3 |


| GRO 501 | Seminar: Critical Issues of Aging | 3 |
| :--- | :--- | :--- |
| GRO 600 | Proseminar in Gerontology | 1 |
| GRO 620 | Research Methods in Gerontology | 3 |
| GRO 649 | Gerontology Internship or Research <br> Experience I | 3 |
| GRO 651 | Integrative Seminar in Gerontology | 3 |
| MBA 712, GRO 649: Capstone Experience |  |  |
| Electives (12 hours) |  |  |
| Selected upon advisement to permit tailoring of the <br> program of study to the student's specific interests and to <br> include at least 9 semester hours in gerontology or <br> gerontology electives. |  |  |

3

MBA 712, GRO 649: Capstone Experience
Electives (12 hours)
Selected upon advisement to permit tailoring of the include at least 9 semester hours in gerontology or gerontology electives.

## History, Department of

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## Graduate Programs

- Post-Baccalaureate Certificate in Historic Preservation (administered by the Department of Interior Architecture), 15 hours
- Master of Arts (MA) in History, (30 hours), concentration in Museum Studies
- Doctor of Philosophy (PhD) in History, 45-51 hours


## Graduate Faculty

## Professors

Jodi Bilinkoff, PhD, Renaissance and Reformation Europe, early modern Spain, religion, gender.
Charles C. Bolton, PhD, Southern history, oral history (Head of Department).

Colleen Kriger, PhD, African history, European expansion in Africa, material culture, oral history.
Paul Mazgaj, PhD, Modern European intellectual history, French history, history of ideologies, French revolution, Napoleonic era.

Stephen Ruzicka, PhD, Ancient history, Greek, Roman, Persia.

## Associate Professors

James A. Anderson, PhD, East Asia, China, Vietnam.
Richard E. Barton, PhD, Medieval history.
Mark Elliott, PhD, 19th century American history.
Benjamin Filene, PhD, Public history (Director of Public History).
Phyllis W. Hunter, PhD, American, Colonial, material culture.

Thomas F. Jackson, PhD, Recent America, civil rights.
Watson Jennison, PhD, African American history, U.S. South.

Jeffrey W. Jones, PhD, Russia.
Lisa Levenstein, PhD, U.S. women's history.
Greg O'Brien, PhD, 18th-19th century America, American Indian history, environmental history (Director of Graduate Study).

Linda M. Rupert, PhD, Atlantic world, Caribbean, Latin America.

Lisa C. Tolbert, PhD, American cultural history, 19thcentury U.S., antebellum South, architectural history, museum studies.

Assistant Professors
Jill C. Bender, PhD, British Studies
A. Asa Eger, PhD, Early Islamic history.

Emily J. Levine, PhD, German and intellectural history.
Peter Villella, PhD, Latin America and Colonial Mexico.

The Department of History offers a Post-Baccalaureate Certificate in Historic Preservation, a Master of Arts in history, a Master of Arts in history with a museum studies concentration, and a PhD in history. The public history program (museum studies) works in partnership with the Department of Interior Architecture, cross-listing many core classes. Classes in each of our programs are generally small and, through an intensive mentoring program, faculty-student interaction has become a hallmark of graduate study in the department.

## Historic Preservation, PBC

The Departments of History and Interior Architecture jointly offer a Post-Baccalaureate Certificate in Historic Preservation. The certificate requires 15 semester hours. The Department of Interior Architecture administers the certificate in historic preservation.

## Admission and Application

In addition to the application materials required by The Graduate School, applicants must submit an approximately 750-word Personal Statement. A resume is encouraged. A writing sample is optional.

The deadline to apply for the certificate in historic preservation is February 1 for the Fall term.

## Certificate Requirements

## Required Courses (12 Hours)

| HIS 543/IAR | Historic Preservation: Principles and <br> 543 | 3 |
| :--- | :--- | ---: |
| HIS 624/IAR | History of American Landscapes and |  |
| 624 | Architecture | 3 |
| HIS 625/IAR | Preservation Planning and Law |  |
| 625 |  | 3 |
| HIS 690/IAR | Internship |  |
| 690 |  | 3 |

3 hours of electives approved by the Director of Public History

HIS 690: Students with appropriate professional work experience may substitute an elective for the internship requirement with prior approval of the Director of Public History.

## Electives (3 hours)

To complete the 15 hours of course work, electives should be selected with the prior approval of the Director of Public History from the following list:

| HIS 505/LIS 505 | Introduction to Archival Management |
| :---: | :---: |
| $\begin{aligned} & \text { HIS 536/IAR } \\ & 536 \end{aligned}$ | History of Decorative Arts |
| $\begin{aligned} & \text { HIS 545/IAR } \\ & 545 \end{aligned}$ | Southern History and Southern Material Culture in a Museum Context |
| $\begin{aligned} & \text { HIS 547/IAR } \\ & 547 \end{aligned}$ | History Museum Curatorship: Collections Management |
| $\begin{aligned} & \text { HIS 548/IAR } \\ & 548 \end{aligned}$ | Architectural Conservation |
| $\begin{aligned} & \text { HIS 552/IAR } \\ & 552 \end{aligned}$ | History and Theories of Material Culture |
| $\begin{aligned} & \text { HIS 555/IAR } \\ & 555 \end{aligned}$ | Field Methods in Preservation Technology |
| $\begin{aligned} & \text { HIS 628/IAR } \\ & 628 \end{aligned}$ | Identification and Evaluation of the Historic Built Environment |
| HIS 629 | Museum Education |
| ART 590 | Museum Studies |
| ATY 597 | Special Problems in Anthropology |
| GEO 502 | Urban Planning |
| PSC 540 | Nonprofit Management and Leadership |

Because public history requires interdisciplinary work, students may substitute 3 hours of electives from another department with approval of the Director of Public History.

## History, MA

## Master of Arts in History (MA)

The Master of Arts in history requires 30 semester hours. Students must pass a language examination or take an extra three hours of course work. Upon entering the program, students will develop an individualized plan of study with prior approval from the Director of Graduate Study. They will develop three fields of study based upon the specializations of their three member faculty committee. Any of our faculty members with graduate faculty status may serve as the main advisor for a MA committee. Such a framework allows our students maximum flexibility in pursuing research topics of greatest interest and applicability to their future goals.

The MA in history offers excellent preparation for those planning to teach history at community colleges and secondary schools and provides a solid foundation for
those who go on to PhD programs or who find employment in government and business. The MA improves analytic, research, and writing skills.

## Application and Admission

In addition to the application materials required by The Graduate School, applicants must submit aPersonal Statement. A resume is encouraged. A resume is encouraged. A writing sample is optional. The deadline to apply is February 1 for the Fall term. Qualified applicants must present an approved undergraduate background (though not necessarily a major) in history. At least nine credit hours of advanced undergraduate history is required.

## Degree Requirements

Required Courses (12 hours)

| HIS 510 | Historiography | 3 |
| :---: | :---: | :---: |
| HIS 709 | Introductory Research Seminar | 3 |
| HIS 703 | Seminar in History | 3 |
| HIS 704 | Seminar in History | 3 |
| Or students will write a Thesis (see below), HIS 699 (6) |  |  |
| Colloquia (9 hours) |  |  |
| Students will complete three courses (9 hours) from the following colloquia: |  |  |
| HIS 701 | Colloquium in American History before 1865 | 3 |
| HIS 702 | Colloquium in American History since $1865$ | 3 |
| HIS 705 | Colloquium in European History before 1789 | 3 |
| HIS 706 | Colloquium in European History since 1789 | 3 |
| HIS 710 | Colloquium in the Atlantic World | 3 |
| HIS 716 | Graduate Colloquium in World History | 3 |

Electives (9 hours)
Students will complete three courses (9 hours) from remaining graduate-level courses in History, including additional colloquia, chosen in consultation with their faculty committee members and the Director of Graduate Study. One elective course ( 3 hours) may be taken at the graduate level in a related department or program, with the approval of the Director of Graduate Study.

Language Requirement
Many areas of historical research require proficiency in a foreign language. Students who intend to concentrate in such areas are encouraged to pass the written language
examination, administered by the Department. In lieu of the language examination, students may substitute an extra 3-hour course. Students who intend to pursue a Ph.D., especially in areas other than U.S. history, are strongly encouraged to pass the language examination. Students may retake a failed language exam.

## Comprehensive Examination

Students will develop three fields of study based upon the specializations of their three-member faculty committee. If a student selects a faculty member whose specialization is in United States history as main advisor, then at least one of the committee members must be a specialist in a non-U.S. field. If a student selects a faculty member whose specialization is in European history as main advisor, then at least one of the committee members must be a specialist in a non-European field. Similarly, if a student selects a faculty member whose specialization is outside United States or European history, at least one of the committee members must come from either U.S. or European history. Some faculty members may require that students have completed at least one course with them before agreeing to serve on a committee; students should consult with prospective committee members early in their graduate career. A faculty member from another UNCG department or program who has graduate faculty status can serve on a MA committee and create a field of study.

All students must pass a written comprehensive examination in each of their three fields of study. The exams are usually administered twice a year, during fall and spring. Students may retake a failed comprehensive exam once.

Research Seminars Capstone Experience
Students may take the 703/704 research seminars or they have the option of completing a 6 -hour thesis (HIS 699), with the approval of the main faculty advisor and the Director of Graduate Study. Students will present the findings of their research at a History Department Graduate Conference.

## History MA with Concentration in Museum Studies

The Master of Arts in History with a Concentration in Museum Studies requires 36 credit hours. The program provides graduate-level preparation in the core history program and grounding in the theory and practice of public history. Through mentorship, significant hands-on training, and an internship program, students are prepared to enter the professional world of public history in museums, historic sites, and other venues.

## Application and Admission

In addition to the application materials required by the Graduate School, applicants must submit a personal statement (approximately 750 words) and a resume. A writing sample is optional (recommended for students who were not undergraduate history majors). The deadline to apply is February 1. New students are enrolled only in the fall term. While applicants are not required to have been undergraduate history majors, before enrollment they must have competed at least nine credit hours of advanced undergraduate history - i.e., beyond the level of the first-year undergraduate survey.

## Degree Requirements

Required Courses (27 hours)

| HIS 701 | Colloquium in American History before |  |
| :--- | :--- | ---: |
|  | 1865 | 3 |
| HIS 702 | Colloquium in American History since |  |
|  | 1865 | 3 |
| HIS 709 | Introductory Research Seminar | 3 |
| HIS 626/IAR | The Practice of Public History |  |
| 626 |  | 3 |

$\begin{array}{ll}\text { HIS 627/IAR } & \begin{array}{l}\text { Museum and Historic Site } \\ 627\end{array} \\ \text { Interpretation: Principles and Practice }\end{array}$
HIS 633 Community History Practicum 3
HIS 690/IAR Internship
690
HIS $720 \quad$ Public History Capstone I
HIS $721 \quad$ Public History Capstone II 3
Electives (9 hours)
By approval of the Directory of Public History, students will complete three courses ( 9 hours) of electives, chosen from graduate-level courses in History. One elective course (3 hours) may be taken at the graduate level in a related department or program.

Public History Capstone (Capstone Experience)
Students will complete public projects through HIS 720-
721. They will present and reflect on the projects at the History Department's annual Graduate Conference.

Additional Public History Courses

| HIS 505/LIS | Introduction to Archival Management |  |
| :---: | :---: | :---: |
| 505 |  | 3 |
| HIS 536/IAR | History of Decorative Arts |  |
| 536 |  | 3 |
| HIS 543/IAR | Historic Preservation: Principles and |  |
| 543 | Practice | 3 |


| $\begin{aligned} & \text { HIS 545/IAR } \\ & 545 \end{aligned}$ | Southern History and Southern Material Culture in a Museum Context | 3 |
| :---: | :---: | :---: |
| HIS 547/IAR | History Museum Curatorship: |  |
| 547 | Collections Management | 3 |
| HIS 548/IAR | Architectural Conservation |  |
| 548 |  | 3 |
| HIS 555/IAR | Field Methods in Preservation |  |
| 555 | Technology | 3 |
| HIS 624/IAR | History of American Landscapes and |  |
| 624 | Architecture | 3 |
| HIS 625/IAR | Preservation Planning and Law |  |
| 625 |  | 3 |
| HIS 628/IAR | Identification and Evaluation of the |  |
| 628 | Historic Built Environment | 3 |
| HIS 629 | Museum Education | 3 |
| HIS 631 | Digital History | 3 |
| ART 590 | Museum Studies | 3 |
| ATY 597 | Special Problems in Anthropology | 3 |
| GEO 502 | Urban Planning | 3 |
| PSC 511 | Topics in Public Affairs | 1 |
| PSC 540 | Nonprofit Management and Leadership | 3 |
| PSC 645 | Nonprofit Financial Management and Budgeting | 3 |

## History, PhD

The PhD in history prepares students to teach and conduct research in American history and to understand it within an expanded global perspective. Students are required to integrate the major field with a minor field outside of U.S. history. This broader intercontinental perspective enables students to explore themes such as the interaction of political, economic and cultural systems, questions of race and ethnicity, and the transnational dimensions of national experience. This global perspective is encouraged by providing a selection of courses that are cross-national, comparative, and integrative in content and format.

Students are encouraged to enlarge their perspective by understanding and analyzing national history in broader, international contexts. This goal is facilitated in two ways: first, a close integration of the minor into the major area; second, a selection of courses that are cross-national and integrative in format.

In a setting of relatively small classes, individualized research projects, and frequent contact with faculty, students are trained in the arts of scholarly research and writing. No less is the emphasis placed on fostering
teaching skills. Through a required teaching seminar, hands-on teaching experience, and careful mentoring, students are prepared for teaching in a college or university environment.
A total of 45-51 semester hours of course work and dissertation credit, including a minimum of 33-39 hours of course work beyond the MA in history and a minimum of 12 hours of dissertation credit, are required to complete the PhD in history. Upon entering the program, all students will develop a Plan of Study with the approval of the Director of Graduate Study.

## Application and Admission

In addition to the application materials required by The Graduate School, applicants must submit a writing sample and a personal statement by January 15 to be considered for Fall admission.

The PhD program admits only a few highly qualified students each year. As a basic requirement, all applicants must hold the BA degree and have completed the MA in history. Students without an MA in history must first complete an MA in history before applying to the PhD program.

## Degree Requirements

Required Core Courses (15 hours)
$\begin{array}{lll}\text { HIS } 701 & \text { Colloquium in American History before } \\ & 1865\end{array}$
HIS 702 Colloquium in American History since 1865

HIS 714 Varieties of Teaching 3
HIS $750 \quad$ PhD Readings Course 3
HIS $751 \quad$ PhD Dissertation Seminar 3
Research Hours (0-6 hours)
If the Director of Graduate Study should conclude that an admitted PhD candidate did not perform at least 6 hours of substantive research during the MA degree program or earned an MA in an area of history other than U.S. history, then the student will be required to complete up to 6 hours of additional research. These additional research hours will ordinarily include HIS 703 and HIS 709.

Electives in U.S. Major (9 hours)
In addition to the core requirements, students must complete 9 hours of elective courses in their major. HIS 692 may not be counted for PhD credit. Consult with the Director of Graduate Study for course offerings.
Minor Field (9 hours)
With the approval of the student's advisory/dissertation committee and the Director of Graduate Study, doctoral students will choose and define a minor field outside of
U.S. history. The minor field will consist of one required course (HIS 716, Graduate Colloquium in World History), at least one course at the 600-level or above with the minor field faculty member of the disstertation committee, and a third course at the 600-level or above on a topic outside of U.S. history, for a total of nine credit hours. All course work applied toward the minor must be approved by the Director of Graduate Study and listed on the student's Plan of Study.
Where appropriate, and with the permission of the Doctoral Advisory/Disstertation Committee and Director of Graduate Study, doctoral students may take a maximum of one course (3 hours) at the 600-level or above outside the Department of History as part of their minor field.

## Language

All students are required to pass a written test demonstrating reading knowledge of one foreign language appropriate to their area of specialization prior to taking the qualifying examination.

## Mentor and Doctoral Advisory/Dissertation Committee

A mentor must be named after 9 hours of course work. Normally, the mentor will be the graduate faculty member in the Department whose research and teaching interests most closely correspond to those of the student. Prospective mentors must agree to serve on the committee. Mentors will be responsible for the pedagogical, scholarly, and professional development of their students during their program of study, will chair their Doctoral Advisory/Dissertation Advisory Committee, and will direct the student's dissertation.

## Permission to Proceed and Grade Point Average (GPA)

All students in the PhD program must obtain "permission to proceed" at the end of their first year of courses (normally 18 hours). This permission is granted by a collective decision of the Doctoral Advisory/Dissertation Committee and the departmental Graduate Committee.

Students must maintain a 3.5 GPA to proceed to the writing of the dissertation.

## Qualifying Examination

The qualifying examination, which will come at the end of the 33-39 hours of course work (including a 3 hour PhD readings course and a 3-hour PhD seminar), will include two parts:

1. A written examination composed of questions from the major and minor fields.
2. An oral examination given no later than one month after the completion of the written examination.
If a student fails only one part of the written examination, he/she may be required to retake only that part. If a
student fails all three fields, he/she must retake the entire examination.

## Dissertation (minimum of $\mathbf{1 2}$ hours)

Students will register for a minimum of 12 hours of dissertation credit (HIS 799) while researching and writing the dissertation.

## Human Development and Family Studies, Department of

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## Graduate Programs

- Post-Baccalaureate Certificate in Leadership in Early Care and Education (jointly with the Department of Specialized Education Services), 18 hours
- Post-Baccalaureate Certificate in Birth-Kindergarten Post-Baccalaureate Initial Licensure Certificate (jointly with the Department of Specialized Education Services), 20 hours
- Master of Education (MEd) in Birth-Kindergarten: Interdisciplinary Studies in Education and Development (jointly with the Department of Specialized Education Services), 37 hours
- Master of Science (MS) in Human Development and Family Studies, 38 hours
- Doctor of Philosophy (PhD) in Human Development and Family Studies, 51 hours
- Doctoral Minor in Human Development and Family Studies, 12 hours


## Graduate Faculty

## Professors

Cheryl Buehler, PhD, Marital conflict, adolescence, parenting, maternal employment, adolescent risk and resiliency, family processes (Director of Graduate Study).

Susan D. Calkins, PhD, Social and emotional development in infancy and early childhood.

Deborah J. Cassidy, PhD, Child-care quality, early childhood professional development, developmentally appropriate practices.
David H. Demo, PhD, Family diversity, family relationships and children's well-being; parentchild interaction; family transitions (Associate Dean for Graduate Programs).
Mark Fine, PhD, Effects of family transitions on family members; early childhood development; family structure; divorce; early intervention; effects of alternative reproductive technologies on family members (Chair of Department).

Esther M. Leerkes, PhD, Parent-child interaction in infancy/early childhood and links with children's social-emotional well-being; child influences on parents and family.

Daniel Perlman, PhD, Intimate relationships and friendships including initiation, maintenance, and
termination; the dark side of relationships; loneliness.

Jonathan Tudge, PhD, Ecological and socio-cultural theory; children's development in ethnic, social, and cross-cultural contexts; links between home, preschool and school; development of gratitude in children and adolescents.

## Associate Professors

Stephanie I. Coard, PhD, Socio-cultural influences on child mental health, racial/ethnic socialization processes, racial/ethnic identity development.

Danielle Crosby, PhD, Effects of welfare and employment policies on young children in lowincome families.

Anne C. Fletcher, PhD, Parental and peer influences on adolescent adjustment, parent and adolescent social integration, social network closure.

Heather Helms, PhD, Marriage, friendship, work and family in dual-earner couples; midlife parenting and relationships.
Linda Lott Hestenes, PhD, Child care quality, outdoor environments for young children, inclusive classrooms.

Andrea Hunter, PhD, Diversity in children's living arrangements, grandparenthood, multigeneration family systems, constructions of gender.

Karen LaParo, PhD, Childcare quality, early elementary classroom quality, inclusive classrooms, early intervention, teacher-child relationships.

Mary Y. Morgan, PhD, Women's everyday lived experiences using feminist research approaches and exploring ethnic and racial diversity.
Catherine Scott-Little, PhD, Early childhood education standards and assessments, school readiness and after-school programs.
Sudha Shreeniwas, PhD, Well-being and health over the life course; ethnicity, culture, and health among the elderly.

Andrew J. Supple, PhD, Contextual influences on youth and adolescent development, ethnic and cultural variations in parenting and adolescent outcomes, and advanced quantitative analyses.

## Adjunct Assistant Professor

Rosemarie Vardell, PhD, Multicultural perspectives, professional development in early childhood education.

The Department of Human Development and Family Studies faculty have a wide range of research interests and methodological approaches. The faculty's research interests cluster in five focal areas:

1. Early childhood development, care, and education including social, emotional, and cognitive development in young children, child care, and early childhood education;
2. Parent-child relationships;
3. Adolescence;
4. Close relationships, marriage, and divorce; and
5. Human development and family diversity in sociocultural context.

Faculty use a variety of quantitative and qualitative approaches including tests of children's social and cognitive development, micro-analytic analyses of peer and parent-child interactions, surveys, interviews, feminist methodologies such as photovoice and interpretive inquiry, and the design and evaluation of educational and intervention programs for children, family members, and educational personnel. Within these general areas of concentration and varied methods of inquiry, students focus upon more specific topics of study.

Graduate course work in human development and family studies focuses on individuals and families as they relate to friendship and kinship networks, the workplace, and economic, human service, health, and formal and informal educational systems. Graduate students have considerable flexibility in tailoring their studies to special interests and career goals.

## Birth-Kindergarten Post-Baccalaureate Initial Licensure Certificate PBC

The online Birth-Kindergarten (BK) Post-Baccalaureate Initial Licensure Certificate provides training for students with a bachelor's degree seeking an initial NC BirthKindergarten teaching license. This certificate program requires 20 semester hours and is offered jointly by the departments of Human Development and Family Studies and Specialized Education Services. The program is designed to provide students with graduate level training and an initial teaching license in BK. Students also have an option for transitioning from this program into the MEd program in which they may be eligible for an advanced license in BK. Course work from the plan of study for the Post-Baccalaureate Initial Licensure Certificate may be applied to the MEd in Birth to Kindergarten: Interdisciplinary Studies in Education and Development (BKISED) provided the student meets all admission requirements of The Graduate School, the Department of Human Development and Family Studies and the Department of Specialized Education Services.

## Application and Admission

Applicants must submit all application materials required by The Graduate School by May 1.

The certificate is available to individuals with a bachelor's degree in early childhood education, child development, early childhood special education, or a related
field. Students who wish to transition into the MEd program must submit a new application for the MEd to The Graduate School. It is the students' responsibility to initiate the process and review it with their advisor. It is recommended that that student take the GRE within the first 6 hours of study to guarantee a timelier processing of their application package.

## Certificate Requirements

BK Initial Licensure Required Courses

| SES 601 | Introduction to Inclusive Birth- <br> Kindergarten Services | 3 |
| :--- | :--- | :---: |
| SES 607/HDF | Infant-Toddler Learning in Inclusive <br> 607 | 4 |
| SES 606/tings |  |  |
| 606 | Preschool-Kindergarten Learning in <br> Inclusive Settings | 4 |
| SES 603 | Screening/Assessment in Inclusive Early <br> Childhood Services | 3 |
| SES 649c | Practicum in Special Education | 3 |

Gainful employment information can be found at: http://www.uncg.edu/hdf/gainful_employ.html.

## Certificate with MEd in Birth-Kindergarten: Interdisciplinary Studies in Education and Development (BKISED) (44 hours)

Courses listed in Certificate Requirements plus the following 24 hours:

HDF 650 Theory and Research in Early Childhood 3
ERM 604 Methods of Educational Research 3
SES $602 \begin{array}{ll}\text { Inclusive Family-Centered Practices in } \\ \text { Early Childhood }\end{array}$
$\begin{array}{ll}\text { HDF } 633 & \begin{array}{l}\text { Advanced Curriculum in Early Childhood } \\ \\ \text { Education }\end{array}\end{array}$
$\begin{array}{ll}\text { HDF } 636 & \text { Leadership and Mentoring in Educating } \\ \text { Young Children }\end{array}$
SES 604 Internship in Inclusive Early Childhood 6
Elective (3 s.h.)
Professional Portfolio

## Leadership in Early Care and Education, PBC

The online Post-Baccalaureate Certificate in Early Care and Education Leadership requires 18 semester hours and is offered jointly by the departments of Human Development and Family Studies and Specialized Education Services. The program is designed to provide students with graduate level training and a credential to pursue careers in leadership positions in early care and education settings including early intervention, Smart Start, resource and referral, and community college instruction.

## Application and Admission

Applicants must submit all application materials required by The Graduate School by May 1.

The certificate is available to students with a bachelor's or masters' degree who do not plan to pursue a degree program or for students who are pursuing a master's degree in Human Development and Family Studies or Specialized Education Services. If pursuing a master's degree simultaneously, students must meet all requirements for admission to The Graduate School, Human Development and Family Studies, and Specialized Education Services. The Certificate is also open to graduate students with background knowledge in early childhood education, child development, early childhood special education, or a closely related field.

## Certificate Requirements

Required Courses (15 hours)

| HDF 634 | Contemporary Issues in Early Childhood <br> Policy | 3 |
| :--- | :--- | ---: |
| HDF 636 | Leadership and Mentoring in Educating <br> Young Children |  |
| HDF 650 | Theory and Research in Early Childhood | 3 |
| SES 601 | Introduction to Inclusive Birth- <br> Kindergarten Services |  |
| SES 605 | Diversity and Inclusive Early Care and <br> Education | 3 |
| Electives (3 hours) | 3 |  |
| With the approval of the advisor, students choose 3 hours <br> of electives at the 500 or 600 level. |  |  |

Gainful employment information can be found at: http://www.uncg.edu/hdf/gainful_employ.html.

## Birth-Kindergarten: Interdisciplinary Studies in Education and Development, MEd

The online MEd in Birth-Kindergarten: Interdisciplinary Studies in Education and Development requires 37 semester hours and is offered jointly by the departments of Human Development and Family Studies and Specialized Education Services. Those who do not have an initial teaching license in $B-K$ will be required to take prerequisite courses to fulfill this requirement. Upon completion of this program of study, students will be eligible for " M " license in birth-kindergarten.

## Application and Admission

Applicants must submit all materials required by The Graduate School by May 1 for Fall admission.

## Degree Requirements

Research Requirements (6 hours)

| ERM 604 | Methods of Educational Research | 3 |
| :--- | :--- | :--- |
| HDF 650 | Theory and Research in Early Childhood | 3 |
| Theory and Practice Requirements (19 hours) |  |  |


| HDF 606/SES | Preschool-Kindergarten Learning in <br> Inclusive Settings | 4 |
| :--- | :--- | :--- |
| HDF 636 | Leadership and Mentoring in Educating <br> Young Children | 3 |
| SES 601 | Introduction to Inclusive Birth- <br> Kindergarten Services | 3 |
| SES 602 | Inclusive Family-Centered Practices in <br> Early Childhood | 3 |
| SES 603 | Screening/Assessment in Inclusive Early <br> Childhood Services | 3 |
| HDF 633 | Advanced Curriculum in Early Childhood <br> Education | 3 |
| Practicum (6 hours) | 3 |  |
| SES 604 | Internship in Inclusive Early Childhood | 6 |
| Electives (6 hours) | To be selected from list or with approval of advisor. |  |


| HDF 610 | Cross-cultural Perspectives on Child <br> Development | 3 |
| :--- | :--- | :--- |
| HDF 621 | Applied Theories and Principles of <br> Parenting | 3 |
| HDF 634 | Contemporary Issues in Early Childhood <br> Policy | 3 |
| HDF 653 | Contemporary Research in Family <br> Studies | 3 |


| HDF 667 | Infant Development |
| :--- | :--- |
| SES 608 | Seminar in Early Childhood Education |
| SES 605 | Diversity and Inclusive Early Care and <br> Education |
| SES 647 | Collaboration and Consultation in <br> Education |
| SES 662 | Assistive Technology for Inclusive <br> Education |

Other courses as approved by advisor.

## Professional Portfolio (Capstone Experience)

The final portfolio is the culminating experience. It includes two components: 1) a written document that includes a series of reflective essays and 2) oral defense, discussing the content of the essays and rationale for the use of documents. This portfolio will demonstrate the mastery of skills and knowledge in the program competency areas. It is submitted on TaskStream and evaluated by a team of two faculty and one practicing professional. If the portfolio and presentation do not meet departmental standards, one revision is allowed. The final portfolio is required of all students graduating from the BKISED program.

## Human Development and Family Studies, MS

The MS in Human Development and Family Studies requires a minimum of 38 hours (including thesis) and prepares graduates to conduct research or to embark on a doctoral program of study.

## Application and Admission

In addition to a review of the admission materials required by The Graduate School, the department considers the compatibility of the student's interest areas with those of the faculty and with curriculum emphasis, as well as the student's availability for full-time graduate study.

## Degree Requirements

Core Content (14 hours)
HDF 640 Professional Seminar I 1
$\begin{array}{ll}\text { HDF } 653 \text { Contemporary Research in Family } \\ & \text { Studies }\end{array}$
$\begin{array}{ll}\text { HDF } 651 & \begin{array}{l}\text { Contemporary Research in Human } \\ \text { Development }\end{array}\end{array}$
HDF 652 Theories of Human Development 3
HDF 655 Family Theory 3
HDF 661 Professional Seminar II 1

Area of Specialization (9 hours)
Area of specialization courses are selected jointly by the student and the faculty advisory committee. All 9 hours must be fulfilled through content courses, and at least 6 of the 9 hours must be taken within the Department of Human Development and Family Studies.

Statistics and Methodology (9 hours)

| ERM 680 | Intermediate Statistical Methods in |
| :--- | :--- |
|  | Education |

$\begin{array}{ll}\text { ERM } 681 \quad \text { Design and Analysis of Educational } \\ & \text { Experiments }\end{array}$
$\begin{array}{ll}\text { HDF } 658 & \begin{array}{l}\text { Research Methods in Human } \\ \text { Development and Family Studies }\end{array}\end{array}$
Research (6 hours) (Capstone Experience)
HDF 699 Thesis 1-6
and
Oral Examination

## Human Development and Family Studies, PhD

The PhD in Human Development and Family Studies requires 89 semester hours beyond the baccalaureate degree (for students entering the program in the MS/PhD track) or a minimum of 51 hours beyond a master's degree program. Required and elective course work and research are listed below. Entering doctoral students who have completed a master's degree program at another institution or department must fulfill (or have comparable substitutions for) all of the requirements of the HDFS MS degree program. Assessment of prerequisite courses occurs at the time of admission to the program. These requirements must be fulfilled in addition to completing the minimum of 51 hours of course work and research shown below.

## Application and Admission

In addition to a review of the admission materials required by The Graduate School, the department considers the compatibility of the student's interest areas with those of the faculty and with curriculum emphasis, as well as the student's availability for full-time graduate study.

## Degree Requirements

Area of Specialization (18 hours)
The PhD program requires the completion of 18 hours of elective course work (selected jointly by the student and the faculty advisory committee) beyond the minimum of 9 hours of specialization course work taken for the MS. Of the 18 hours to be taken for the PhD, 9 hours must be
fulfilled through structured electives. One course in each of the following areas is required: Development Area (HDF 665, HDF 666, HDF 667, HDF 668), Family Studies Area (HDF 660, HDF 671, HDF 672, HDF 674, HDF 721), and Sociocultural Context Area (HDF 610, HDF 634, HDF 673). Specific offerings of HDF 602 and HDF 711 will be eligible for inclusion in target areas specified by the department.

Professional Development (1 hour)/Teaching Practicum (5 hours)
All doctoral students will complete a two-semester teaching practicum supervised by the student's advisor, or the advisor's designee. The practicum requires the student to serve as an assistant, then as a co-instructor of a course (or courses) at the 200, 300, or 400 level.

College Teaching in Human Development and Family Studies I

HDF 750
Professional Seminar III 2

HDF 765 College Teaching Practicum in Human Development and Family Studies II

Statistics and Methodology (15 hours)

| STA 671 | Multivariate Analysis |
| :--- | :--- |
| HDF 712 | Advanced Research Design in Human <br>  <br>  <br>  <br>  <br>  <br>  <br>  <br>  <br> Oevelopment and Family Studies additional content course in <br> statistical analysis <br> One additional content course in <br> research methodology |
| One additional content course in either <br> statistical analysis or research <br> methodology |  |

Preliminary Examination
Written and oral preliminary examinations of the student's knowledge of the specialization area and of research methods, design, and statistical analyses, must be passed prior to commencing the dissertation research.
Research (12 hours)

$$
\text { HDF } 799 \quad \text { Dissertation Problem } \quad 1-12
$$

Requirements for the MS and PhD program of study are specified further in departmental curriculum guides.

## Human Development and Family Studies, Doctoral Minor

The doctoral minor in Human Development and Family Studies requires 12 semester hours.

Select one course from:

| HDF 653 | Contemporary Research in Family <br> Studies | 3 |
| :--- | :--- | :--- |
| HDF 651 | Contemporary Research in Human <br> Development | 3 |
| HDF 652 | Theories of Human Development | 3 |
| HDF 655 | Family Theory | 3 |
| Electives (9 hours) |  |  |
| Select three of the following courses: |  |  |

Select three of the following courses:

| HDF 602 | Problems in Human Development and | 2-4 |
| :--- | :--- | ---: |
|  | Family Studies |  |
| HDF 610 | Cross-cultural Perspectives on Child <br> Development |  |
| HDF 621 | Applied Theories and Principles of <br> Parenting | 3 |

HDF 624
Feminist Theory and Research Methodologies

HDF 626 Social and Economic Problems of the Family
$\begin{array}{ll}\text { HDF } 634 & \text { Contemporary Issues in Early Childhood } \\ & \text { Policy }\end{array}$
$\begin{array}{ll}\text { HDF } 636 & \text { Leadership and Mentoring in Educating } \\ & \text { Young Children }\end{array}$
HDF 650 Theory and Research in Early Childhood 3
HDF 660 Families in Middle and Later Life 3
HDF 665/PSY Social and Emotional Development 3
$\begin{array}{ll}\text { HDF } 666 & \text { Intellectual Development in Young } \\ \text { Children }\end{array}$
HDF 667 Infant Development 3
HDF 668 Seminar in Adolescence 3
HDF 671 Contemporary Family Life 3
HDF 672 Divorce, Remarriage, Cohabitation 3
HDF 673 Cross-cultural Perspectives on Families 3
HDF 674 Close Relationships in Adulthood 3
HDF 710 Advanced Theory in HDFS 3
HDF 711 Experimental Course 3
$\begin{array}{lll}\text { HDF } 712 & \begin{array}{l}\text { Advanced Research Design in Human } \\ \text { Development and Family Studies }\end{array} & 3\end{array}$
HDF 721

Seminar in Parent-Child Relations

## Minor Requirements

Core (3 hours)

## Information Systems and Supply Chain Management, Department of

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## Graduate Programs

- Post-Baccalaureate Certificate in Healthcare Information Technology Management, 12-15 hours
- Post-Baccalaureate Certificate in Information Assurance, Security, and Privacy, 12-15 hours
- Post-Baccalaureate Certificate in Information Technology, 12-15 hours
- Post-Baccalaureate Certificate in Supply Chain, Logistics, and Transportation Management, 12-15 hours
- Master of Science (MS) in Information Technology and Management, 30-36 hours
- Post-Master's Certificate in Information Technology, 12-15 hours
- Doctor of Philosophy (PhD) in Information Systems, 74-84 hours
- Doctoral Minor in Information Systems, 12 hours


## Graduate Faculty

## Professors

Kwasi Amoako-Gyampah, PhD, Management of advanced technology, systems implementation, supply chain management, global manufacturing practices, manufacturing strategy (Head of Department).
Joyendu Bhadury, PhD, Location modeling, logistics and supply chain management, applied management science.

Richard A. Ehrhardt, PhD, Management science, stochastic modeling, inventory theory, semantic web ontologies, supply chain logistics (Emeritus).

Vidyaranya B. Gargeya, PhD, Global operations strategy, supply chain management, total quality management and continuous improvement systems, service operations management, performance measurement, customer relationship management.
Prashant C. Palvia, PhD, Global information technology management, electronic commerce, IT in healthcare, security and privacy, technology diffusion.

James K. Weeks, PhD, Strategic management, operations management, manufacturing strategy,
materials and logistics planning and controls (Emeritus).

## Associate Professors

John L. Eatman, PhD, Information systems management and planning, systems analysis and design, telecommunications management (Bryan School IT Director).

Lakshmi S. Iyer, PhD, Electronic commerce, knowledge management, IT strategy, emerging technologies, electronic privacy and security (Director of Graduate Study).

Hamid R. Nemati, PhD, Data flow management, strategic use of information technologies, decision support, knowledge management, information privacy.

Al Farooq N. Salam, PhD, Electronic commerce, enterprise resource planning, telecommunications, systems analysis and design, e-business models and implementation, emerging technologies, semantic e-business, ontology and e-business processes.

Rahul Singh, PhD, Intelligent systems, semantic ebusiness, systems development, data communications and computer networks, electronic commerce, security and privacy.

Larry R. Taube, PhD, Material and logistics planning and control, just-in-time implementations, total quality management, supply chain management.

## Assistant Professor

Xia Zhao, PhD, Information security, risk management, IT control and compliance, IT governance, virtual communities, e-commerce.

## Healthcare Information Technology Management, PBC

The online Post-Baccalaureate Certificate in Healthcare Information Technology Management consists of a minimum of 12 semester hours but may not exceed 15 semester hours. It delivers state-of-the-art knowledge and skills in healthcare informatics, decision making, tools and technologies in healthcare.

## Application and Admission

Applicants must submit all application materials required by The Graduate School by the appropriate deadline. Students are admitted in Fall, Spring, and Summer semesters. No entrance exam is required.

## Certificate Requirements

Required Courses ( 9 hours)

| ISM 671 | Data Management |
| :--- | :--- |
| ISM 680 | Healthcare Information Technology <br> Management |
| ISM 681 | Healthcare Decision Making for IT <br> Managers |

Electives (3-6 hours)
Select from the following or other approved courses:

| ISM 673 | Telecommunications and Distributed |  |
| :--- | :--- | ---: |
|  | Networks | 3 |
| ISM 675 | Business Analytics | 3 |
| ISM 679 | Special Topics in Information Systems | 3 |
| HEA 651 | Advanced Health Promotion in Higher |  |
|  | Education | 3 |
| NUR 614 | Information Technology in Nursing | 3 |

## Information Assurance, Security, and Privacy, PBC

The online Post-Baccalaureate Certificate in Information Assurance, Security, and Privacy consists of a minimum of 12 semester hours but may not exceed 15 semester hours. It is intended for professionals with a bachelor's degree in any field from an accredited institution who are interested in gaining state-of-the-art knowledge and skills in the application of information security and privacy to solve organizational problems. The program offers an innovative and relevant educational opportunity that reflects the changing information security and privacy environment of the 21st century by incorporating the latest thinking and best practices in the field with a solid foundation in theory and proven principles. Additionally, the program provides knowledge and skills on all aspects of information security and privacy technologies, tools, methodologies, and management.

## Application and Admission

Applicants must submit all application materials required by The Graduate School by the appropriate deadline. Students are admitted in Fall, Spring, and Summer semesters. No entrance exam is required.

## Certificate Requirements

Required Courses (9 hours)

| ISM 671 | Data Management |
| :--- | :--- |
| ISM 673 | Telecommunications and Distributed |
|  | Networks |
| ISM 676 | Information Security and Privacy |

Select from the following or other approved courses:

| ISM 675 | Business Analytics | 3 |
| :--- | :--- | :--- |
| ISM 679 | Special Topics in Information Systems | 3 |

## Information Technology, PBC

The online Post-Baccalaureate Certificate in Information Technology consists of a minimum of 12 semester hours but may not exceed 15 semester hours. It is intended for professionals who have a bachelor's degree in any field from an accredited institution and are interested in gaining state-of-the-art knowledge and skills in the application of information technology to solve organizational problems.

## Application and Admission

Applicants must submit all application materials required by The Graduate School by the appropriate deadline. Students are admitted in Fall, Spring, and Summer semesters. No entrance exam is required.

## Certificate Requirements

Required Courses (9 hours)

| ISM 671 | Data Management | 3 |
| :--- | :--- | :--- |
| ISM 672/ENT | Web Programming |  |
| 672 |  | 3 |
| ISM 673 | Telecommunications and Distributed <br> Networks | 3 |
| Electives (3-6 hours) |  |  |
| Select from the following or other approved courses: |  |  |
| ISM 675 | Business Analytics |  |
| ISM 679 | Special Topics in Information Systems | 3 |

## Supply Chain, Logistics, and Transportation Management, PBC

The online Post-Baccalaureate Certificate in Supply Chain, Logistics, and Transportation Management consists of a minimum of 12 semester hours but may not exceed 15 semester hours. It provides state-of-the-art knowledge and skills in the operation and management of supply chains and logistics systems and the use of various technologies to improve the performance of these business systems.

## Application and Admission

Applicants must submit all application materials required by The Graduate School by the appropriate deadline. Students are admitted in Fall, Spring, and Summer semesters. No entrance exam is required.

Electives (3-6 hours)

## Certificate Requirements

Required Courses (9 hours)

| SCM 650 | Supply Chain Management Concepts and <br> Principles |
| :--- | :--- |
| SCM 651 | Transportation.Logistics and Distribution <br> in Supply Chain Management |
| SCM 652 | Strategic Cost, Design, Procurement and <br> Contracts |

Electives (3-6 hours)
Select from the following or other approved courses:

| SCM 655 | Global Supply Operations Strategy |
| :--- | :--- |
| SCM 678 | Project Management |
| SCM 680 | Independent Study in Supply Chain <br> Management |
| SCM 681 | Supply Chain Management |
| SCM 682 | Executive Mentorship in Supply Chain <br>  |

## Information Technology and Management, MS

The MS in Information Technology and Management (MSITM) program focuses on both information technology and the management of information technology resources. The program combines technological and managerial components to train graduates who can deal effectively with the variety and complexity of issues involved in applying information technology successfully within organizations. The MSITM program seeks to extend both the knowledge of students and their ability to effectively utilize their knowledge in a collaborative work environment.

The curriculum is designed to be flexible and dynamic and provides state-of-the-art exposure to both information technology and management practices. The program places an emphasis on problem solving activities, multifunctional group decision making, and communication skills. In addition to technology and business studies, all students will be required to demonstrate acceptable competence in communication and presentation skills, interpersonal skills, teamwork skills, and problem-solving capabilities.

Depending on the business and information technology background the student possesses, the length of the program will vary. A student can complete the program in two to four years, depending on the individual student's background and course load.

## Application and Admission

In addition to the application materials required by The Graduate School, applicants are encouraged to submit a resume and a personal statement. GMAT scores are required instead of GRE scores. Applicants should consult the ISSCM Graduate Program Director for specific admission requirements.

The MSITM program is open to students with diverse undergraduate degrees.

## Degree Requirements

Depending on business background the student possesses, the length of the program will be 30-36 semester hours. Thesis and project options are offered.
Basic Business Knowledge (0-6 hours)
Foundation level courses in financial accounting and operations management will be required for students who do not have an adequate business background. These courses may be waived for students who have completed equivalent academic course work and who can meet specific learning objectives. Applicants should consult with the ISSCM Graduate Program Director for course waiver information.
Core Level (24 hours)
ISM 671
Data Management
ISM 672/ENT Web Programming
672
$\begin{array}{lll}\text { ISM } 673 & \text { Telecommunications and Distributed } \\ & \text { Networks }\end{array}$
ISM $674 \quad$ Systems Analysis and Design 3
ISM 675 Business Analytics 3
ISM 676 Information Security and Privacy 3
ISM 677 Information Systems Management 3
ISM 678 Project Management 3
Project (Non-Thesis) Option (Capstone Experience) (6 hours)
ISM $698 \quad$ Project in Information Technology
Approved Project
Students must demonstrate a broad knowledge of the material covered in the MSITM curriculum by undertaking an approved project that might range from a major research paper (mini-thesis) to a technology development project. A formal contract is established between the ISSCM graduate program committee and the student to clearly define the scope and other requirements of the project. This course is taken by students who have completed at least two-thirds of their minimum program hours.

In addition to the project, students will select 3 hours from the following graduate level courses with the approval of the ISSCM Graduate Program Director:

| ISM 679 | Special Topics in Information Systems |
| :--- | :--- |
| ISM 680 | Healthcare Information Technology <br> Management |
| ISM 613 | Directed Studies |
| ISM 696 | Organizational Internship |
| MBA 701 | Quantitative Analysis for Decision <br> Making |
| MBA 702 | Financial and Managerial Accounting |
| MBA 703 | Economic Policies and Impact on Global <br> Outcomes |
| MBA 704 | Leadership Assessment and Career <br> Enhancement |
| MBA 706 | Marketing Management |
| MBA 710 | Ethical Leadership and Sustainable <br> Business |

All MBA courses are face-to-face, on-campus courses.
Thesis Option (Capstone Experience) (6 hours)

## ISM 699

Thesis

## Information Technology, PMC

The purpose of the online 12-hour Post-Master's Certificate in Information Technology is to provide professionals who already have an MBA degree (or a master's degree in a related field) with state-of-the-art knowledge and skills in the application of information technology to the solution of organizational problems.

## Application and Admission

Applicants must submit all application materials required by The Graduate School by the appropriate deadline. Students are admitted in Fall, Spring, and Summer semesters.

Applicants to the Post-Master's Certificate program are required to have an MBA or related master's degree.

## Certificate Requirements

Required Courses (12 hours)
Based on the student's background, 12 hours from the following courses will be recommended by the program director.

ISM $671 \quad$ Data Management 3
ISM 672/ENT Web Programming

| ISM 673 | Telecommunications and Distributed |  |
| :--- | :--- | :--- |
|  | Networks | 3 |
| ISM 675 | Business Analytics | 3 |
| ISM 676 | Information Security and Privacy | 3 |
| ISM 679 | Special Topics in Information Systems | 3 |
| ISM 680 | Healthcare Information Technology |  |
|  | Management | 3 |

## Information Systems, PhD

The PhD in Information Systems requires 74-84 semester hours and is an innovative research degree program designed to prepare professionals and research scholars of the highest quality for careers in academic IS units and other organizations. The program enhances the traditional PhD program with four distinctive elements: commitment to practical relevance, emphasis on producing quality teachers, research apprenticeship, and interdisciplinary research. An emphasis on global information technology is available to interested students.

The program is primarily for full-time students and is available to students with master's degrees in appropriate areas such as business, computer science, public administration, engineering, or the social sciences.

## Application and Admission

In addition to the application materials required by The Graduate School, applicants must submit a one-page personal statement and a resume. GMAT scores are required instead of GRE scores. Applicants should consult the PhD Program Director for specific admission requirements.

Students without a master's degree in business will need to take additional courses to establish an understanding of business processes.

## Degree Requirements

Leveling Courses/Prerequisites
To be taken as needed to remedy deficiencies, in consultation with the PhD Program Director.

ISM 671
Data Management
ISM 672/ENT
672
Web Programming

ISM 673 Telecommunications and Distributed Networks

ISM 674 Systems Analysis and Design 3
ISM 677

Information Systems Management

Students with no business background must take at least three of the four courses, in consultation with the PhD Program Director.

| MBA 702 | Financial and Managerial Accounting |
| :--- | :--- |
| MBA 706 | Marketing Management |
| MBA 708 | Operations for Competitive Advantage |
| MBA 709 | Human Capital in Organizations |
| Major (21 hours) |  |
| ISM 753 | Seminar in IS Planning, Management, <br> and Global Issues |
| ISM 754 | Seminar in Inter-organizational Systems |
| ISM 755 | Seminar in Current and Emerging <br> Information Technologies |
| ISM 756 | Seminar in Information Systems <br> Behavioral Topics |
| ISM 785 | Theories of Information Systems |
| ISM 786 | Introduction to Research and <br> Frameworks in Information Systems |
| ISM 788 | Seminar in IS Research Methods |

Supporting Area (9 hours)
Courses chosen in consultation with the PhD Program Director.

Research Methodology (15 hours)
Courses chosen in consultation with the PhD Program Director. Possible courses include:

| STA 661 | Advanced Statistics in the Behavioral <br> and Biological Sciences I |  |
| :--- | :--- | ---: |
| STA 662 | Advanced Statistics in the Behavioral <br> and Biological Sciences II | 3 |
| STA 671 | Multivariate Analysis |  |
| ERM 731 | Structural Equation Modeling in <br> Education | 3 |
| ELC 665 | Approaches to Qualitative Inquiry | 3 |
| Teaching Education (4-7 hours) |  |  |

Two papers must be submitted for publication in conference proceedings or journals prior to taking written comprehensive examinations.

Comprehensive Written Examination
Upon completion of the required course work and research apprenticeship, the student will be eligible to sit for written comprehensive examinations. The major examination will have two parts: the first part will be composed of IS content from various courses and existing literature; the second part will be designed to evaluate the research readiness of the student. Typically, the major examination is given in the fall semester. If the student fails at the first attempt, a second attempt may be allowed by the PhD Program Director.

Oral Examination
Following the successful completion of the written comprehensive examination, the student will be given an oral examination by the doctoral Advisory/Dissertation Committee. Upon successful completion of the oral examination, the student may apply for doctoral candidacy.

Proposal Defense
Following the oral examination, the student will prepare a dissertation proposal that will be defended before the doctoral Advisory/Dissertation Committee. The defense may be attended by others outside the committee.

Dissertation (18-24 hours)
A minimum of 18 hours credit will be devoted to research that culminates in the preparation of the required doctoral dissertation.

## Information Systems, Doctoral Minor

## Requirements

The doctoral minor in information systems requires 12 semester hours taken from the following course options.

| ISM 671 | Data Management | 3 |
| :--- | :--- | :--- |
| ISM 672/ENT | Web Programming |  |
| 672 |  | 3 |
| ISM 673 | Telecommunications and Distributed | 3 |
|  | Networks | 3 |
| ISM 674 | Systems Analysis and Design | 3 |
| ISM 677 | Information Systems Management | 3 |

Program Director's permission is required for taking 700 level courses.

## Interior Architecture, Department of

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## Graduate Programs

- Post-Baccalaureate Certificate in Historic Preservation (jointly with the Department of History), 15 hours
- Master of Fine Arts in Interior Architecture (60 hours)
- Master of Science (MS) in Interior Architecture, Historic Preservation (jointly with the Department of History), Interior Product Design, and Museum Studies (jointly with the Department of History) optional concentrations, 44 hours


## Graduate Faculty

## Professor

Jo Ramsay Leimenstoll, MArch, Historic preservation theory and practice, architectural conservation, design review.

Anna Marshall-Baker, PhD, Design for special populations, interdisciplinary study, ecological design (Chair of Department).

Associate Professors
Thomas Lambeth, MLandscape Arch, Place theory, environmental design, communication graphics, interior product design.

Patrick Lee Lucas, PhD, Buildings in society and culture, community formation and transformation, historic property care and management, material culture.

Tina Sarawgi, MArch, Interior lighting design; design, simulation, representation, and collaboration using digital media; design education (Director of Graduate Study).

## Assistant Professors

Jonathon Anderson, MFA, Digital design and modeling, industrial manufacturing and digital fabrication, interdisciplinary collaboration, interior products/surfaces, technology as a means to advance current construction processes.

Travis Hicks, MArch, Design process and communication, Sustainability through integrated design, Design research in professional practice, Evidence-based design.
Hannah Rose Mendoza, MFA, Feminist design theory and pedagogy, environmental ethics and sociospatial justice, identity, and immigrant populations.

Academic Professional Assistant Professor
Stoel Burrowes, Master of Industrial Design, Design and product theory, furniture design and
production, design graphics, craft, interior products.

## Historic Preservation, PBC

The Departments of History and Interior Architecture jointly offer a 15 -hour Post-Baccalaureate Certificate in Historic Preservation. The certificate provides graduate students in history, interior architecture, and related fields training and credentials to pursue careers in historic preservation, management of historic sites, and related public history professions.

## Application and Admission

In addition to the application materials required by the Graduate School, applicants must submit a 750 word Personal Statement.

## Certificate Requirements

Required Courses (12 hours)

| IAR 543/HIS | Historic Preservation: Principles and |
| :--- | :--- |
| 543 | Practice |
| IAR 624/HIS | History of American Landscapes and |
| 624 | Architecture |
| IAR 625/HIS | Preservation Planning and Law |
| 625 |  |
| IAR 690/HIS | Internship |
| 690 |  |
|  | 3 hours of electives approved by the <br> Director of Graduate Study |

IAR 690: Students with appropriate professional work experience may substitute an elective for the internship requirement with prior approval of the Director of Graduate Study.

Electives (3 hours)
To complete the 15 hours of course work, electives should be selected with the prior approval of the Director of Graduate Study from the following list:

| HIS 505/LIS | Introduction to Archival Management |  |
| :--- | :--- | :--- |
| 505 |  | 3 |
| IAR 536/HIS | History of Decorative Arts | 3 |
| 536 |  |  |
| IAR 545/HIS | Southern History and Southern Material <br> 545 | Culture in a Museum Context |
| IAR 547/HIS | History Museum Curatorship: |  |
| 547 | Collections Management |  |
| IAR 548/HIS | Architectural Conservation | 3 |
| 548 |  | 3 |
| IAR 552/HIS | History and Theories of Material Culture | 3 |

IAR 555/HIS
555
IAR 628/HIS
628
ART 590
ATY 597
GEO 502
PSC 540

Field Methods in Preservation Technology

## Interior Architecture MFA

The MFA program in Interior Architecture requires 60 semester hours and is a post-professional degree pro-gram intended to provide opportunities for students to achieve a high level of excellence in the design of architectural interiors, to develop specialization in fields of study that match with current IAR faculty's area of research, and to complete their graduate work with a terminal degree. The design studio is taken with courses in design and research methods, courses that expand the base of knowledge relating to both user needs and environments that serve those needs, seminars devoted to pertinent issues of environmental design, and internship or supervised professional practice. Special attention may be directed toward design for special populations, digital design and simulation, community formation and transformation, architectural conservation, design graphics, design research in professional practice, ecological design, environmental ethics and socio-spatial justice, evidence-based design, feminist design theory and pedagogy, furniture design and production, historic preservation theory and practice, industrial manufacturing and digital fabrication, interdisciplinary study, interior product design, lighting design, material culture, place theory, and sustainability. For curricular sequence based on current IAR faculty's area of research, prospective students are advised to contact the Department.

## Admission Requirements

In addition to the application materials required by The Graduate School, applicants must submit the following items directly to the department:

1. One to two page personal statement including the reason for applying to the MFA program in Interior Architecture at UNCG, how it relates to the candidate's career goals, and what s/he may want to specialize in and why, if admitted.
2. Portfolio of design work: Representative examples of design work including short written descriptions of the projects to provide an overview of the candidate's design skills and design experience. Examples of 2-D or 3-D art work could be included, if applicable.Selected
candidates would be invited for a personal interview face-to-face or online after all the documents for admission are submitted. Enrollment in the program is limited and priority is given to applications received before April 1.

An undergraduate professional degree in interior design or interior architecture is preferred. Candidates who do not hold a professional undergraduate degree in interior design or interior archi-tecture but are graduates of a related environmental design program, such as architecture, industrial design, etc., may be required to complete specific undergradu-ate prerequisite courses in interior architecture as a part of their graduate studies. Such decisions would be based upon an individual evaluation of credentials, portfolio, and design experience.

## Admission to Candidacy

Students will need to be formally admitted to candidacy for the MFA degree. Students must have successfully completed two semesters of full-time graduate work, possess a $B$ (3.0) average in all courses taken during the first two semesters, and have an overall grade record consistent with the regulations stated in The Graduate School Bulletin. In addition, the application to candidacy must be approved by IAR graduate faculty. The faculty will meet with students to review work and sign candidacy forms early in the fall semester of the second year of graduate work. Students are limited to two candidacy reviews. If a student is not admitted to candidacy during the first review, the review team will issue written recommendations for further studies. The second review will take place within a year of the first. Failure to pass candidacy for the second time will prohibit the student from continuing in the program.

## Degree Requirements

Required Studio Courses (18 hours)
All students take the following three studios:
IAR 501 Advanced Interior Architecture I
IAR 502 Advanced Interior Architecture II 6
IAR 602 Advanced Interior Architecture III
Required Core Courses (6 hours)
All students take the following 6 hours:
IAR 631 Environmental Design Research

IAR 645 Seminar in Interior Architecture
Electives in Area of Specialization (27-33 hours)
With prior approval by the Director of Graduate Study or the student's thesis chair, a student will select a minimum of 27 hours in this area from any of the IAR courses listed
below or from other 500 and 600 level courses taught in related areas in other departments.

| IAR 527 | Problems in Interior Architecture | 2-6 | IAR 600 | Supervised Professional Experience | 1-4 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| IAR 531 | Design Seminar | 2 | IAR 690/HIS | Internship |  |
| IAR 535 | Architectural Lighting Design | 2 | 690 |  | 3 |
| IAR 536/HIS | History of Decorative Arts |  | Thesis (6 hours) (Capstone Experience) |  |  |
| 536 |  | 3 | The student will complete a 6 -hour thesis and will participate in a public discussion of the thesis with other students and faculty members. The student's thesis committee will be responsible for reviewing and approving successful completion of the thesis. Credit may be divided over two or more semesters. Students can opt to defend their thesis in the spring or summer semester of their second year or fall semester of third year. |  |  |
| IAR 540 | Evolution of Furniture | 3 |  |  |  |
| IAR 541 | Contemporary Trends in Interior |  |  |  |  |
|  | Product Design | 3 |  |  |  |
| IAR 543/HIS | Historic Preservation: Principles and |  |  |  |  |
| 543 | Practice | 3 |  |  |  |
| IAR 545/HIS | Southern History and Southern Material |  | IAR 699 | Thesis | 1-6 |
| 545 | Culture in a Museum Context | 3 |  |  |  |
| IAR 547/HIS | History Museum Curatorship: |  | Interior Architecture, MS |  |  |
| 547 | Collections Management | 3 |  |  |  |
| IAR 548/HIS | Architectural Conservation |  | The MS program in Interior Architecture requires 44 semester hours and is a post-professional degree program intended to provide opportunities for students to achieve |  |  |
| 548 |  | 3 |  |  |  |
| IAR 552/HIS | History and Theories of Material Culture |  | a high level of excellence in the design of architectural interiors, and to develop specialization in selected areas of |  |  |
| 552 |  | 3 | individual interest. Students can select a field of study that |  |  |
| IAR 555/HIS | Field Methods in Preservation |  | matches with current IAR faculty's area of research or choose one of the existing graduate concentrations offered by the department: historic preservation, interior |  |  |
| 555 | Technology | 3 |  |  |  |
| IAR 560 | Advanced Computer-Aided Design and |  |  |  |  |
|  | Research Seminar | 3 | product design, or museum studies. The design studio is taken with courses in design and research methods, |  |  |
| IAR 565 | Materials and Methodologies Seminar | 3 | courses that expand the base of knowledge relating to both user needs and environments that serve those |  |  |
| IAR 578/ATY | Research Methods in Historical |  |  |  |  |
| 578/HIS 578 | Archaeology | 3 |  |  |  |
| IAR 601 | Directed Self-Study in Interior |  | toward problems of interior product design, digital design, and fabrication, furniture design, interior lighting design, |  |  |
|  | Architecture | 1-6 |  |  |  |
| IAR 611 | Graduate Seminar |  | adaptive use of existing structures, the preservation and restoration of buildings and neighborhoods, museum |  |  |
| IAR 624/HIS | History of American Landscapes and |  | studies, exhibit design, sustainability, and environmental ethics and socio-spatial justice. |  |  |
| 624 | Architecture | 3 |  |  |  |
| IAR 625/HIS | Preservation Planning and Law |  | Admission Requirements |  |  |
| 625 |  | 3 | In addition to the application materials required by The Graduate School, applicants must submit a statement of personal interest and portfolio and participate in an interview. Enrollment in the program is limited and priority is given to applications received before March 1. |  |  |
| IAR 626/HIS | The Practice of Public History |  |  |  |  |
| 626 |  | 3 |  |  |  |
| IAR 627/HIS | Museum and Historic Site |  |  |  |  |
| 627 | Interpretation: Principles and Practice | 3 |  |  |  |
| IAR 628/HIS | Identification and Evaluation of the |  | An undergraduate professional degree in interior architecture or interior design is preferred. Candidates who do not hold a professional undergraduate degree in |  |  |
| 628 | Historic Built Environment | 3 |  |  |  |
| IAR 665 | Problems in Interior Architecture | 2-4 | interior architecture but are graduates of a related environmental design program, such as architecture, |  |  |
| Internship/Professional Experience (3-12 hours) |  |  | industrial design, etc., may be required to complete |  |  |
| With prior a Director of | roval by the student's thesis chair and duate Study, a student will select a |  | specific und department | raduate prerequisite courses in t uch decisions will be based upon |  |

individual evaluation of credentials, portfolio, and design experience.

## Degree Requirements

Studio Course (12-18 hours)
At least two studio courses are required. Typically two or three are taken for 12-18 hours.

| IAR 501 | Advanced Interior Architecture I |
| :--- | :--- |
| IAR 502 | Advanced Interior Architecture II |
| IAR 602 | Advanced Interior Architecture III |
| Research Techniques ( 9 hours) |  |
| All students take the following 6 hours: |  |
| IAR 631 | Environmental Design Research |
| IAR 645 | Seminar in Interior Architecture |
|  | or |
|  | approved alternative |

A student will take an additional 3 hours of research methods courses approved by the student's committee, such as statistics, advanced computer science, or other research methods course appropriate to the student's concentration or area of specialization.

Electives (14-17 hours)
With prior approval by the Director of Graduate Study or the student's committee, a student will select at least 14 hours in the concentration or area of specialization.

Thesis (6 hours) (Capstone Experience)
The student will complete a 6 -hour thesis and will participate in a public discussion of the thesis with other students and faculty members. The student's graduate committee will be responsible for reviewing and approving successful completion of the thesis. Credit may be divided over two or more semesters.

IAR 699 Thesis 1-6

## Historic Preservation or Museum Studies Concentration

Required Core Courses (17 hours)
Historic Preservation Concentration

| IAR 543/HIS | Historic Preservation: Principles and <br> 543 |
| :--- | :--- |
| Practice |  |
| IAR 624/HIS | History of American Landscapes and |
| 624 | Architecture |
| IAR 625/HIS | Preservation Planning and Law |
| 625 |  |

IAR 690/HIS Internship

Approved Elective 5-6

IAR 690: Students with appropriate professional experience may substitute an elective for the Internship requirement with prior approval of the Director of Graduate Study.

Museum Studies Concentration

| IAR 626/HIS | The Practice of Public History |  |
| :--- | :--- | ---: |
| 626 |  | 3 |
| IAR 627/HIS | Museum and Historic Site |  |
| 627 | Interpretation: Principles and Practice | 3 |
| IAR 690/HIS | Internship |  |
| 690 |  | 3 |
|  | Approved Electives | $8-9$ |

IAR 690: Students with appropriate professional experience may substitute an elective for the Internship requirement with prior approval of the Director of Graduate Study.

Studio Course (12 hours)

| IAR 501 | Advanced Interior Architecture I | 6 |
| :--- | :--- | :--- |
| IAR 602 | Advanced Interior Architecture III | 6 |
| Research Techniques (9 hours) |  |  |

IAR 631 Environmental Design Research 3
IAR 645 Seminar in Interior Architecture 3
And three (3) hours of research methods approved by the student's committee and typically chosen from the following:

IAR 548/HIS Architectural Conservation

IAR 555/HIS 555

IAR 628/HIS
628
IAR 545/HIS 545

Electives
HIS 505/LIS
505
AR 536/HIS
536
IAR 545/HIS
545
IAR 547/HIS

Field Methods in Preservation Technology

Identification and Evaluation of the Historic Built Environment

Southern History and Southern Material Culture in a Museum Context

Introduction to Archival Management

History of Decorative Arts

Southern History and Southern Material Culture in a Museum Context

History Museum Curatorship: Collections Management

| IAR 548/HIS | Architectural Conservation | 3 |
| :--- | :--- | :--- |
| 548 |  | 3 |
| IAR 552/HIS | History and Theories of Material Culture |  |
| 552 |  | 3 |
| IAR 555/HIS | Field Methods in Preservation |  |
| 555 | Technology | 3 |
| IAR 628/HIS | Identification and Evaluation of the | 3 |
| 628 | Historic Built Environment | 3 |
| ART 590 | Museum Studies | 3 |
| ATY 597 | Special Problems in Anthropology | 3 |
| GEO 502 | Urban Planning | 3 |
| PSC 540 | Nonprofit Management and Leadership | 3 |

Required courses in either concentration may be taken as electives for students in the other concentration.

Thesis (6 hours) (Capstone Experience)
A thesis is required of all candidates for the MS degree. Credit may be divided over two or more semesters.

IAR 699 Thesis 1-6
Interior Product Design Concentration
Required Core Courses (12 hours)

| IAR 500 | Supervised Professional Experience | 1 -4 |
| :--- | :--- | ---: |
| IAR 540 | Evolution of Furniture | 3 |
| IAR 560 | Advanced Computer-Aided Design and |  |
|  | Research Seminar | 3 |
| IAR 565 | Materials and Methodologies Seminar | 3 |

Required Studio Courses (minimum 18 hours)

| IAR 501 | Advanced Interior Architecture I | 6 |
| :--- | :--- | :--- |
| IAR 502 | Advanced Interior Architecture II | 6 |
| IAR 602 | Advanced Interior Architecture III | 6 |

Research Techniques (6 hours)

| IAR 631 | Environmental Design Research | 3 |
| :--- | :--- | :--- |
| IAR 645 | Seminar in Interior Architecture | 3 |

Electives (2-6 hours)
Electives as recommended by Graduate Thesis Committee.

Thesis (6 hours) (Capstone Experience)
IAR 699 Thesis 1-6

## Kinesiology, Department of

250 Health and Human Performance Building • (336) 3345573 • www.uncg.edu/kin

## Graduate Programs

- Master of Education (MEd) in Kinesiology, currently not accepting applications
- Master of Science (MS) in Kinesiology, Applied Neuromechanics, Exercise Physiology, Motor Behavior, Pedagogical Kinesiology, Sport and Exercise Psychology, Community Youth Sport Development, and Sports Medicine optional concentrations, 30-36 hours
- Master of Science in Athletic Training (MSAT), 48 hours
- Doctor of Education (EdD) in Kinesiology, 60 hours
- Master of Science/ Doctor of Philosophy (MS/PhD) in Kinesiology, 78 hours
- Doctor of Philosophy (PhD) in Kinesiology, Applied Neuromechanics, Exercise Physiology, Pedagogical Kinesiology, and Sport and Exercise Psychology optional concentrations, 60 hours


## Graduate Faculty

## Professors

Ang Chen, PhD, Children/adolescent motivation, learning, and physical activity behavior change.

Catherine D. Ennis, PhD, Curriculum theory and development in physical education/activity with specific application to urban school settings.

Jennifer L. Etnier, PhD, Mental health benefits of physical activity, exercise and cognitive performance (Director of Graduate Study).
Diane L. Gill, PhD, Sport and exercise psychology, social psychological aspects of physical activity and well-being across the lifespan.

Allan H. Goldfarb, PhD, Exercise physiology, hormonal/oxidative stress, muscle damage, glycogen metabolism.

Thomas J. Martinek, EdD, Psycho-social dynamics of teaching and coaching, teacher education, research design and statistics.

David H. Perrin, PhD, Athletic training/sports medicine, ACL injury risk factors.
Sandra J. Shultz, PhD, Athletic training/sports medicine, ACL injury risk factors, hormones and joint laxity, neuromuscular control of knee stability (Department Chair).

Joseph W. Starnes, PhD, Cardiac function and metabolism, exercise-induced cardioprotection, statins, aging.

Kathleen Williams, PhD, Coordination and control of movement in aging adults, evaluation and validation of movement sequences.

## Associate Professors

Paul G. Davis, PhD, Exercise and metabolic health, lipoproteins and other cardiovascular disease risk factors, obesity.

Katherine M. Jamieson, PhD, Social inequalities. Queer, transnational,post colonial bodies in sport, exercise, and physical education/health settings.

William B. Karper, EdD, Exercise effects on ill/disabled children and adults, older adults and chronic pain conditions.

Scott E. Ross, PhD, ATC, Athletic Training/Sports Medicine, research interests include balance assessment and rehabilitation, ankle instability, stochastic resonance stimulation.

Randy J. Schmitz, PhD, Athletic training/sports medicine, muscle training, performance, and fatigue, therapeutic modalities in orthopedic rehabilitation.

Laurie Wideman, PhD, Exercise endocrinology, focused on the hormonal, cytokine and adipokine responses to acute and chronic exercise.

## Assistant Professors

Christopher K. Rhea, PhD, Nonlinear dynamics of gait and posture, virtual reality applications for locomotor rehabilitation.

## Academic Professional Professor

Pamela Kocher Brown, EdD, Pedagogy, sociohistorical perspectives, activities program.

## Academic Professional Associate Professors

John A. Richards, EdD, Activity instruction program.
Aaron B. Terranova, EdD, Athletic training/sports medicine, job satisfaction, intention to leave, clinical education.

## Academic Professional Assistant Professor

Donna Duffy, PhD, Pedagogy.

## Adjunct Associate Professors

Walter R. Bixby, PhD, Sport and exercise psychology.
Eric E. Hall, PhD, Sport and exercise psychology.
Bradley C. Nindl, PhD, Exercise physiology.
Lavon Williams, PhD, Sport and exercise psychology.

## Adjunct Assistant Professors

John C. Lalonde, MD, Athletic Training Education Program.

Stephen D. Lucey, MD, Sports medicine, Athletic Training Education Program.
H. Nolo Martinez, EdD, Community Youth Sport Development.

## Adjunct Instructor

Erica P. Thornton, MS, ATC, LAT, Athletic Training Education Program.

## Kinesiology, MS

The MS in Kinesiology offers both a 30 -hour thesis option and 36 -hour course work only option. Concentrations in applied neuromechanics, exercise physiology, pedagogical kinesiology, community youth sport development, and sport and exercise psychology are offered in the thesis option. Concentrations in community youth sport development, exercise physiology, motor behavior, pedagogical kinesiology, sport and exercise psychology, and sports medicine are offered in both options. For both options, a minimum of 24 hours must be completed in the department.

## Application and Admission

In addition to the application materials required by The Graduate School, applicants must submit supplementary application materials required by the department and described in detail at www.uncg.edu/kin/essappl.html.

Most applications are reviewed in the spring for fall admission. Admission is competitive. To ensure full consideration for admission and assistantship funding, applications should be received by January 15 .

## Degree Requirements for Both Options

Breadth Requirement (0-6 hours)
To enhance their knowledge of the field of Kinesiology, students who do not have an undergraduate major or minor in Kinesiology will consult with their advisor to select appropriate courses from at least 2 of the 8 disciplinary areas (Applied Neuromechanics, Community Youth Sport Development, Exercise Physiology, Motor Behavior, Pedagogical Kinesiology, Sport and Exercise Psychology, Sports Medicine, Sociohistorical Studies) outside the student's own concentration area.

Research Techniques Requirement (3 hours)
KIN 611 Research Methods for Kinesiology

## Thesis Option (30 hours)

Research and Thesis (6 hours)

KIN 699 Thesis
Remaining 15-21 Hours
With approval of the advisor, the student selects 15-21 hours of course work that constitute a specialized knowledge base relevant to the student's academic interests and goals. For those seeking a concentration in applied neuromechanics, community youth sport development, exercise physiology, pedagogical kinesiology, or sport and exercise psychology, the electives are designated below.

Applied Neuromechanics Concentration
Concentration Core (9 hours)
Acceptable courses include:

| KIN 643 | Mechanical Analysis of Motor Skills | 3 |
| :---: | :---: | :---: |
| KIN 647 | Motor Development and Human Movement | 3 |
| KIN 648 | Learning and Performance of Physical Skills | 3 |
| KIN 661 | Movement Theory | 3 |
| KIN 702 | Research Seminar in Applied Neuromechanics | 1 |
| KIN 719 | Muscular Aspects of Exercise Physiology | 3 |
| KIN 730 | Neural Aspects of Motor Control | 3 |
| Concentration Electives (6-12 hours) |  |  |
| With approval of the advisor, the student selects 6-12 hours of elective course work. |  |  |
| Community Youth Sport Development Concentration |  |  |
| Core Required Courses (8 hours) |  |  |


| KIN 519 | Mentoring in Community Youth <br> Development Programs |
| :--- | :--- | :--- |

KIN $520 \quad$ Physical Activity Programs for Underserved Youth

KIN 521 Evaluation of Physical Activity Programs in Youth Development

Concentration Electives (7-13 hours)
With approval of the advisor, the student selects 7-13 hours of elective course work.

Exercise Physiology Concentration
Core Required Course (3 hours)
KIN 670
Physiology of Exercise
Students must receive a B or better in KIN 670 to satisfy degree requirements. KIN 670 may be taken a maximum of 2 times to achieve this outcome. Withdrawal from the
program will be recommended if the student fails KIN 670 the first time the course is taken. The student may appeal this decision to the Graduate Faculty in Exercise Physiology. If a B or better is not earned after taking the course twice, the student will be automatically withdrawn with no opportunity to appeal.

Concentration Core (6 hours)
Acceptable courses include:

| KIN 570 | Development and Implementation of <br> Fitness Programs |
| :--- | :--- |
| KIN 576/NTR | Nutrition and Physical Fitness |
| 576 |  |$\quad$| KIN 579 | Exercise and Older Adults |
| :--- | :--- |
| KIN 650 | Scientific Factors Affecting Human <br> Performance |
| KIN 665 | Physical Activity and Health |
| KIN 667 | Exercise Electrocardiography and <br> Cardiopulmonary Medications |
| KIN 668 | Advanced Exercise Assessment |
| KIN 669 | Advanced Exercise Prescription |
| KIN 675 | Applied Human Work Physiology |
| KIN 679 | Exercise and Older Adults: Advanced <br> KIN 696 |
| Laboratory Technology in Kinesiology |  |

Concentration Electives (6-12 hours)
With approval of the advisor, the student selects 6-12 hours of elective course work.

Pedagogical Kinesiology Concentration
Core Required Course (3 hours)

$$
\begin{array}{ll}
\text { KIN } 652 & \text { Curriculum Development in Physical } \\
\text { Education }
\end{array}
$$

Core Grade Requirement for Pedagogical Kinesiology M.S. students: Students must receive a B or better in KIN 652 to satisfy degree requirements. KIN 652 may be taken a maximum of 2 times to achieve this outcome. Withdrawal from the program will be recommended if the student fails KIN 652 the first time the course is taken. The student may appeal this decision to the Graduate Faculty in Pedagogical Kinesiology. If a B or better is not earned after taking the course twice, the student will be automatically withdrawn with no opportunity to appeal.

Concentration Core (6 hours)
Acceptable courses include:

| KIN 570 | Development and Implementation of Fitness Programs |
| :---: | :---: |
| KIN 571 | Physical Education for Individuals with Special Needs (Advanced) |
| KIN 606 | Workshops in Physical Education |
| KIN 613 | The Meaning and Significance of Physical Education |
| KIN 617 | Current Theories and Practice of Teaching Sports |
| KIN 646 | Theoretical Considerations of Physical Education for Children |
| KIN 652 | Curriculum Development in Physical Education |
| KIN 654 | Seminar in Curriculum Development in Physical Education |
| KIN 655 | Analysis of Teaching Behavior |
| KIN 656 | Psycho-Social Aspects of Teaching Physical Education and Sport |
| KIN 657 | Teacher Education in Physical Education |
| KIN 658 | Multiculturalism and Physical Education Curriculum |
| KIN 663 | Supervision of Physical Education |
| KIN 664 | PE Program Evaluation and EvidenceBased Practice |
| Concentration Electives (6-12 hours) |  |
| With approval of the advisor, the student selects 6-12 hours of elective course work. |  |
| Sport and Exercise Psychology Concentration |  |
| Core Required Course (3 hours) |  |
| KIN 644 | Psychology of Sport and Exercise |

Core Grade Requirement for Sport and Exercise Psychology M.S. students: Students must receive a B or better in KIN 644 to satisfy degree requirements. KIN 644 may be taken a maximum of 2 times to achieve this outcome. Withdrawal from the program will be recommended if the student fails KIN 644 the first time the course is taken. The student may appeal this decision to the Graduate Faculty in Sport and Exercise Psychology. If a B or better is not earned after taking the course twice, the student will be automatically withdrawn with no opportunity to appeal.

Concentration Core (6 hours)
Acceptable courses include:

| KIN 635 | Gender Issues in Kinesiology |
| :---: | :---: |
| KIN 645 | Exercise Psychology |
| KIN 665 | Physical Activity and Health |
| KIN 695 | Independent Study |
| KIN 743 | Psychological Aspects of Sport Injury |
| KIN 744 | Applied Sport Psychology |
| KIN 745 | Seminar: Social Psychology and Physical Activity |
| KIN 746 | Practicum in Applied Sport and Exercise Psychology |
| KIN 748 | Advanced Topics in Sport Exercise and Psychology |
| Concentration Electives (6-12 hours) |  |
| With ap hours of | of the advisor, the student selects 6-12 e course work. |

## Course Work Only Option (36 hours)

Integrative Experience (Capstone)
With approval of the advisor, the student selects one of the following (if a course option is selected, the hours are included in electives):

Comprehensive Examination. The student's advisor and two other Graduate Faculty members, in consultation with the student, develop one comprehensive examination question that requires integration of various bodies of knowledge related to the student's course of study. The question should also be related to the student's particular professional focus. The student may use the full range of available scholarly resources including discussion with faculty in developing the answer. The completed answer must be submitted within six weeks after receiving the question. All three faculty members evaluate the questions using "pass" and "not pass" standards.

| KIN 595 | Exercise Science Internship | 6 |
| :--- | :--- | ---: |
| KIN 694 | Internship in Kinesiology | $3-6$ |
| KIN 695 | Independent Study | $1-3$ |
| KIN 697 | Field Practicum in Kinesiology | $3-6$ |

Electives (27-33 hours minimum)
With approval of the advisor, the student selects a minimum of 27-33 hours of course work that constitutes a specialized knowledge base relevant to the student's academic interests and goals. For those seeking a concentration in exercise physiology, motor behavior,
pedagogical kinesiology, sport and exercise psychology, or sports medicine, the specific course requirements follow.

Community Youth Sport Development Concentration
Core Required Courses (8 hours)

| KIN 519 | Mentoring in Community Youth <br> Development Programs | 2 |
| :--- | :--- | ---: |
| KIN 520 | Physical Activity Programs for <br> Underserved Youth | 3 |
| KIN 521 | Evaluation of Physical Activity Programs <br> in Youth Development | 3 |

Concentration Core (12 hours)
CED 610 Helping Relationships 3

| ENT 540/BUS | Social Entrepreneurship: Justice and a |
| :--- | :--- |
| 540/CPS | Green Environment |

540/CST
540/SWK
540/WGS 540
3
HEA 671 Immigrant and Refugee Health 3
$\begin{array}{lll}\text { KIN } 519 & \begin{array}{l}\text { Mentoring in Community Youth } \\ \text { Development Programs }\end{array}\end{array}$
KIN 695 Independent Study 1-3
PSC $520 \quad 3$
PSC 612 Organizational Behavior and Leadership 3
PSC $620 \quad 3$
SOC $621 \quad \begin{aligned} & \text { Advanced Topics in Juvenile } \\ & \text { Delinquency }\end{aligned}$
SOC 643 Urban Sociology 3
SOC 653 Deviance and Social Control 3
$\begin{array}{lll}\text { SWK } 527 & \begin{array}{l}\text { Human Services for Immigrants and } \\ \text { Refugees }\end{array}\end{array}$
SWK 584 Social Services for Children 3
TED 545 Diverse Learners 3
Concentration Electives (7-13 hours)
With approval of the advisor, the student selects 7-13 hours of elective course work.

Integrative Experience (Capstone) (3-6 hours)
In this concentration area, students must select one of the following as their integrative (capstone) experience:

| KIN 522 | Internship in Community Youth Sport |  |
| :--- | :--- | ---: |
|  | Development Programs | 6 |
| KIN 694 | Internship in Kinesiology | $3-6$ |
| KIN 697 | Field Practicum in Kinesiology | $3-6$ |



| Curriculum |  |  |
| :---: | :---: | :---: |
| KIN 663 | Supervision of Physical Education | 3 |
| KIN 664 | PE Program Evaluation and EvidenceBased Practice | 3 |
| Concentration Electives (12-18 hours) |  |  |
| With approval of the advisor, the student selects 12-18 hours minimum of elective course work. |  |  |
| Sport and Exercise Psychology Concentration |  |  |
| Core Required Course (3 hours) |  |  |
| KIN 644 | Psychology of Sport and Exercise | 3 |
| Core Grade Requirement for Sport and Exercise Psychology M.S. students: Students must receive a B or better in KIN 644 to satisfy degree requirements. KIN 644 may be taken a maximum of 2 times to achieve this outcome. Withdrawal from the program will be recommended if the student fails KIN 644 the first time the course is taken. The student may appeal this decision to the Graduate Faculty in Sport and Exercise Psychology. If a B or better is not earned after taking the course twice, the student will be automatically withdrawn with no opportunity to appeal. |  |  |
| Concentration Core (6 hours minimum) |  |  |
| Acceptable courses include: |  |  |
| KIN 635 | Gender Issues in Kinesiology | 3 |
| KIN 645 | Exercise Psychology | 3 |
| KIN 665 | Physical Activity and Health | 3 |
| KIN 695 | Independent Study | 1-3 |
| KIN 743 | Psychological Aspects of Sport Injury | 3 |
| KIN 744 | Applied Sport Psychology | 3 |
| KIN 745 | Seminar: Social Psychology and Physical Activity | 3 |
| KIN 746 | Practicum in Applied Sport and Exercise Psychology | 1-3 |
| KIN 748 | Advanced Topics in Sport Exercise and Psychology | 3 |

Concentration Electives (18-24 hours)
With approval of the advisor, the student selects 18-24 hours of elective course work.

Sports Medicine Concentration
Concentration Core (12 hours minimum)

Acceptable courses include:

| KIN 576/NTR | Nutrition and Physical Fitness |  |
| :--- | :--- | ---: |
| 576 |  | 3 |
| KIN 638 | Therapeutic Modalities | 3 |
| KIN 640 | Rehabilitation Techniques for Athletic <br> Injuries | 3 |
| KIN 643 | Mechanical Analysis of Motor Skills | 3 |
| KIN 670 | Physiology of Exercise | 3 |
| KIN 708 | College Teaching in Kinesiology | 1 |
| KIN 709 | Mentored Teaching in Kinesiology | $1-3$ |
| KIN 720 | Pathophysiology and Pharmacology | 3 |
| KIN 725 | Management and Professional Issues in |  |
| KIN 730 | Athletic Training | 3 |
| KIN 743 | Neural Aspects of Motor Control | 3 |

Concentration Electives (15-21 hours)
With approval of the advisor, the student selects 15-21 hours of elective course work.

## Athletic Training, MSAT

The 48-hour, entry-level Master of Science in Athletic Training, accredited by the Commission on Accreditation of Athletic Training Education (CAATE), provides academic and clinical instruction sufficient for eligibility to sit for the National Athletic Trainers' Association Board of Certification (BOC) Examination.

## Application and Admission

Admission to the MSAT is competitive, limited, and not guaranteed to those who meet the minimum requirements. In addition to the admission requirements set forth by The Graduate School, applicants must also submit supplemental materials to the department as well as the Director of the Athletic Training Education Program as described at http://www.uncg.edu/kin/atep/applicationprocess. The following prerequisites are required for admission eligibility and must be verifiable during the application process:

1. Satisfactory completion (C or better) of prerequisite course work in human anatomy (lecture and lab), human physiology (lecture and lab), exercise physiology, biomechanics/kinesiology, and nutrition. (Course syllabi must be submitted to the Program Director with the application.)
2. A minimum of 200 hours of clinical observation/experience under a Certified Athletic Trainer within 2 years prior to program application.

The application deadline is January 15 of each calendar year after which qualified applicants will be invited by the Program Director to an on-campus visit for a personal interview at the applicant's expense. Students must also verify that they can comply with the program's technical standards. Detailed information regarding the application process, technical standards, expenses, prerequisites, and post-admission requirements are available at http://www.uncg.edu/kin/atep/intro_ath_training.

## Degree Requirements

Core Requirements (6 hours)

| KIN 743 | Psychological Aspects of Sport Injury | 3 |
| :--- | :--- | :--- |
| KIN 638 | Therapeutic Modalities | 3 |

Research Techniques (3 hours)
KIN 611 Research Methods for Kinesiology
Athletic Training Requirements (27 hours)
KIN 536 Anatomical Basis of Athletic Injury 2

KIN 634 Athletic Training Foundations 2
KIN 636 Athletic Injury Evaluation 3
KIN 637 Athletic Injury Evaluation Laboratory 1
KIN $639 \quad$ Therapeutic Modalities Laboratory 1
$\begin{array}{ll}\text { KIN } 640 & \text { Rehabilitation Techniques for Athletic } \\ \text { Injuries }\end{array}$
KIN 641 Rehabilitation Techniques Laboratory 1
KIN 642 Optimizing Athletic Performance 3
KIN $704 \quad$ Athletic Training Seminar 1
KIN 705 Applied Rehabilitation Concepts 1
KIN $720 \quad$ Pathophysiology and Pharmacology 3
KIN $721 \quad$ General Medical Conditions 3
KIN $725 \quad$ Management and Professional Issues in Athletic Training
Integrative Clinical Experience (12 hours)
KIN $620 \quad$ Athletic Training Clinical Experience 3

KIN 697 Field Practicum in Kinesiology 3-6
KIN 620: Ttaken two times for 3 hours each in the first two semesters of the student's program of study
KIN 697: Capstone Experience. Taken two times for 3 hours each in the last two semesters of the student's program of study
Non-credit Professional Development Requirements
In addition to the 48 credit hours of course work, students are required to gain approximately two weeks of clinical
experience during assigned pre-season athletic practices during August of each year in the program. Students are also required to attend weekly in-services and journal club sessions during each of the fall and spring semesters in the program.

## Kinesiology, EdD

The EdD in Kinesiology requires a minimum of 60 semester hours of course work and is for experienced kinesiology professionals with a minimum of 3 years of practical experience in their respective field who desire to obtain a professional doctorate that focuses on professional practice and multidisciplinary issues.

Of the 60 hours of required course work, a minimum of 24 hours must be completed in KIN, excluding dissertation hours.

## Application and Admission

In addition to the application materials required by The Graduate School, applicants must submit supplementary application materials required by the department and described in detail at www.uncg.edu/kin/essappl.html.

Most applications are reviewed in the spring for fall admission. The application deadline to receive full consideration for admission is January 15.

## Degree Requirements

Program Leadership in Kinesiology (12 hours minimum)
Students select a minimum of 12 hours from the following. Other courses may be acceptable with advisor and committee approval.

| KIN 725 | Management and Professional Issues in |
| :--- | :--- | :--- |
|  | Athletic Training |


| HED 606 | Administration of Student Affairs in <br>  <br> Higher Education |
| :--- | :--- |

HED 612 Current Issues in Higher Education 3
HED 661 Higher Education in the U.S. 3
$\begin{array}{ll}\text { HED } 663 & \text { Planning Programs in Postsecondary } \\ & \text { Education }\end{array}$
KIN 652 Curriculum Development in Physical Education

KIN 655 Analysis of Teaching Behavior 3
$\begin{array}{lll}\text { KIN } 656 & \begin{array}{l}\text { Psycho-Social Aspects of Teaching } \\ \text { Physical Education and Sport }\end{array}\end{array}$
KIN 663 Supervision of Physical Education 3
KIN $708 \quad$ College Teaching in Kinesiology 1
HED 607 Adult Learning and College Teaching 3

| HED 611 | Survey of Adult Education |
| :--- | :--- |
| HED 662 | Curriculum in Higher Education |
| HED 745 | Higher Education: Equity, Inclusion and <br> Learning |
| ELC 609 | Epistemology and Education |
| TED 664 | Teaching Problem Solving |

Interdisciplinary Concepts (6 hours minimum)
Other courses may be acceptable with advisor and committee approval.

| KIN 630 | Sport and Society: Social Inequalities | 3 |
| :---: | :---: | :---: |
| KIN 632 | Sport and Society: Global and Ethnic Relations | 3 |
| KIN 635 | Gender Issues in Kinesiology | 3 |
| KIN 643 | Mechanical Analysis of Motor Skills | 3 |
| KIN 644 | Psychology of Sport and Exercise | 3 |
| KIN 647 | Motor Development and Human Movement | 3 |
| KIN 648 | Learning and Performance of Physical Skills | 3 |
| KIN 665 | Physical Activity and Health | 3 |
| KIN 670 | Physiology of Exercise | 3 |
| KIN 710 | Sport and Feminisms | 3 |
| KIN 743 | Psychological Aspects of Sport Injury | 3 |
| Research/Inquiry/Problem-Solving (9 hours) |  |  |
| With the approval of the advisory committee, students select at least 9 hours from the following. Other courses may be acceptable with advisor and committee approval. |  |  |
| KIN 611 | Research Methods for Kinesiology | 3 |
| KIN 614 | Qualitative Inquiry in Health and Human Performance | 3 |
| ERM 604 | Methods of Educational Research | 3 |
| ERM 642 | Evaluation of Educational Programs | 3 |
| ERM 643 | Applied Educational Evaluation | 3 |
| ERM 668 | Survey Research Methods in Education | 3 |
| TED 675 | Teacher as Researcher | 3 |
| TED 730 | Qualitative Research Design in Education | 3 |
| KIN 601 | Applying Research to Professional Practice | 3 |
| KIN 615 | Ethnographic Methods in Kinesiology | 3 |

Background Course Work in Support of Dissertation (9 hours)

With the approval of the advisory committee, students select at least 9 hours of course work relevant to the dissertation and ultimate professional goals. This may be a combination of traditional course work and independent study (no more than 6 hours of independent study). This course work may be taken in kinesiology and/or other departments at UNCG.

Seminars (6 hours)
KIN $750 \quad$ Seminar in Kinesiology 3
KIN $751 \quad$ Advanced Research Seminar in Kinesiology

Internship (6 hours)

| KIN 694 | Internship in Kinesiology | 3-6 |
| :--- | :--- | :--- |
| Dissertation | 12 hours) |  |
| KIN 799 | Dissertation | $1-12$ |

## Kinesiology, MS/PhD

The combined MS/PhD track in Kinesiology consists of a minimum of 78 semester hours beyond the baccalaureate degree. It is anticipated that the Plan of Study for the MS/PhD Track will reasonably span 5 years. By the end of Year 2, students will enroll in a minimum of 6 hours of integrative/research related activity to meet the requirements of the MS degree if they choose not to continue on to completion of the PhD degree. For those students already enrolled in the MS degree, it is expected their MS course work will already include many of the foundational courses for their discipline. In this case, additional course work in Years 3 and 4 will primarily consist of intensive research and dissertation credit hours. Specific course work will be determined by the student's advisor and advisory committee, consistent with each subdiscipline. A general outline of requirements is below:

## Application and Admission

In addition to the application materials required by The Graduate School, applicants must submit supplementary application materials required by the department and described in detail at www.uncg.edu/kin/essappl.html.

Most applications are reviewed in the spring for fall admission. The application deadline to receive full consideration for admission and assistantship funding is January 15.

Exceptional students who have an appropriate baccalaureate degree and who demonstrate superior ability and a high level of motivation and dedication to research and learning are eligible to apply directly into the MS/PhD track. Current master's degree students in kinesiology who wish to pursue the PhD may apply once they have completed at least 18 credits of foundational course work in their discipline, have demonstrated dedication to research, and have not yet formally
proposed their thesis. Students must apply for admittance to the MS/PhD and must identify one of the possible concentration areas (Applied Neuromechanics, Exercise Physiology, Pedagogical Kinesiology, Sport and Exercise Psychology, or Kinesiology.)

## Degree Requirements

## Requirements (78 Hours Minimum)

1. Breadth Requirement (0-6 hours). Please see description under MS degree requirements.
2. Integrative experience (6 hours)
3. Research methods (3 hours)
4. Research tools and statistics ( 12 hours)
5. Independent doctoral research (KIN 795) or equivalent (minimum of 6 hours)
6. Electives in major concentration area ( 33 hours)
7. Dissertation (12 hours)

Items 1-3 plus 15-21 hours of electives are required to complete the MS degree. (See the requirements for the MS Thesis and Non-Thesis options.) Items 1-7 are required to complete the MS/PhD. A minimum of 9 credits must be in courses numbered 750 and above.

## Program Progression

Year 1: 18 hours of course work, to include courses related to the research process

Benchmark: Preliminary screening (early/mid semester 2 )

Year 2: 18 hours of course work, to include courses related to the research process

Benchmark: Oral and written demonstration of research competence (end of semester 2)

Years Completion of remaining course work 3-4:

Benchmark: Comprehensive examination (oral and written)

Year 5: 12 hours dissertation

Benchmark: Completion of and oral defense of dissertation

Required Benchmarks
Continued progression in the MS/PhD track is contingent on satisfactory progress through each year of study. Progress will be formally assessed each Spring as follows:

## Year 1: Preliminary Screening (Early/Mid Spring)

The preliminary screening will consist of a formal evaluation of the scholarly work completed from the time of admission through the completion of 18 hours of course work (counting work in progress in a current term). This screening must occur during the second semester of study, so that a decision can be made prior to admission and graduate assistantship decisions for the upcoming Fall. An advisory committee consisting of a minimum of 3 members (the student's advisor, Director of Graduate Study, and at least one other) will conduct the first year preliminary screening review. The intent is to determine relatively early in students' academic careers whether or not they display the high quality of academic achievement necessary to pursue and successfully complete the doctoral degree. Excellent students will be encouraged to continue in the program. Students who do not meet the requirements will be strongly urged through counseling by their advisory/dissertation committee to complete the MS degree level and pursue other intellectual/career avenues.

In order to progress to Year 2, all members of the student's preliminary screening committee must review all criteria and confirm satisfactory progress in the preliminary evaluation.

## Year 2: Research Competence (End of Spring Semester)

Students will be expected to be actively engaged in research from the beginning of their studies in Year 1. In Year 2, students will be expected to complete a comprehensive research project by the end of their second year of study. This project should encompass all aspects of the research process, including the following:

- Conception and design of the project
- Acquisition and reduction of the data
- Analysis and interpretation of the data
- Written summary of the work (e.g. Submission ready manuscript)
- Oral presentation of the work

To progress to Year 3, the student's MS/PhD advisory committee must approve the work.

Year 4: Comprehensive Examination

When the student has completed a minimum of $3 / 4$ of the course work ( 60 hours) contained in the program of study and completed the research skill requirements, they are then eligible to take the comprehensive examinations. Each doctoral student is required to pass the doctoral preliminary examinations which consist of both a written and oral examination, per the guidelines of The Graduate School and the Department of Kinesiology.
For more information, please visit
http://www.uncg.edu/kin/grad.html.

## Kinesiology, PhD

The PhD in Kinesiology requires a minimum of 60 semester hours. Some students are required to take additional hours beyond the minimum. Students may choose to take a general course of study in kinesiology or choose from four concentration areas: applied neuromechanics, exercise physiology, pedagogical kinesiology, and sport and exercise psychology. Students must complete a minimum of 24 hours in kinesiology, excluding dissertation hours.

## Application and Admission

In addition to the application materials required by The Graduate School, applicants must submit supplementary application materials required by the department and described in detail at www.uncg.edu/kin/essappl.html.

Most applications are reviewed in the spring for fall admission. The application deadline to receive full consideration for admission and assistantship funding is January 15.

## Degree Requirements

## Collateral Expertise

The student is expected to work on research projects beyond those required in courses and to demonstrate to the faculty of the Department that progress in these endeavors is satisfactory.
Research Techniques (12 hours)
With the approval of the Advisory Committee, the student selects a minimum of 12 hours of course work focused on research techniques.
Dissertation (12 hours)
KIN 799 Dissertation 1-12
Electives (36 hours)
With the approval of the Advisory Committee, the student selects at least 36 hours of course work tailored to meet his/her particular academic goals. This should include course work in a specialized knowledge base and course work in other areas of kinesiology and/or other departments. For those seeking a concentration in applied
neuromechanics, exercise physiology, pedagogical kinesiology, or sport and exercise psychology the 36 hours are designated as follows.

## Applied Neuromechanics Concentration

Concentration Core ( 24 hours)

| KIN 643 | Mechanical Analysis of Motor Skills | 3 |
| :--- | :--- | ---: |
| KIN 702 | Research Seminar in Applied | 1 |
| KIN 708 | Neuromechanics | 1 |
| KIN 709 | College Teaching in Kinesiology | $1-3$ |
| KIN 719 | Mentored Teaching in Kinesiology | 3 |
| KIN 730 | Muscular Aspects of Exercise Physiology | 3 |
| KIN 795 | Neural Aspects of Motor Control | $1-6$ |
| KIN 798 | Independent Doctoral Research | 3 |

Concentration Electives (12 hours)
With approval of the advisor, students must complete a minimum of 12 hours of course work in other areas of kinesiology.

## Exercise Physiology Concentration

Concentration Core (9 hours)

| KIN 670 | Physiology of Exercise | 3 |
| :--- | :--- | :--- |
| KIN 718 | Cardiovascular Aspects of Exercise <br> Physiology | 3 |
| KIN 719 | Muscular Aspects of Exercise Physiology | 3 |

Concentration Electives (12 hours)
KIN 576/NTR Nutrition and Physical Fitness
576
$\begin{array}{ll}\text { KIN } 650 & \begin{array}{l}\text { Scientific Factors Affecting Human } \\ \text { Performance }\end{array}\end{array}$
KIN 665 Physical Activity and Health 3
$\begin{array}{ll}\text { KIN } 667 & \text { Exercise Electrocardiography and } \\ \text { Cardiopulmonary Medications }\end{array}$
KIN 668 Advanced Exercise Assessment 3
KIN 669 Advanced Exercise Prescription 3
KIN 675 Applied Human Work Physiology 3
KIN 679 Exercise and Older Adults: Advanced 3
KIN 696 Laboratory Technology in Kinesiology 1 or 2
KIN 701 Research Topics in Kinesiology 3
Required Research prior to Dissertation (6 hours minimum)
KIN 695 Independent Study 1-3

KIN 795 Independent Doctoral Research
Additional Electives (9 hours)
With approval of the advisor, students must complete a minimum of 9 hours of course work in other areas of kinesiology.

## Pedagogical Kinesiology Concentration

Concentration Core (18 hours)
Acceptable courses include:

| KIN 570 | Development and Implementation of Fitness Programs |
| :---: | :---: |
| KIN 571 | Physical Education for Individuals with Special Needs (Advanced) |
| KIN 606 | Workshops in Physical Education |
| KIN 613 | The Meaning and Significance of Physical Education |
| KIN 617 | Current Theories and Practice of Teaching Sports |
| KIN 646 | Theoretical Considerations of Physical Education for Children |
| KIN 652 | Curriculum Development in Physical Education |
| KIN 654 | Seminar in Curriculum Development in Physical Education |
| KIN 655 | Analysis of Teaching Behavior |
| KIN 656 | Psycho-Social Aspects of Teaching Physical Education and Sport |
| KIN 657 | Teacher Education in Physical Education |
| KIN 658 | Multiculturalism and Physical Education Curriculum |
| KIN 663 | Supervision of Physical Education |
| KIN 664 | PE Program Evaluation and EvidenceBased Practice |
| KIN 707 | Critical Analysis of Professional Literature in Pedagogical Kinesiology |
| KIN 734 | Measurement Theory Applied to Pedagogical Kinesiology |
| KIN 749 | PE Learning and Motivation Advanced Seminar |
| KIN 785 | Curriculum Theory in PE Advanced Seminar |

Concentration Electives (18 hours)
With approval of the advisor, the student must complete 18 hours of 600- to 700-level elective course work that
complements the specialized knowledge base relevant to the student's academic interest and career goals.

## Sport and Exercise Psychology Concentration

Concentration Core (9 hours)
Specialization area courses relate to the student's research focus and sport/exercise psychology interests. Course work should include advanced sport/exercise psychology courses (e.g., KIN 744, KIN 745, advanced topics). Acceptable courses include:

| KIN 635 | Gender Issues in Kinesiology | 3 |
| :--- | :--- | ---: |
| KIN 644 | Psychology of Sport and Exercise | 3 |
| KIN 645 | Exercise Psychology | 3 |
| KIN 665 | Physical Activity and Health | 3 |
| KIN 695 | Independent Study | $1-3$ |
| KIN 743 | Psychological Aspects of Sport Injury | 3 |
| KIN 744 | Applied Sport Psychology | 3 |
| KIN 745 | Seminar: Social Psychology and Physical | 3 |
| KIN 746 | Activity | Practicum in Applied Sport and Exercise |
|  | Psychology | $1-3$ |
| KIN 748 | Advanced Topics in Sport Exercise and |  |
| KIN 795 | Psychology | 3 |
|  | Independent Doctoral Research | $1-6$ |

Concentration Electives (27 hours)
With approval of the advisor, students must complete a minimum of 27 hours of elective course work.

## Residency

The Department does not recognize summer session as part of the residency requirement for PhD students. Two consecutive 15-week semesters of study in which a student is enrolled for a minimum of 6 hours of course work each term is needed to satisfy the residency requirement. Course work taken in summer sessions may, of course, be included in a student's program.

## Formal Reviews and Examinations

The student must pass each of the reviews and examinations listed below. See this catalog and the KIN Graduate web site for details.

1. Approval of Plan of Study
2. Preliminary examination
3. Dissertation proposal approval
4. Advancement to candidacy
5. Final oral examination

## Languages, Literatures, and Cultures, Department of

2321 Moore Humanities and Research Administration Building • www.uncg.edu/Ilc • (336) 334-5655

## Graduate Programs

- Post-Baccalaureate Certificate in Advanced Spanish Language and Hispanic Cultural Studies, 15 hours
- Master of Arts (MA) in Romance Languages and Literatures, French and Francophone Studies or Spanish concentration, 30 hours
- Master of Education (MEd) in Teacher Education and Higher Education, French Education or Spanish Education concentration, 36 hours
- Master of Arts in Teaching, French Education or Spanish Education concentration, 39 hours


## Graduate Faculty

## Professors

Roberto Campo, PhD, 16th century French literature, poetic and aesthetic theory of antiquity and the Renaissance, laughter theory, orientalism (Director of French Graduate Study).

David A. Fein, PhD, Medieval French literature, 15th century French literature, lyric poetry, teaching language through literature.
Mark I. Smith-Soto, PhD, 19th and 20th century Spanish American poetry.

Carmen T. Sotomayor, PhD, Contemporary Spanish literature and culture, contemporary Spanish women writers, literature and visual arts of the Spanish Civil War.

Andreas Lixl, PhD, German cultural history, 19th and 20th century; German-Jewish history, exile studies, modern German literature.

Amy R. Williamsen, PhD, 16th and 17th century Spanish prose and theater, women writers of 16th and 17th century Spain, contemporary literary theory (Head of Department).

## Associate Professors

Laura A. Chesak, PhD, Contemporary Spanish American literature, Spanish American women writers.

Mariche Garcia-Bayonas, PhD, Second language acquisition, phonology, phonetics, applied linguistics, sociolinguistics.

Veronica Grossi, PhD, Spanish American Colonial literature, critical and feminist theory, Spanish American women writers, Spanish American poetry and 20th century Mexican literature.
Ana Hontanilla, PhD, 18th and 19th century Spanish literature and cultural studies.

Kathleen M. Macfie, PhD, Slavic literatures, Russian literary criticism and cultural history, 20th century Russian poetry, Russian and African American literary ties.

## Assistant Professors

Claudia Cabello Hutt, PhD, 19th and 20th century Spanish American literature and culture; 19th and 20th intellectual history, women writers and visual culture; feminist theory; literature and culture of the Southern Cone.

Ignacio López Alemany, PhD, Spanish medieval literature, Spanish Golden Age literature and art, Cervantes, courtly culture (Director of Spanish Graduate Study).
Kelly Lowther Pereira, PhD, Second language acquisition and teaching, Hispanic sociolinguistics, heritage language education, bilingualism, languages in contact
Cybelle McFadden, PhD, Contemporary French and Francophone file, video, visual art and literature; 20th century French women's film and literature; feminist theory; film theory; French and Francophone culture; 19th century French literature.

Arndt Niebisch, PhD, German and European Studies, media theory and German thought.
Susanne Rinner, PhD, Twentieth century and contemporary German literature, film, and culture, memory studies, feminist theory and criticism.
The Department of Languages, Literatures, and Cultures, as part of its commitment to further the study of foreign languages and literatures both regionally and nationally, offers the Master of Arts in Romance Languages and Literatures with a concentration in French and Francophone Studies or Spanish. Students may choose from a broad spectrum of courses and possibilities, whether they are interested in perfecting their knowledge of French or Spanish or pursuing doctoral studies. Each program is balanced and comprehensive while allowing for electives in French, Spanish, or a related field. A Master of Education in Curriculum and Instruction with a concentration in French Education or Spanish Education is also offered. Most graduate classes are offered in the late afternoon, evening, or online to accommodate working professionals.

## Advanced Spanish Language and Hispanic Cultural Studies, PBC

The Post-Baccalaureate Certificate in Advanced Spanish Language and Hispanic Cultural Studies requires 15 semester hours and is designed for professionals who may have a bachelor's degree in a field other than Spanish but who are able to demonstrate linguistic and analytical skills in Spanish equivalent to having completed a minimum of 21 undergraduate semester hours above the 204 level.
Programs goals are 1) to increase student's language skills in Spanish to a high level; 2) to prepare qualified candidates for cross-cultural professions; and 3) to help prepare instructors who must have at least 18 hours of graduate credit in order to teach Spanish at an accredited community college, four-year college or university. Students may choose to continue with an additional 3hour course or apply for admission as MA candidates.

## Application and Admission

In addition to the application materials required by The Graduate School, applicants to the Post-Baccalaureate Certificate in Advanced Spanish Language and Hispanic Cultural Studies must provide the following:

- 500-word essay in Spanish describing their professional goals and motivation for pursuing graduate work in the certificate.
- 3- to 5-minute unscripted tape, audio CD (in standard format), or digital audio file in Spanish to introduce themselves and describe their academic or equivalent preparation to pursue advanced proficiency in Spanish.
- 5- to 10-page sample of professional or academic analytical writing in English or Spanish.

Applicants to the certificate program are expected to demonstrate at a minimum an "intermediate high" proficiency in Spanish by appropriate course work, by a personal interview with the faculty, or by an officially recognized testing procedure such as that of the American Council on the Teaching of Foreign Languages.

## Certificate Requirements

Selection of Courses
Fifteen hours are selected from the following:

| SPA 516 | Introduction to Spanish Syntax | 3 |
| :--- | :--- | :--- |
| SPA 532 | Spanish Culture and Civilization | 3 |
| SPA 534 | Spanish-American Culture and <br> Civilization | 3 |
| SPA 535 | U.S. Latino/Latina Cultural Studies | 3 |
| SPA 562/FRE | Studies in Film Genre | 3 |

562/ITA 518
SPA 605
SPA 610 History of the Spanish Language 3
SPA $693 \quad \begin{aligned} & \text { Special Topics in Spanish Language } \\ & \text { and/or Literature }\end{aligned}$
SPA 695 Directed Study (3) 3
SPA $697 \quad$ Internship in Spanish (3:1:9) 3
ROM 519 Second Language Acquisition 3
ROM 600 Methods of Teaching Romance Languages

SPA 605: may be repeated for credit when topic varies
SPA 693: Not accepted for transfer to the MA in Romance Languages with a concentration in Spanish or the MEd in Romance Languages with a concentration in Spanish

ROM 600: Required for students who enroll in the certificate as a credential for college-level teaching

Upon completion of the certificate, the graduate faculty will conduct an interview in Spanish with the student.

## Additional Information

Upon completion of the certificate, the graduate faculty will conduct an interview in Spanish with the student.

## Master of Arts in Teaching

with a concentration in French Education or Spanish Education

The Master of Arts in Teaching with a concentration in French Education or Spanish Education culminates with the development of an Initial Competencies Portfolio, providing eligibility for candidates to apply for "A" licensure from the North Carolina Department of Public Instruction. The Master of Arts in Teaching is designed for candidates who have a bachelor's degree but did not pursue teacher education or licensure as undergraduates. It requires 39 semester hours with 18 semester hours in the content area. All students are required to demonstrate proficiency in Phonetics.

## Admission Requirements

- A minimum of 24 semester hours in French/Spanish above the 204 level in the undergraduate program.
- A minimum of Advanced Low Proficiency (according to ACTFL guidelines). The department may request an Oral Proficiency Interview. An interview with the Director of Graduate Studies may be required.
- Applicants who have not taken Phonetics will be required to take a remedial prerequisite or corequisite course such as FRE 311 or SPA 416 (not included in hours required for the degree).

In addition to the application materials required by The Graduate School, applicants to the Master of Arts in Teaching with a concentration in French Education or Spanish Education must provide the following:

- 500-word Statement of Purpose in French or Spanish, highlighting prior experiences and explaining reasons for applying and expectations for the program.
- 3- to 5-minute unscripted digital recording demonstrating speaking ability in French or Spanish. The sample should discuss a topic related to the program of study as well as experiences and motivation.
- An analytical paper in French, Spanish, or English written for a prior course in the humanities or a comparable writing sample.

Applicants must submit all application materials required by The Graduate School by the appropriate deadline.
Students are admitted in Fall and Spring semesters. To be considered for departmental assistantships and scholarships, all application material must be submitted by March 15.

## Degree Requirements-39 hours

Courses in Pedagogy-18 hours

| ROM 512 | Teaching Second Languages in K-12 | 3 |
| :---: | :---: | :---: |
| ROM 519 | Second Language Acquisition | 3 |
| ROM 600 | Methods of Teaching Romance |  |
|  | Languages | 3 |
| TED 545 | Diverse Learners | 3 |
| TED 669 | Educational Implications of Learning and |  |
|  | Developmental Theory | 3 |
| ERM 605 | Educational Measurement and |  |
|  | Evaluation | 3 |

Courses in the Content Area-18 hours
In consultation with the Director of Graduate Study in French or Spanish, the student must select courses in French/Francophone or Hispanic linguistics, literature, and culture and demonstrate appropriate oral and written communication skills.

Clinical Experience in Teaching-3 hours
May be based on an on-going teaching experience, a teaching assistantship in the Department of Languages, Literatures, and Cultures, or a student-teaching experience in a public school. Includes completion of the Teaching/Technology Portfolio.

Capstone Experience: Teaching/Technology Portfolio (TaskStream)

The portfolio will be aligned with the North Carolina Standards for Second Language Learners and the ISTE/National Educational Technology Standards for Teachers (NETS-T).

## Romance Languages and Literatures, MA

## French and Francophone Studies or Spanish Concentration

The MA in Romance Languages and Literatures with a concentration in French and Francophone Studies or Spanish offers two options: a thesis option requiring 30 hours of graduate study ( 24 hours course work and 6 hours thesis) and a comprehensive examination (if the degree is in French and Francophone Studies) and a nonthesis option requiring 30 hours of course work and a comprehensive examination.

## Application and Admission

Admission to MA in Romance Languages assumes completion of an undergraduate program with a minimum of 24 hours in French or Spanish, as appropriate, above the 204 level. Candidates lacking the prior academic language training may be admitted provisionally (contact relevant Director of Graduate Study for details).
In addition to the application materials required by The Graduate School, applicants to the MA in Romance Languages must provide the following to the Director of Graduate Study:

- 500-word Statement of Purpose in French or Spanish, highlighting prior experiences and explaining reasons for applying and expectations for the program.
- 3- to 5-minute unscripted tape, audio CD (in standard format), or digital audio file in French or Spanish demonstrating speaking ability through discussion of topics related to the program of study.
- an analytical paper in French, Spanish, or English written for a prior course in the humanities or a comparable writing sample.

Applicants must submit all application materials required by The Graduate School by the appropriate deadline. Students are admitted in Fall, Spring, and Summer semesters. To be considered for departmental assistantships and scholarships, all application material must be submitted by March 15.

## French and Francophone Studies Concentration

Core Courses in French and Romance Languages

The student must complete the following with a grade of B (3.0) or better:

ROM 601 Research Methods and Critical Analysis
In consultation with the Director of French Graduate Study, the student must select:

The remaining courses at the 500-level or above with at least $50 \%$ at the 600 level or above as indicated:

Thesis option: 18-24 semester hours, +6 hours of thesis
Non-thesis option: 24-30 semester hours
Electives Related Area (0-6 hours)
With prior approval from the Director of French Graduate Study, the student may select up to 6 hours in a related area.

Additional Language Requirement
The student will demonstrate a reading knowledge of a language other than French and English by one of the following methods:

1. Passing a reading or translation examination
2. Completing intermediate-low level (equivalent to UNCG's 204 level) or higher course work in the additional language with a grade of $B(3.0)$ or better documented by an official transcript
3. Obtaining a score of 400 or higher on the department's Computerized Adaptive Placement Exam.

Contact the Director of Graduate Study in French for details.

Reading List
The student will read a prescribed list of major works of French literature.

Comprehensive Examination (Capstone Experience)
The student must pass a written comprehensive examination based on the reading list and course work taken. Please consult with the Director of French Graduate Study for more information on formats and test dates.

Thesis (thesis option only - 6 hours)
FRE 699 Thesis 1-6
The student selecting this option must write a thesis under the guidance of a committee consisting of a chair and two other members of the graduate faculty. An oral examination on the thesis is required. Please consult with the Director of French Graduate Study for further information.

## Spanish Concentration

## Required Course

The student must select one of these two courses as a required course:

| ROM 600 | Methods of Teaching Romance | 3 |
| :--- | :--- | :--- |
|  | Languages | 3 |

Core Courses in Spanish and Romance Languages (18 hours)
In consultation with the Director of Spanish Graduate Study, the student must select courses at the 500-level or above with at least $50 \%$ at the 600 level or above as indicated:

- 6 semester hours must be taken in Latin American Literature, 6 semester hours must be taken in Spanish Peninsular Literature, and 6 semester hours must be taken in Linguistics, the three major areas of the program
Thesis option: Students who opt to write a thesis must develop a proposal and have it approved by the thesis chair and graduate director by the end of their first year in the program. Students selecting this option must write a thesis under the guidance of a committee consisting of a chair and two other members of the Graduate Faculty. An oral examination on the thesis is required. Please, consult with the Director of Spanish Graduate Study for further information. Students who opt to write a thesis are exempt from comprehensive exams.

Non-Thesis option: Students in the Non-thesis option must pass a written comprehensive examination based on the reading list.

Electives (3-9 hours)
Thesis Option: 3 hours
Non-Thesis Option: 9 hours
Additional Language Requirement
The student will demonstrate a reading knowledge of a language other than Spanish and English by one of the following methods:

1. Passing a reading or translation examination
2. Completing intermediate-low level (equivalent to UNCG's 204 level) or higher course work in the additional language with a grade of $B(3.0)$ or better documented by an official transcript
3. Obtaining a score of 400 or higher on the department's Computerized Adaptive Placement Exam

Contact the Director of Graduate Study in Spanish for details.

Reading List

Students will read a prescribed list that includes major works on Spanish and Spanish American literature as well as works on Spanish and Spanish American culture and civilization, and Hispanic linguistics. Students should consult regularly with the graduate director, and with faculty specializing in the various areas, while working to complete preparation of the reading list.

Capstone Experience
Students will complete one of the following two options as their capstone experience:

Comprehensive Examination
Students must pass a written comprehensive examination based on the reading list. The examination is scheduled once a semester in the fall and spring. Please consult with the Director of Spanish Graduate Study for the dates of these examinations.

Thesis (6 hours)
SPA 699 Thesis $\begin{array}{r}\text { 1- } \\ 6\end{array}$
Students selecting this option must write a thesis under the guidance of a committee consisting of a chair and two other members of the Graduate Faculty. An oral examination on the thesis is required. Please consult with the Director of Spanish Graduate Study for further information.

## Teacher Education, MEd

## with a concentration in French Education or Spanish

 EducationThe MEd in Teacher Education offered through the Department of Languages, Literatures and Cultures (with concentrations in French or Spanish Education) culminates with the development of an Advanced Competencies Portfolio, providing eligibility for candidates to apply for " M " licensure from the North Carolina Department of Public Instruction. Field experiences (school-based activities) are required. The Master of Education in Teacher Education with a concentration in French Education or Spanish Education is designed for applicants who already hold "A" licensure and requires 36 semester hours with 18 semester hours in the content area. All students are required to demonstrate proficiency in Phonetics.

## Admission Requirements

- A minimum of 24 semester hours in French/Spanish above the 204 level in the undergraduate program.
- A minimum of Advanced Low Proficiency (according to ACTFL guidelines). The department may request an Oral Proficiency Interview. An interview with the Director of Graduate Studies may be required.
- Applicants who have not taken Phonetics will be required to take a remedial prerequisite or corequesite course such as FRE 311 or SPA 416 (not included in hours required for the degree).
In addition to the application materials required by The Graduate School, applicants to the MEd in Teacher Education with a concentration in French Education or Spanish Education must provide the following:
- 500-word Statement of Purpose in French or Spanish, highlighting prior experiences and explaining reasons for applying and expectations for the program.
- 3- to 5-minute unscripted digital recording demonstrating speaking ability in French or Spanish. The sample should discuss a topic related to the program of study as well as experiences and motivation.
- An analytical paper in French, Spanish, or English written for a prior course in the humanities or a comparable writing sample.

Applicants must submit all application materials required by The Graduate School by the appropriate deadline.
Students are admitted in Fall and Spring semesters. To be considered for departmental assistantships and scholarships, all application material must be submitted by March 15.

## Degree Requirements

In consultation with the appropriate Director of Graduate Study, the student must select courses with an least 50\% at the 600 level or above.

Required Courses in Pedagogy (15 hours)

| ROM 519 | Second Language Acquisition | 3 |
| :--- | :--- | :--- |
| ROM 600 | Methods of Teaching Romance <br> Languages | 3 |
| TED 669 | Educational Implications of Learning and <br> Developmental Theory | 3 |
| TED 676 | Teacher as Researcher and Leader I | 3 |
| TED 677 | Teacher as Researcher and Leader II | 3 |

TED 545: or TED 445 as an undergraduate
Students who have taken ROM 512 and/or TED 445 as an undergraduate will choose substitutions from the following:

| ERM 605 | Educational Measurement and | 3 |
| :--- | :--- | :--- |
| CED 610 | Evaluation | 3 |
| TED 622 | Helping Relationships | 3 |
| TED 676 | Teacher as Researcher and Leader I | 3 |
| TED 677 | Teacher as Researcher and Leader II | 3 |

Capstone Experience: Teaching/Technology Portfolio
(TaskStream)
The portfolio will be aligned with the North Carolina
Standards for Second Language Teachers and the
ISTE/National Educational Technology Standards for
Teachers (NETS-T).
Clinical Experience in Teaching ( 3 hours)
May be based on an on-going teaching experience, a
teaching assistantship in the Department of Languages,
Literatures, and Cultures or in a community college, or a
student-teaching experience in a public school. Includes
completion of the Teaching/Technology Portfolio.

| ROM $665 \quad$Clinical Practice/Seminar in Teaching |
| :--- | Foreign Languages

All students will be required to complete a clinical experience, such as:
On-going teaching experience
Teaching assistantship in the department

Teaching assistantship in a community college
Student teaching in public schools
The course will include completion of their Capstone Experience, the Teaching/Technology Portfolio TaskStream. The portfolio will be aligned with the North Carolina Standards for Second Language Teachers and the ISTE/NETS Standards.

## Course in the Content Area (18 hours)

In consultation with the Director of Graduate Study in French or Spanish, the student must select courses in French/Francophone or Hispanic linguistics, literature, and culture and demonstrate appropriate oral and written communication skills.

Students will demonstrate advanced proficiency in the following areas:

1. Advanced written skills: courses focusing on linguistics, literature, and culture.
2. Communication skills: courses focusing on linguistics, literature, and culture.
3. Culture: courses focusing on cultural issues, such as:

FRE 532 French and Francophone Civilization and Culture
or

FRE 557
Advanced Topics in French Literature
and
SPA 532
Spanish Culture and Civilization
3

| SPA 534 | Spanish-American Culture and <br> Civilization | 3 |
| :--- | :--- | :--- |
| SPA 535 | U.S. Latino/Latina Cultural Studies | 3 |
| FRE 557: if topic is Paris |  |  |

4. Literature: courses focusing on literary topics, such as:

| FRE 553 | Topics in French Literary Movements | 3 |
| :--- | :--- | :--- |
| FRE 554 | Topics in French Prose Fiction | 3 |
| FRE 555 | Topics in French Poetry | 3 |
| FRE 556 | Topics in French Theatre | 3 |
| FRE 557 | Advanced Topics in French Literature | 3 |
| FRE 558 | Topics in Francophone Literature | 3 |
| FRE 653 | Seminar in French Literature | 3 |
| SPA 502 | Topics in Spanish Literature | 3 |
| SPA 504 | Topics in Spanish American Literature | 3 |
| SPA 603 | Seminar in Spanish Literature | 3 |
| SPA 604 | Seminar in Spanish American Literature | 3 |

## Liberal Studies Program

915 Northridge Street • (336) 315-7044 • mals.uncg.edu

## Graduate Programs

- Post-Baccalaureate Certificate in Global Studies, 15 hours
- Master of Arts (MA) in Liberal Studies, 33 hours


## Advisory Board

## Program Director

Kathleen Forbes, MDiv, (Division of Continual Learning).

## Professors

Robert Cannon, PhD, Microbiology, biology of Acetobacter, a cellulose synthesizing microbe (Director of Graduate Study; Department of Biology).

Larry Lavender, MFA, PhD, Choreography, dance criticism, aesthetics, creative process (Department of Dance).
Hephzibah Roskelley, PhD, Rhetoric and composition, reading theory, pedagogy, American literature (Department of English).

Nancy Nelson Hodges, PhD, Social psychological issues of dress, identity, and consumer behavior; epistemological and methodological components of apparel consumer research; qualitative and interpretive in-quiry into dress, consumption, and human behavior; gender, education, and apparel industry employment (Department of Consumer, Apparel, and Retail Studies).

## Associate Professors

Stephen C. Danford, PhD, Observational stellar astronomy (including stellar evolution, Population II abundances and variable stars in globular clusters) (Department of Physics and Astronomy).
Gavin D. Douglas, PhD, Ethnomusicology (Department of Music).

Jeffrey W. Jones, PhD, Russia (Department of History).
The Master of Arts in Liberal Studies program encourages innovative graduate studies across traditional disciplinary boundaries. It seeks to establish an intellectual community whose members, both students and faculty, are eager to employ the disciplines of the various liberal arts in ways that will enrich their understanding of themselves and of the world surrounding them. Interdisciplinary seminars, course work, and symposia are intended to nurture this intellectual community. The MALS degree and the Post-Baccalaureate Certificate can serve to enhance career opportunities as well as provide
personal enrichment. More information is available at The Graduate School or the Division of Continual Learning.

## Global Studies, PBC

The online Post-Baccalaureate Certificate in Global Studies seeks to instill in students a solid knowledge of particular cultures, while also providing training in the analysis of global trends. Students will learn how to make connections between their knowledge of a particular part of the world and the larger trends and issues that affect all societies. Fifteen (15) semester hours must be successfully completed during a three-year period to earn the certificate.

## Application and Admission

In addition to the application materials required by The Graduate School, applicants must submit a personal statement elaborating how the certificate will further their personal and professional goals.

## Certificate Requirements

Required Courses (9 hours)
MLS $610 \quad$ Culture and Ideas 3
MLS 620 Human Nature and Society 3
MLS 630 Scientific Reasoning 3
Electives (6 hours)
In consultation with the program director, students choose 6 hours of electives from the following courses:

Subtopics for MLS 610
The Islamic World: Perceptions and Realities
Global Arts: Windows into the Hearts of Other Cultures

Current Problems in the Middle East: An
Historical Perspective
The Dragon Awakes: Charting the Course of Modern China

Cultural Identities: Contemporary Non-Western Literature

Voices from Latin America: Why Don't They Like Us?

Religion and Ecology
The Reel World: Contemporary Issues on Screen
Subtopics for MLS 620
Dangerous Minds: Understanding Terrorism
Global Human Rights
Emerging Powers

## Liberal Studies, MA

The MA in Liberal Studies is an interdisciplinary degree consisting of 33 hours of graduate course work.

## Application and Admission

In addition to the application materials required by The Graduate School, applicants must submit a three- to fourpage essay describing their academic background and interest in the liberal arts and the program.

## Degree Requirements

Required Core Seminars (9 hours)

| MLS 610 | Culture and Ideas | 3 |
| :--- | :--- | :--- |
| MLS 620 | Human Nature and Society | 3 |
| MLS 630 | Scientific Reasoning | 3 |
| Electives (18 hours) |  |  |
| In consultation with the program director, a student may <br> choose 18 hours of 500 - to $600-l e v e l ~ e l e c t i v e s . ~$ |  |  |

Thesis Option (6 hours)
MLS 699 Thesis 1-6
MLS 699: Portfolio. Capstone Experience option
Non-Thesis Option (6 hours)
6 additional hours in one of the core seminar areas

## Library and Information Studies, Department of

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## Graduate Programs

- Post-Baccalaureate Certificate, Special Endorsement for Computer Education (jointly with the Department of Teacher Education and Higher Education), 18 hours that can lead to the North Carolina Department of Public Instruction 079 licensure.
- Master of Library and Information Studies (MLIS), and programs leading to North Carolina Department of Public Instruction licensure in Instructional Technology (077) or Media Coordinator (076) Licensures, 36 hours


## Licensure Only Options

Course work leading to eligibility for Instructional Technology (077) or School Library Media Coordinator (076) licensure is offered to applicants who already have an MLIS degree.

Course work leading to eligibility for Media Supervisor (078) licensure is offered to applicants who already have an MLIS degree and Media Coordinator (076) licensure and three years of school library media experience.

Applicants who wish to pursue a licensure-only option should contact the department for specific requirements.

## Program Application and Admission

In addition to the application materials requested by The Graduate School, applicants for the MLIS program and for the licensure only programs must submit a resume and personal statement. Admission for all programs are processed as received and there is no fixed deadline for fall and spring admission. Applicants are urged to submit complete applications as early as possible for thorough review.

## Graduate Faculty

## Professors

James V. Carmichael, Jr., PhD, Library history, information retrieval, gender and race studies.
Clara M. Chu, PhD, Multicultural community informatics, critical library and information studies, information seeking behavior (Chair of Department).

Lee Shiflett, PhD, Cataloging and classification, history of books and libraries, information policy issues. (Director of Graduate Study).

## Associate Professor

Julia A. Hersberger, PhD, Foundations of LIS, human information behavior, disenfranchised populations, information ethics and policy.

## Assistant Professors

Nora Bird, PhD, Knowledge acquisition and use, scientific communication, community college libraries.

Anthony Chow, PhD, Information seeking behavior and usability in digital environments, systems thinking and organizational management, instructional technology, information technology.

Linda Gann, PhD, School library standards, reading and literacy, children and young adult literature.

Fatih Oguz, PhD, Digital libraries, online education, permanence of digital information, database design.

## Clinical Assistant Professors

Anne Trice Akers, PhD, School library media, and graduate support coordinator.
Beth Martin, MLIS, Distance education coordinator.

## Special Endorsement in Computer Education, PBC

The Post-Baccalaureate Certificate for Special Endorsement in Computer Education requires 18 semester hours and is offered jointly by the departments of Library and Information Studies and Teacher Education and Higher Education. The certificate provides educators with extensive knowledge and skills to work with students and other teachers to use computers in on-going instructional programs and to serve as a computer education leader for a school. Completion of the certificate provides NC licensed teachers the opportunity to fulfill requirements to apply for the NC endorsement for the position of Technology Facilitator. Offered oncampus or online.

## Application and Admission

Applicants must submit all application materials required by The Graduate School and a resume and personal statement by the appropriate deadline and currently hold a NC teaching license.

## Certificate Requirements

Required Courses
TED 610 Integrating Technology into Subject Matter Instruction

|  | Information Access <br> LIS 632 |
| :--- | :--- |
|  | Managing School/Library Computer <br> Laboratories |
| LIS 630 | or <br> Information Management |
| LIS 635 | Media Production Services for Library <br> Programs |
| TED 672/LIS | Instructional Design <br> 672 |
| SES 662 | Assistive Technology for Inclusive |

## Master of Library and Information Studies (MLIS)

The MLIS emphasizes the rapidly changing library and information field and prepares students for positions of leadership in school, public, special, and academic libraries and other information centers, and for a variety of roles in both public and private agencies as information specialists. The MLIS requires 36 semester hours. In addition to the general MLIS degree, there are two concentrations that students may choose with their MLIS: the Instructional Technology concentration and the School Library Media Coordinator concentration. The Instructional Technology (077) licensure concentration requires 36 semester hours and prepares students to apply for 077 licensure in North Carolina. The School Library Media Coordinator concentration requires 36 semester hours and prepares students to apply for 076 licensure. All MLIS graduates may qualify for North Carolina Public Library Certification.

The MLIS program is accredited by the American Library Association and is approved by the North Carolina Department of Public Instruction for the licensure of school library media personnel. The school library media specialist program is approved by NCATE using the AASL/ALA professional education association guidelines.

The MLIS program with all concentrations is offered on the UNCG campus and online.

## Degree Requirements

Required Core Courses (13 hours)

| LIS 600 | Foundations of Library and Information <br> Studies |
| :--- | :--- |
| LIS 620 | Information Sources and Services |
| LIS 640 | Information Organization and Access |

Electives (20 hours)
Twenty hours are selected with advisement from graduate courses in Library and Information Studies or cognate fields. Students in licensure programs in schools or state certification in public libraries should confer with faculty advisors for specific requirements.

## MLIS with Instructional Technology (077) Licensure Concentration Degree Requirements

The instructional technology (077) licensure concentration is designed for teachers and other candidates who wish to focus their studies on instructional technology as it relates to library and information studies.

| MLIS Core Courses (13 hours, see above) |  |  |
| :---: | :---: | :---: |
| Concentration Courses (21 hours) |  |  |
| LIS 631 | Emerging Technological Trends in Information Access | 3 |
| LIS 632 | Managing School/Library Computer Laboratories | 3 |
|  | or |  |
| LIS 630 | Computer-Related Technologies for Information Management | 3 |
| LIS 635 | Media Production Services for Library Programs | 3 |
| LIS 691 | Practicum | 3-6 |
|  | or |  |
| TED 644 | Supervised Practicum in Curriculum and Teaching | 3 |
| TED 610 | Integrating Technology into Subject Matter Instruction | 3 |
| TED 672/LIS 672 | Instructional Design |  |

SES 662 Assistive Technology for Inclusive Education

Plus electives to total at least thirty-six semester hours.

## MLIS with School Library Media Coordinator (076) Licensure Concentration Degree Requirements

The school library media coordinator (076) licensure only program is designed for anyone with a MLIS degree who would like to work in public school libraries. Students without a current North Carolina teaching license will be required to take additional course work including an additional practicum.

MLIS Core Courses (13 hours, see above)

Designated Electives (15 hours)

| LIS 617 | Materials for Children | 3 |
| :--- | :--- | :--- |
| LIS 618 | or | 3 |
| LIS 635 | Materials for Adolescents |  |
|  | Media Production Services for Library | 3 |
| LIS 653 | Programs | 3 |
| LIS 654 | The School Library |  |
|  | School Library Media Specialist and the |  |
| LIS 693 | Curriculum | 3 |

Plus electives to total at least thirty-six semester hours.

## Management, Department of

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## Graduate Programs

- No graduate programs are offered; however, related programs include the Master of Business
Administration.


## Graduate Faculty

## Professors

McRae C. Banks, II, PhD, Public policy, administration, entrepreneurship, strategy. (Dean)
E. Holly Buttner, PhD, Diversity issues in organizations, the impact of organizational diversity climate on employee outcomes, issues of under-represented groups in entrepreneurial ventures and small business.

Eric W. Ford, PhD, Strategic management, health information technology, care quality, nursing issues.

Kevin B. Lowe, PhD, Leadership, business strategy, international human resource management, crosscultural management (Head of Department).
Paul M. Muchinsky, PhD, Assessment, personnel selection, and job/person fit.

William L. Tullar, PhD, Employee selection, knowledge management, human resource information systems security, organizational misbehavior.
Moses Acquaah, PhD, Strategic management, international management and family business in emerging economies, with emphases on social capital/networking, competitive and corporate strategy, human factor development, and corporate reputation management.

Nir Kshetri, PhD, Globalization of modern information technologies, marketing of high-tech products.

## Assistant Professors

Riikka Sarala, PhD, International management, mergers and acquisitions, knowledge management, organizational culture.

Vasyl Taras, PhD, International management/business, human resources/organizational behavior, quantitative research methods.

## Master of Business Administration

301 Bryan Building • (336) 334-5390•
http://www.uncg.edu/bae/mba/

## Graduate Programs

Post-Baccalaureate Certificate in Business Foundations, 12 hours

Master of Business Administration (MBA), 42-45 hours
Master of Science in Nursing/Master of Business Administration dual degree (MSN/MBA), 54 hours

Master of Science in Gerontology/Master of Business Administration dual degree (MS/MBA), 58 hours

## Graduate Faculty

Program Director
Vidyaranya B. Gargeya, PhD, Global operations strategy, supply chain management, total quality management, service operations management (Department of Information Systems and Supply Chain Management).

## MBA Program Committee

Moses Acquaah, PhD, Corporate strategy, management of innovation and technology (Department of Management).
Stuart Allen, PhD, Macroeconomics, monetary economics (Department of Economics).

Merlyn Griffiths, PhD, Consumer behavior, brand management (Department of Marketing, Entrepreneurship, Hospitality, and Tourism).

Kevin Lowe, PhD, Leadership, international human resource management, work teams (Department of Management).

Hamid Nemati, PhD, Neural networks, data flow management, strategic use of information technologies (Department of Information Systems and Supply Chain Management).

David Upton, PhD, Cost and managerial accounting, role of accounting information in incentive contracting and performance measurement (Department of Accounting and Finance).

## Bryan School Mission Statement

In the Bryan School of Business \& Economics, we create and disseminate knowledge about the theory and practice of business. In addition to our courses and research, we accomplish this through hands-on projects, global experiences, and outreach to the community. Our work
produces principled leaders and exceptional problem solvers who have a global perspective, an innovative mindset, a broad understanding of sustainability, and a commitment to improve the organizations in which they work and the communities in which they live.

The MBA program of the Joseph M. Bryan School of Business and Economics provides advanced educational opportunities to prepare students for a career of managing complexity in the global economy of the 21st century. The MBA faculty of the Bryan School accepts as its primary responsibility excellence in the delivery of quality instruction to provide the skills, knowledge, and analytical competence necessary to provide our students with the opportunity to become world-class managers.

Admission to graduate programs offered by the MBA program is required for enrollment in course work at any level of the program.

## Business Foundations, PBC

The purpose of 12 -hour Post-Baccalaureate Certificate in Business Foundations is to provide professionals who have a bachelor's degree in a non-business field the opportunity to acquire education in business administration without committing to the lengthier MBA program.

## Application and Admission

In addition to the application materials required by The Graduate School, applicants must submit an admission essay indicating the reasons for pursuing the certificate. An interview may be required.

Qualified applicants will have relevant managerial experience indicating increasing levels of managerial responsibilities.

Current students in the MBA, MS in accounting, or MS in information technology and management programs will not be eligible for the Post-Baccalaureate Certificate. Course work taken as part of the certificate program may be applied towards the MBA degree in accordance with the policies of The Graduate School.

## Certificate Requirements

Required Courses
MBA $701 \quad$ Quantitative Analysis for Decision Making

MBA $702 \quad$ Financial and Managerial Accounting
MBA 715 Integrative Business

3

## Master of Business Administration

The Master of Business Administration (MBA) is a professional program built on a strategic management theme. The curriculum emphasizes an interdisciplinary approach to decision making in a changing global environment in which globalization and sustainability are changing the way all organizations function. Students in the full-time program complete the 45 semester hours of course work in the sequence specified below over a 21month period. The part-time program requires 42 hours of course work and may take up to five years to complete depending on the number of credit hours taken each semester. Concentrations in finance, information technology, marketin, and supply chain management are offered both to full-time and part-time students.

## Application and Admission

The MBA program is designed for qualified students from any academic background.

In addition to the applicants materials required by The Graduate School, applicants must submit an admission essay indicating the reasons for pursuing the MBA degree and relevant preparation for either the Part-time Evening MBA or Fulltime Day MBA option. Qualified applicants to the Part-time Evening MBA will have relevant managerial experience indicating increasing levels of managerial responsibilities. Qualified applicants to the Fulltime Day MBA will have five years or less full-time work experience and evidence of leadership potential. An interview may be required.

Students are admitted to the Fulltime Day MBA option only in August of each academic year.

## Degree Requirements

Computer Literacy
MBA degree program students should have a working knowledge of word processing and spreadsheet applications in a PC environment. Familiarity with Excel is required. Students must also be familiar with basic probability and statistics as covered in computer-based training modules approved by the MBA Program.

Full-time Program Option
Year One - Fall Semester (12 hours)

| MBA 701 | Quantitative Analysis for Decision <br> Making | 3 |
| :--- | :--- | :--- |
| MBA 702 | Financial and Managerial Accounting | 3 |
| MBA 715 | Integrative Business | 3 |
| MBA 716 | Leadership and Sustainable Business | 3 |
| Year One | Spring Semester (12 hours) |  |
| MBA 706 | Marketing Management | 3 |


| MBA 707 | Financial Management | 3 |
| :---: | :---: | :---: |
| MBA 708 | Operations for Competitive Advantage | 3 |
| MBA 717 | Technology and Innovation | 3 |
| Year One - Summer Semester (6 hours) |  |  |
| MBA 742 | Organizational Internship | 1.5-3 |
|  | Elective | 3 |
| Year Two - Fall Semester (6 hours) |  |  |
| MBA 703 | Economic Policies and Impact on Global Outcomes | 3 |
|  | Elective | 3 |
| Year Two - Spring Semester (9 hours) |  |  |
| MBA 718 | Global Business in Practice | 3 |
| MBA 719 | Strategic Management in Action | 3 |
|  | Elective | 3 |
| MBA 719: Capstone Experience |  |  |
| Part-time Program Option |  |  |
| MBA 701 | Quantitative Analysis for Decision Making | 3 |
| MBA 702 | Financial and Managerial Accounting | 3 |
| MBA 703 | Economic Policies and Impact on Global Outcomes | 3 |
| MBA 706 | Marketing Management | 3 |
| MBA 707 | Financial Management | 3 |
| MBA 708 | Operations for Competitive Advantage | 3 |
| MBA 715 | Integrative Business | 3 |
| MBA 716 | Leadership and Sustainable Business | 3 |
| MBA 717 | Technology and Innovation | 3 |
| MBA 718 | Global Business in Practice | 3 |
| MBA 719 | Strategic Management in Action | 3 |
| MBA 719: Indicates Capstone Experience |  |  |
| Electives (9 hours) |  |  |
| With prior approval by the MBA Program Director or Associate Director, a student will select 9 hours of courses. Courses in other departments and schools at the 500-, 600- and 700-level may be taken. |  |  |
| Concentrations |  |  |
| Finance |  |  |
| For a concentration in finance a student will select 9 hours from the following courses: |  |  |

MBA 720
MBA 721 Financial Statement Analysis and Valuation

Corporate Governance
Financial Institutions
MBA 724
Investments

Other appropriate courses as approved by the MBA Program Director or Associate Director.

Information Technology
For a concentration in information technology a student will select 9 hours from the following courses:


Other appropriate courses as approved by the MBA Program Director or Associate Director.
Supply Chain Management
For a concentration in supply chain management a student will select 9 hours from the following courses:

| SCM 650 | Supply Chain Management Concepts and <br> Principles | 3 |
| :--- | :--- | :--- |
| SCM 651 | Transportation.Logistics and Distribution <br> in Supply Chain Management | 3 |
| SCM 652 | Strategic Cost, Design, Procurement and <br> Contracts | 3 |
| SCM 655 | Global Supply Operations Strategy | 3 |
| SCM 678 | Project Management | 3 |

## Gerontology, MS/MBA

The combined MS/MBA is offered jointly by the Gerontology Program and the Bryan School of Business and Economics and requires a minimum of 58 semester hours.

## Application and Admission

In addition to the application materials required by The Graduate School, applicants must submit a Personal statement elaborating on experience and/or interest in working with the elderly.

Applicants may take either the GMAT or GRE qualifying exam and must have a minimum of two years of relevant work experience. Applications are reviewed by both the Director of Gerontology Program and the MBA Program Director.

## Degree Requirements

## Computer Literacy

Upon entry to the MS/MBA degree program, students should have a working knowledge of word processing and spreadsheet applications in a PC environment. Familiarity with Excel is required. Students must also be familiar with basic probability and statistics as covered in computerbased training modules approved by the MBA Program.

Required Core Courses (46 hours)
Students are strongly encouraged to enroll in GRO 600 and GRO 501 concurrently.

| MBA 701 | Quantitative Analysis for Decision | 3 |
| :--- | :--- | :--- |
| MBA 702 | Financial and Managerial Accounting | 3 |
| MBA 703 | Economic Policies and Impact on Global |  |
|  | Outcomes | 3 |
| MBA 706 | Marketing Management | 3 |
| MBA 707 | Financial Management | 3 |
| MBA 708 | Operations for Competitive Advantage | 3 |
| MBA 715 | Integrative Business | 3 |
| MBA 716 | Leadership and Sustainable Business | 3 |
| MBA 717 | Technology and Innovation | 3 |
| MBA 718 | Global Business in Practice | 3 |
| GRO 501 | Seminar: Critical Issues of Aging | 3 |
| GRO 600 | Proseminar in Gerontology | 3 |
| GRO 620 | Research Methods in Gerontology | 3 |

GRO $649 \quad \begin{aligned} & \text { Gerontology Internship or Research } \\ & \text { Experience I }\end{aligned}$
GRO 651 Integrative Seminar in Gerontology 3
Capstone Experience: MBA 719 Strategic Management in Action (3) OR GRO 679 Gerontology Internship (3) OR Research Experience II (3)

Electives (12 hours)
Selected upon advisement to permit tailoring of the program of study to the student's specific interests and to include at least 9 semester hours in gerontology or gerontology electives.

## Nursing MSN/MBA

The combined MSN/MBA is offered jointly by the School of Nursing and the Bryan School of Business and Economics and requires a minimum of 54 semester hours.

## Application and Admission

Applicants must submit all application materials required by The Graduate School by the appropriate deadline. Applicants must have a baccalaureate degree in nursing from an accredited program, current unrestricted licensure as a registered nurse in one of the 50 states or International Licensure and a minimum of one year of fulltime clinical nursing experience.

## Degree Requirements

## Computer Literacy

Upon entry to the MSN/MBA degree program, students should have a working knowledge of word processing and spreadsheet applications in a PC environment. Familiarity with Excel is required.

Statistics
Completion of a statistics course prior to enrollment in NUR 602 is required. ECO 250, MBA statistics modules, or comparable is recommended to meet the program prerequisite for statistics.
Required Courses (54 hours)
Please see the School of Nursing for additional clinical nursing requirements.

| NUR 610 | Theoretical Foundations of Advanced <br> Nursing Practice | 3 |
| :--- | :--- | ---: |
| NUR 620 | Law, Policy, and Economics of <br> Healthcare | 3 |
| NUR 540 | Budget Development and Analysis of <br> Nursing Services | 3 |
| NUR 614 | Information Technology in Nursing <br> Service Administration | 3 |


| NUR 602 | Research Methods in Nursing | 3 |
| :--- | :--- | :--- |
| NUR 641 | Nursing Administration | 4 |
| NUR 642 | Nursing Administration: Theoretical | 4 |
| NUR 643 | Applications | 4 |
| MBA 701 | Nursing Administration Practicum |  |
|  | Quantitative Analysis for Decision | 3 |
| MBA 702 | Making | 3 |
| MBA 703 | Economic Policies and Impact on Global | 3 |
| MBA 706 | Outcomes | 3 |
| MBA 707 | Marketing Management | 3 |
| MBA 708 | Operations for Competitive Advantage | 3 |
| MBA 715 | Integrative Business | 3 |
| MBA 717 | Technology and Innovation | 3 |
| MBA 719 | Strategic Management in Action | 3 |

MBA 719: Capstone Experience

## Mathematics and Statistics, Department of

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## Graduate Programs

- Post-Baccalaureate Certificate in Statistics, 12 hours
- Master of Arts (MA) in Mathematics, or Applied Statistics concentration, 30-33 hours
- Doctor of Philosophy (PhD) in Computational Mathematics, 60 hours minimum
- Doctoral Minor in Statistics, 18 hours


## Graduate Faculty

## Professors

Paul F. Duvall, Jr., PhD, Geometric topology, combinatorics, dynamics.

Sat N. Gupta, PhD, Sampling designs, time series forecasting, biostatistics (Associate Head).
Ratnasingham Shivaji, PhD, Partial differential equations (Head of the Department)

Jerry E. Vaughan, PhD, General topology and set theory.

## Associate Professors

Gregory Bell, PhD, Geometric group theory, geometric topology, asymptotic invariants of groups (Director of Graduate Study).
Maya Chhetri, PhD, Nonlinear elliptic PDE's, nonlinear functional analysis, applied mathematics.

Igor Erovenko, PhD, Combinatorial properties of linear groups, bounded generation of S-arithmetic groups (Director of Undergraduate Study).

Richard H. Fabiano, PhD, Analysis, applied mathematics, differential equations, and control theory.

Sebastian Pauli, PhD, Computational number theory, algebraic number theory, computer algebra.

Scott J. Richter, PhD, Nonparametric methods, equivalence testing, statistical consulting.

Jan Rychtar, PhD , Functional analysis, game theory.
Carol Seaman, PhD, Undergraduate mathematics education.

Brett A. Tangedal, PhD, Number theory.
Filip Saidak, PhD, Analytic and probablistic number theory, mathematical biology.

## Assistant Professors

Roland Deutsch, PhD, Environmetrics, computational statistics, multivariate statistics and nonparametric statistics.

Talia Fernos, PhD. Group Theory.
Dohyoung Ryang, PhD, Mathematics education, efficacy beliefs, learning community, lesson study, geometric group theory.

Clifford Smyth, PhD, Combinatorics.
Dan Yasaki, PhD, Computational number theory, modular forms.

## Statistics, PBC

The purpose of the 12-hour Post-Baccalaureate Certificate in Statistics is to provide statistical training for persons who wish to enhance their knowledge of statistics but do not wish to pursue a formal degree and for professionals whose interests require a knowledge of statistics beyond the undergraduate level. The objective of the certificate is to offer a structured introduction to the basic ideas of graduate level statistical analysis.

## Application and Admission

Applicants must submit all application materials required by The Graduate School, excluding GRE scores, by the appropriate deadline to be considered for Fall, Spring, or Summer admission.

## Degree Requirements

Required Courses (6 hours)

| STA 661 | Advanced Statistics in the Behavioral <br> and Biological Sciences I | 3 |
| :--- | :--- | :--- |
| STA 662 | Advanced Statistics in the Behavioral <br> and Biological Sciences II | 3 |
| Electives (6 hours) |  |  |
| Students must complete two additional three- hour STA <br> courses at the 500 level or above, excluding: |  |  |
| STA 571 Statistical Methods for Research I | 3 |  |
| STA 571L | Statistical Methods Laboratory I | 1 |
| STA 572 | Statistical Methods for Research II | 3 |
| STA 572L | Statistical Methods Laboratory II | 1 |
| STA 580 | Biostatistical Methods | 3 |

## Mathematics, MA

Mathematics or Applied Statistics Concentration
The MA in Mathematics is offered in two areas of concentration: mathematics ( $30-33$ hours) and applied statistics ( 33 hours). Course work must be approved by the Department of Mathematics and Statistics and must include certain courses as explained in the discussion of the concentrations.

Students who plan to continue to the PhD program in computational mathematics are urged to elect the concentration in mathematics. They may then use the doctoral qualifying examinations to satisfy the comprehensive examination requirement in the nonthesis option for the MA degree.

## Application and Admission

In addition to the application materials required by The Graduate School, applicants must submit a 500-700 word Personal Statement by April 1 to be considered for Fall admission.

## Mathematics Concentration (30-33 hours)

The mathematics concentration offers a 30-hour thesis option and a 33-hour non-thesis option. At least half the work credited towards the degree must be in 600-level courses: 15 hours for the 30-hour program, and 18 hours for the 33-hour program.

Algebra or Analysis (3 hours)
Each candidate must complete any one of the following courses:

| MAT 517 | Theory of Groups | 3 |
| :--- | :--- | :--- |
| MAT 545 | Differential Equations and Orthogonal |  |
|  | Systems | 3 |
| MAT 591 | Advanced Abstract Algebra | 3 |
| MAT 592 | Advanced Abstract Algebra | 3 |
| MAT 595 | Mathematical Analysis | 3 |
| MAT 596 | Mathematical Analysis | 3 |

(Note: Students who have had appropriate algebra or analysis courses as undergraduates may be exempted from this requirement upon approval by the Director of Graduate Study. In this case, these 3 hours must be replaced by 3 hours chosen in consultation with the Director of Graduate Study.)

Core Courses (9 hours)
At least 9 hours of course work must be chosen from the following list. At least 6 of these hours must constitute a complete year-long sequence.

MAT 623
MAT 624
MAT 631
MAT 632
MAT 647
MAT 648
CSC 653
CSC 656
CSC 653
CSC 656
MAT 688

MAT 689

MAT 691
MAT 692
MAT 693
MAT 694
MAT 695
MAT 696
MAT 697
MAT 698
MAT 645
MAT 646
STA 651
STA 652

Numerical Mathematics
Numerical Mathematics
Combinatorics 3
Graph Theory
Linear Algebra and Matrix Theory
Linear Algebra and Matrix Theory
Advanced Theory of Computation 3
Foundations of Computer Science
Advanced Theory of Computation
Foundations of Computer Science
Mathematical Logic and Axiomatic Set Theory

Electives (12-21 hours)
With prior approval of the Director of Graduate Study a student will select 12-21 hours of other 500- or 600-level mathematical sciences courses.

Thesis or Comprehensive Examination (Capstone Experience)
Each candidate may elect to prepare a thesis or pass a written comprehensive examination on his/her program of course work. The thesis option is a 30 hour program; the non-thesis option is a 33 hour program.

Thesis (6 hours)
The candidate may prepare a thesis based on the investigation of a topic in mathematics. A thesis director will be appointed by the Department Head after consultation with the student and the Director of Graduate Study. Candidates may include up to 6 hours of
thesis (MAT 699) in the required 30 hours. An oral examination on the thesis is required.

Comprehensive Examination
A candidate who does not prepare a thesis must take 33 hours of course work and pass a written comprehensive examination of his/her program. Please consult with the Director of Graduate Study for information concerning the comprehensive examination.

## Applied Statistics Concentration (33 hours)

Undergraduate prerequisites: Baccalaureate degree and the following courses or their equivalents: STA 290, 291; MAT 191, 292; and CSC 130 or 230 or 231.

Foundation Courses (7 hours)

| STA 551 | Introduction to Probability |
| :--- | :--- |
| STA 552 | Introduction to Mathematical Statistics |
| STA 581 | SAS System for Statistical Analysis |
| Students who have completed these courses as part of |  |
| another degree prior to being accepted in the master's |  |
| program will choose replacement courses. |  |

STA 668

Consulting Experience

STA $690 \quad$ Graduate Seminar
Statistics Electives (6-9 hours)
At least two courses chosen from the following:

| STA 670 | Categorical Data Analysis | 3 |
| :--- | :--- | :--- |
| STA 671 | Multivariate Analysis | 3 |
| STA 673 | Statistical Linear Models I | 3 |
| STA 674 | Statistical Linear Models II | 3 |
| STA 675 | Advanced Experimental Design | 3 |
| STA 676 | Sample Survey Methods | 3 |
| STA 677 | Advanced Topics in Data Analysis and |  |
|  | Quantitative Methods | 3 |
| STA 711 | Experimental Course |  |

Interdisciplinary Electives (3-6 hours)
Student can earn the remaining credits required for the degree either by taking any STA courses at the 500 level or above (except STA 571) or by taking a maximum of six (6) hours of approved graduate courses outside of statistics. Pre-approved interdisciplinary electives are:

| CSC 523 | Numerical Analysis and Computing | 3 |
| :--- | :--- | ---: |
| CSC 524 | Numerical Analysis and Computing | 3 |
| CSC 526 | Bioinformatics | 3 |
| ECO 553 | Economic Forecasting | 3 |
| ECO 722 | Time Series and Forecasting | $1-4$ |
| ECO 723 | Predictive Data Mining | $1-4$ |
| ERM 669 | Item Response Theory | 3 |
| ERM 728 | Exploratory and Confirmatory Factor |  |
|  | Analytic Methods for Scale Construction | 3 |
| ERM 729 | Advanced Item Response Theory | 3 |
| ERM 731 | Structural Equation Modeling in |  |
|  | Education | 3 |
| HEA 602 | Epidemiology | 3 |
| MAT 531 | Combinatorial Analysis | 3 |
| MAT 541 | Stochastic Processes | 3 |
| MAT 542 | Stochastic Processes | 3 |

## Thesis or Project (Capstone Experience)

Each candidate must elect to prepare a thesis or project. Both options require 33 hours.

Thesis (6 hours)
The candidate may prepare a thesis based on the investigation of a topic in statistics. A thesis director will be appointed by the Department Head after consultation with the student and the Director of Graduate Study. Candidates will include 6 hours of thesis (STA 699) or 3 hours of STA 698 and 3 hours of STA 699 in the required 33 hours. An oral examination on the thesis is required.
Project (3 hours)
A candidate who does not prepare a thesis must complete a project under the direction of an advisor chosen by the Director of Graduate Study in consultation with the student. Three hours of STA 698 will be included in the 33 hour program.

## Computational Mathematics, PhD

The PhD in Computational Mathematics requires a minimum of 60 semester hours, including 39-42 hours of course work in mathematics or related area and 18-21 hours of dissertation.

## Application and Admission

In addition to the application materials required by The Graduate School, applicants must submit a 500-700 word Personal Statement by March 15 to be considered for Fall admission.

Students with a master's degree in mathematics, computer science or statistics may apply directly to the PhD program. In exceptional cases well-qualified applicants will be considered for admission directly after completing an undergraduate degree in mathematics, computer science or statistics.

## Degree Requirements

Course Work (39-42 hours)
The student selects 39-42 hours of course work in mathematics and related areas with the approval of the Director of Graduate Study. With the approval of the Director of Graduate Study, up to 18 of the 39-42 hours may be accepted from UNCG's MA in mathematics program or from a comparable master's program.

Qualifying Examinations
Qualifying examinations, covering a student's chosen field of research and related advanced course work, must be taken after the student has removed any provisions or special conditions attached to admission; three exams should be passed prior to the beginning of the fifth semester. These examinations each cover the material of two courses. Each student must pass at least one exam from Group I.

## GROUP I

Algebra
MAT 591
Advanced Abstract Algebra
MAT 592
Advanced Abstract Algebra
Analysis
MAT 595
Mathematical Analysis
MAT 596 Mathematical Analysis
Linear Algebra
MAT $647 \quad$ Linear Algebra and Matrix Theory
MAT $648 \quad$ Linear Algebra and Matrix Theory
GROUP II
Combinatorics

| MAT 631 | Combinatorics | 3 |
| :--- | :--- | :--- |
| MAT 632 | Graph Theory | 3 |

Differential Equations

| MAT 545 | Differential Equations and Orthogonal <br> Systems | 3 |
| :--- | :--- | :--- |
| MAT 546 | Partial Differential Equations with <br> Applications |  |

## Mathematical Statistics

STA 651 Mathematical Statistics

STA 652 Mathematical Statistics
Numerical Mathematics
MAT $623 \quad$ Numerical Mathematics 3

MAT $624 \quad$ Numerical Mathematics 3
Topology
MAT 697
General Topology
MAT 698 General Topology
Programming Project
The student must complete a programming project of such quality that it can become part of a computer algebra system, could be distributed as a package for a computer algebra system, or yields new mathematical data.

Dissertation (18-21 hours)
MAT 799 Dissertation 1-12

## Other Reviews and Examinations

After the student has passed three qualifying examinations, the student chooses a dissertation advisor and forms a dissertation committee. With the help of the advisor, the student proposes a dissertation topic in a public oral presentation. In this presentation, the student explains his or her dissertation topic in sufficient detail to demonstrate capability to begin research.
At the conclusion of the presentation, the dissertation committee will administer an oral exam to determine the student's competence to begin work on the dissertation. A part of the exam is the computational/programming project. This project should clearly demonstrate that the student is fully capable of handling computational aspects of the intended dissertation topic. After passing this examination, the student may then make a formal application to the Graduate School for admission to candidacy. The dissertation proposal and oral exam can be attempted at most twice.

## Schedule for Examinations and Projects

Semester Examination or Project

## 1-4 3 written comprehensive examinations

4-7 Dissertation proposal, computational/programming project, (oral examination)

6-14 Dissertation work and defense (oral

examination)

## Statistics, Doctoral Minor

Students pursuing a doctorate from other departments may obtain a statistics minor by completing 18 semester hours of graduate level statistics courses.

## Requirements

Required Courses (6 hours)

STA $661 \quad$| Advanced Statistics in the Behavioral |
| :--- |
| and Biological Sciences I |

STA 662 Advanced Statistics in the Behavioral and Biological Sciences II

Electives (12 hours)
Four additional three-hour STA courses, excluding:

| STA 571 | Statistical Methods for Research I | 3 |
| :--- | :--- | :--- |
| STA 572 | Statistical Methods for Research II | 3 |
| STA 580 | Biostatistical Methods | 3 |

## Media Studies, Department of

205 Brown Building • (336) 334-5360 •
www.uncg.edu/mst

## Graduate Program

- Master of Fine Arts (MFA) in Drama (Concentration in Film and Video Production), 48 hours


## Graduate Faculty

## Professors

Matthew Barr, MFA, Screenwriting, documentary production, aesthetics.
David A. Cook, PhD, Film history and industrial practice; Soviet, post-Soviet, and Eastern European cinema.

Emily D. Edwards, PhD, Video production, media writing, gender and media culture.

Anthony N. Fragola, Master of Professional Writing, Scriptwriting, the auteur director, literature and film, film production, development of cinema.
Michael Frierson, PhD, Animation history and methods, film history and theory, film and video production (Director of Graduate Study).

## Associate Professors

Geoffrey Baym, PhD, Political communication, broadcast journalism, critical media studies (Head of Department).

Brett R. Ingram, MFA, Documentary filmmaking, cinematography, film and video production, editing.

Kimberlianne Podlas, JD, Constitutional and media law, pop-culture representations of law.

## Assistant Professor

Seung-Hyun Lee, PhD, Digital, mobile, and multimedia, online journalism, and Web design.

The Department of Media Studies in cooperation with the Department of Theatre offers an MFA in Drama with a concentration in film and video production. We aim to develop informed, enlightened artists whose media production skills are matched by their understanding of media history and theory. The Department offers a wideranging curriculum that combines three principal areas: 1) the intellectual study of media history and theory, 2) the practical development of media screenwriting and production, 3) the enrichment of the student's interdisciplinary interests.

The program does not impose a formal agenda on a student's interest. We encourage students to explore a range of media forms: narrative, documentary,
experimental, and animation. We guide our graduate students to formulate their own creative and research plan, and when necessary, to seek coursework outside the department that will support this plan.

The Department's faculty is composed of talented artists and scholars with excellent reputations as teachers. A cocurricular program that includes opportunities to participate in external film and video productions, internships, and the Carolina Film and Video Festival matches the curricular offerings. The festival is a competitive showcase for both student and professional, national and international independent films and videos. The Department is housed in the Brown Building and in the Carmichael Radio and Television Center.

In addition to the information contained in The Graduate School Bulletin, students are also required to be familiar with the policies and procedures contained in the Departmental graduate handbook, which is available from the Director of Graduate Study.

VISIONS students are restricted from taking any 500-level course without the permission of the Department Head and course instructor. Only officially admitted MFA students can register for 600-level courses.

## Drama, MFA

## Film and Video Production Concentration

The MFA in Drama (Film and Video Production Concentration) is a 48-hour degree. The program requires four regular semesters (excluding summer sessions) to complete (two years).
Admission to the MFA is competitive. The program is designed to develop individual artistry in media informed by a rich understanding of media history, theory, and aesthetics. Over the course of study, students will explore this intellectual understanding of media hand in hand with their practical skills in media screenwriting and production.

## Application and Admission

In addition to the application materials required by The Graduate School, applicants must submit a portfolio consisting of a personal statement, a resume, and samples of their creative work. The faculty interviews candidates selected from the applicant pool before admission. Students without previous course work and/or experience in film and video production may be expected to complete additional course work as prerequisites in addition to the normal degree requirements, extending the amount of time it would take to complete the degree.

## Degree Requirements

Major Studies (36 hours)

| MST 515 | Film Theory | 3 |
| :---: | :---: | :---: |
| MST 528 | Topics in Media | 3 |
| MST 610 | Introduction to Graduate Study | 3 |
| MST 611 | Image and Sound Acquisition for Media | 3 |
| MST 612 | Advanced Media Editing | 3 |
| MST 618 | Writing Short Scripts | 3 |
| MST 619 | Production Law and Responsibility | 3 |
| MST 620 | Seminar in Media Analysis | 3 |
| MST 625 | Seminar in Media | 3 |
| MST 698 | Graduate Practicum in Media | 3 |
| MST 699A | Master Production in Media I | 3 |
| MST 699B | Master Production in Media II | 3 |
| Academic Studies (12 hours) |  |  |
| Select four additional courses from: |  |  |
| MST 524 | Media Financing and Distribution | 3 |
| MST 525 | Media Organization and Management | 3 |
| MST 528 | Topics in Media | 3 |
| MST 550 | Feature Film Script Analysis | 3 |
| MST 551 | Writing the Feature Film I | 3 |
| MST 552 | Writing the Feature Film II | 3 |
| MST 553 | Advanced Media Writing | 3 |
| MST 559 | Doing Visual History | 3 |
| MST 580 | Directing for Television | 3 |
| MST 581/DCE | Dance on Video |  |
| 581 |  | 3 |
| MST 585 | Advanced Media Production | 3 |
| MST 587 | Animation Production | 3 |
| MST 588 | Documentary Production | 3 |
| MST 613 | Advanced Media Lighting | 3 |
| MST 614 | Advanced Media Sound Production | 3 |
| MST 616 | Directing for the Camera | 3 |
| MST 617 | Creating Visual Narratives | 3 |
| MST 684 | Advanced Media Production | 3 |
| MST 690 | Independent Study | 1-3 |
| MST 691 | Advanced Experimentation | 3 |
| MST 695 | Client Based Media | 3 |
| MST 696 | Graduate Internship | 3 |

Or additional course from other disciplines, such as

| ARH 500 | Traditions of Art Criticism | 3 |
| :--- | :--- | :--- |
| ARH 501 | Topics in the History of Art | 3 |
| ART 540 | Digital Visualization and Methods | 3 |
| ART 545 | Interactive Web Design | 3 |
| ART 685 | Photography | 6 |
| MUS 550 | Electronic Music | 3 |
| THR 506 | Non-Western Theatre and/or Film | 3 |
| THR 534 | Acting for the Camera | 2 |
| THR 670 | Production Design for Film | 3 |

Required Sequence of Courses ( 48 hours)
Courses must be taken in the semesters as listed below:
Year One (24 hours)
Fall Semester

| MST 610 | Introduction to Graduate Study | 3 |
| :--- | :--- | :--- |
| MST 611 | Image and Sound Acquisition for Media | 3 |
| MST 612 | Advanced Media Editing | 3 |

MST 528 Topics in Media 3
Spring Semester

| MST 625 | Seminar in Media | 3 |
| :--- | :--- | :--- |
| MST 618 | Writing Short Scripts | 3 |
| MST 698 | Graduate Practicum in Media | 3 |

MST Academic Studies elective one
Year Two (24 hours)
Fall Semester
MST $619 \quad$ Production Law and Responsibility 3

MST 515 Film Theory 3
MST Academic Studies Elective two 3
MST 699A Master Production in Media I
MST 699a: Comprises Capstone Experience
Spring Semester

| MST 620 | Seminar in Media Analysis | 3 |
| :--- | :--- | :--- |
| MST | Academic Studies elective three | 3 |

MST Academic Studies elective four 3
MST 699B Master Production in Media II 3
MST 699b: Comprises Capstone Experience

## Reviews

At the end of each semester, the faculty reviews each candidate for continuance in the program. Reviews assess the candidate's academic success, artistic development, and professional development. Student who appears to be having academic difficulty or whose creative potential is questionable may be placed on probation or dismissed from the program.

## Plan of Study

Prior to completing 24 hours of the program, students must meet with the MST Director of Graduate Study and agree upon a plan of study for completion of the MFA. See "Plan of Study" in the The Graduate School Bulletin.

## Degree Candidates

Degree candidates must adhere to the graduate timetable as listed in the University Schedule of Courses for the semester in which they intend to graduate. Additionally, degree candidates must schedule and have a public screening of the Master Production by the deadline for complete clearance of candidates for degrees. Failure to meet these Graduate School deadlines will make a candidate ineligible for graduation that semester.

## Music, Theatre and Dance, School of

220 Music Building • (336) 334-5789 •
http://performingarts.uncg.edu

## Graduate Programs

- MTD School of Music, Theatre, and Dance Courses
- Post-Baccalaureate Certificate in BioMusic, 15 hours


## Departments

- DCE Dance Department
- MUE Music Education Department
- MUP Music Performance Department
- MUS Music Studies Department
- THR Theatre Department

In addition to the degrees and courses housed within the five departments of The School of Music, Theatre and Dance (Dance, Music Education, Music Performance, Music Studies, and Theatre), a number of interdisciplinary courses in the performing arts are offered. Please see individual course prerequisites.
In support of the collaborative nature of the performing arts, The School of Music, Theatre and Dance is proud to house the Music Research Institute (MRi). The MRi is an interdisciplinary think tank that focuses on research related to music and music-making, and the implications of that research for the 21st century. The work of the MRi includes expertise from disciplines represented within the School of Music, Theatre and Dance, across UNCG, and from other American and international partners. We collaborate on investigations into a broad range of topics that explore and expand our understanding of the role of musical behaviors in diverse environments. Although we divide our work nominally into six areas (BioMusic, Neuroimaging of Musicians, Musicians Hearing Health, Music Education, Music Performance, and Ethnomusicology-Ecocriticism), we are invigorated by the synergistic connections we discover and by how findings in one area inform another.

The first interdisciplinary performing arts program, the Post Baccalaureate Certificate in BioMuisc is an outgrowth of work accomplished through the MRi.

## BioMusic, PBC

The Post-Baccalaureate Certificate in BioMusic requires 15 semester hours and provides students with interdisciplinary, state-of-the art knowledge, methodologies, and skills needed to effectively participate in BioMusic research and teaching. The coursework will provide innovative, relevant foundational knowledge and experiences that reflect the changing perspective of the

21st century on the role of music and music-making's fundamentals in humans and other species.

## Application and Admission

All certificate students (including current degree-seeking students) must apply through The Graduate School for admittance to this certificate program. Applicants must submit all application materials required by The Graduate School, excluding GRE scores, by the appropriate deadline to be considered for Fall, Spring, or Summer admission.

## Certificate Requirements

Required Course (3 hours)
MTD 667 BioMusic Grounding and Practice
Qualifying Electives (9 hours)
Three semester hours must be taken outside of MTD, MUE, and MUS.

| MTD 638 | Exploring Musical Cultures | $1-3$ |
| :--- | :--- | ---: |
| MUE 618 | Psychology of Music | 3 |
| MUE 619 | Acoustics of Music | 3 |
| MUE 659 | Philosophy of Music | 3 |
| MUS 631 | Selected Topics in Ethnomusicology | 3 |
| ATY 555 | Human Evolution | 3 |
| ATY 557 | Primate Behavior | 3 |
| BIO 606 | Seminar in Evolutionary Biology | 3 |
| BIO 625/PSY | Advanced Animal Behavior |  |
| 625 |  | 3 |
| CSD 630 | Fundamentals for Speech and Language | 3 |
| CSD 632 | Analysis | 3 |
| CST 502 | Communication Sciences and Disorders | 3 |
| CST 601 | The Semiotics of Everyday Life | 3 |
| CST 602 | Engaging Communication Theories | 3 |
| CST 632 | Methodology | 3 |
| PSY 625/BIO | Advanced Animal Behavior in Communication Ethics | 3 |
| 625 |  | 3 |
| PSY 643 | Developmental Psychology | 3 |
| PYS 652 | Cognitive Processes | 3 |
| PSY 735 | Contemporary Problems | 3 |
| SOC 616 | Advanced Research Methods | 3 |
| SOC 619 | Practicum in Evaluative Research | 3 |


| MLS 610 | Culture and Ideas | 3 |
| :--- | :--- | :--- |
| MLS 620 | Human Nature and Society | 3 |
| MLS 630 | Scientific Reasoning | 3 |
| Research/Independent Study (3 hours) |  |  |
| MUS 697 | Directed Study in Music Studies | $1-6$ |

## Music Education, Department of

220 Music Building • (336) 334-5789 •
http://performingarts.uncg.edu/about/departments

## Graduate Programs

- Post-Baccalaureate Certificate in Music Education, 12 hours
- Master of Music (MM) in Music Education, 34 hours
- Doctor of Philosophy (PhD) in Music Education, 69 hours


## Graduate Faculty

## Professors

Donald A. Hodges, PhD, Covington Distinguished Professor (Director, Music Research Institute).
John J. Deal, PhD, Music education.

## Clinical Professor

Patricia M. Gray, DMA, Senior Research Scientist of BioMusic.

## Associate Professors

Rebecca MacLeod, PhD, Music education. Constance McKoy, PhD, Music education.
David B. Nolker, PhD, Music education.
Patricia Sink, PhD, Music education (Director of Graduate Studies, Music Education).

David Teachout, PhD, Music education (Head, Music Education).
Jennifer L. Stewart Walter, PhD, Music education.
UNCG has long been recognized as one of the top music institutions in the United States and has been fully accredited by the National Association of Schools of Music since 1938. The Department of Music Education is comprehensive and degrees are offered from the undergraduate level through a PhD.
The Master of Music in Music Education leads to graduate licensure and emphasizes the acquisition of a fundamental knowledge of research techniques and scholarly writing standards. Students develop an in-depth understanding of the historical, philosophical, psychological and cultural aspects of music education including elective concentrations involving elementary/general, secondary choral/general, choral literature/conducting, string instrument pedagogy, and winds and percussion.
The Doctor of Philosophy in Music Education prepares students for careers as public school music administrators or college-level teachers. Such development requires a comprehensive knowledge of the psychological, social and
musical values in music education; theories of learning as applied to music education; historical and theoretical properties of music education; and scholarly and research techniques required for understanding and investigating problems in music and education.

## Music Education, PBC

Any person with an undergraduate degree in music may apply for a Post-Baccalaureate Certificate in Music Education (12 hours). The purpose is to provide postbaccalaureate students and/or professionals with knowledge and skills needed to apply principles of music education to a variety of music careers.

## Application and Admission

Students admitted to the MM, or DMA degree programs, excluding Music Education, may elect this program in their formal plan of study. All certificate students (including current degree-seeking students) must apply through The Graduate School for admittance to this certificate program. Applicants must submit all application materials required by The Graduate School, excluding GRE scores, by the appropriate deadline to be considered for Fall, Spring, or Summer admission.

## Certificate Requirements

Required Courses ( 6 credits) - Research and Assessment in Music:

MUE 601 Research Methods in Music 3
MUE 605 The Measurement of Musical Behavior
Foundations of Music Teaching and Learning
One course from the following ( 3 credits)
MUE $618 \quad$ Psychology of Music
MUE 634 Contemporary Trends in Music Education

MUE 650 Seminar in Music Education 3
MUE 653 Music Supervision 3
MUE $659 \quad$ Philosophy of Music 3
Music Education Methods and Approaches
One course from the following ( 3 credits)
MUE 627 Issues in Multicultural Music Education 3
$\begin{array}{lll}\text { MUE } 632 & \text { Methods and Materials of Music } \\ & \text { Reading Instruction }\end{array}$
MUE 633 Music for Exceptional Children 3
MUE 645 Teaching Elementary Music: Theory and Practice

## Methods for the Adolescent

MUE 657
Advanced Instrumental Methods
To acquire the Post-Baccalaureate Certificate in Music Education, all students must complete the course work, as specified, with a grade of B or better to demonstrate that they have sufficient depth and breadth of music education.

## Music Education, MM

The MM in Music Education requires 34 semester hours. At least one half the work credited toward the degree must be in 600-level courses or above. A diagnostic examination is administered prior to the first semester of enrollment. During the final semester of the master's program, music education students must complete a portfolio that demonstrates advanced competencies.

## Application and Admission

Applicants must submit all application materials required by The Graduate School, excluding GRE and PRAXIS scores, by the appropriate deadline for Fall, Spring, or Summer admission. GRE and PRAXIS scores are not required; however, the GRE is required for applicants who wish to be considered for university-wide competitive fellowships and scholarships.

## Degree Requirements

Core (6 hours)

## MUE 601 <br> Research Methods in Music

One of the following

| MUS 606 | Seminar in Music History |
| :--- | :--- |
| MUS 611 | Seminar in Musical Analysis |
| MUS 660 | Theory and Analysis of Rhythm |
| MUS 662 | Schenkerian Analysis |
| MUS 674 | Masterpieces of Musical Styles |
| Professional (17 hours) |  |
| MUE 639 | Advanced Conducting |
| MUE 650 | Seminar in Music Education |
| MUP 653 | Performance Studies |
| 9 hours from |  |
| MUE 605 | The Measurement of Musical Behavior |
| MUE 633 | Music for Exceptional Children |
| MUE 634 | Contemporary Trends in Music |

Education
or
MUE 653 Music Supervision
Music Electives (9 hours)
A minimum of two 3-hour courses is required.
Portfolio (2 hours) (Capstone Experience)
MUE 692a Portfolio Development in Music Education

MUE 692b Portfolio Development in Music Education

## Elective Concentrations

In addition to the requirements listed above, students may elect to pursue one of five concentrations as they complete the degree requirements, without taking additional course work beyond 34 hours. The concentrations are listed below.
Elementary/General Concentration
MUE 633 Music for Exceptional Children 3
MUE $634 \quad$ Contemporary Trends in Music
MUE $645 \quad$ Teaching Elementary Music: Theory and Practice

MUE 678 Orff in the Music Classroom 3
MUE 605 The Measurement of Musical Behavior
or
MUE 653 Music Supervision 3
Choral Literature/Conducting Concentration
MUP 628 Principles of Vocal Pedagogy
MUP 653 Performance Studies (Conducting or Voice) (3)
2 hours from the following
MUP $679 \quad$ Men's Glee Club 1
MUP 680 Schola Cantorum 1
MUP $681 \quad$ Women's Glee Club 1
MUP $682 \quad$ University Chorale 1
or
MUP $688 \quad$ Chamber Singers
Strings Pedagogy Concentration
MUE 657 Advanced Instrumental Methods
MUP 653 Performance Studies (Primary String Instrument)
(2)

An additional MUP 653 Performance Studies is required
(3)


## Music Education, PhD

The PhD in Music Education requires 69 semester hours. At least $75 \%$ of all course work, exclusive of the dissertation, must be at the 600 or 700 level. A diagnostic examination is administered prior to the first semester of enrollment. A minor, or minors, in any area approved by the student's advisory/dissertation committee and The Graduate School may be elected as specified in The Graduate School Bulletin.

## Application and Admission

In addition to the application materials required by The Graduate School, applicants must submit a writing sample. Some applicants may need to submit a resume/vita and/or participate in an interview or audition. Contact the Music office for more information. The GRE is not required; however, the GRE is required for applicants who wish to be considered for university-wide competitive fellowships and scholarships.

## Degree Requirements

## Music Education (18 hours)

## Select from

| MUE 605 | The Measurement of Musical Behavior | 3 |
| :--- | :--- | :--- |
| MUE 618 | Psychology of Music | 3 |
| MUE 619 | Acoustics of Music | 3 |
| MUE 633 | Music for Exceptional Children | 3 |
| MUE 634 | Contemporary Trends in Music <br> Education | 3 |

## Music Performance, Department of

220 Music Building • (336) 334-5789 •
http://performingarts.uncg.edu/about/departments

## Graduate Programs

- Post-Baccalaureate Certificate in Jazz Studies, 12 hours
- Post-Baccalaureate Certificate in Composition, 12 hours
- Master of Music (MM) in Music Composition, 33 hours
- Master of Music (MM) in Music Performance, 32-35 hours
Collaborative Piano (33), Conducting (Choral) (32), Conducting (Instrumental) (32), Early Keyboard Instruments (32), Organ (34), Piano (32), Piano Pedagogy (32), Strings (32), Brass (32), Woodwinds (32), Percussion (32), Vocal Pedagogy (35), Voice (32), or Multiple Woodwinds (32)
- Doctor of Musical Arts (DMA) in Performance, 90 postbaccalaureate hours
- Doctoral Minor in Early Keyboard Instruments, 12 hours


## Graduate Faculty

## Professors

Dennis AsKew, DMA, Tuba and Euphonium (Interim Head, Music Performance).
Mary A. Barret, DMA, Oboe and English horn (Associate Head, Music Performance).
Robert Bracey, DMA, Voice.
Kelly Burke, DMA, Clarinet (Interim Associate Dean, School of Music, Theatre and Dance, Professor of Clarinet).
Michael J. Burns, DMA, Bassoon.
Joseph DiPiazza, DMA, Piano.
Donald Hartmann, DMA, Voice.
David Holley, MM, Voice (Director of Opera).
Randy Kohlenberg, PhD, Trombone.
John Locke, EdD, Instrumental conducting (Director of Bands).
John Salmon, DMA, Piano, jazz.
Paul Stewart, DM, Piano.
Andrew S. Willis, DMA, Piano, fortepiano, harpsichord.

## Associate Professors

Marjorie Bagley, MM, Violin.
James Douglass, DMA, Collaborative Piano, vocal coach.
Chad Eby, MM, Jazz studies.
Deborah Egekvist, DM, Flute.
Mark Engebretson, DMA, Composition, electronic music.
Alexander Ezerman, DMA, Cello.
Kevin M. Geraldi, DMA, Instrumental conducting (Director of Orchestras).
Steve Haines, MM, Jazz studies (Director, Miles Davis Program in Jazz).

Carla LeFevre, DMA, Voice.
Fabian Lopez, DMA, Violin.
Clara O'Brien, MM, Voice.
Abigail Pack, DMA, Horn.
Scott Rawls, DMA, Viola.
Alejandro H. Rutty, PhD, Composition.
Steven Stusek, DM, Saxophone.
Anthony Taylor, DMA, Clarinet.
Nancy Walker, DM, Voice.
Robert A. Wells, DMA, Voice, vocal pedagogy (Interim Director of Graduate Studies, Music Performance).

Welborn E. Young, DMA, Choral conducting (Director of Choral Activities).

## Assistant Professors

Kristopher Keeton, DMA, Percussion.
Carole Ott, DMA, Choral conducting (Associate Director of Choral Activities).

## Lecturers

Craig Brown, MM, Bass.
André Lash, DMA, Organ.
Thomas Taylor, MM, Jazz.
Levone Tobin Scott, MM, Voice.

## Adjunct

Greg Hyslop, BM, Jazz guitar.
Jacquelyn Bartlett, Harp.

UNCG has long been recognized as one of the top music institutions in the United States and has been fully accredited by the National Association of Schools of Music since 1938. The Department of Music Performance (including composition and jazz) offers the only comprehensive music program from undergraduate through doctoral study in the State of North Carolina. UNCG also offers degrees in music education and music studies. Our outstanding facilities, world-class faculty, and numerous ensemble experiences provide an environment for artistic and educational success.

Our MM programs offer conservatory-type performance training and complement this with academic offerings directly related to careers in performance. These students graduate with performance and entrepreneurial skills enabling entry into the profession or further studies. Our DMA students are fully prepared as artist/scholars ready to join the academy. A large faculty of outstanding artists, teachers, and researchers supports a comprehensive program of study.

Located in the artistically thriving Greensboro/WinstonSalem/High Point area, the Triad provides a wealth of cultural opportunities for our students. Students regularly attend and perform in concerts by the Greensboro Symphony Orchestra, the Greensboro Opera Company, the Winston-Salem Symphony and the Eastern Music Festival, along with a myriad of musical theatre, jazz, and chamber music ensembles.

## Composition, PBC

The Post-Baccalaureate Certificate in Composition provides students with knowledge and skills needed to pursue music composition within a variety of musical careers.

## Application and Admission

An earned Bachelor's degree in Music; in exceptional cases, a student with an undergraduate degree outside of music may be considered. All certificate students (including current degree-seeking students) must apply through The Graduate School for admittance to this certificate program. For current degree-seeking students, at least one letter of recommendation must be from a Composition faculty member at UNCG. Students who apply directly for the certificate program must submit all application materials required by The Graduate School, excluding GRE scores, by the appropriate deadline to be considered for Fall, Spring, or Summer admission. The application will also contain a portfolio of scores and recordings of original compositions (normally consisting of 3-5 works).

## Certificate Requirements

Required Courses

12 Credits (must be taken at UNCG, at least 6 at the 600 level; the coordinator of the Composition area will advise the certificate student in course selection, generally chosen from the following):
MUP 600 Recital (0-1)
MUP 611 Composition Workshop (3)
MUP 623 Jazz Arranging I (2)
MUP 624 Jazz Arranging II (2)
MUP 644 Electronic Music Composition I (3)
MUP 645 Electronic Music Compostion II (3)
MUP 653 Applied Instruction in Composition (1-2) may be repeated

MUP 655 Orchestration (3)
MUP 676 Period Music Ensembles (1) may be repeated once for credit

## Exit Requirements

Each certificate student must present a 30-minute recital of his or her original compositions. Degree-seeking students must include a member of the composition faculty on their doctoral advisory committee or master's comprehensive exam committee. Testing conditions will follow those outlined in the Handbook for Graduate Study in Music for the student's degree program. Students will be afforded two opportunities to pass the recital requirement.

## Student Information Manual

Additional policies and regulations are found in the Graduate Music Handbook located at:
http://performingarts.uncg.edu/resources/students.

## Jazz Studies, PBC

The Post-Baccalaureate Certificate in Jazz Studies provides students and/or professionals with knowledge and skills needed to apply principles of jazz to a variety of musical careers.

## Application and Admission

An earned Bachelor's degree in Music; in exceptional cases, a student with an undergraduate degree outside of music may be considered. All certificate students (including current degree-seeking students) must apply through The Graduate School for admittance to this certificate program. For current degree-seeking students, at least one letter of recommendation must be from a Jazz faculty member at UNCG. Students who apply directly for the certificate program must submit all application materials required by The Graduate School, excluding GRE scores, by the appropriate deadline to be considered for Fall, Spring, or Summer admission.

## Certificate Requirements

## Required Courses

12 Credits (must be taken at UNCG, at least 6 at the 600level; the coordinator of the Miles Davis Program in Jazz will advise the certificate student in course selection) from the following:

| MUP 605 | Principles of Jazz Theory |
| :--- | :--- |
| MUP 609 | Jazz Pedagogy |
| MUP 623 | Jazz Arranging I |
| MUP 624 | Jazz Arranging II |
| MUP 653 | Performance Studies |
| MUP 663 | History of Jazz |
| MUP 664 | Jazz Improvisation I |
| MUP 665 | Advanced Jazz Improvisation |

MUP 653: may be repeated for 3 additional credits
Although not required, students are encouraged to audition for one of the jazz ensembles or jazz combos.

## Exit Requirements

Completion of all course work with a grade of B or better is required. Degree-seeking students must include a member of the jazz faculty on their doctoral advisory committee or master's comprehensive exam committee. Testing conditions will follow those outlined in the Handbook for Graduate Study in Music for the student's degree program.

## Student Information Manual

Additional policies and regulations are found in the Graduate Music Handbook located at: http://performingarts.uncg.edu/resources/students.

## Music Composition, MM

The MM in Composition is a two-year degree, which requires 33 semester hours. At least one half the work credited toward the degree must be in 600-level courses or above. A diagnostic examination is administered prior to the first semester of enrollment. In addition to private composition study, students take courses in orchestration, electronic music, counterpoint, advanced theory and history, and electives.
Assistantships are available, as are a limited number of instate and out-of-state tuition waivers. Graduate Assistants in Composition are routinely assigned to teach Composition Skills or Making Music with Computers, assist in activities of the Composition Studios, help maintain and organize the Electronic Music Studios, give tech support for public events, and teach or assist with Music Theory.

## Application and Admission

In addition to the application materials required by The Graduate School, applicants must submit a personal statement. Samples of work are required and should be forwarded directly to the Music office. Some applicants may need to submit a resume/vita and/or participate in an interview or audition. Contact the Music office for more information.

## Degree Requirements

Enrollment in MUP 651 or MUP 699 is required during the semester of the degree recital. A written Comprehensive Exam is required for graduation. A thesis is required and at least one recital is required. (Capstone Experience).

Courses in the Major (18 hours)
MUP 651 (9 hours)
(One semester of MUP 611 may be substituted for one semester of MUP 651).

MUP 644 Electronic Music Composition I or MUP 645 Electronic Music Composition II (3)

MUP 655 Orchestration (3)
MUP 600 Recital (0)
Enrollment in at least 2 semesters of MUP 651 is required before the semester of the degree recital.

MUP 699 Thesis (3)
Courses in Support of the Major (12 hours)
MUS 508 Tonal Counterpoint (3)
Musicology and Ethnomusicology (3-6) (must include one course focusing on music of the past 100 years)

Music Theory (3-6)

## Electives (3 hours)

Upon approval of the Composition Faculty and the Director of Graduate Studies in Music Performance, a course in digital media (e.g., film, video) offered in other departments such as Art or Media Studies may be used as an elective.

## Student Information Manual

Additional policies and regulations are found in the Graduate Music Handbook located at: http://performingarts.uncg.edu/resources/students.

## Music Performance, MM

The MM in Music Performance requires 32 semester hours for all concentrations except collaborative piano and composition, which require 33 semester hours; organ, which requires 34 semester hours; and vocal pedagogy, which requires 35 semester hours. At least one half the work credited toward the degree must be in the 600-level courses or above. A diagnostic examination is administered prior to the first semester of enrollment.

Assistantships are available, as are a limited number of instate and/or out-of state tuition waivers. Graduate Assistants in Performance are routinely assigned to teach performance studies, perform in ensembles, teach required classes depending on experience, and assist with other support duties in the School.

## Application and Admission

Applicants must submit all application materials required by The Graduate School by the appropriate deadline to be considered for Fall, Spring, or Summer admission. In addition, all students must present a performance audition and/or interview (see Auditions). The GRE is not required.

## Auditions

Performance auditions/interviews are required for acceptance as a music major and for approval of the area of study. MM Auditions should be arranged in advance through the graduate music office, and are to be scheduled on regularly scheduled audition dates. Visit: http://performingarts.uncg.edu/prospective/apply for detailed audition requirements.

## Student Information Manual

Additional policies and regulations are found in the Graduate Music Handbook located at: http://performingarts.uncg.edu/current/g-music.

## Degree Requirements

For all concentrations in the MM in Performance, enrollment in two semesters of MUP 651 is required before the degree recital may be scheduled. Enrollment in MUP 651 is required during the semester of the degree recital. A written Comprehensive Exam is required for graduation. At least one recital is required for all concentrations. (Capstone Experience)
Additional degree requirements are listed by Concentration.

## Ensemble Requirements

Masters students who are registered for 2 or more credits of music performance studies must audition for and perform in an ensemble each semester, as required by concentration. Students will have the opportunity to express their ensemble placement preferences, but they
will be assigned according to audition results and ensemble priorities. Ensemble assignments and placement will be determined by the Director of Bands, Director of Orchestras, Director of Choral Programs and the Director of the Miles Davis Jazz Program in the consultation with the performance teachers and appropriate Area Coordinator.

## Collaborative Piano (33 hours)

Nine hours of language are required for collaborative piano majors, one semester each of French, German, and Italian. Also required is the equivalent of MUP 170 Diction for Singers. Language and diction hours must be credited satisfactorily on a college transcript. If not, this requirement may be resolved with appropriate enrollment while working on the current degree; however, these hours will not count toward the degree.

Courses in the Major (21 hours)
MUP 651 Performance Studies (12)
MUP 653 Performance Studies (harpsichord or fortepiano) (1)

MUP 684 Performane of Art Song Repertoire
(four semesters (4)
MUP 648 Chamber Music (four semesters) (4)
MUP 600 Recital (0)
MUP 600: two accompanying recitals are required
Recital repertoire should include representative selections from vocal, string, and wind literature. At least one work may be played on either the harpsichord or fortepiano.

Courses in Support of the Major (12 hours)
MUE 601 Research Methods in Music or

MUS 602 Seminar in Music Research and Writing
One of the following
MUS 606 Seminar in Music History 3
MUS 611 Seminar in Musical Analysis 3
MUS 660 Theory and Analysis of Rhythm 3
MUS 662 Schenkerian Analysis 3
Two of the following

| MUS 665 | History of Opera | 3 |
| :--- | :--- | :--- |
| MUP 626 | Song Literature I | 3 |
|  | or | 3 |
| MUP 627 | Song Literature II | 3 |
| MUP 620 | Seminar in Piano | 3 |

MUP 637
String and Keyboard Chamber Literature
Directed Study in Music Performance

## Conducting (Choral) (32 hours)

One semester of undergraduate conducting, two semesters of undergraduate diction including study of German and/or French diction, at least two semesters of undergraduate vocal study, and a history of participation in collegiate choral ensembles during the undergraduate degree must be satisfactorily credited on a college transcript. Deficiency in conducting study, voice study, and diction hours may be resolved with appropriate enrollment while working on the current degree; however, these hours will not count toward the degree.
Courses in the Major (17 hours)
Performance Studies (8 hours)
MUP 651 Performance Studies 1-6

Ensemble (4 hours) by audition placement

| MUP 679 | Men's Glee Club |
| :--- | :--- |
| MUP 680 | Schola Cantorum |
| MUP 681 | Women's Glee Club |
| MUP 682 | University Chorale |
| MUP 688 | Chamber Singers |
| Pedagogy (3 hours) |  |
| MUP 628 | Principles of Vocal Pedagogy |

Secondary Keyboard or Vocal Performance Study (2 hours)
MUP 653 Performance Studies 1-2
Recital (NC)
MUP 600 Recital
Courses in Support of the Major (12 hours)
MUE 601 Research Methods in Music or
MUS 602 Seminar in Music Research and Writing MUP 622 Seminar in Choral Literature (6) (may be repeated when topic varies)

One of the following:

| MUS 611 | Seminar in Musical Analysis |
| :--- | :--- |
| MUS 662 | Schenkerian Analysis |
| MUS 664 | Post-Tonal Theory |

Electives (3 hours)

Conducting (Instrumental) (32 hours)
Courses in the Major ( 15 hours)
Performance Studies (12 hours)
MUP 651 Performance Studies 1-6
Ensemble (placement by audition) (2 hours)
Recital (1 hour)
MUP 600 Recital 0-1

Courses in Support of the Major (12 hours)
MUE 601 Research Methods in Music
or
MUS 602 Seminar in Music Research and Writing or

MUP 683 Instrumental Literature and Performance Practice
(MUE 601 or MUS 602 are recommended)
Any graduate music courses not in the major [non performance, non ensemble] (9) Electives (5 hours)

## Early Keyboard Instruments (32 hours)

MUP 302 or 303 Keyboard Harmony or proficiency required (no graduate credit)

Courses in the Major (16 hours)
Performance (harpsichord or fortepiano) (12 hours)
MUP 651 Performance Studies 1-6

Secondary Performance Studies (2 hours)
(second keyboard instrument - organ, fortepiano, harpsichord, clavichord)
MUP 653 Performance Studies 1-2

Ensemble (2 hours)
MUP 648 Chamber Music with Harpsichord or Fortepiano
Recital (0)
MUP 600 Recital 0-1

| Courses in Support of the Major (12 hours) |  |  |
| :--- | :--- | :--- |
| MUE 601 | Research Methods in Music | 3 |
|  | or |  |
| MUS 602 | Seminar in Music Research and Writing | 3 |
| MUP 613 | Piano Literature I | 3 |

One of the following

| MUS 508 | Tonal Counterpoint | 3 |
| :--- | :--- | :--- |
| MUS 611 | Seminar in Musical Analysis | 3 |
| MUS 662 | Schenkerian Analysis | 3 |
| One of the following |  |  |
| MUS 530 | Music from 1600 to 1800 | 3 |
| MUS 606 | Seminar in Music History | 3 |
| Music Electives | $(4$ hours) |  |

## Organ (34 hours)

Courses in the Major (17 hours)
Performance (12 hours)

| MUP $651 \quad$ Performance Studies | $1-6$ |
| :--- | ---: |
| Pedagogy (3 hours) |  |
| MUP $625 \quad$ Organ Pedagogy | 3 |
| Ensemble (2 hours) |  |

Recital (0)
MUP 600 Recital 0-1

Courses in Support of the Major (15 hours) MUS 602 Seminar in Music Research and Writing

Theory (6 hours)

| MUS 508 | Tonal Counterpoint |
| :--- | :--- |
| MUS 510 | Advanced Tonal Analysis |

MUS 508: (If tonal counterpoint is credited on the undergraduate transcript with a grade of B or better from a NASM-accredited school, they may instead take a nonrestricted music elective.)
Area Literature (6 hours)

| MUP 613 | Piano Literature I |
| :--- | :--- |
| MUP 668 | Organ Literature |

Choral Conducting (2 hours)
MUP 629 Choral Laboratory III

## Piano (32 hours)

Courses in the Major (14 hours)
Performance (12 hours)
MUP 651 Performance Studies 1-6
Ensemble (2 hours)
Usually selected from MUP 684 or MUP 648

Recital (0)

| MUP 600 | Recital | $0-1$ |
| :--- | :--- | :--- |
| Courses in Support of the Major (12 hours) |  |  |
| MUE 601 | Research Methods in Music | 3 |
| MUS 602 | or |  |
| One of the following: |  |  |

MUP 613 Piano Literature I 3
MUP 614 Piano Literature II 3

MUP 620 Seminar in Piano 3
One of the following:

| MUS 665 | History of Opera | 3 |
| :--- | :--- | ---: |
| MUS 683 | Music before 1600 | 3 |
| MUS 684 | Music from 1600 to 1800 | $3: 3$ |
| MUS 685 | Music of the Nineteenth Century | $3: 3$ |
| MUS 606 | Seminar in Music History | 3 |

One of the following:

| MUS 508 | Tonal Counterpoint | 3 |
| :--- | :--- | :--- |
| MUS 510 | Advanced Tonal Analysis | 3 |
| MUS 611 | Seminar in Musical Analysis | 3 |
| MUS 644 | Pedagogy of Music Theory | 3 |
| MUS 660 | Theory and Analysis of Rhythm | 3 |
| MUS 662 | Schenkerian Analysis | 3 |
| MUS 664 | Post-Tonal Theory | 3 |
| Music Electives | (6 hours) |  |

## Piano Pedagogy ( 32 hours)

MUP 302 or 303 Keyboard Harmony or proficiency required (no graduate credit).

Courses in the Major (20 hours)
Performance (12 hours)
MUP 651 Performance Studies 1-6
Pedagogy (6 hours)
MUP 612 Piano Pedagogy I
One of the following

| MUP 609 | Jazz Pedagogy | 2 |
| :--- | :--- | :--- |
| MUP 617 | Piano Pedagogy II | 3 |


| MUP 620 | Seminar in Piano |
| :---: | :---: |
| MUE 632 | Methods and Materials of Music Reading Instruction |
| MUE 645 | Teaching Elementary Music: Theory and Practice |
| MUS 644 | Pedagogy of Music Theory |
| Lecture/Demonstration and Paper (2 hours) |  |
| MUP 610 | Lecture-Demonstration |
| Courses in Support of the Major (12 hours) |  |
| MUE 601 | Research Methods in Music |
|  | or |
| MUS 602 | Seminar in Music Research and Writing |
| MUP 613 | Piano Literature I |
| MUP 614 | Piano Literature II |
|  | Any graduate music course not in the major (non-performance, nonensemble) |

## String, Wind, Percussion (32 hours)

Courses in the Major (17 hours)
Performance (12 hours)
MUP $651 \quad$ Performance Studies
Ensemble (by audition placement) (4 hours)
Recital (1)
MUP $600 \quad$ Recital

MUP 600: Students may perform one additional recital to fulfill elective hours

Courses in Support of the Major (12 hours)

| MUE 601 | Research Methods in Music | 3 |
| :--- | :--- | :--- |
| MUS 602 | or |  |
|  | Seminar in Music Research and Writing | 3 |
| MUP 683 | or | Instrumental Literature and <br> Performance Practice |

(MUE 601 or MUS 602 are recommended)
Any graduate music courses not in the major [non performance, non ensemble] (9)

Electives (3 hours)

| MUS 611 | Seminar in Musical Analysis | 3 |
| :---: | :---: | :---: |
| MUS 644 | Pedagogy of Music Theory | 3 |
| MUS 660 | Theory and Analysis of Rhythm | 3 |
| MUS 662 | Schenkerian Analysis | 3 |
| MUS 664 | Post-Tonal Theory | 3 |
| One of the following |  |  |
| a 600-level music history course |  |  |
| a 600 level music literature course |  |  |
| Music Electives (4 hours) |  |  |
| Voice (32 hours) |  |  |
| Twelve (12) hours of language are required for voice majors-one semester each of French, German, and Italian plus a second semester of one of these three languages. Also required is the equivalent of MUP 170 Italian and Latin Diction for Singers. Language and diction hours must be satisfactorily credited on a college transcript. If not, this requirement may be resolved with appropriate enrollment while working on the current degree; however, these hours will not count toward the degree. Students with native fluency in one of the required languages may petition the Coordinator of Vocal Studies to satisfy this requirement as appropriate. |  |  |
| Courses in the Major (16 hours) |  |  |
| Performance (11 hours) |  |  |
| MUP 651 Performance Studies (8) <br> MUP 640 Vocal Coaching (1) <br> MUP 675 Opera Performance Techniques (2) |  |  |
| Pedagogy (3 hours) |  |  |
| MUP 628 | Principles of Vocal Pedagogy | 3 |
| Ensemble (by audition placement) (2 hours) |  |  |
| MUP 679 | Men's Glee Club | 1 |
| MUP 680 | Schola Cantorum | 1 |
| MUP 681 | Women's Glee Club | 1 |
| MUP 682 | University Chorale | 1 |
| MUP 688 | Chamber Singers | 1 |
| Recital (NC) |  |  |
| MUP 600 | Recital | 0-1 |
| Courses in Support of the Major (12 hours) |  |  |
| MUE 601 | Research Methods in Music | 3 |
|  |  |  |


| MUS 602 | Seminar in Music Research and Writing | 3 |
| :---: | :---: | :---: |
| MUP 626 | Song Literature I | 3 |
|  | or |  |
| MUP 627 | Song Literature II | 3 |
| Music theory course (3 hours) |  |  |
| eg. |  |  |
| MUS 508 | Tonal Counterpoint | 3 |
| MUS 510 | Advanced Tonal Analysis | 3 |
| MUS 611 | Seminar in Musical Analysis | 3 |
| MUS 644 | Pedagogy of Music Theory | 3 |
| MUS 660 | Theory and Analysis of Rhythm | 3 |
| MUS 664 | Post-Tonal Theory | 3 |
| MUP 663 | History of Jazz | 3 |
| One of the following |  |  |
| 600-level music history course, or 600-level music literature course |  |  |
| Music Electiv | (4 hours) |  |

# Multiple Woodwinds (three instrument track) (32 hours) 

Courses in the Major (20 hours)
Performance (15 hours)
MUP 651 Performance Studies (6-9 hours credit, principal instrument)
MUP 653 Performance Studies (4 hour credit, secondary instrument)
MUP 653 Performance Studies (2-5 hours credit, 3rd instrument)
[Proficiency must be shown in secondary instruments at the undergraduate concentration upper-division examination level (MUP 351 proficiency minimum)]

Ensemble (by audition placement) (4 hours)
Recital (1)

MUP 600 Recital 0-1
(must include at least two instruments)
Courses in Support of the Major (12 hours)
MUP 683 Instrumental Literature and Performance Practice

3

MUE 601

MUS 602 Seminar in Music Research and Writing
(MUE 601 or MUS 602 are recommended)
Any graduate music courses not in the major [non performance, non ensemble] (9)

## Performance, DMA

The DMA in Performance is offered in the following concentrations: Collaborative Piano, Choral Conducting, Instrumental Conducting, Piano, Organ, Strings, Winds, Brass, Percussion, and Voice. A doctoral minor in Early Keyboard is also available.

## Student Information Manual

Additional policies and regulations are found in the Graduate Music Handbook located at: http://performingarts.uncg.edu/current/g-music.

## Application and Admission

In addition to the application materials required by The Graduate School, DMA applicants must submit a repertory list, resume, and scholarly writing sample (if required) with the pre-screening CD/DVD. The GRE is not required; however, the GRE is necessary for applicants who are nominated for university-wide competitive fellowships and scholarships. Students who begin study at the master's level at UNCG must successfully fulfill all requirements for the master's degree and successfully present a doctoral audition/interview to be admitted into the doctoral program.

## Degree Requirements

The DMA in Performance requires a minimum of 90 semester hours of post-baccalaureate course work. Up to 30 hours earned in a master's program from an accredited graduate school may be applied to the elective portion of this degree. These credits may count toward the required cognate or help to satisfy competencies with the approval of the Doctoral Advisory Committee in accordance with the academic regulations of The Graduate School. These credits may not be used to satisfy any non-elective requirements.
The plan of study is developed individually in consultation with the student's advisory committee. At least $75 \%$ of all course work ( 36 credits), exclusive of the dissertation, must be at the 600 or 700 level. A diagnostic examination is administered prior to the first semester of enrollment.

The following 60 hours must be completed at UNCG (the Graduate School transfer credit policy applies):

Performance Studies (18 hours minimum)
Students registered for more than one credit of MUS 751 must simultaneously enroll for at least three credits of non-performance or -ensemble music course work.
Reading/Writing/Speaking Intensive Courses (9 hours minimum)

One musicology/ethnomusicology course
MUS 606 Seminar in Music History 3

One music theory course

| MUS 611 | Seminar in Musical Analysis | 3 |
| :--- | :--- | :--- |
| MUS 660 | Theory and Analysis of Rhythm | 3 |
| MUS 662 | Schenkerian Analysis | 3 |
| MUS 664 | Post-Tonal Theory | 3 |

One other course chosen from the above listed courses OR the following:
MUE 605 The Measurement of Musical Behavior 3
MUE $618 \quad$ Psychology of Music 3
MUE 627 Issues in Multicultural Music Education 3
MUE 633 Music for Exceptional Children 3
$\begin{array}{ll}\text { MUE } 634 & \text { Contemporary Trends in Music } \\ & \text { Education }\end{array}$
$\begin{array}{ll}\text { MUE } 645 & \text { Teaching Elementary Music: Theory and } \\ & \text { Practice }\end{array}$
$\begin{array}{ll}\text { MUE } 646 & \begin{array}{l}\text { Music Experiences: Birth through } \\ \text { Kindergarten }\end{array}\end{array}$
MUE 650 Seminar in Music Education 3
MUE 653 Music Supervision 3
$\begin{array}{lll}\text { MUE } 658 & \text { Topics in Music Technology for } & \\ & \text { Educators }\end{array}$
MUE $659 \quad$ Philosophy of Music 3
MUE 678 Orff in the Music Classroom 3
MUE $740 \quad$ Music Education in Society 3
MUE 750 Doctoral Seminar 3
MUP 749 College Teaching: The Tenure Track 3
Electives (21 hours minimum)
Required Competencies
Satisfactory completion of competencies is determined by the Doctoral Advisory Committee.

Area Literature
Area Pedagogy

Language (if required by area, See Music Graduate Handbook for details)

Research (Students who have not earned a B or higher in a bibliography/research course at the master's level from a NASM accredited school must take MUE 601 or MUS 602.)

## Required Cognates

All students are required to develop a cognate that comprises 12 credit hours from any one area of study. These credits may come from the master's degree, the required doctoral courses, or any other courses taken at UNCG as electives. If a student applies for and completes one of our PBCs, PMCs, or doctoral minors, this fulfills the cognate requirement. For more information on our certificate programs, please see the appropriate section in the Graduate Bulletin. Satisfactory completion of cognates is determined by the Doctoral Advisory Committee.
Dissertation (12 hours minimum)
MUP 799 Dissertation 1-12
The dissertation for the Doctoral of Musical Arts degree comprises 3 major sections: 1) a performance section; 2) a written section; and 3 ) an oral defense.

1. Performance. Three recitals are required for all DMA students to fulfill the performance portion of the DMA Dissertation.
2. Doctoral Document. The written portion of the dissertation is a document that represents original scholarship, is carried out at the highest level of scholarship, and is relevant to the particular major field's repertory, pedagogy, history, or practice. (see the Guide for the Preparation of Theses and Dissertations).
3. Defense of the Document: The doctoral candidate who has successfully completed all other requirements for the degree must defend the dissertation orally (Final Oral Examination). See the Graduate Music Handbook for Defense options.
Required Examinations
Diagnostic, Continuation Jury, Preliminary (written and oral), Final Oral (Dissertation Defense)

Student Information Manual
Additional policies and regulations are found in the Graduate Music Handbook located at: http://performingarts.uncg.edu/current/g-music

## Early Keyboard Instruments Minor

Within the DMA in Performance, students may elect to fulfill the requirements for a $\mathbf{1 2}$-hour minor in early keyboard instruments.

The following courses are required:

MUP 613 Piano Literature I
MUP 620 Seminar in Piano
MUS 553 Secondary Performance Studies (6)
MUP 620: Topic must be relevant to early keyboard studies, such as the following: The 18th-Century Piano, The Mozart Piano Concertos, Haydn's Keyboard Music, The Pianist's Bach, Performance Practice on Historical Keyboard Instruments, Beethoven's Late Piano Music.
MUS 553: (in harpsichord and/or fortepiano). Registration may be for one or two hours per semester.

## Music Studies, Department of

220 Music Building • (336) 334-5789 •
http://performingarts.uncg.edu/about/departments

## Graduate Programs

- Post-Baccalaureate Certificate in Ethnomusicology, 15 hours
- Post-Baccalaureate Certificate in Musicology (Historical), 13 hours
- Post-Baccalaureate Certificate in Music Theory, 12 hours
- Master of Music (MM) in Music Theory, 34 hours
- Post-Master's Certificate in Music Theory Pedagogy, 14 hours


## Graduate Faculty

Professors
David L. Nelson, PhD, Music theory.

## Associate Professors

Aaron Allen, PhD, Musicology.
Guy Capuzzo, PhD, Music theory.
J. Revell Carr, PhD, Ethnomusicology.

Gregory Carroll, PhD, Music theory, composition, music appreciation.
Gavin D. Douglas, PhD, Ethnomusicology (Head, Music Studies).

Elizabeth L. Keathley, PhD, Music history. Irna Priore, PhD, Music theory.

Adam Ricci, PhD, Music theory (Director of Graduate Studies, Music Studies).
Kailan R. Rubinoff, PhD, Musicology.
Joan Titus, PhD, Musicology.
UNCG has long been recognized as one of the top music institutions in the United States and has been fully accredited by the National Association of Schools of Music since 1938. The Department of Music Studies offers the Bachelor of Arts degree in Music, the Master of Music in Music Theory, as well as post-baccalaureate and postmasters certificate programs in music theory, historical musicology, and ethnomusicology. UNCG also offers degrees in music education and performance (including composition and conducting). Our outstanding facilities, world-class faculty, and numerous ensemble experiences provide an environment for artistic and academic success.

Our MM program offers students an opportunity to deepen and refine their knowledge of music theory, and to continue developing their analytical, keyboard, and
aural skills. Most MM students gain valuable teaching experience as graduate assistants. Students who complete this course of study are qualified to teach pre-college or community college courses, or to apply for admission to a doctoral program.

## Ethnomusicology, PBC

The Post-Baccalaureate Certificate in Ethnomusicology requires 15 hours and provides students with global breadth and awareness of multiple music traditions, as well as theoretical principles and practical applications of ethnomusicology.

## Application and Admission

All certificate students (including current degree-seeking students) must apply through The Graduate School for admittance to this certificate program. Applicants must submit all application materials required by The Graduate School, excluding GRE scores, by the appropriate deadline to be considered for Fall, Spring, or Summer admission. In addition to the application materials required by The Graduate School, applicants must:

- submit a writing sample showing significant engagement with music and culture.
- provide a statement of intent outlining their background in ethnomusicology and their particular goals and interests.
- interview with participating faculty.


## Certificate Requirements

Options will be decided in consultation with the student's advisor.

## Required Courses

MUP 677 World Music Ensembles (2) (two semesters) MUS 606 Seminar in Music History: Theory and Methods in Ethnomusicology (offered once every two years) MUP 689 Practicum in Teaching Music Theory and Musicology
Two of the following courses:

| MUE 627 | Issues in Multicultural Music Education | 3 |
| :--- | :--- | :--- |
| MUS 606 | Seminar in Music History | 3 |
| MUS 631 | Selected Topics in Ethnomusicology | 3 |

One 500/600-level Social Science/Humanities elective:

| ATY 583 | Culture and Society | 3 |
| :--- | :--- | :--- |
| MLS 610 | Culture and Ideas | 3 |

Or other in consultation with advisor

## Musicology (Historical), PBC

The Post-Baccalaureate Certificate in Musicology provides students with the opportunity to study music history in greater depth in a structured program, preparing MM and DMA students to teach courses requiring music history knowledge, and thus enhancing their marketable skills. It also prepares other graduates of BA or BM programs for further graduate study in musicology and enhances the employability of students with an interest in public sector fields and arts administration.

The objectives of the Post-Baccalaureate Certificate in Musicology are to:

- Increase cultural awareness and understanding of the Western art music tradition in relation to nonEuropean musical traditions.
- Develop practical skills for teaching music history in the classroom.
- Develop research and writing skills in the field of music history.

The program is open to students with a BA, B.Mus or other undergraduate four-year degrees who meet admission requirements. Additionally, it is open to UNCG students enrolled in MM, DMA and PhD programs in the School of Music, Theatre and Dance.

## Application and Admission

All certificate students (including current degree-seeking students) must apply through The Graduate School for admittance to this certificate program. Applicants must submit all application materials required by The Graduate School, excluding GRE scores, by the appropriate deadline to be considered for Fall, Spring, or Summer admission. In addition to the application materials required by The Graduate School, applicants must:

- pass the music history diagnostic exam required of all incoming degree-seeking music graduate students with a score of $70 \%$ or better.
- provide a statement of intent that outlines the candidate's background, interests, and goals in musicology.
- provide a writing sample that demonstrates intellectual engagement with music.
- interview with participating faculty.

Students in the Musicology certificate program will work with an advisor in the musicology area who will help the student design an integrated program specific to his or her needs and interests.

## Certificate Requirements

Required Courses (13 credits taken at UNCG)

MUS 606 Seminar in Music History (may be repeated with a different topic for a total of 6 hours)

Additional Musicology/Ethnomusicology courses at the 500 or 600 level (6)
MUS 689 Practicum in Teaching Music Theory and Musicology (1)

Additional Musicology/Ethnomusicology: In consultation with the student's musicology advisor, and as appropriate for the student's plan of study, the student may substitute one relevant course outside of the area. Relevant courses could include MUE 601 or MUS 602, a language, a period or non-Western ensemble, or a 500/600 level course in such fields as History, Women's and Gender Studies, African American Studies, Music Theory, or others.

Note: Students must maintain a minimum 3.0 G.P.A in courses counting for credit towards the certificate.

## Exit Requirements

A member of the musicology faculty must be a member of the student's comprehensive exam committee (MM students) or doctoral advisory committee (DMA/PhD students). Testing conditions will follow those outlined in the Handbook for Graduate Study in Music for the respective degree program. Non-degree students must pass an exit essay and interview in music history based upon the courses they have taken; they will have two opportunities to pass.

## Music Theory, MM

The MM in Music Theory requires 34 semester hours. Thesis and non-thesis options are offered. At least one half the work credited toward the degree must be in 600level courses or above. A diagnostic examination is administered prior to the first semester of enrollment. The capstone experience is a required written comprehensive examination in the final semester and a thesis or document.

## Application and Admission

In addition to the application materials required by The Graduate School, applicants must submit a personal statement. Samples of work are required and should be forwarded directly to the Music office. Some applicants may need to submit a resume/vita and/or participate in an interview or audition. Contact the Music office for more information.

## Degree Requirements

Core (6 hours)
MUS 602 Seminar in Music Research and Writing
MUS 606 Seminar in Music History
Performance (2 hours)

MUP 653 Performance Studies (performance, composition, or conducting)

Electives (3 hours)
Recommended:

| MUE 618 | Psychology of Music |
| :--- | :--- |
| MUE 619 | Acoustics of Music |
| MTD 654 | Computers in Music Research |

History or literature, composition or electronic music, or improvisation.

Thesis Option
Major Courses (18 hours)

| MUS 611 | Seminar in Musical Analysis | 3 |
| :--- | :--- | :--- |
| MUS 644 | Pedagogy of Music Theory | 3 |
| MUS 660 | Theory and Analysis of Rhythm | 3 |
| MUS 662 | Schenkerian Analysis | 3 |
| MUS 664 | Post-Tonal Theory | 3 |
| MUS 690 | Readings in Music Theory | 3 |
| Thesis (5 hours) |  |  |
| MUS 699 | Thesis | $1-6$ |

Non-Thesis Option
Major Courses (21 hours)
MUS 508 Tonal Counterpoint
or
MUS $510 \quad$ Advanced Tonal Analysis 3
MUS 611 Seminar in Musical Analysis 3
MUS 644 Pedagogy of Music Theory 3
MUS 660 Theory and Analysis of Rhythm 3
MUS 662 Schenkerian Analysis 3
MUS 664 Post-Tonal Theory 3
MUS 690 Readings in Music Theory 3
Document (2 hours)
MUS 698 Document in Music Theory

Paper (shorter than thesis) presented to an audience
Teaching portfolio
Lecture recital

## Music Theory Pedagogy, PMC

Within the PhD or DMA program, a student may elect a Post-Master's Certificate in Music Theory Pedagogy (14 hours). The purpose is to provide the student with knowledge and skills necessary to be successful teaching music theory and ear training in higher education. See the Director of Graduate Studies in Music Studies for exit requirements.

## Application and Admission

All certificate students (including current degree-seeking students) must apply through The Graduate School for admittance to this certificate program. Applicants must submit all application materials required by The Graduate School, excluding GRE scores, by the appropriate deadline to be considered for Fall, Spring, or Summer admission.

## Certificate Requirements

Required Courses (14 hours)

| MUS 644 | Pedagogy of Music Theory | 3 |
| :--- | :--- | :--- |
| MUS 662 | Schenkerian Analysis | 3 |

Two semesters of MUS 689 Practicum in Theory Pedagogy
Six hours from the following:

| MUS 611 | Seminar in Musical Analysis | 3 |
| :--- | :--- | :--- |
| MUS 660 | Theory and Analysis of Rhythm | 3 |
| MUS 664 | Post-Tonal Theory | 3 |
| MUS 690 | Readings in Music Theory | 3 |

MUS 611 may be taken twice with different topics.

## Nanoscience and Nanoengineering, Joint School of

2907 East Lee Street, Greensboro, NC 27401

## Graduate Programs

- Professional Master of Science in Nanoscience (MS), 33 hours; technical concentration, 33 hours
- Doctor of Philosophy in Nanoscience (PhD), 60 hours


## Graduate Faculty

## Professor

Daniel Herr, PhD, nanoenergy, nanobioeletronics, designed materials and assembly, and optimization (Chair).

James Ryan, PhD, Thin films, nanoelectronics, semiconductor process technology (Dean).

Ethan Will Taylor, PhD, Medicinal chemistry, molecular modeling and drug design, nanopharmacology, virology, viruses as models for biomimetic nanotechnology.

## Associate Professor

Christopher Kepley, PhD, Nanomedicines, nanoimmunology, fullerenes, understanding ways to inhibit inflammatory diseases, designing new nano-based diagnostics and theranostics for human disease.

Joseph Starobin, PhD, Application of methods of theoretical, mathematical and computational physics to cardiovascular research; electrophysiological data collection with MEMS and nano-enabled sensors.

## Assistant Professor

Adam Hall, PhD, Developing novel fabricated structures at the nanometer scale and using them to detect, manipulate, and probe single biological molecules.

Marinella Sandros, PhD, Nanochemistry and Nanobiotechnology, developing theranostics probes and designing ultrasensitive detection platforms for medical applications.

The Joint School of Nanoscience and Nanoengineering (JSNN) is a collaboration of North Carolina A\&T State University and The University of North Carolina at Greensboro. JSNN's research and educational programs focus on the emerging areas of nanoscience and nanoengineering. The strengths of the two universities in the basic sciences and in engineering make them ideal partners for this new, interdisciplinary school. JSNN faculty and students will be able to access laboratories and classrooms at NC A\&T, UNCG as well a the leading
edge JSNN faculty at the Gateway University Research Park.

Nanotechnology is often referred to as convergent technology because it utilizes knowledge from a diverse array of disciplines including biology, chemistry, physics, engineering, and technology. Nanotechnology is rapidly becoming a large part of the world's economy, generating an array of materials, technologies, and new products. JSNN's Professional Master of Science in nanoscience and PhD in nanoscience degree programs have been developed to meet the need for trained professionals in the emerging high technology industries using nanotechnology.

JSNN has six research focus areas-nanobioscience, nanometrology, nanomaterials (with special emphasis on nanocomposite materials), nanobioelectronics, nanoenergy, and computational nanotechnology. These technical areas will afford numerous opportunities for collaboration with industrial partners.

## Nanoscience, MS

The 33-hour, non-thesis MS in Nanoscience follows the Professional Science Masters degree model, featuring course work in nanosciences and business and an internship to provide practical experience. It is designed for students with strong backgrounds in technical fields who seek additional specialized training to qualify them for positions in companies that work in the field of nanotechnology.

## Application and Admission

In addition to the application materials required by The Graduate School, applicants must submit a personal statement indicating their interest in the program and a current Curriculum Vitae. Students may be admitted for either Fall or Spring terms. The deadline to apply is April 1.
Qualified applicants will have a BS degree in an area related to nanoscience (physics, chemistry, biology, mathematics, computer science, or engineering) and, as a minimum, completed calculus through differential equations.

## Degree Requirements

Nanoscience Survey Courses (9 hours)
Students choose three courses to introduce them to fundamental concepts, methods, and discoveries in different areas of nanoscience. Courses nclude the following:

| NAN 601 | Nanochemistry | 3 |
| :--- | :--- | :--- |
| NAN 602 | Nanobiology | 3 |
| NAN 603 | Nanophysics | 3 |


| NAN 604 | Nanotechniques | 3 |
| :--- | :--- | :--- |
| Disciplinary Foundation Courses (9 hours) |  |  |
| Appropriate courses to build on the undergraduate |  |  |
| degree ensuring appropriate depth of knowledge in the |  |  |
| student's discipline will be selected with the student's |  |  |
| program advisor. The University offering the course is |  |  |
| indicated below. |  |  |


| STA 651 | Mathematical Statistics |  |
| :---: | :---: | :---: |
| All offered at UNCG |  |  |
| Nutrition |  |  |
| NTR 625 | Gene Expression and Protein Metabolism | 2 |
| NTR 626 | Energy, Carbohydrate, Lipid Metabolism | 2 |
| NTR 627 | Antioxidants and Bioactive Food Components | 2 |
| NTR 628 | Vitamins and Minerals | 2 |
| All offered at UNCG |  |  |
| Physics |  |  |
| PHY 711 | Experimental Course |  |
| All offered at NC A\&T |  |  |
| Technology |  |  |
| ECT 614 | Microelectronics Fabrication Technology | 3 |
| MFG 651 | Principles of Robotics | 3 |
| MFG 674 | Study of Automation and Control Systems | 3 |
| MFG 760 | Advanced MFG Process /Computer Numerical Control | 3 |
| MFG 770 | Managing a Total Quality System | 3 |
| MFG 780 | Reliability Testing and Analysis | 3 |
| MSIT 673 | Industrial Productivity Measurement and Analysis | 3 |
| MSIT 779 | Statistical Research in Industrial Technology | 3 |
| TRAN 727 | Global Supply Chain Management | 3 |
| NAN 711B | Experimental Course | 3 |
| All offered at NC A\&T |  |  |
| Business/Management Courses (9 hours) |  |  |
| MBA 701 | Quantitative Analysis for Decision Making | 3 |
| MBA 702 | Financial and Managerial Accounting | 3 |
| MBA 703 | Economic Policies and Impact on Global Outcomes | 3 |
| MBA 704 | Leadership Assessment and Career Enhancement | 3 |
| MBA 706 | Marketing Management | 3 |
| MBA 710 | Ethical Leadership and Sustainable Business | 3 |
| BUAD 705 | Methods in Business Analysis | 3 |

BUAD 712 Foundations of Enterprise Management 3
All offered at UNCG; ACCT 708, BUAD 705, and BUAD 712: NC A\&T only

Internship/Project (6 hours) (Capstone Experience)
All students must complete a 6-hour internship in an appropriate private or public enterprise engaged in research, commercialization, or manufacturing or 6-hour project on an appropriate subject.

## Technical Concentration (33 hours)

Student pursuing the technical concentration in nanoscience will complete the requirements listed above, replacing the 9 hours of business/management courses with 9 hours of technical courses.

Possible courses include:
NAN 611
Nanoscience Laboratory Rotation
4th Nanoscience Survey Course

4th Disciplinary Foundation Course
NAN 611: up to 3 hours

## Nanoscience, PhD

The PhD in Nanoscience requires a minimum of 60 hours and is designed to prepare students to take positions in industrial, governmental, or academic research settings by providing a solid background in nanoscience theory and experimental techniques through course work and dissertation research. Advanced elective courses in nanoscience areas ensure students will have substantial depth of understanding in their area of interest and enable them to effectively carry out advanced nanoscience research.

## Application and Admission

In addition to the application materials required by The Graduate School, applicants must submit a personal statement indicating their interest in the program and a current Curriculum Vitae. Students are admitted for the Fall terms. The deadline to apply is April 1.

Qualified applicants will have a BS degree in an area related to nanoscience (physics, chemistry, biology, mathematics, computer science, or engineering) and, as a minimum, completed calculus through differential equations.

## Degree Requirements

Fundamentals of Nanoscience Courses (15 hours)

| NAN 601 | Nanochemistry | 3 |
| :--- | :--- | :--- |
| NAN 602 | Nanobiology | 3 |

NAN $603 \quad$ Nanophysics
NAN 604 Nanotechniques

## NANO 701: NC A\&T

Laboratory Rotations (4 hours)
In the first two semesters of study, students will rotate through four research labs (seven weeks in each lab) to become familiar with research at JSNN and to provide training in laboratory techniques needed for dissertation research. With the advice of the advisor/committee and permission of the faculty member responsible for the lab, students will select labs based on their interests.

NAN 611 Nanoscience Laboratory Rotation
Nanoscience Seminar (2 hours)
In the first two semesters of study, students will take professional development seminars that will expose them to a variety of research and professional development topics such as intellectual property issues, confidentiality, ethical issues in nanoscience, writing successful grant proposals, effective presentation and writing skills, etc.
NAN 621 Professional Development Seminar I 1
NAN 622 Professional Development Seminar II 1
Qualifying Examination
Students will take a qualifying exam on their knowledge of the fundamentals of nanoscience at the end of their first year of coursework in order to continue in the program.

Advanced Nanoscience Electives (15 hours)
Beginning in the second year of the program, each student will choose doctoral-level elective courses from the following areas: physics, chemistry, nutrition, engineering, mathematics, computer science, biology and environmental science. Students may substitute dissertation research for two electives in the third year with the consent of the student's advisor/committee.

Dissertation Research ( 24 hours minimum)
By the end of the first year, students will select a dissertation advisor with the objective of preparing a dissertation proposal by the end of the second year. Students will present their proposals to a general JSNN audience in the form of a seminar and defend the proposal in the form of an oral exam.
Dissertation research begins in the second year and students will take a minimum of 3 hours of dissertation research each semester.

Students will complete a written dissertation of their research and give a public oral presentation of the completed work. The defense must occur in the same term that the student applies for graduation.

## Other Requirements

## Seminars

Students are required to attend departmental and JSNN seminars so they may acquire a broad understanding of various current problems in nanoscience.

Teaching Experience
Students are required to gain the equivalent of two semesters of teaching experience, which may be met through a variety of means. Students will work with their advisor/committee to develop a suitable plan to gain appropriate teaching experience.

## Nursing, Department of

112 Moore Building • (336) 334-5010 •
www.uncg.edu/nur

## Graduate Programs

- Post-Baccalaureate Certificate in Nursing Administration, Nursing Case Management, Nursing Education, or Gerontological Nursing, 12-13 hours
- Master of Science in Nursing (MSN), Nursing Administration concentration - 36 hours, Nursing Education concentration-36 hours, Adult/Gerontological Nurse Practitioner - Primary Care concentration - 50 hours, or Nurse Anesthesia concentration-50 hours
- Master of Science in Nursing/Master of Business Administration (MSN/MBA) in Health Management, 54 hours
- Post-Master's Certificate in Adult/Gerontological Nurse Practitioner - Primary Care or Nurse Anesthesia - 41 hours
- Doctor of Philosophy (PhD) in Nursing, 57 hours


## Graduate Faculty

## Professors

Beth E. Barba, PhD, Gerontological nursing, nursing home environments, end-of-life care (Director of PhD program).
Denise Cote-Arsenault, PhD, Women's experiences of pregnancy after perinatal loss.

Patricia B. Crane, PhD, Adult/gerontological nursing, heart disease, and administration.
Eric Ford, PhD, Strategic management, health information technology, care quality, nursing issues.

Luba L. Ivanov, DNS, Effects of migration on access and satisfaction with health services for Russianspeaking immigrants.
Laurie M. Kennedy-Malone, PhD, Communitygerontology nursing.
Eileen M. Kohlenberg, PhD, Adult health nursing, nursing administration, nursing education (Associate Dean for Graduate Programs, Director of Graduate Study for Master's Program).
Susan Ann Letvak, PhD, Gerontological nursing and the nursing workforce.

Lynne P. Lewallen, PhD, Pregnancy, breast-feeding, and nursing education.
Randolph Rasch, PhD, Community health and family nurse practitioner.

Anita S. Tesh, PhD, Adult health nursing (Associate Dean for Undergraduate Programs).
Debra C. Wallace, PhD, Gerontology, minority health services and behaviors (Associate Dean for Research).

## Clinical Professors

Jacqueline DeBrew, PhD, Nursing education and gerontology.
Betsy Lehman, MS, Family and community nursing.
Linda McNeal, PhD, Adult health.

## Associate Professors

Robin Bartlett, PhD, Psychosocial nursing and adolescent risk behaviors.

Jie Hu, PhD, Health-related quality of life and symptoms in older adults with chronic disease.
Donald D. Kautz, PhD, Clinical reasoning, NNN language and evidence based practice, family integrity, and hope.

Heidi V. Krowchuk, PhD, Parent Child nursing.
Eileen R. Rossen, PhD, Gerontological nursing, psychosocial nursing, and late life transitions.

Elizabeth Van Horn, PhD, Adult health nursing, recovery from traumatic injury, and family integrity.

## Clinical Associate Professors

Lois VonCannon, MSN, Adult/gerontological nursing.

## Assistant Professors

Karen Amireshani, PhD, Latino/Hispanic health, diabetes, and cultural competence.
Leslie Davis, PhD, Cardiology and adult geriatric health.
Jeanne B. Jenkins, PhD, Clinical Leadership and leadership development.

Yolanda Wall Griffin, PhD, Adult health nursing and oncology.
Visiting Assistant Professors
Nancy Bruton-Maree, MS, Adult health nursing, nurse anesthesia.
Thomas McCoy, MS, Biostatistics.
Michael Rieker, DNP, Adult health nursing, nurse anesthesia.

## Clinical Assistant Professor

Angela Newman, PhD, Adult Health.
Clinical Instructor

Nanette Lavoie-Vaughan, DNP, Adult/gerontological nursing.

The School of Nursing offers the Master of Science in Nursing degree program which is designed to prepare persons for leadership roles in nursing education, administration, and clinical practice. The development of these functional competencies is founded upon concentration in a selected area of clinical practice and is supported by a strong research emphasis. Admission by The Graduate School does not guarantee admission to a specific concentration. The School of Nursing master's programs are accredited by the National League for Nursing Accrediting Commission (NLNAC). Information about the graduate program in nursing may be obtained from the NLNAC at 3343 Peachtree Rd., NE, Suite 850, Atlanta, GA 30326, (404) 975-5000. The School of Nursing master's programs also are accredited by the Commission on Collegiate Nursing Education, One Dupont Circle, NW, Suite 530, Washington, DC 20036-1120, (202) 887-6791. The School of Nursing affiliates with the Wake Forest University Baptist Medical Center School of Nurse Anesthesia and the Raleigh School of Nurse Anesthesia to offer the anesthesia concentration. These affiliated schools are accredited by the Council on Accreditation of Nurse Anesthesia Educational Programs, 222 South Prospect Avenue, Suite 304, Park Ridge, IL 60068-4010, (847) 692-7050.

## Enrollment Requirements for All Graduate Nursing Students

1. Evidence of current liability insurance coverage appropriate to concentration or program.
2. A three hour chemistry course for anesthesia concentration.
3. Competency in basic health assessment prior to NUR 642, NUR 651, NUR 671, and NUR 681.
4. Completion of inferential statistics course prior to enrollment in NUR 602.
5. An approved criminal background check prior to enrollment in clinical courses, including NUR 642, NUR 651, NUR 671, NUR 681, and NUR 742.
6. Satisfactory completion of Advanced Cardiac Life Support (ACLS) for anesthesia students. All other concentrations require Basic Life Support (BLS) prior to enrollment in clinical practica.
7. Evidence of all immunizations identified on Parts A and B of the UNCG Health History and Immunization Form, excluding the meningococcal vaccine.
8. Other requirements, for example, influenza vaccine and drug screens, may be necessary to meet contractual agreements with affiliating clinical agencies.
9. Prior to enrollment in directed research, clinical courses, internships, or project/thesis/dissertation coursework, students must provide evidence of current unrestricted North Carolina licensure as a registered nurse or unrestricted RN licensure in a state covered by the multi-state Nurse Licensure Compact. Students who are residents of North Carolina must hold unrestricted North Carolina licensure as a registered nurse.

Students should provide evidence of nursing licensure and BLS to the School of Nursing Graduate Program Assistant and evidence of health history and immunizations to the UNCG Student Health Services. Copies of all records should be retained by the student.

Students are responsible for all costs associated with their own health care. Students are encouraged to have health insurance and to be familiar with its provisions.

Policy on Dismissal of Students who Present Physical and/or Emotional Problems that do not Respond to Treatment

Students can be dismissed from the School of Nursing for physical and/or emotional problems that do not respond to appropriate treatment and/or counseling within a reasonable period of time.

## Investigation and Evaluation

When faculty members identify a student who presents physical and/or emotional problems that do not respond to appropriate treatment and/or counseling, they immediately suspend the student from the course. Faculty notify the Course Chair and/or Department Chair within the School of Nursing. Upon determination by the faculty, Course Chair and Department Chair, that the physical and/or emotional problems warrant dismissal from the School of Nursing, the Dean will be notified.

The Dean, in consultation with the faculty, and upon review of the documentation, will make a decision regarding recommending dismissal of the student from the School of Nursing.

The Dean of Nursing will send to the Dean of The Graduate School written notification of the recommendation. If the Dean of Nursing recommends dismissal from the School of Nursing, the Dean of The Graduate School will notify the student. Should the student wish to appeal the decision, the student will submit a written request to the School of Nursing Admission, Progression, and Appeals Committee. The Dean of Nursing will provide to the committee the accumulated correspondence or documentation related to the issue.
A request for an appeal should occur within seven working days of written notification of the decision from the Dean of The Graduate School.

## Hearing Process

The chairman of the School of Nursing Student Appeals Committee will thereafter notify the student, the faculty member, Course Chair and Department Chair as to the time and place for a hearing to determine whether the physical and/or emotional problems warrant dismissal.

The Committee will hold a closed hearing within ten days at which time the faculty member, Course Chair and Department Chair will be present and will provide documentation and other oral or written evidence regarding the incident. The student will be present and will be given an opportunity to provide documentation and other oral or written evidence regarding the problem. The student will be allowed an advocate/support person at the hearing; however, the support cannot speak and cannot be an attorney.

Following the factual presentation, the Committee will convene in executive session to determine whether the problem warrants dismissal from the School.

The Committee shall make its recommendation in writing to the Dean of Nursing and forward pertinent documentation. The Committee may recommend dismissal from the School of Nursing major, or reinstatement in the program.

## Post Hearing Process

The Dean of Nursing may accept, reject, or modify the Committee's recommendation. The Dean's decision will be made after review of the minutes of the hearing and report to the Committee. If the Dean of Nursing accepts the Committee's recommendation to dismiss the student from the School of Nursing, the recommendation will be forwarded to the Dean of The Graduate School who will notify the student. The Dean of Nursing will notify the faculty member(s) as to the determination.
A student who has been dismissed may reapply for admission to the School of Nursing.

## Policy on Unsafe Practice

The nursing faculty of the School of Nursing have an academic, legal, and ethical responsibility to prepare graduates who are competent as well as to protect the public and health care community from unsafe nursing practice. It is within this context that students can be disciplined or dismissed from the School of Nursing for practice or behavior which threatens or has the potential to threaten the safety of a client, a family member or substitute familial person, another student, a faculty member, or other health care provider.

## Student Awareness

All students are expected to be familiar with the principles of safe practice and are expected to perform in accordance with these requirements. Within courses,
counseling and advising processes, and other instructional forums, students will be provided with the opportunity to discuss the policy and its implications.

## Definition

An unsafe practice is defined as:

1. An act or behavior of the type which violates the North Carolina Nursing Practice Act, Article 9 of Chapter 90 of the North Carolina General Statutes (NCGS 90171.37; 90-171.44).
2. An act or behavior of the type which violates the Code of Ethics for Nurses of the American Nurses Association.
3. An act or behavior which threatens or has the potential to threaten the physical, emotional, mental or environmental safety of the client, a family member or substitute familial person, another student, a faculty member or other health care provider.
4. An act or behavior (commission or omission) which constitutes nursing practice for which a student is not authorized or educated at the time of the incident.

## Investigation and Evaluation of an Unsafe Practice

When an incident occurs which a faculty member believes may constitute an unsafe practice, he/she shall immediately notify the student and instruct the student to leave the clinical setting. The faculty member will notify the Course Chair and/or Department Chair within the School of Nursing.

The Course Chair and/or Department Chair will investigate the incident within three working days to determine whether there are grounds for believing that an unsafe practice has occurred. If the incident is minor, the faculty member, in consultation with the person named above, may require remedial work or instruction for the student. If the incident is major, or serial in nature, the Course Chair or Department Chair will notify the Dean.

The Dean, in consultation with the involved faculty members, will review the student's clinical performance evaluation(s), academic record and potential for successful completion of the major in nursing. Based upon this careful and deliberate review, a decision to reprimand the student, require withdrawal from the clinical course, or to recommend dismissal of the student from the School of Nursing will be made. The Dean of Nursing will send written notification of the decision to reprimand or to require withdrawal from the clinical course to the student. If the Dean of Nursing recommends dismissal from the School of Nursing, the recommendation will be forwarded to the Dean of The Graduate School for approval and notification of the student.

Should the student wish to appeal the decision, the student will submit a written request to the School of Nursing Admission, Progression, and Appeals Committee.

The Dean of Nursing will provide to the Committee the accumulated correspondence documentation related to the issue.

A request for an appeal should occur within seven working days of written notification of the decision from the Dean of Nursing or the Dean of The Graduate School.

## Hearing Process

The Chair of the School of Nursing Admission, Progression, and Appeals Committee will thereafter notify the student, the faculty member, Course Chair and Department Chair as to the time and place for a hearing to determine whether an unsafe act or behavior occurred and, if so, what resolution to recommend.

The Committee will hold a closed hearing within ten days at which time the faculty member, Course and Department Chair will be present and will provide documentation and other oral or written evidence regarding the incident. The student will be allowed an advocate/support person at the hearing; however, the support person cannot speak at the hearing and cannot be an attorney.

Following the factual presentation, the Committee will convene in executive session to determine whether an unsafe practice occurred and to recommend a resolution to the incident. The Committee will base its recommendation on the evidence presented at the hearing.

The Committee shall make its recommendation in writing to the Dean and forward pertinent documentation. The Committee may recommend the following remedies: no finding of an act of unsafe practice; a reprimand to the student; or dismissal from the School of Nursing major.

## Post Hearing Process

The Dean of Nursing may accept, reject, or modify the Committee's recommendation. The Dean's decision will be made after review of the minutes of the hearing and report to the Committee. If the Dean of Nursing accepts the Committee's recommendation to dismiss the student from the School of Nursing, the recommendation will be forwarded to the Dean of The Graduate School for approval and notification of the student. The Dean of Nursing will notify the faculty member(s) as to the determination.

A student who has been dismissed may reapply for admission to the School of Nursing.

## Appeal of Policies

If a student wishes to appeal a policy in the School of Nursing, the student should complete a "Student Appeal Request." The Student Admission, Progression, and Appeals Committee hears students appeals. Students may obtain the request form and discuss the appeals process
with the Chair of the Committee, the Associate Dean for Graduate Programs, or the Director of the PhD Program.

## Readmission after Withdrawal

Any student who is withdrawn or withdraws from the program must apply for readmission through normal admission procedures.

## Nursing Administration, Nursing Case Management, Nursing Education, or Gerontological Nursing, PBC

At least 12 credit hours must be successfully completed during a two-year time period to earn the certificate. Credits earned in the certificate program may be used to meet requirements in a degree program in accordance with the policies of The Graduate School. Students are advised individually and select courses from one or more categories.

Please refer to the preceding enrollment requirements for all graduate nursing students.

## Application and Admission

The Student Admission, Progression, and Appeals Committee reviews the credentials of each applicant. Exceptions to the requirements can be made on recommendation of the committee.

Applicants must have the following credentials:

1. Current unrestricted licensure as a registered nurse in one of the fifty states or validated credentials by CGFNS for international applicants. Residents of North Carolina must hold unrestricted North Carolina licensure as a registered nurse.
2. Baccalaureate degree in nursing from a program accredited by a nationally recognized accrediting agency.

## Certificate Requirements

Nursing Administration

| NUR 540 | Budget Development and Analysis of <br> Nursing Services | 3 |
| :--- | :--- | ---: |
| NUR 614 | Information Technology in Nursing |  |
|  | Service Administration |  |
| NUR 620 | Law, Policy, and Economics of |  |
|  | Healthcare | 3 |
| NUR 641 | Nursing Administration | 4 |

Nursing Case Management

| NUR 540 | Budget Development and Analysis of |
| :--- | :--- |
|  | Nursing Services |

Coordinating Systems of Care

| NUR 620 | Law, Policy, and Economics of <br> Healthcare |
| :--- | :--- |
| NUR 641 | Nursing Administration |

Nursing Education

| NUR 551 | Instructional Technologies in Nursing <br> and Patient Education |
| :---: | :--- |
| NUR 615 | Theories, Design and Evaluation in <br> Nursing Education |
| NUR 616 | Pedagogical Strategies in Nursing <br> Education |

Gerontological Nursing
NUR 581 End-of-Life Care
Core and Support Courses
NUR $550 \quad$ Pathophysiology for Advanced Nursing
NUR 602 Research Methods in Nursing
NUR 610 Theoretical Foundations of Advanced Nursing Practice

NUR 620 Law, Policy, and Economics of Healthcare

NUR 692 Independent Study 1-3
Upon successful completion of the four courses, students receive a Post-Baccalaureate Certificate. If two or more courses are completed within the categories of nursing administration, nursing education, or gerontological nursing, the certificate will denote the specialty area(s). All courses must be completed in the nursing case management category to receive that certificate. If courses are completed across several categories or within the core and support course category, a PostBaccalaureate Certificate in Nursing will be issued.
The student will develop a program plan with the Director of Graduate Study in the School of Nursing before enrolling in courses. At least 6 credits of course work shall be completed at the 600 level. However, exceptions may be made by the Director of Graduate Study to accommodate the individual student's learning needs and career goals.

## Nursing Administration, Nursing Education, Adult/Gerontological Nurse Practitioner - Primary Care, or Nurse Anesthesia, MSN

The Master of Science in Nursing degree offers the following four concentrations. A modified MSN program is available for CRNAs.

The concentrations in nursing education and nursing administration require 36 hours and are designed to be completed in six semesters of full-time study, beginning in August and ending in May of the third year.
The adult nurse practitioner/gerontological nurse practitioner - primary care concentration requires 50 hours and may be completed in five semesters of full-time study, beginning in August of each year.
The nurse anesthesia concentration requires 50 hours and is designed to be taught over four semesters and two summers of noncredit clinical residency. Classes begin in August of one year with graduation in May of the second year. The noncredit clinical residency continues until August of the second year, and is required for certification.

Master's programs of study may be reduced by up to 6 hours for qualified students. Requests for consideration may be submitted to the Director of Graduate Study.

Part-time study is facilitated by the curricular design, but all degree requirements must be met within five academic years of initial enrollment. In addition to courses required for the degree program, students may enroll in independent study courses to enhance their program of study. No foreign language is required.
Please refer to the preceding enrollment requirements for all graduate nursing students.

## Application and Admission

The Student Admission, Progression, and Appeals Committee reviews the credentials of each applicant. Exceptions to the requirements can be made on recommendation of the committee.

Applicants must have the following credentials:

1. Current unrestricted licensure as a registered nurse in one of the fifty states or validated credentials by CGFNS for international applicants. Residents of North Carolina must hold unrestricted North Carolina licensure as a registered nurse.
2. Baccalaureate degree in nursing from a program accredited by a nationally recognized accrediting agency.
3. Minimum of one year clinical experience full time; one year critical care experience required for anesthesia concentration.
4. A personal statement is required for consideration of admission to the Adult/Gerontological Nurse Practitioner - Primary Care master's concentration or post master's certificate.

Nonresidential international students are required to participate in a telephone interview.

Nurse Anesthesia Concentration

Admission to The Graduate School does not constitute admission to the anesthesia concentration. Contact the School of Nursing for details regarding the additional admission procedures for anesthesia.

## Required Withdrawal

Withdrawal from the program will be recommended if the student:

1. Fails to register for two consecutive semesters (fall and spring) in the nursing curriculum.
2. Has earned a "B- or below" in more than 6 semester hours of course work.
3. Has earned a "B- or below" in any nursing specialty course.
4. Has earned a failing grade in any course.
5. Has a GPA that indicates the inability to meet the 3.0 required for graduation.
6. Does not complete requirements for the degree within the time limit ( 5 academic years).
7. Is dismissed from the affiliated anesthesia schools.

## Degree Requirements

Required Core Courses for all Concentrations (9 hours)

| NUR 602 | Research Methods in Nursing |
| :--- | :--- |
| NUR 610 | Theoretical Foundations of Advanced |
|  | Nursing Practice |
| NUR 620 | Law, Policy, and Economics of <br>  |

Comprehensive Examination
This examination is completed in the process of meeting the requirements for the thesis or advanced nursing project. Consult with the advisor.

## Nursing Administration

Required Concentration Courses (21 hours)

| NUR 540 | Budget Development and Analysis of <br> Nursing Services |
| :---: | :--- |
| NUR 541 | Nursing Case Management: <br> Coordinating Systems of Care |
| NUR 614 | Information Technology in Nursing <br> Service Administration |
| NUR 641 | Nursing Administration |
| NUR 642 | Nursing Administration: Theoretical <br> Applications |
| NUR 643 | Nursing Administration Practicum |

Electives (3 hours)
With prior approval of the advisor, a student will select 3 hours from other 500- or 600-level nursing courses, or other related courses, for the nursing administration concentration.

Capstone Experience (3 hours)

| NUR 698 | Advanced Nursing Project (1-6) | $1-6$ |
| :--- | :--- | ---: |
| NUR 699 | Thesis | $1-6$ |
| NUR 601 | or |  |
|  | Critique and Utilization of Research in <br> Nursing | 3 |

Students who choose NUR 698 Advanced Nursing Project or NUR 699 Thesis must remain continuously enrolled for the course for a minimum of 3 credits and a maximum of 6 credits. Three credits are applied toward graduation and may be taken in one semester or divided over two or three semesters. Students who have not completed the Project/Thesis after registering for the first 3 credits must continue to register for NUR 698 or NUR 699 for one credit each succeeding semester until 6 credits are earned. If the Project is not completed after 6 credits are earned, the student should enroll for NUR 803 Research Extension for 1-3 hours until completion. If the Thesis is not completed after 6 credits are earned, the student should enroll in NUR 801 Thesis Extension for 1-3 hours credit until completion.

## Nursing Education

Required Concentration Courses (24 hours)

| NUR 550 | Pathophysiology for Advanced Nursing | 3 |
| :--- | :--- | :---: |
| NUR 551 | Instructional Technologies in Nursing <br> and Patient Education | 3 |
| NUR 615 | Theories, Design and Evaluation in <br> Nursing Education | 3 |
| NUR 616 | Pedagogical Strategies in Nursing <br> NUR 6 651 | Advanced Application of Nursing <br> Concepts in Client Care |
| NUR 652 | Advanced Application of Nursing <br> Concepts in Professional Development | 4 |

Capstone Experience (3 hours)
NUR 698 Advanced Nursing Project (1-6)

| NUR 699 | Thesis or | 1-6 | NUR 630 | Neuropathophysiology for Nurse Anesthesia | 2 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| NUR 601 | Critique and Utilization of Research in Nursing |  | NUR 631 | Pharmacology of Nurse Anesthesia I | 1 |
|  |  | 3 | NUR 632 | Biochemistry for Nurse Anesthesia | 1 |
| Students who choose NUR 698 Advanced Nursing Project or NUR 699 Thesis must remain continuously enrolled for the course for a minimum of 3 credits and a maximum of 6 credits. Three credits are applied toward graduation and may be taken in one semester or divided over two or three semesters. Students who have not completed the |  |  | NUR 633 | Cardiovascular Pathophysiology for Nurse Anesthesia | 2 |
|  |  |  | NUR 634 | Pharmacology of Nurse Anesthesia II | 1 |
|  |  |  | NUR 635 | Cell Pathophysiology for Nurse Anesthesia | 1 |
| Project/Thesis after registering for the first 3 credits must continue to register for NUR 698 or NUR 699 for one credit each succeeding semester until 6 credits are earned. If the Project is not completed after 6 credits are earned, the student should enroll for NUR 803 Research |  |  | NUR 636 | Respiratory Pathophysiology for Nurse Anesthesia | 2 |
|  |  |  | NUR 637 | Pharmacology of Nurse Anesthesia III | 2 |
| Extension for 1-3 hours until completion. If the Thesis is not completed after 6 credits are earned, the student should enroll in NUR 801 Thesis Extension for 1-3 hours credit until completion. |  |  | NUR 638 | Pathophysiology of Abdominal Systems for Nurse Anesthesia | 2 |
|  |  |  | NUR 639 | Pharmacology of Nurse Anesthesia IV | 2 |
|  |  |  | NUR 671 | Clinical Practicum in Nurse Anesthesia I | 4 |
| Adult/Gerontological Nurse Practitioner Primary Care |  |  | NUR 672 | Clinical Practicum in Nurse Anesthesia II | 4 |
|  |  |  | NUR 674 | Clinical Practicum in Nurse Anesthesia IV | 5 |
| Required Concentration Courses (41 hours) |  |  | NUR 675 | Clinical Practicum in Nurse Anesthesia V | 5 |
| NUR 681 | Pathophysiology for Advanced Nursing | 3 | NUR 604: Capstone Experience |  |  |
|  | Advanced Health Assessment | 4 |  |  |  |
| NUR 682 | Health Promotion/Disease Prevention for Healthy Aging | 3 | Nursing/ Business Administration, MSN/MBA |  |  |
| NUR 683 | Adult/Gerontology Primary Care Management I | 6 | The combined MSN/MBA is offered jointly by the School of Nursing and the Bryan School of Business and Economics and requires a minimum of 54 semester hours. |  |  |
| NUR 684 | Pharmacotherapeutics for Nurse |  |  |  |  |
|  | Practitioners ${ }^{\text {Advanced Practice Nursing: Role Theory }}$ | 3 | Please refer to the preceding enrollment requirements for all graduate nursing students. |  |  |
| NUR 685 | and Practice | 3 | Application and Admission |  |  |
| NUR 686 | Adult/Gerontology Primary Care | 6 | The Student Admission, Progression, and Appeals Committee reviews the credentials of each applicant. |  |  |
|  | Management III |  |  |  |  |
| NUR 687 | Adult/Gerontology Primary Care Management II | 5 | Exceptions to the requirements can be made on recommendation of the committee. |  |  |
| NUR 688 | Advanced Concepts in the | 4 | Applicants must have the following credentials: |  |  |
|  | of the Older Adult |  | 1. Current unrestricted licensure as a registered nurse in one of the fifty states or validated credentials by |  |  |
| NUR 689 | Primary Care of the Adult Practicum | 4 |  |  |  |
| NUR 688, NUR 689: Capstone Experience |  |  | Caro licen | ust hold unrestricted North Carolina a registered nurse. |  |
| Nurse Anesthesia |  |  | 2. Baccalaureate degree in nursing from a program accredited by a nationally recognized accrediting agency. |  |  |
| Required Concentration Courses (41 hours) |  |  |  |  |  |
| NUR 604 | Nurse Anesthesia Research Seminar | 4 |  |  |  |
| NUR 629 | Health Assessment for Nurse Anesthesia | 3 |  |  |  |

3. Minimum of one year clinical experience full time; one year critical care experience required for anesthesia concentration.

Nonresidential international students are required to participate in a telephone interview.

## Degree Requirements

## Computer Literacy

Upon entry to the MSN/MBA degree program, students should have a working knowledge of word processing and spreadsheet applications in a PC environment. Familiarity with Excel is required.

Statistics
Completion of a statistics course prior to enrollment in NUR 602 is required. ECO 250 of Pre-MBA workshop in statistics is recommended to meet the program prerequisite for statistics.
Required Courses (54 hours)

| NUR 610 | Theoretical Foundations of Advanced Nursing Practice | 3 |
| :---: | :---: | :---: |
| NUR 620 | Law, Policy, and Economics of Healthcare | 3 |
| NUR 540 | Budget Development and Analysis of Nursing Services | 3 |
| NUR 614 | Information Technology in Nursing Service Administration | 3 |
| NUR 602 | Research Methods in Nursing | 3 |
| MBA 701 | Quantitative Analysis for Decision Making | 3 |
| MBA 702 | Financial and Managerial Accounting | 3 |
| MBA 703 | Economic Policies and Impact on Global Outcomes | 3 |
| MBA 705 | Processes, Information Systems and Business Value | 3 |
| MBA 706 | Marketing Management | 3 |
| MBA 708 | Operations for Competitive Advantage | 3 |
| MBA 709 | Human Capital in Organizations | 3 |
| NUR 641 | Nursing Administration | 4 |
| MBA 707 | Financial Management | 3 |
| NUR 642 | Nursing Administration: Theoretical Applications | 4 |
| MBA 712 | Strategic Management | 3 |
| NUR 643 | Nursing Administration Practicum | 4 |

MBA 712: Capstone Experience

## Required Withdrawal

Please refer to the Required Withdrawal section listed in the MSN Degree Requirements.

## Adult/Gerontological Nurse Practitioner - Primary Care or Nurse Anesthesia, PMC

Both the Post-Master's Certificate in Nurse Anesthesia and the Post-Master's Certificate in Adult/Gerontological Nurse Practitioner - Primary Care require 41 semester hours. Students are advised individually, based on the focus of the previous master's degree. Typical course requirements for these programs are listed.

Please refer to the preceding enrollment requirements for all graduate nursing students.

## Application and Admission

The Student Admission, Progression, and Appeals Committee reviews the credentials of each applicant. Exceptions to the requirements can be made on recommendation of the committee. Applicants must have the following credentials:

1. Current unrestricted licensure as a registered nurse in one of the fifty states or validated credentials by CGFNS for international applicants. Residents of North Carolina must hold unrestricted North Carolina licensure as a registered nurse.
2. Master's degree in nursing from an accredited program.
3. Minimum of one year clinical experience full time; one year critical care experience required for anesthesia concentration.

Nonresidential international students are required to participate in a telephone interview.

GRE or MAT scores are not required.

## Nurse Anesthesia

Admission to The Graduate School does not constitute admission to the anesthesia certificate. Contact the School of Nursing for details regarding the additional admission procedures for anesthesia.

## Certificate Requirements

Adult/Gerontological Nurse Practitioner - Primary Care (41 hours)
NUR $550 \quad$ Pathophysiology for Advanced Nursing 3

NUR 681 Advanced Health Assessment 4
NUR 682 Health Promotion/Disease Prevention for Healthy Aging

NUR 683 Adult/Gerontology Primary Care 6

Students will receive a certificate from The Graduate School upon completion of the required course of study and are eligible to take the appropriate national certification examination as a Nurse Anesthetist or Adult Nurse Practitioner and Gerontological Nurse Practitioner.

|  | Management I |  |
| :---: | :---: | :---: |
| NUR 684 | Pharmacotherapeutics for Nurse Practitioners | 3 |
| NUR 685 | Advanced Practice Nursing: Role, Theory and Practice | 3 |
| NUR 686 | Adult/Gerontology Primary Care Management III | 6 |
| NUR 687 | Adult/Gerontology Primary Care Management II | 5 |
| NUR 688 | Advanced Concepts in the Management of the Older Adult | 4 |
| NUR 689 | Primary Care of the Adult Practicum | 4 |
| Nurse An | ia (41 hours) |  |
| NUR 604 | Nurse Anesthesia Research Seminar | 4 |
| NUR 629 | Health Assessment for Nurse Anesthesia | 3 |
| NUR 630 | Neuropathophysiology for Nurse Anesthesia | 2 |
| NUR 631 | Pharmacology of Nurse Anesthesia I | 1 |
| NUR 632 | Biochemistry for Nurse Anesthesia | 1 |
| NUR 633 | Cardiovascular Pathophysiology for Nurse Anesthesia | 2 |
| NUR 634 | Pharmacology of Nurse Anesthesia II | 1 |
| NUR 635 | Cell Pathophysiology for Nurse Anesthesia | 1 |
| NUR 636 | Respiratory Pathophysiology for Nurse Anesthesia | 2 |
| NUR 637 | Pharmacology of Nurse Anesthesia III | 2 |
| NUR 638 | Pathophysiology of Abdominal Systems for Nurse Anesthesia | 2 |
| NUR 639 | Pharmacology of Nurse Anesthesia IV | 2 |
| NUR 671 | Clinical Practicum in Nurse Anesthesia I | 4 |
| NUR 672 | Clinical Practicum in Nurse Anesthesia II | 4 |
| NUR 674 | Clinical Practicum in Nurse Anesthesia IV | 5 |
| NUR 675 | Clinical Practicum in Nurse Anesthesia V | 5 |

## Additional Information

## Nursing, PhD

The PhD in Nursing requires 57 semester hours. Up to 15 hours of credit may be transferred into the program. The Director of Graduate Study may waive up to 6 hours for successful completion of previous graduate work.

Please refer to the preceding enrollment requirements for all graduate nursing students.

## Application and Admission

Applications are accepted throughout the year with reviews beginning on November 1 for fall admission. Admission to the program is competitive and contingent upon available space in the program.

Applicants must have the following credentials:

1. Current unrestricted licensure as a registered nurse in one of the fifty states or validated credentials by CGFNS for international applicants. Residents of North Carolina must hold unrestricted North Carolina licensure as a registered nurse.
2. Master's degree in nursing from a school accredited by a nationally recognized accrediting agency.

In addition to the application materials required by The Graduate School, applicants must submit a 300-word statement of research goals in doctoral program related to promotion of optimal health for ethnic minorities, women, children, or older adults.

Selected applicants must participate in an interview with Graduate Nursing Faculty.

Please refer to the preceding enrollment requirements for all graduate nursing students.

## Required Withdrawal for PhD Students

Students will become academically ineligible to continue if any of the following occur:

1. Grades of $U, F$, or WF for any semester hours of credit.
2. Grades of $\mathrm{C}, \mathrm{C}+$, or $\mathrm{B}-$ in 6 semester hours.
3. Degree requirements not completed within the time limit ( 7 academic years).

## Degree Requirements

Required Courses (21 hours)

| NUR 710 | Philosophy of Knowledge Development <br> in Nursing | 3 |
| :--- | :--- | :--- |
| NUR 712 | Theory Analysis in Nursing Science | 3 |
| NUR 741 | Nurse Scientists in Academia and <br> Industry I | 3 |
| NUR 742 | Nurse Scientists in Academia and <br> Industry II | 3 |


| NUR 781 | Health Promotion Models and | 3 |
| :--- | :--- | :--- |
|  | Interventions | 3 |
| NUR 782 | Health Disparities and Outcomes | 3 |
| NUR 783 | Advanced Health Policy and Ethics | 3 |

Research Methodology and Statistics (12 hours)

| NUR 701 | Statistical Applications for Nursing |
| :--- | :--- |
| Research I |  |


| NUR 702 | Statistical Applications for Nursing <br> Research II |
| :--- | :--- |

NUR $703 \quad$ Qualitative Methods for Nursing 3

NUR 704 Quantitative Research in Nursing 3
Directed Research (3 hours)
NUR 790 Directed Research 3
Cognates (6 hours)
Electives (3 hours)
Preliminary Examinations
Preliminary examinations are required and may be taken after the completion of $3 / 4$ of the course work. See page 24 for additional information.

Dissertation (12 hours)
NUR 799 Dissertation 1-12

## Nutrition, Department of

318 Stone Building • (336) 334-5313 • Fax (336) 334-4129

- www.uncg.edu/nutrition


## Graduate Programs

- Post-Baccalaureate Certificate, Dietetic Internship, 15 hours
- Post-Baccalaureate Certifictae, Didactic Program in Nutrition and Dietetics, 14 hours
- Master of Science (MS) in Nutrition, 37 hours (thesis option), 40 hours (non-thesis option)
- Doctor of Philosophy (PhD) in Nutrition, 63 hours


## Graduate Faculty

## Professors

Deborah E. Kipp, PhD, RD, Effects of nutritional and hormonal imbalances, particularly iron and prolactin, on bone formation (Chair of Department).

Wei Jia, PhD, Chemical and metabolic profiling of bioactive food components.

George Loo, PhD, Nutritional biochemistry, atherosclerosis and lipoprotein metabolism, cellular and molecular functions of phytochemicals and other natural products.

Cheryl A. Lovelady, PhD, RD, Nutrition and women's health with emphasis on nutrient needs during lactation and exercise, assessment of energy intake and expenditure.

Michael K. McIntosh, PhD, RD, Regulation of adipocyte growth and metabolism, energy metabolism, obesity, diabetes.

Laura S. Sims, PhD, Domestic nutrition policy and its implications, nutrition education, hunger and food assistance.

Zhanxiang Zhou, PhD, The role of trace elements and bioactive components on treating alcoholic and nonalcoholic liver disease.

## Adjunct Professors

Harvey W. Gruchow, PhD, Epidemiology of heart disease and hypertension focusing on nutrition, infant mortality and adolescent pregnancy prevention.
Vincent C. Henrich, PhD, Gene expression, regulation of steroid production and response, nuclear hormone receptors.

Truls Ostbye, PhD, Epidemiological investigations with special emphasis on dementia and related factors.

## Associate Professors

Keith Erikson, PhD, Micronutrients and brain development, function, and neurotoxicity (Director of Graduate Study).
Lauren Haldeman, PhD, Design of theory-based nutrition interventions for low-income audiences, effects of food insecurity and psychosocial correlates (health beliefs, attitudes, and barriers) on eating behaviors and dietary quality.

Ron F. Morrison, PhD, Transcriptional control of adipocyte differentiation and gene expression, obesity, diabetes, cellular and molecular mechanisms coupling growth arrest and cell differentiation, cell cycle, cancer.

Martha L. Taylor, PhD, RD, Nutritional status of older adults, health promotion/disease -prevention in the community, nutrition education (Director of Dietetic Internship Program).

## Adjunct Associate Professor

Karen S. Katula, PhD, Control of cell division, regulation of human cyclin B gene transcription, antioxidant regulation of gene expression and cell cycle.

## Assistant Professors

Lynda M. Brown, PhD, Effects of increased visceral fat on central insulin and leptin sensitivity in middleaged rats, develop a rat model of menopause to explore the roles of aging, estrogen levels and visceral obesity on central insulin, leptin sensitivity as rats enter reproductive senescence.

Jigna Dharod, PhD, Understanding the relationship between food insecurity, dietary intake, and health outcomes among different immigrants and refugee groups in the US.
Margaret Savoca, PhD, Influence of beliefs about health and family and environmental factors on food choices of those with or at risk for chronic diseases, such as hypertension and type 2 diabetes.

The Department of Nutrition graduate programs leading to the Master of Science (MS) and the Doctor of Philosophy (PhD) degrees in nutrition both offer specializations in community nutrition and nutrition education, human/clinical nutrition, and cellular and molecular nutrition. Background courses in general chemistry, organic chemistry, biochemistry, mammalian physiology, and general nutrition are required for all degree programs. Upon entry, a Plan of Study is developed by students and their advisors or Advisory Committees to develop strengths in the area of interest the student has chosen.

## Policy on Professional Impairment

Nutrition faculty are responsible not only for the development of their students, but also to the profession and to the public. The faculty have a responsibility to teach and supervise their students, which is typically done in the context of an amicable relationship. However, they also have a responsibility to protect the public from incompetent professionals and to maintain the standards of the profession. Unfortunately, it is possible that not all students are capable of becoming competent professionals who will maintain standards of the profession. In these cases, faculty are obliged to take action when they have determined the student is professionally impaired. Students who experience continued serious difficulties and do not function effectively in academic and/or interpersonal situations will be counseled early, made aware of career alternatives, and if necessary, dropped from the program.

## Definition of Professional Impairment

Professional impairment has been "defined broadly as an interference in professional functioning that is reflected in one or more of the following ways:

1. An inability and/or unwillingness to acquire and integrate professional standards into one's repertoire of professional behavior.
2. An inability to acquire professional standards skills in order to reach an acceptable level of competency.
3. An inability to control personal stress, psychological dysfunction, and/or excessive emotional reactions that interfere with professional functioning." (Lamb et al. 1987. Professional Psychology: Research and Practice 18: 597-603)
Examples of behaviors which may be evidence of professional impairment include the following. The list contains examples, and is not intended to be definitive.
4. Violation of professional standards or ethical codes.
5. Inability or unwillingness to acquire and manifest professional skills at an acceptable level of competency.
6. Behaviors that can reasonably be predictive of poor future professional functioning, such as extensive tardiness or poor compliance with supervisory requirements.
7. Personal unsuitability to the profession, e.g., substance abuse, chronic and disabling physical problems.
8. Interpersonal behaviors and intrapersonal functioning that impair one's professional functioning such as psychopathology, inability to exercise good judgment, poor interpersonal skills, and pervasive interpersonal problems.

## Possible Actions to Follow Manifestations of Professional Impairment

This list contains examples, and is not intended to be definitive. These actions are not hierarchical and need not be applied in each case.

1. A formal reprimand.
2. An unsatisfactory grade (U) in a practicum course with the requirement that the course be repeated, whether it was an elective or required practicum.
3. Personal therapy.
4. Leave of absence.
5. Required additional practicum or course work.
6. Increased supervision (e.g., more frequent supervision, more than one supervisor).
7. Formal probation.
8. Recommendation of withdraw from the program or changing to another program.
9. Recommendation of formal dismissal from the program by the Dean of The Graduate School.

## Due Process; Evaluation of Professional Impairment

1. There is a written policy on professional impairment that is systematically distributed to all NTR graduate students, with signatures evidencing student review of the policy. Copies of this will be included in each student's folder.
2. All students will receive written notification of problems, including written descriptions of specific incidences that may evidence professional impairment, from the Director of the Graduate Program in Nutrition. Such written notification will be placed in the student's departmental file.
3. The student evidencing professional impairment will usually be given an opportunity for remediation (although individual circumstances may not allow this, and this is not legally required), with specific descriptions of problems, suggestions for remediation, time limit, and notice of consequences if remediation is not successful, all noted in writing. Such written evaluation will also be placed in the student's departmental file.
4. When the judgment is made that serious professional impairment exists and that the consequences to the student are major, the student may request a hearing in which the student may present his or her view of the situation. The hearing will be convened by the Director of the Graduate Program in Nutrition and will include a member of the Graduate Committee in Nutrition, the member(s) of the faculty who are making judgments of serious professional impairment,
the student's adviser, and the departmental chairperson.
5. Following a hearing, the student will receive written notification within one week that includes: the nature of the problem, opportunities for revision, if any, the basis for the decision, and the opportunity for appeal. Such written evaluation will also be placed in the student's departmental file.
6. After receiving written notification, the student may request an appeal within 14 days to the Chairperson of the Department of Nutrition. The appeal panel will include some persons who are different from those making the original decision, such as a faculty member within the department or school, a faculty representative of The Graduate School, and a member of the faculty selected by the student.
7. The results of the hearing and appeal will be forwarded to the Chairperson of the Department of Nutrition, who may accept, reject, or modify the recommendations. If the Department Chairperson accepts the recommendation to change the student's program of study, or dismiss the student from the program, this recommendation will be forwarded to the Dean of the Graduate School who, upon further consideration, will notify the student in writing.

## Didactic Program in Nutrition and Dietetics PBC

The Didactic Program in Nutrition and Dietetics Post Baccalaureate Program provides an opportunity for students who have received a Bachelor's degree from a nationally accredited university to earn a Didactic Program Verification Statement. The Didactic Program Verification Statement ensures that a student has obtained and demonstrated the fundamental core knowledge requirements and skills required by the Accreditation Council for Education in Nutrition and Dietetics (ACEND) to apply to an accredited Dietetic Internship. Successful completion of the prerequisite and co-requisite courses along with the 14 credit hours of core courses in the Didactic Program in Nutrition and Dietetics Post Baccalaureate Program cover the core knowledge requirements to obtain a Didactic Program Verification Statement. Completion of this program does not guarantee placement in an accredited Dietetic Internship.

The accreditation agency of the Academy of Nutrition and Dietetics is the Accreditation Council for Education in Nutrition and Dietetics (ACEND). ACEND is recognized by the US Department of Education as a Title IV Gatekeeper. This recognition affirms that ACEND meets national standards and is a reliable authority on the quality of nutrition and dietetics education programs. ACEND is also a member of the Association of

Specialized and Professional Accreditors (ASPA) and abides by its code of good practice.

## Program Requirements

Core Courses
CED 610 Helping Relationships 3
NTR 560 Advanced Nutrition 4
NTR 607 Nutrition Education 3
NTR 573 Medical Nutrition Therapy 4

## Dietetic Internship, PBC

The Post-Baccalaureate Certificate - Dietetic Internship requires 15 semester hours. Courses fulfilling the certificate program may be used to meet the requirements in a degree program in accordance with the policies of The Graduate School.
The Dietetic Internship at UNCG is currently granted accreditation by the Commission on Accreditation for Dietetics Education (CADE) of The American Dietetic Association. CADE is a specialized accrediting body recognized by the Commission on Recognition of Postsecondary Accreditation and the United States Department of Education. The address and phone number of CADE are: 120 South Riverside Plaza, Suite 2000, Chicago, IL 60606-6995, (312) 899-4876.

## Application and Admission

The Certificate program for the Dietetic Internship is designed for students with a bachelor's degree from an accredited college or university who have completed the Didactic Program in Dietetics, as required by The American Dietetic Association, and wish to become eligible to take the national registration examination to become a registered dietitian (RD). To be eligible for the Dietetics Internship, completion of the undergraduate program must be within five years of application to the internship.

Varied work experiences in dietetics and/or foodservice management are preferred. The selection process is very competitive. Due to the limited number of placements that can be made for a given year, not all applicants who meet the minimum requirements may be selected.

A separate application to the DI program is required and students must apply to such programs following the American Dietetic Association's computer matching application process. After selection into the program at UNCG, students must then submit an application to The Graduate School as well as all required application materials. In addition to these materials, applicants must provide an ADA Verification Form from their undergraduate institution and a personal essay stating their interests and experience in dietetics.

A limited number of positions in the DI program are set aside for graduate students who wish to complete both the graduate degree and DI program. Students who are eligible for these positions must complete the application form but do not have to participate in the computer matching process. Students interested in this option must contact the Director of the Dietetic Internship at UNCG for more information.

## Certificate Requirements

Required Courses (15 hours)

| NTR 602 | Supervised Preparation for Professional <br> and Community Engagement |
| :--- | :--- |
| NTR 693 | Supervised Preparation for Practicum in <br> Clinical Dietetics |

NTR 602 and NTR 693 must be completed with a grade of B or better prior to enrollment in following:

## Additional Information

Students will receive a certificate from The Graduate School upon completion of the required course of study and are eligible to take the national certification examination for the credential of Registered Dietitian.

## Nutrition, MS

The MS in Nutrition offers a thesis option (37 hours minimum) and a non-thesis option ( 40 hours minimum). The thesis option is research-based and designed to prepare students for research, administration and practitioner positions in nutrition, or for progression to the PhD program. A written thesis is required for graduation. The non-thesis option is designed to prepare students for consulting, administrative, and practitioner positions in nutrition. A comprehensive examination must be passed. The registered dietitian (RD) credential must be obtained for a career in dietetics.

## Application and Admission

In addition to the application materials required by The Graduate School, applicants must submit a letter of intent that includes research and professional objectives and that identifies faculty with research interests most central to student research and career interests.
Applications for admission are reviewed during January, February, and March of each year for Fall admission and in September, October, and November of each year for Spring admission.
Prerequisites for admission to the graduate program in nutrition include: 2-3 semesters of biology (general biology with lab, human physiology) and 3-4 semesters of chemistry (inorganic chemistry with lab, organic chemistry with lab, biochemistry).

## Thesis Option ( $\mathbf{3 7}$ hours minimum)

At least 26 hours must be in 600 -level courses. The minimum requirements include:

Required Core (15 hours minimum)
NTR 609 Seminar in Nutrition
$\begin{array}{ll}\text { NTR } 625 & \text { Gene Expression and Protein } \\ & \text { Metabolism }\end{array}$
NTR 626 Energy, Carbohydrate, Lipid Metabolism 2
$\begin{array}{lll}\text { NTR } 627 & \begin{array}{l}\text { Antioxidants and Bioactive Food } \\ \text { Components }\end{array}\end{array}$
NTR 628 Vitamins and Minerals 2
and one of the following options:
STA 571 Statistical Methods for Research I 3
STA $661 \quad \begin{aligned} & \text { Advanced Statistics in the Behavioral } \\ & \text { and Biological Sciences I }\end{aligned}$
STA $580 \quad 3$
ERM 517 Statistical Methods in Education 3
$\begin{array}{ll}\text { ERM } 680 & \text { Intermediate Statistical Methods in } \\ & \text { Education }\end{array}$
HEA 604 Public Health Statistics 3
Research Techniques ( 9 hours minimum)
NTR $673 \quad$ Nutrition Research Methodology
At least 6 hours in one or more of the following research courses:

NTR 601 Directed Study in Nutrition 1-6
NTR 623 Current Trends in Nutrition 3
NTR 653 Problems in Food and Nutrition 2-4
NTR 670 Research Skill Development 2-6
Electives (7 hours minimum)
With approval of the Graduate Advisory committee, a student will select one 3-hour course from other NTR courses at the 500 or 600 level and at least 4 additional hours in either NTR or other science courses at the 500 or 600 level.

Thesis (6 hours) (Capstone Experience)
NTR 699 Thesis 1-6

## Non-thesis Option (40 hours minimum)

At least 26 hours must be in 600 -level courses. The minimum requirements include:

Required Core (14 hours minimum)

| NTR 609 | Seminar in Nutrition |
| :--- | :--- |
| NTR 625 | Gene Expression and Protein |
|  | Metabolism |

NTR 626 Energy, Carbohydrate, Lipid Metabolism 2
$\begin{array}{ll}\text { NTR } 627 & \begin{array}{l}\text { Antioxidants and Bioactive Food } \\ \text { Components }\end{array}\end{array}$
NTR $628 \quad 2$
and one of the following options:

| STA 571 | Statistical Methods for Research I |
| :--- | :--- |
| STA 661 | Advanced Statistics in the Behavioral <br> and Biological Sciences I |
| STA 580 | Biostatistical Methods |
| ERM 517 | Statistical Methods in Education |
| ERM 680 | Intermediate Statistical Methods in <br> Education |
| HEA 604 | Public Health Statistics |

Research Techniques ( 6 hours minimum)

## NTR 673 Nutrition Research Methodology

At least 3 hours in one or more of the following research courses:
NTR 601 Directed Study in Nutrition 1-6

NTR 623 Current Trends in Nutrition
NTR 653 Problems in Food and Nutrition
NTR 670 Research Skill Development
Electives (20 hours minimum)
The student will select at least 20 hours from other 500or 600-level courses in NTR, other science courses, HEA, or CED, as approved by the student's advisory committee.

15 elective hours will come from the DI course requirements
For those students who are completing the Dietetic Internship requirements as part of their graduate program of study

NTR 602 Supervised Preparation for Professional and Community Engagement

NTR 693 Supervised Preparation for Practicum in Clinical Dietetics

Nine elective hours will be designated from the Supervised Practice component requirement:

| NTR 606a | Practicum in Clinical Dietetics | $3-6$ |
| :--- | :--- | :--- |
| NTR 606b | Practicum in Clinical Dietetics | $3-6$ |
| NTR 606c | Practicum in Clinical Dietetics | $3-6$ |

Successful completion of these courses is required for the student to be eligible to take The American Dietetic Association's national examination to become a registered dietitian (RD).
Comprehensive Examination (Capstone Experience)
The written examination is offered at specific times each year. Please consult with the Director of Graduate Study for the dates.

## Nutrition, PhD

The PhD in Nutrition requires a minimum of 63 semester hours. The focus of the doctoral program is the development of critical thinking, problem solving, communication, and organizational skills and the application of these skills to a nutrition-related research problem. The research goal of the department is to optimize human health. This is done through a wide variety of research approaches. Program strengths include nutritional assessment and intervention, nutritional biochemistry, molecular roles of nutrients, nutrition and disease, community nutrition, nutrition education, and life-span nutrition. Graduates of the doctoral program are prepared for careers in research, teaching at the college or university level, consulting, and management.

At least 75\% of all course work, exclusive of dissertation hours, must be at the 600 or 700 level. Students entering the PhD program with a Master of Science degree may be granted a waiver for some requirements if they have successfully completed equivalent course work. This decision will be made after evaluation by the student's major advisor and the doctoral Advisory/Dissertation Committee.

## Application and Admission

In addition to the application materials required by The Graduate School, applicants must submit a letter of intent that includes research and professional objectives and that identifies faculty with research interests most central to student research and career interests.

Applications for admission are reviewed during January, February, and March of each year for Fall admission and in September, October, and November of each year for Spring admission.

While the PhD program primarily admits students with a Master's degree, the graduate committee will consider baccalaureate students with exceptional academic and undergraduate research experiences.

## Degree Requirements

| Required Core Courses (16 hours) |  |
| :--- | :--- |
| NTR 609 | Seminar in Nutrition |
| NTR 625 | Gene Expression and Protein <br> Metabolism |
| NTR 626 | Energy, Carbohydrate, Lipid Metabolism |
| NTR 627 | Antioxidants and Bioactive Food <br> Components |
|  | VTR 628 |

Research Techniques ( 21 hours minimum)
With approval of the Advisory/Dissertation Committee, a student will select a minimum of one statistics course (3-4 hours), NTR 673 (Nutrition Research Methodology - 3 hours), and two or three additional courses for developing technical competency to enhance research skills and competitiveness (8 hours minimum). Students will also take at least 6 hours in one or more of the following research courses:

| NTR 601 | Directed Study in Nutrition | $1-6$ |
| :--- | :--- | ---: |
| NTR 623 | Current Trends in Nutrition | 3 |
| NTR 653 | Problems in Food and Nutrition | $2-4$ |
| NTR 670 | Research Skill Development | $2-6$ |

Electives (8 hours minimum)
With approval of the Advisory/Dissertation Committee, a student will select 6 hours from other NTR courses at the 500-700 level and an additional 2 hours minimum in NTR or a supporting program at the 500-700 level.

## Comprehensive Examination

The student will consult with his/her
Advisory/Dissertation Committee about the specific format of the written and oral sections of this examination.

Research and Dissertation (18 hours minimum)

| NTR 790 | Doctoral Research | $1-6$ |
| :--- | :--- | ---: |
| NTR 799 | Dissertation Problem | $1-12$ |

## For Students Who Completed their MS at UNCG

Students who have completed their MS degree in the Department of Nutrition at UNCG will have already completed the majority of the Required Core Courses, Nutrition Research Methodology, and at least one statistics course. Therefore, their program of study will include primarily Research Techniques credits and Research and Dissertation credit hours. Credit received for courses taken as part of the MS degree cannot be counted towards the PhD degree. The majority of credit hours
must be at the 600-700 level. Their minimal course work is shown below.

Required Core Courses (6 hours)
NTR 609 Seminar in Nutrition
Research Techniques (14 hours minimum)
NTR 601 Directed Study in Nutrition 1-6
NTR 623 Current Trends in Nutrition 3

NTR 653 Problems in Food and Nutrition 2-4
NTR 670 Research Skill Development 2-6
Statistics courses
Electives (8 hours minimum)
With the approval of the Advisory/Dissertation Committee, a student will select 6 hours from other NTR courses at the 500-700 level and an additional 2 hours minimum in NTR or a supporting program at the 500-700 level.

Research and Dissertation (18 hours minimum)

| NTR 790 | Doctoral Research | $1-6$ |
| :--- | :--- | ---: |
| NTR 799 | Dissertation Problem | $1-12$ |

## Peace and Conflict Studies Department of

210 Mclver Building • (336) 334-4781 •
conflictstudies.uncg.edu

## Graduate Programs

- Post-Baccalaureate Certificate in Conflict and Peace Studies, 18 hours
- Master of Arts (MA) in Conflict and Peace Studies, Professional Conflict Practice, Education, and International Peace Development concentrations, 39 hours


## Graduate Faculty

## Program Director

Cathryne L. Schmitz, Ph.D, Organizational conflict, cultural dimensions of conflict, peace and community building, gender and peacebuilding, integrative colloquium.

## Associate Professor

Thomas G. Matyok, PhD, Peace and community building, crisis management, building peace through health, conflict resolution in groups, integrative colloquium (Director of Graduate Study).

## Conflict and Peace Studies, PBC

The Post-Baccalaureate Certificate in Conflict and Peace Studies prepares students for the changing nature of professional development, organizational knowledgge and change through scholarship and research. The certificate program can be beneficial to those who have already received a graduate degree in their current area but would like to specialize in conflict studies. It is also appropriate for those who possess an undergraduate degree and are seeking to obtain broad knowledge of the conflict and peace studies field or for professionals who have already earned a graduate degree in their professional field and would benefit from research and theory and additional practice skills in a range of conflict studies.
The certificate requires 18 semester hours. A maximum of 6 semester hours from graduate courses taken in or transferred from other programs may be applied to the requirements of the certificate program upon the approval of the Program Director and in accordance with policies of The Graduate School. Courses taken for the certificate program may be used to meet requirements in a degree program in accordance with the policies of The Graduate School.

## Online Certificate Program

Both the certificate program and the master's program are available online; all web based courses run parallel to
residential courses on campus and the curriculum is identical. Classes meet weekly via synchronous web connection at regularly scheduled times for lectures and discussions; assignments, supplementary materials, feedback, and assessments are accessed online. See the program website for more information.

## Application and Admission

Applicants must submit all application materials required by The Graduate School by March 1 to be considered for an assistantship. Applications for Fall admission are reviewed through June. Students may be admitted for Spring if openings remain.

## Certificate Requirements

Certificate students need to take CPS 600 and 601 then work with their advisor to design their own program with the advice and written approval of their advisor.

## Suggested Certificate Curriculum

Core Courses (12 hours)

| CPS 600 | Fundamentals of Conflict <br> Transformation and Peace Studies | 3 |
| :--- | :--- | ---: |
| CPS 601 | Global Intercultural Conflict <br> Transformation | 3 |
| CPS 605 | Skills and Techniques of Conflict <br> Transformation | 3 |
| CPS 606 | Organizational Conflict: Theories and <br> Practices | 3 |
| CPS 610 | Conflict Transformation: Reconciliation <br> and Healing | 3 |

Two electives would then be selected from Conflict and Peace Studies courses to complete the required hours with the approval of the student's advisor.

## Conflict and Peace Studies, MA

The MA in Conflict and Peace Studies is dedicated to providing high quality, professional training in multiple conflict intervention and prevention skills such as mediation, negotiation, facilitation, restorative practices, violence prevention, and collaborative problem solving. Students engage in community-based learning through a variety of courses to build practice, intervention, and research skills. The program focuses on pragmatic approaches to solving personal and social problems in a variety of social settings. Students are exposed to an array of techniques and strategies to achieve nonviolent solutions to conflict that arises in diverse family, organizational and community environments.

The program promotes a systemic and critical perspective to the challenges facing individuals, families, organizations and communities in both a global and local analytical
perspective. With an interdisciplinary commitment to social justice and human rights, we train professionals to seek collaborative, constructive and conciliatory methods for resolving human conflict. Our goal is to mold reflective conflict professionals-practitioners with a critical understanding of theory, research and a range of methods, local and global perspectives, and an appreciation of diversity, peace development and social justice.
The MA in Conflict and Peace Studies requires completion of 39 semester hours and is built on a comprehensive core curriculum of nine academic courses and seminars. Flexible course schedules in the day, evenings and summer allow students of all ages, challenges, job requirements, technology, and delivery needs to participate in the learning process.

## Concentrations

The program offers three concentrations which students may choose to focus their research, theory and practice areas; concentrations are voluntary and are not required for graduation. The areas are Professional Conflict Practice, Education, and International Peace Development. Students must take one required course from the concentration list below and select from the remaining course cluster list to complete a concentration of nine semester hours or three semester courses. Concentrations must be declared by students by the end of the first year and interest in engaging in research as the field experience must be declared in CPS 607 Professional Research Seminar since a concentration track will affect course selection in the second year.

## Online Master's Degree

The master's program is available completely online and is identical in content and focus with the residential program; courses are usually offered simultaneously in residential and online formats. A few courses, such as Integrated Colloquium may be are offered in combination, with residential and online students meeting on the same time and day for joint discussion, feedback and collaborative team projects. For more information, visit conflictstudies.uncg.edu or email for information at conflictstudies@uncg.edu.

## Student Exchange with University of Konstanz, Konstanz, Germany

The Conflict and Peace Studies Program offers a student exchange program with the University of Konstanz in Germany. The Konstanz focus on public policy and international public administration is a valuable curricular addition for UNCG students interested in study and potential internships in international affairs, peacebuilding, and postconflict policy and administration, EU and NATO policy in Europe, conflict assessment, and postwar recovery programs.

## Application and Admission

In addition to the application material required by The Graduate School, applicants must submit a personal essay on their interest and expectations of the MA in Conflict and Peace Studies and complete an interview with members of the admissions committee. Applications are accepted through June but should be received by March 1 for full consideration for Fall admission and available assistantships. Applications will be reviewed until July 1 if space remains. Students need to specify residential or online status at the time of admission.

## Degree Requirements

Required Courses (24 hours)

| CPS 600 | Fundamentals of Conflict <br> Transformation and Peace Studies | 3 |
| :---: | :---: | :---: |
| CPS 601 | Global Intercultural Conflict Transformation | 3 |
| CPS 602 | Professional Practice Seminar | 1.5 |
| CPS 605 | Skills and Techniques of Conflict Transformation | 3 |
| CPS 606 | Organizational Conflict: Theories and Practices | 3 |
| CPS 607 | Professional Research Seminar | 1.5 |
| CPS 609 | Community Engaged Research | 3 |
| CPS 610 | Conflict Transformation: Reconciliation and Healing | 3 |
| Integrative Colloquium (3 hours) (Capstone Experience) |  |  |
| CPS 690 | Integrated Colloquium | 3 |

The capstone course is designed to complete the integration of theory, global and cultural awareness, intervention skills, project management and public policy issues. Through individually designed capstone projects or research papers, students will analyze and synthesize what they have learned throughout the curriculum, exploring issues individually and within learning communities, to deepen their experience in the evaluation of practice and the process of ongoing knowledge building.

Electives (12 hours)
Electives are selected with the approval of the faculty advisor to encompass a student's selected concentration or individual pathway through the program. Students pursuing an optional concentration will complete 9 of the 12 semester hours as follows:

Education Concentration (9 hours)
CPS 625 Conflict Resolution in Education: K-12
and two of the following courses:

| CPS 631 | Crisis Management: Response and <br> Resolution | 3 |
| :--- | :--- | :--- |
| CPS 633 | Restorative Justice: Theory and Practice | 3 |
| International |  |  |
| CPeace Development (9 hours) |  |  |
|  | Peace Development and Community <br> Building | 3 |

and two of the following courses:

| CPS 677 | Advocacy Theory and Practice |  |
| :--- | :--- | :--- |
| CPS 679 | Gender and Peacebuilding | 3 |
| CPS 685 | Resolving Conflict in Health Care <br> Systems: Achieving Peace through <br> Health | 3 |

Professional Conflict Practice concentration (9 hours)
CPS 645 Conflict Practice 3
and two of the following courses:

CPS 647 | Moving Conflict through Negotiation |
| :--- |
| and Mediation |

CPS 652 Conflict Resolution in Groups 3

## Philosophy, Department of

216 Foust Building • (336) 334-5059 •
www.uncg.edu/phi
Graduate Programs

- No graduate degree program offered; see Master of Arts in Liberal Studies (p. Error! Bookmark not defined.)


## Graduate Faculty

## Professors

Joshua Hoffman, PhD, Analytical metaphysics (theory of substance, theory of categories), analytical philosophy of religion, history of philosophy.

Jarrett Leplin, PhD, Philosophy of science, epistemology.
Terrance McConnell, PhD, Ethical theory, medical ethics, political philosophy.

Gary Rosenkrantz, PhD, Metaphysics, epistemology, philosophy of mind, philosophy of religion (Head of Department).

Michael Zimmerman, PhD, Ethics, action theory.
Associate Professors
Heather Gert, PhD, Ethics, Wittgenstein.
Janine Jones, PhD, Philosophy of mind, philosophy of language.

## Physics and Astronomy, Department of

321 Petty Building • (336) 334-5844 • www.uncg.edu/phy

## Graduate Programs

- No graduate degree program offered.


## Graduate Faculty

## Professor

William J. Gerace, PhD, Theoretical nuclear physics, science education research and science teacher professional development, modeling cognition and learning (Helena Gabriel Houston Distinguished Professor of Science Education).

## Associate Professors

Stephen C. Danford, PhD, Observational stellar astronomy.

Edward H. Hellen, PhD, Nonlinear dynamics, excitable systems, biophysics, fluorescence techniques.

Anatoly Miroshnichenko, DSc, Observational astrophysics, interstellar and circumstellar matter.
Promod Pratap, PhD, Biophysics of biological membranes, biological energetics, thermodynamics of biochemical reactions (Head of Department).

## Assistant Professors

Ian Beatty, PhD, Science education research, instructional technologies and methods, teacher education and teacher change research, cognitive modeling of knowledge and learning.

Graduate level physics and astronomy courses prepare students for graduate study or for careers in industry, government, or teaching and may be used by teachers in elementary, middle, and secondary schools for licensure renewal.

## Political Science, Department of

324 Curry Building • (336) 334-5989 • www.uncg.edu/psc

## Graduate Programs

- Post-Baccalaureate Certificate in Nonprofit Management, 15 hours
- Post-Baccalaureate Certificate in Urban and Economic Development, 18 hours (offered jointly with the Department of Geography)
- Master of Arts (MA) in Political Science, 30 hours
- Master of Public Affairs (MPA), Community and Economic Development, Local Government Management, or Nonprofit Management optional concentration, 40-43 hours


## Graduate Faculty

## Professors

Linda P. Brady, PhD, American foreign policy, international negotiation, and arms control (Chancellor).
James Clotfelter, PhD, Southern politics, public policy (health, technology, defense) (Vice-Chancellor for Information Technology Services).

William Crowther, PhD, Comparative politics, political economy, Eastern Europe, inter-ethnic relations (Head of Department).

Ruth Hoogland DeHoog, PhD, Public administration, urban management, privatization, organization theory and behavior (Director of Graduate Study).

Charles L. Prysby, PhD, Research methods, elections, voting behavior, political parties, southern politics, contextual analysis.

Jerry Pubantz, PhD, International politics, Middle East politics, the United Nations, American foreign policy, and globalization (Dean, Honors College).

## Associate Professors

Susan J. Buck, PhD, Environmental policy and law, public policy, administrative law.

Robert J. Griffiths, PhD, Comparative and international politics, African politics, civil-military relations, politics of development.

David Holian, PhD, The presidency, legislative politics, mass media, public opinion, and political methodology.
Susan W. Johnson, PhD, American politics, judicial politics, Supreme Court decision making, Canadian Supreme Court.

Kenneth A. Klase, DPA, Public administration, public budgeting and finance, public financial management.

Fabrice Lehoucq, PhD, Comparative politics, Latin American politics, political economy of development.

Gregory E. McAvoy, PhD, Public policy, research methods, environmental policy, program evaluation.

Carisa Showden, PhD, Modern and contemporary political theory, feminist theory, women in U.S. politics.

## Assistant Professors

Takashi Tsukamoto, PhD, Urban politics, community and economic development, urban development policy.

## Lecturer

J. Alan Boyette, PhD, State politics, federalism and intergovernmental relations, public policy (environment, education, campaign finance).

## Nonprofit Management, PBC

The Post-Baccalaureate Certificate in Nonprofit Management requires 15 semester hours and is designed to meet the training needs of nonprofit professionals. Certificate graduates will be prepared for management positions in the nonprofit sector, including positions in human service agencies, foundations, or professional associations. The certificate program may be useful to government and business professionals who have significant voluntary or nonprofit agency responsibilities.
The program combines core courses and electives that allow a student some tailoring to specific interests with courses available online and/or on campus. At least 12 hours must be taken in the MPA curriculum. A portfolio demonstrating skills and competencies acquired through course work in the program must be submitted and approved for completion of the certificate. If the portfolio is judged unacceptable, no more than one additional attempt to satisfy the requirement is permitted. If the student fails to meet the department's minimum criteria for the portfolio on the second attempt, The Graduate School will be notified and will send the student a letter of dismissal.

## Application and Admission

In addition to the application materials required by The Graduate School, applicants must submit a personal statement and a resume.

## Certificate Requirements

Core Requirements (9 hours)

| PSC 540 | Nonprofit Management and Leadership |
| :--- | :--- |
| PSC 645 | Nonprofit Financial Management and <br> Budgeting |
| PSC 650 | Philanthropy and Resource <br> Development |

Choice Requirements (3 hours)
Students choose three of the following:

PSC 511B Topics in Public Affairs: Marketing for Public and Nonprofit Agencies (1)

PSC 511D Topics in Public Affairs: Strategic Planning (1)
PSC 511G Topics in Public Affairs: Grant Writing (1)
PSC 511N Topics in Public Affairs: Nonprofit Law (1)

PSC 511V Topics in Public Affairs: Volunteer Management (1)
Electives (3 hours)
Students must take 3 hours in a combination of one-hour courses (PSC 511): strategic planning, marketing, legislative relations, volunteer management, media relations, oral communication skills, grantwriting, nonprofit law; and/or a 3 hour course from the MPA curriculum or approved courses outside the department in human development and family studies, social work, public health, business administration, and/or counseling, etc.

## Urban and Economic Development, PBC

The Post-Baccalaureate Certificate in Urban and Economic Development requires 18 semester hours and is offered jointly by the departments of Political Science and Geography. It is designed to meet the training needs of those currently working in or planning to work in urban planning or community and economic development.
This certificate requires courses emphasizing the knowledge and skills to prepare students to work in organizations focusing on urban planning and community economic development activities in government and nonprofit organizations.

## Application and Admission

In addition to the application materials required by The Graduate School, applicants must submit a personal statement.

## Certificate Requirements

Required Core Courses (12 hours)
GEO 502 Urban Planning 3

GEO 533 Regional Economic Development

PSC 520
PSC 630 Community and Economic Development Theory and Practice

Electives (6 hours)
Select two from the following:

| GEO 602 | Regional Planning | 3 |
| :--- | :--- | :--- |
| GEO 603 | Understanding Geographic Information <br> Systems | 3 |
| GEO 622 | GIS Applications in Urban Planning | 3 |
| GEO 631 | Transportation Planning | 3 |
| PSC 613 | Local Government Administration | 3 |
| PSC 620 | Urban Development Policy | 3 |

## Political Science, MA

The MA in Political Science requires 30 semester hours and is for persons who wish to teach in community colleges and secondary schools or continue graduate study in a doctoral program or a professional school.
Course offerings and the thesis focus on public administration and policy.

## Application and Admission

In addition to the application materials required by The Graduate School, applicants must submit a personal statement.

## Degree Requirements

Required Courses (6 hours)
Two courses must be taken in the first 18 hours:

| PSC 601 | Politics of Public Policy |
| :--- | :--- |
| PSC 602 | Quantitative Analysis and Program |
|  | Evaluation |

Electives (24 hours)
Students select from departmental offerings. Up to 6 hours may be taken as independent study courses.

Thesis
See the Director of Graduate Study for details.
PSC 699 Thesis 1-6

Comprehensive Examination (Capstone Experience)
A written comprehensive examination is required when 18 hours of course work have been completed.

## Master of Public Affairs, MPA

## Community and Economic Development, Local Government Management, and Nonprofit Management Concentrations

The Master of Public Affairs requires 40 semester hours and is intended for persons interested in public service careers in local, state, and federal agencies; private, nonprofit agencies and voluntary organizations; public affairs offices in private businesses; and legislative staff positions. It provides professional training designed to meet current demands in public service positions and build the foundation for long-term development and advancement in a public service career. The MPA program is accredited by the National Association of Schools of Public Affairs and Administration (NASPAA).

The program provides a foundation in the major substantive areas of public affairs: policy-making and policy analysis; administration, management and organizational behavior; quantitative analysis and evaluation; and the political context of public administration. Beyond these areas, students can declare a concentration or take a mix of electives in the department and up to 9 hours in other departments (e.g., geography, conflict and peace studies, public health education).

Students with no work experience in public or nonprofit agencies must complete an additional 3 hour supervised internship, along with a field research project.

The MPA degree is linked to the Bachelor of Arts in economics and the Bachelor of Arts in political science so that a student may earn both degrees in approximately five years. Undergraduates must be formally admitted to one of these programs. Please see the appropriate departmental listing in the Undergraduate Bulletin for the details of these accelerated programs of study.
Application and Admission
In addition to the application materials required by The Graduate School, applicants must submit a personal statement.
(See www.uncg.edu/psc/mpa/ for the form.)

## Degree Requirements

Prerequisite (3 hours)
The program requires students to have completed an undergraduate course in American government, politics, or public policy.

Core Courses (23 hours)
The eight required courses are to be taken in approximately the following order, when possible. Consult an advisor for specific sections of 511 .

PSC $650 \quad$ Philanthropy and Resource
Development
Students may take up to 9 hours from approved graduate courses in other departments.

Experiential Component
Students not having approved prior work experience will complete a supervised internship (PSC 695) in a public or nonprofit agency for 3-6 hours credit, depending on the duration of the placement, together with a directed field study (PSC 696). Students with prior work who desire experience in a new area of public affairs may choose to complete an internship as well.

Comprehensive Examination (Capstone Experience)
The required exam consists of two parts: (1) a written essay examination (based on core courses) when halfway through the graduate program, and (2) a summary of learning paper completed near the end of graduate work.

## Community and Economic Development Concentration

This concentration combines the MPA core requirements with courses emphasizing the knowledge and skills to prepare students to work in organizations focusing on community and economic development activities. The prerequisite, comprehensive exam, and the experiential component are the same as for the MPA.

Required Courses ( 35 hours)
Students must complete all of the MPA core courses including the required research tools course. Students will need to consult with an advisor for specific section of 511. They must also complete 15 hours of course work related to community and economic development skills and knowledge. Required courses are:

| PSC 511 | Topics in Public Affairs |
| :--- | :--- |
| PSC 520 | Urban Political System |
| PSC 620 | Urban Development Policy |
| PSC 630 | Community and Economic Development <br>  |

Plus one of the following courses:
GEO 502 Urban Planning
GEO 533 Regional Economic Development
Electives (5 hours)
With the approval of the Director of Graduate Study, students may select additional course work from political science or other departments, such as geography, sociology, business administration, or economics.
Internship (3 hours)

An internship (PSC 695) is required for students who have no prior experience in a professional or management position in community and economic development.

## Local Government Management Concentration

This concentration combines the MPA core requirements with courses emphasizing the knowledge and skills to prepare students to work as local government managers. The prerequisite, comprehensive exam, and experiential component are the same as for the MPA.

Required Courses (29 hours)
Students must complete all of the MPA core courses including the required research tools course ( 23 hours). For the concentration, they must complete 6 hours of required course work related to local government management skills and knowledge.

| PSC 520 | Urban Political System | 3 |
| :--- | :--- | :--- |
| PSC 613 | Local Government Administration | 3 |

Electives (11 hours)
Students complete an additional 11 hours of elective course work. Nine of these elective hours together with the 6 hours of required concentration courses listed above complete a 15 hour concentration in local government management.

Recommended courses include:

| PSC 510 | Topics in Public Policy | $1-3$ |
| :--- | :--- | ---: |
| PSC 511 | Topics in Public Affairs | 1 |
| PSC 560 | Special Topics in Public Administration | $1-3$ |
| PSC 512 | Federalism and Intergovernmental |  |
|  | Relations | 3 |
| PSC 530 | Administrative and Elected Leadership | 3 |
| PSC 630 | Community and Economic Development |  |
|  | Theory and Practice | 3 |
| GEO 502 | Urban Planning | 3 |

With the approval of the Director of Graduate Study, students may select additional course work from political science or other departments, such as geography, sociology, business administration, or economics. Students will need to consult with an advisor on specific sections of 510, 511 and 560.
Internship (3 hours)
An internship (PSC 695) is required for students who have no prior experience in a professional or management position in a government agency.

## Nonprofit Management Concentration

This concentration combines the MPA core requirements with courses emphasizing the knowledge and skills to prepare students to work in or with the nonprofit sector. The prerequisite, comprehensive exam, and the experiential component are the same as for the MPA.
Required Courses (31 hours)
Students must complete all but one of the MPA core courses. The research tools requirement in the MPA core will be met by PSC 611. They must also complete 15 hours of course work related to nonprofit management skills and knowledge. Required courses are:

PSC $650 \quad$ Philanthropy and Resource Development

Plus three of the following four one-hour Topics in Public Affairs:
PSC 511B Topics in Public Affairs: Marketing for Public and Nonprofit Agencies (1)
PSC 511D Topics in Public Affairs: Strategic Planning (1)
PSC 511G Topics in Public Affairs: Grant Writing (1)
PSC 511V Topics in Public Affairs: Volunteer Management (1)
Electives (9 hours)
With the approval of the Director of Graduate Study, students may select courses from political science or up to 9 hours in other departments, such as social work; gerontology; or sociology.
Internship (3 hours)
An internship (PSC 695) is required for students who have no prior experience in a professional or management position in a nonprofit agency.

## MPA with Post-Baccalaureate Certificate in Gerontology

Students with an interest in public service work related to the elderly and meeting the needs of an aging society may complete elective course work in the MPA degree by jointly completing the Post-Baccalaureate Certificate in Gerontology.

## Psychology, Department of

296 Eberhart Building • (336) 334-5013 •
www.uncg.edu/psy

## Graduate Programs

- Master of Arts (MA) in Psychology, General Experimental Psychology concentration, 36 hours
- Master of Arts/Doctor of Philosophy (MA/PhD) in Psychology, Clinical Psychology concentration, 112 hours
- Doctor of Philosophy (PhD) in Psychology, Cognitive Psychology, Developmental Psychology, General Experimental Psychology, or Social Psychology concentrations, 71 hours


## Graduate Faculty

## Professors

Arthur D. Anastopoulos, PhD, AttentionDeficit/Hyperactivity Disorder in children, adolescents, and adults, including multi-method assessment, multi-modal treatment, parent-child interactions, and parent training.

Robert Guttentag, PhD, Cognitive development, children's learning and remembering (Head of Department).

Timothy Johnston, PhD, Comparative studies of behavioral development and evolution, and the history of developmental theories in psychology and biology.

Michael J. Kane, PhD, Attention and memory, particularly where they interact in the "working memory" system and how they contribute to intelligence and higher-order cognitive processes.

Susan P. Keane, PhD, Social and emotional development in children and adolescents, peer relations, friendship, developmental psychopathology. (Director of Clinical Training)
Thomas R. Kwapil, PhD, Schizophrenia and related illnesses studied from experimental and developmental psychopathology perspectives.
George F. Michel, PhD, Developmental psychobiology, sensorimotor development during infancy, neuroendocrine processes in mammalian parental care.

Rosemery Nelson-Gray, PhD, Adult depression and personality disorders; theory and techniques of behavioral assessment.

Terri L. Shelton, PhD, Developmental psychopathology, assessment and treatment of young children.

Susan Calkins, PhD, Social and emotional development in childhood with emphasis on the development of aggression.

Walter Salinger, PhD, Physiology of behavior, particularly pre- and postnatal neural development, infant and adult neural plasticity, visual physiology.

## Associate Professors

Janet J. Boseovski, PhD, Social cognition in early to middle childhood, including personality understanding, stereotyping and prejudice; development psychopathology.

Peter Delaney, PhD, Planning and problem solving, memory, expertise and skill.

Douglas W. Levine, PhD, Areas of quantitative research includes power analysis, classification problems, categorical data analysis, and using re-sampling methodologies in factor analysis.

Stuart Marcovitch, PhD, Cognitive development, particularly conscious and unconscious influences on behavior (Director of Graduate Studies).

Julia L. Mendez, PhD, Parenting and social competence among ethnic minority children, preventive intervention with low-income children and families.

Lili Sahakyan, PhD, Retrieval processes in human longterm memory, the role of context in memory.

Paul Silvia, PhD, Self-awareness, self-regulation, aesthetics, creativity, cognition and emotion.

Dayna R. Touron, Ph.D, Cognitive aging, skill acquisition, strategy use, metacognition.

## Assistant Professors

Kari Eddington, PhD, Cognitive, motivational, and neurobiological processes in depression; mechanisms of change in psychosocial treatments for depression.
Gabriela Stein, PhD, Models of depression in Latino and African American youth, developing culturally responsive prevention and interventions for ethnically diverse families.

Ethan Zell, PhD, Self-evaluation, social perception, errors and biases in judgement.

The Psychology Department offers two graduate training tracks-a terminal MA in general experimental psychology and a PhD with specializations in clinical, cognitive, developmental, and social psychology. Students may apply to either or both tracks. The clinical program is fully accredited by the American Psychological Association.

## Adjunct Professors

At both levels, the objective is to provide the combination of a sound scholarly foundation with methodological and practical skills that will enable the student to function in a variety of academic, research, and service settings. The program has an experimental orientation, with four major areas of concentration:

- Clinical (Eddington, Keane, Kwapil, Mendez, NelsonGray, Stein)-includes research training and clinical training in a variety of service settings.
- Developmental (Boseovski, Guttentag, Johnston, Keane, Marcovitch, Sahakyan, Touron)-includes basic research in behavioral, cognitive, language, and social development in infant, child, adolescent, and adult humans and in animals.
- Cognitive (Delaney, Guttentag, Kane, Marcovitch, Sahakyan, Touron) -includes basic research in human memory, cognition, and language.
- Social (Boseovski, Silvia, and Zell)—includes basic research in social phenomena, e.g., aggression, attitudes, communication, gender relations, intergroup comparison, and social competence.
The goal of the terminal MA is the Master of Arts degree. Those who successfully complete the terminal MA, however, may apply to the PhD program. In addition, students with master's degrees from other institutions are welcome to apply to the PhD program. Their past work is evaluated to determine which requirements of our program have been satisfied.
The Psychology Department has additional policies and procedures that are described in the Psychology Graduate Student Handbook, which is accessible electronically at http://www.uncg.edu/psy/grad/index.html.


## Psychology, MA

## General Experimental Psychology Concentration

The terminal MA in Psychology with a concentration in general experimental psychology requires 36 semester hours - 9 hours in three core courses, 11 hours of statistics and research methods, 10 hours of electives and 6 hours of thesis.

## Application and Admission

In addition to the application materials required by The Graduate School, applicants must submit a Psychology Department Application form (which includes two brief essays), which is available at
http://www.uncg.edu/psy/grad/applying.html.
The deadline to apply is April 20 for Fall admission.

## Degree Requirements

Degree requirements for students in the Terminal MA program in Psychology with a concentration in general experimental psychology are identical to those for students in the MA portion of the MA/PhD program in Psychology with a Cognitive, Developmental, Social, or General Experimental concentration, with one exception: For students in the MA/PhD programs, only courses with grades of $B$ or better may count toward the MA degree. Grades below $B$ in courses to be counted toward the MA degree must be replaced either by re-taking the same course or by earning a grade of B or better in another course that the Department Head formally determines to be an equivalent course (upon consultation with the instructor(s) of the course in the Psychology department).

## Core Courses (9 hours)

Each student must take at least one core course from three of five core areas: only core courses in which a grade of $B$ or better is earned will count towad the core course requirement.
Clinical
PSY 661 Psychological Disorders in Children 3
PSY 662 Psychological Disorders in Adults
Cognitive
PSY 652 Cognitive Processes
Developmental
PSY 643 Developmental Psychology
Biological
PSY 625/BIO Advanced Animal Behavior
625
PSY 650 Physiology of Sensory and Behavioral Processes

Social
PSY 647 Advanced Social Psychology
Statistics and Methodology (11 hours)

| PSY 609 | Statistical Methods in Psychology I | 4 |
| :--- | :--- | :--- |
| PSY 610 | Statistical Methods in Psychology II | 4 |
| PSY 624 | Research Methods in Psychology | 3 |

Additional Courses ( 10 hours, plus 6 hours of thesis)
In addition to 6 hours of PSY 699 Thesis, additional courses are to be selected from 600-level psychology courses or, with the permission of the Director of Graduate Study, graduate level courses in other departments.
PSY 699: Capstone Experience

## Psychology, MA/PhD

## Clinical Psychology Concentration

Clinical students in the MA/PhD track are required to satisfy all requirements for the MA degree in clinical psychology as part of their PhD requirement. A minimum of 57 semester hours is required for the MA component of the PhD. The PhD in Clinical Psychology requires 112 semester hours including internship hours ( 6 credits). All credits taken to satisfy the MA component may be applied toward the PhD requirements.
Students who receive an MA in Clinical Psychology from another institution will submit syllabi, thesis document, and other materials for review. The students will work closely with their advisor and the Director of Clinical Training to develop their doctoral plan of study. Typically, students who come to UNCG with a MA degree from another institution receive credit for 28-32 credit hours (approximately 1 year). In addition, the thesis is reviewed by a committee of three faculty, and, if viewed as comparable in scope and theoretical focus to the UNCG thesis requirement, no additional thesis work will be required.

## Application and Admission

In addition to the application materials required by the Graduate School, applicants must submit a Psychology Department Application Form, which is available at http://www.uncg.edu/psy/grad/applying.html.
The deadline to apply is December 15 for fall admission.
It is important to note that the department does not accept students who seek a terminal MA degree in clinical psychology, only those seeking a PhD.

## Degree Requirements

For clinical program students, course grades lower than a B cannot count toward either the MA or PhD degree; these courses must be re-taken, or substitute courses taken. Course equivalents are decided in consultation with the advisor, the student's planning committee and the Director of Clinical Training.

MA General Core Courses (10 hours)
To satisfy the requirement that students must obtain foundational knowledge in the breadth of Psychology as a science, at the MA level, students must earn 10 credit hours. Nine hours are chosen from the following core courses (or their equivalents, decided in consultation with the student's planning committee):

## Cognitive

PSY 643
Developmental Psychology
Biological

| PSY 650 | Physiology of Sensory and Behavioral <br> Processes |
| :--- | :--- |

Social
PSY 647 Advanced Social Psychology
In addition to the 9 credits above;
PSY 601 Historical Perspectives on Psychology as a Science - 1 credit

Clinical Core Courses (3 hours)
PSY $662 \quad$ Psychological Disorders in Adults
Satisfactory completion of the core courses above (with grades of $B$ or better) satisfy the MA Comprehensive Examination.

Additional Clinical Courses (18 hours)
PSY 622 Theory and Methods of Psychotherapy 3

| PSY 623 | Theory and Methods of Personality |
| :--- | :--- | :--- |
|  | Assessment |


| PSY 626 | Theory and Methods of Behavioral |
| :--- | :--- | :--- |
|  | Assessment and Therapy |


| PSY 640 | Theory and Methods of Intellectual |
| :--- | :--- |
|  | Assessment |

PSY $661 \quad$ Psychological Disorders in Children 3
$\begin{array}{ll}\text { PSY } 724 & \text { Ethical Responsibilities of Clinical } \\ & \text { Psychologists }\end{array}$
MA Research Tools Courses (17 hours)

| PSY 609 | Statistical Methods in Psychology I | 4 |
| :--- | :--- | ---: |
| PSY 610 | Statistical Methods in Psychology II | 4 |
| PSY 624 | Research Methods in Psychology | 3 |
| PSY 699 | Thesis | $1-6$ |
| PSY 699: Capstone Experience |  |  |
| MA Clinical Practicum Training (9 hours) |  |  |
| PSY 642 | Practicum in Clinical Intervention | $1-6$ |

(Taken over three semesters: 1 credit in year $1 ; 4$ credits in fall and spring of year 2)

PhD Requirements
In addition to the MA requirements (57 credits), students must complete the following:

Developmental

## Core Courses

1 course not taken in the MA program from among the menu of courses listed:

Cognitive Processes
PSY 650 Physiology of Sensory and Behavioral Processes

PSY 647 Advanced Social Psychology
PSY 643 Developmental Psychology
PhD Seminars (12 hours)
Two advanced clinical courses ( 6 credits):
One of these must be PSY 745 Multicultural Psychology; the other must be a Topical Seminar in Clinical Psychology (PSY 735J)

Two advanced seminars outside the clinical area, approved in advance by the student's doctoral committee (6 credits)

- One may be from another area in psychology (e.g. PSY 735D) or an approved course from another department or an approved advanced Stat/Research course.
- One course MUST address research design/statistical issues.

PhD Research Tools Courses (18 hours minimum)
In addition to MA requirements, students must complete the following:

PSY 751 Independent Doctoral Research - 6 credits
PSY 799 Doctoral Dissertation Research - 12-24 credits
PhD Clinical Practicum Training (22 hours)
In addition to the 9 hours of PSY 642 taken to satisfy the MA requirements, students must complete the following:

PSY 642: Practicum in Clinical Intervention - 10 credits (2 of these are concurrent with PSY 762)

PSY 762: Advanced Practicum in Clinical Psychology - 6 credits

PSY 763: Internship in Clinical Psychology - 6 credits (Taken over two semesters for clinical internship year)

Preliminary Examination
This examination is scheduled in consultation with the doctoral advisory committee. It should be taken during the second semester following successful defense of the MA thesis for students continuously enrolled in the program.

## Psychology, PhD

## Cognitive, Developmental, Social, or General Experimental Psychology Concentration

For continuation into the PhD program, only courses with grades of $B$ or better may count toward the MA degree; grades below B in courses to be counted toward the MA degree must be replaced by either re-taking the same course or by earning a grade of $B$ or better in another course that the Psychology Director of Graduate Study or Psychology Department Head formally determines to be an equivalent course (upon consultation with the instructor(s) of the course in the Psychology Department). A minimum of 71 semester hours is required for the PhD degree.

Students who receive an MA from another institution will submit syllabi, thesis document, and other materials for review to determine the portability of their MA degree. Typically, students earn credit for the MA degree and must complete remaining PhD requirements and a minimum of 35 hours at UNCG.

## Application and Admission

In addition to the application materials required by the Graduate School, applicants must submit a Psychology Department Application Form, which is available at http://www.uncg.edu/psy/grad/applying.html. The deadline to apply is December 15 for fall admission.

## Degree Requirements

Core Courses and Electives (47 hours minimum, including hours acquired in MA)

In addition to core courses and electives taken to satisfy the MA requirements, students complete 18-30 semester hours in their area of concentration (cognitive, developmental, or social) and 18-30 hours outside their area of concentration. Of these hours, only 6 hours of independent study courses (PSY 601) can be counted; at least an additional 3 hours of research tools courses beyond the MA statistics requirements must be taken; and at least four psychology seminars (PSY 735) must be taken.

Research (24 hours minimum, including hours acquired in MA)

In addition to the thesis completed to satisfy the MA requirements, all students complete the following:

| PSY 751 | Independent Doctoral Research | $1-6$ |
| :--- | :--- | ---: |
| PSY 799 | Doctoral Dissertation Research | $1-24$ |
| PSY 624 | Research Methods in Psychology | 3 |

Preliminary Examination
This examination is scheduled in consultation with the doctoral advisory committee.

## Public Health Education, Department of

437 Health and Human Performance Building • (336) 3345532 • www.uncg.edu/phe

## Graduate Programs

- Master of Public Health (MPH) in Community Health Education, 45 hours
- Doctor of Public Health (DrPH) in Community Health Education, 66-90 hours


## Graduate Faculty

## Professors

Daniel L. Bibeau, PhD, Chronic disease risk reduction and mangement; worksite and community health promotion/wellness programs; health and wellness coaching (Chair of Department).

William Dudley, PhD, Health behavior change, research design, statistical methods.

James M. Eddy, DEd, Worksite health promotion; distance education; design, implementation, and evaluation of health education programs; health behavior theory.

Joseph Telfair, MSW/MPH, DrPH, Program evaluation and research; women, teens, and children with chronic conditions; health care for the poor, people of color, and persons in rural areas; social and community aspects of HIV/AIDS.

## Associate Professors

Yorghos Apostolopoulos, PhD, Social epidemiology, psychosocial occupational epidemiology, health demography, and research design and methodology in public health.
Vincent T. Francisco, PhD, Community health promotion, applied community research and human development, applied behavior analysis (Director of Graduate Study).

Kay A. Lovelace, PhD, Public health systems and services research including public health infrastructure, workforce development, interorganizational relationships, and determinants of evidence-based public heath strategies to address population health, health disparities and the social determinants of health.

Sharon D. Morrison, PhD, Immigrant and refugee health, health literacy, HIV/AIDS in international settings, global and cross-cultural health research.

Tracy Nichols, PhD, Health promotion for women and families, adolescent girls, physical activity promotion, delinquency prevention.

Michael A. Perko, PhD, Health promotion for young athletes, worksite health promotion, professional preparation.

Mark Schulz, PhD, Farmworkers' occupational skin disease, epidemiology of bicycle injuries, syphilis screening, determinants of physical activity.

Paige Hall Smith, PhD, Promoting safe, healthy and meaningful lives for women and girls: helping prevent violence against women, promoting healthy sexuality, and increasing breast feeding support at work and in the community.

Robert W. Strack, PhD, Adolescent health, photovoice methodology, community-based program planning and evaluation.

David Wyrick, PhD, Adolescent health, prevention science, research and evaluation methodology, web-based applications.

## Assistant Professors

Kelly L. Rulison, PhD, Adolescent social networks, health risk behaviors (e.g., substance use, delinquency) diffusion of intervention effects, prevention science, longitudinal research design and methodology.

Amanda E. Tanner, PhD, MPH, Sexual and reproductive health, HIV/AIDS, adolescent health, communitybased participatory research.

## Community Health Education, MPH

The Master of Public Health requires 45 semester hours and consists of 39 semester hours of course work and a 6 hour internship/practicum in a community setting. The professional preparation program is for qualified students from a variety of academic and professional backgrounds who are interested in careers that involve the development and management of population-based health promotion and disease prevention activities within communities. In the program students receive academic preparation in the traditional public health fields of epidemiology, statistics, environmental health, and health policy with course work and volunteer experiences emphasizing the development of practitioner competencies. The degree program prepares graduates for careers in public health and health care settings at local, state, regional, or national levels.
The MPH program is accredited by the Council on Education for Public Health. Additionally, the curriculum includes the development of graduate professional competencies recommended by the Society for Public Health Education and the American Association for Health Education.

## Application and Admission

In addition to the minimum admission materials required by The Graduate School, applicants should submit a description of work experiences and a written statement of professional goals.

Applicants are admitted each Fall. Applications are accepted until all slots are filled. Submission date is February 1 for those applicants requesting a graduate assistantship and March 1 for everyone else.

Applicants can be admitted as either full-time or part-time students. All required courses except the internship are offered in the evenings. Full-time students are expected to take four courses each fall and spring semester for two years. Part-time students usually take two courses each fall and spring semester, and one course each summer, over three years.

## Degree Requirements

| Core Courses (18 hours) |  |  |
| :---: | :---: | :---: |
| HEA 601 | Principles of Community Health Education | 3 |
| HEA 602 | Epidemiology | 3 |
| HEA 604 | Public Health Statistics | 3 |
| HEA 608 | Environmental Health | 3 |
| HEA 612 | Management of Community Health Organizations | 3 |
| HEA 645 | Health Policy | 3 |
| Required Professional Courses (9 hours) |  |  |
| HEA 603 | Community Health Analysis | 3 |
| HEA 609 | Community Health Interventions | 3 |
| HEA 625 | Community Health Education Program Evaluation | 3 |

## Electives (9 hours)

Each student will take three elective courses chosen in consultation with his/her advisor.

Capstone Experience (9 hours)
In addition to the field-based learning experiences in courses throughout the program, students are required to integrate and synthesize their acquired skills and knowledge in an applied situation that approximates some aspect of professional practice in community health education. This is done through an internship/practicum in a community health agency. Prior to the internship/practicum, students plan their work in an applied program planning class.

HEA 648
Applied Program Planning
HEA 650 Community Health Internship/Practicum

## Community Health Education, DrPH

The Doctor of Public Health degree in community health education requires 66-90 semester hours of post-master's degree course work. The DrPH program emphasizes community-based prevention research in public health. Program requirements are designed to prepare students academically and professionally for conducting significant public health research to facilitate the resolution of public health outcomes important to the community and field. Students, faculty members, and community partners form research teams whose work is guided by a prevention research model developed by the Centers for Disease Control and Prevention and workforce preparation guidelines developed by the Institute of Medicine.

Assessment of courses or experiences applicable to the degree occurs at the time of admission into the program. The student's doctoral program committee will work with each candidate to develop a course of study within the framework of the program and informed by the student's personal interests, past course work, and professional experiences.

## Application and Admission

In addition to the minimum admission materials required by The Graduate School, applicants should submit a description of work experiences and a written statement of professional goals by December 1 to be considered for Fall admission. Applicants can be admitted as either fulltime or part-time students.

## Degree Requirements

Health Education/Public Health Core (0-24 hours)
Entering doctoral students who have not completed one or more of the core public health courses must complete these courses as part of their program in addition to the minimum 66 credit hours.

| HEA 601 | Principles of Community Health |  |
| :--- | :--- | :--- |
|  | Education | 3 |
| HEA 602 | Epidemiology | 3 |
| HEA 603 | Community Health Analysis | 3 |
| HEA 604 | Public Health Statistics | 3 |
| HEA 608 | Environmental Health | 3 |
| HEA 609 | Community Health Interventions | 3 |
| HEA 625 | Community Health Education Program | 3 |


| HEA 645 | Health Policy | 3 |
| :---: | :---: | :---: |
| Health Education Research Core (27 hours) |  |  |
| HEA 751 | Foundations of Research for Public |  |
|  | Health Education | 3 |
| HEA 752 | Quantitative Methods in Public Health | 3 |
| HEA 753 | Qualitative Methods in Public Health | 3 |
| HEA 755 | Community Research Practicum | 3 |
| HEA 758 | Advanced Theoretical Basis for |  |
|  | Community Health Education | 3 |
| HEA 759 | Community-Based Health Education |  |
|  | Research | 3 |
| HEA 760 | Teaching in Community Health |  |
|  | Education | 3 |
| HEA 765 | Advanced Program Evaluation in Public |  |
|  | Health Education | 3 |
| HEA 755: (to be taken 2 times for 6 hours total) |  |  |
| HEA 760: (required for Teaching Assistants) |  |  |
| Health-related Electives (24 hours) |  |  |
| Electives can be selected from the following or chosen under the advisement of the student's doctoral program committee. A minimum 6 semester hours of HEA courses and 9 semester hours of research-related courses are required. |  |  |
| HEA 612 | Management of Community Health |  |
|  | Organizations | 3 |
| HEA 617 | Conflict Resolution and Coalition |  |
|  | Building | 3 |
| HEA 622 | Social Epidemiology | 3 |
| HEA 640 | Global Health Issues | 3 |
| HEA 666 | Health Communication | 3 |
| HEA 671 | Immigrant and Refugee Health | 3 |
| HEA 676 | Problems Seminar | 3 |
| ERM 667 | Foundations of Educational |  |
|  | Measurement Theory | 3 |
| ERM 680 | Intermediate Statistical Methods in |  |
|  | Education | 3 |
| ERM 681 | Design and Analysis of Educational |  |
|  | Experiments | 3 |
| HDF 710 | Advanced Theory in HDFS | 3 |
| KIN 745 | Seminar: Social Psychology and Physical |  |
|  | Activity | 3 |
| NTR 643 | Nutrition and Aging | 3 |

PSC 620 Urban Development Policy
ERM 667, ERM 680, ERM 681: or equivalent
Dissertation ( 15 hours)
HEA 799 Doctoral Dissertation Research

## Religious Studies, Department of

109 Foust Building • (336) 334-5762 • www.uncg.edu/rel

## Graduate Programs

- No graduate degree program offered; see Master of Arts in Liberal Studies.


## Graduate Faculty

## Professors

Marc Bregman, PhD, Jewish studies, Rabbinics, Biblical interpretation (Bernard Distinguished Professor of Jewish Studies).

William D. Hart, PhD, Religion, ethics, and politics; critical theory of religion; African-American religious thought (Head of Department).

Derek Krueger, PhD, Religions of late antiquity, history of Christianity, Byzantine studies (Joe Rosenthal Excellence Professor).

Eugene F. Rogers, Jr., PhD, Modern and medieval Christian thought, gender studies.

## Associate Professors

Gregory P. Grieve, PhD, South Asian religion with an emphasis in Himalayan traditions, digital religion.
Ellen D. Haskell, PhD, Jewish studies, Jewish mysticism, gender studies, Rabbinics, metaphor theory and religious imagery.

Bennett H. Ramsey, PhD, Western religious thought (ethics, philosophy of religion, theology), religion in the Americas, feminist and African-American religious thought.

## Social Work, Department of

268 Stone Building • (336) 334-4100 • www.jmsw.org

## Graduate Programs

Master of Social Work (MSW) offered jointly with North Carolina A\&T State University, 64 hours, and Advanced Standing Option, 36 hours

## Graduate Faculty

## Professors

Melissa Floyd, PhD, Mental health and psychiatric social work (Chair of Department).

Elizabeth W. Lindsey, PhD, Services to individuals and families, homelessness, strength based practice.

John Rife, PhD, Social and economic impacts of unemployment and income deficiency upon older workers, families and the homeless, and evaluation of model programs to serve these populations.

Cathryne L. Schmitz, PhD, Oppression, multicultural education, immigrant refugee communities, organizational change, environmental social work.

Robert J. Wineburg, PhD, Relationship between federal domestic social welfare policy and local service provision, the involvement of religious organizations in local social service delivery and policy development.

## Associate Professors

Jacalyn A. Claes, PhD, LCSW, Clinical social work supervision, family and marital therapy, diversity and women's spirituality.

Tanya Coakley, PhD, Foster care and child welfare.
Susan Dennison, MSW, School social work, clinical social work (Coordinator of School Social Work Licensure Program).

Elisabeth P. Hurd, PhD, Families and children, interpersonal violence, law and social work, program evaluation.

## Assistant Professor

Kelly Jay Poole, PhD, LCSW, Health, mental health and clinical social work practice.

Academic Professional Assistant Professor
Bonita Porter, MSW, LCSW, (Co-Director of Joint Master of Social Work Field Instruction Program).

## Lecturers

Daniel Beerman, MSW, LCSW.
Jennifer Cobb, MSW, LCSW.
Alicia Kaplan, MSW, LCSW.

## Fran Pearson, MSW, LCSW (Director, Congregational Social Work Education Initiative)

Sue Spidell, MSW, LCSW.

## Adjunct Faculty at North Carolina A \& T State University

## Professor

Wayne Moore, PhD, ACSW
Associate Professors
Arnold Barnes, PhD.
Yoko Crume, PhD.

## Assistant Professor

Kevin Carter, MSW.
Sharon Cook, PhD
Lecturer
Janet H. Kanode, MSW.
Pamela S. Moye, MSW
Therese Nguyen, MSW, P-LCSW
The Joint Master of Social Work (MSW) program represents the efforts of faculty at North Carolina Agricultural and Technical State University (NCA\&TSU) and The University of North Carolina at Greensboro (UNCG). This is a single academic program with participation in instruction by faculty from each department. Instruction is conducted on the campuses of both universities. The program is accredited by The Council on Social Work Education.

The curriculum has been designed by the joint faculty to provide students with advanced generalist social work education. The model for the curriculum is based on contemporary, state-of-the-art theory and practice methods. The curriculum is organized by foundation, concentration, and field instruction. The primary purpose of the MSW program is to prepare students for advanced generalist social work practice.

## Master of Social Work (MSW)

## Program Goals

Four program goals reflect the mission of the Joint MSW program in three complementary areas: the provision of a quality master's level social work curriculum; service to the people of North Carolina; and scholarship.

Goal 1. Create an intentional learning community which recognizes, understands, supports, and honors diversity and difference, especially for students from oppressed groups.

Goal 2. Prepare graduates to engage in culturallycompetent, effective, ethical, advanced generalist social
work practice with youth and families at risk or with people affected by health and mental health issues.

Goal 3. Prepare graduates to be leaders who collaborate with consumers and colleagues to promote social and economic justice and improve the lives of the people of North Carolina.

Goal 4. Conduct and disseminate community-engaged scholarship which contributes to the knowledge base of the profession and promotes effective social work practice.

## Curriculum Plan

The Joint Master of Social Work program with the Department of Sociology and Social Work at NCA\&TSU offers two-year, three-year, and advanced standing program options. Students in the full-time two-year and three-year options complete 64 hours of course work. The advanced standing option requires 36 hours in one calendar year. Admission, program, course, and curriculum requirements are the same for the two-year and three-year options. All students must complete courses in the prescribed sequence in order to progress successfully to completion of the degree program.

The curriculum design of the program provides students with a theoretical and applied education in social work to enhance and promote advanced generalist social work education. The program is organized to insure that all students, as advanced social work practitioners, will be prepared to independently engage in social work practice with individuals, families, small groups, organizations, and communities in their chosen area of practice. Students will also be prepared to serve as supervisors, managers, researchers and social planners. Students choose between two concentrations: advanced generalist practice with families and youth at risk and advanced generalist practice with people affected by health and mental health issues.

## Foundation Year Curriculum

In the foundation curriculum, students complete 34 semester hours of course work. Students complete courses in human behavior and social functioning, social welfare policy, social work practice and human diversity, social work practice with individuals and families, and social work practice with groups. Students also complete a second human behavior and social functioning course, social work practice with communities and organizations, social work research methods, and two foundation field instruction and seminar courses. The purpose of the foundation course work is to prepare students for the advanced generalist practice year.

## Advanced Year Curriculum

In the advanced year curriculum, students complete an additional 30 semester hours of course work. Students choose one of two concentrations: advanced generalist practice with families and youth at risk and advanced
generalist practice with people affected by health and mental health issues. Students complete two courses in their concentration, advanced courses in social welfare policy, administration, and research, and they complete two semesters of advanced generalist field instruction, and field seminars, which include a capstone project. Students also complete one graduate level elective. Choice of this elective requires the approval of the student's educational advisor.

## Advanced Standing Option

Advanced Standing students have been admitted into Advanced Standing with a BSW degree and complete 36 hours of graduate course work to obtain the MSW. They begin their graduate course work in the summer taking 6 hours of course work. This course work builds a content bridge between BSW course work and the advanced year curriculum of the MSW program.

## Application and Admission

A Joint Admissions Committee comprised of faculty members from UNCG and NCA\&TSU use a common evaluation system to review applications and recommend applicants for admission. The review process ensures a consistent and fair evaluation of applicants.

In addition to the application materials required by The Graduate School, applicants must submit a personal statement, submit a Work Experience form, and show evidence of a liberal arts foundation that includes 18 credit hours of Social and Behavioral Sciences (political science, psychology, anthropology, economics, ethnic/global studies, history and sociology); 6 credit hours of Humanities; 3 credit hours of Human Biology or Human Development; and 3 credit hours of Statistics.
Applicants must demonstrate intellectual and personal qualifications considered essential to the successful practice of social work, such as sensitivity and responsiveness in relationships, concern for the needs of others, adaptability, good judgment, creativity, integrity, and skill in oral and written communication.

The MSW program does not grant academic credit for life or work experience. Only students who have been admitted to the program may take social work courses. Only students who have been admitted to the program and who have completed all required prerequisite course work may be admitted to practice courses and to the field instruction program. Specific policies governing student progression in the program may be found in the JMSW Student Handbook and in the JMSW Field Instruction Manual.

Applicants to the Advanced Standing option must have earned a Bachelor of Social Work degree from a Council on Social Work Education accredited program, have a GPA in social work courses of 3.2 or better, and provide a letter
of recommendation from his/her BSW field supervisor (as one of the three recommendations required).

## School Social Work Licensure

Students intending to become licensed at the graduate level for school social work by the North Carolina Department of Public Instruction need to complete the Licensure Program, which has been developed with the School of Education.

In addition to completing the requirements for the JMSW Program, the student must be admitted to the Teacher Education Program and successfully complete SWK 651. The advanced year field instruction (SWK 635 and 640) must be taken in a school social work setting. Graduate licensure in school social work is granted by the North Carolina Department of Public Instruction. Students interested in school social work licensure should contact the school social work coordinator in the Department of Social Work.

## Three-Year Option

Year One: Foundation Courses (15 hours)
First Semester (Summer - 3 hours)
SWK 621 Social Welfare Policy and Analysis I
Second Semester (Fall-6 hours)

| SWK 620 | Human Behavior and Social Functioning I |
| :--- | :--- |
| SWK 622 | Social Work Practice with Individuals <br> and Families |
| Third Semester (Spring - 6 hours) |  |

Year Two (18 hours)
First Semester (Summer - 6 hours)

| SWK 628 | Field Instruction I |
| :--- | :--- |
| SWK 629 | Field Seminar I |

Second Semester (Fall - 6 hours)

| SWK 625 | Human Behavior and Social Functioning | 3 |
| :--- | :--- | :--- |
| SWK 627 | Social Work Practice with Communities <br> and Organizations | 3 |
| Third Semester (Spring - 6 hours) |  |  |
| SWK 626 | Social Work Research Methods | 3 |
| SWK 633 | Social Welfare Policy and Analysis II | 3 |

Year Three ( 27 hours)
First Semester (Summer - 3 hours)
SWK $639 \quad$ Social Work in Administration 3

Second Semester (Fall-12 hours)

| SWK 634 | Research Designs and Data Analysis for <br> Social Work Practice | 3 |
| :--- | :--- | :--- |
| SWK 635 | Field Instruction II | 5 |
| SWK 636 | Field Seminar II | 1 |
| SWK 637 | Social Work with Families I | 3 |
|  | or |  |
| SWK 638 | Social Work in Health and Mental Health |  |
|  | I | 3 |

Third Semester (Spring - 12 hours)

| SWK 640 | Field Instruction III | 5 |
| :--- | :--- | :--- |
| SWK 641 | Field Seminar III | 1 |
| SWK 642 | Social Work with Families II | 3 |
|  | or |  |
| SWK 643 | Social Work in Health and Mental Health |  |
|  | II | 3 |
|  | Elective | 3 |
|  | Capstone |  |

## Two-Year Option

Year One: Foundation Courses (34 hours)
First Semester (Fall-17 hours)

| SWK 620 | Human Behavior and Social Functioning I | 3 |
| :--- | :--- | :--- |
| SWK 621 | Social Welfare Policy and Analysis I | 3 |
| SWK 622 | Social Work Practice with Individuals <br> and Families | 3 |

SWK 623 Social Work with Groups 3
SWK 628 Field Instruction I 4

SWK 629 Field Seminar I 1
Second Semester (Spring - 17 hours)

| SWK 624 | Social Work Practice and Human <br> Diversity | 3 |
| :--- | :--- | :--- |
| SWK 625 | Human Behavior and Social Functioning <br> II | 3 |
| SWK 626 | Social Work Research Methods | 3 |
| SWK 627 | Social Work Practice with Communities <br> and Organizations | 3 |


| SWK 645 | Field Instruction II for Foundation | 4 |
| :---: | :---: | :---: |
| SWK 646 | Field Seminar II for Foundation | 1 |
| Year Two: Advanced Curriculum (30 hours) |  |  |
| First Semester (Fall - 15 hours) |  |  |
| SWK 633 | Social Welfare Policy and Analysis II | 3 |
| SWK 634 | Research Designs and Data Analysis for Social Work Practice | 3 |
| SWK 637 | Social Work with Families I | 3 |
|  | or |  |
| SWK 638 | Social Work in Health and Mental Health I | 3 |
| SWK 640 | Field Instruction III | 5 |
| SWK 641 | Field Seminar III | 1 |
| Second Semester (Spring - 15 hours) |  |  |
| SWK 639 | Social Work in Administration | 3 |
| SWK 642 | Social Work with Families II | 3 |
|  | or |  |
| SWK 643 | Social Work in Health and Mental Health II | 3 |
|  | One 3 hour elective | 3 |
|  | Capstone |  |
| SWK 647 | Field Instruction IV | 5 |
| SWK 648 | Field Seminar IV | 1 |

## Advanced Standing Option

The 36 hour Advanced Standing Option is designed to allow highly qualified students to earn the Master of Social Work degree in one calendar year by building on knowledge and skills previously attained through Bachelor of Social Work course work.

Required Summer Bridge Courses (6 hours)
$\begin{array}{ll}\text { SWK } 624 & \begin{array}{l}\text { Social Work Practice and Human } \\ \text { Diversity }\end{array}\end{array}$
SWK 626 Social Work Research Methods 3
Upon successful completion of the above courses during the summer, Advanced Standing students will join the ongoing MSW full-time two-year class in Year 2: Advanced Year Curriculum (see the Two-Year Program Option), with the exception that Advanced Standing Students will take the following field instruction and seminar courses: Fall SWK 635 and SWK 636 and Spring SWK 640 and 641.

## Sociology, Department of

337 Graham Building • (336) 334-5295 • www.uncg.edu/soc

## Graduate Programs

- Master of Arts (MA) in Sociology, Criminology optional concentration, 33 hours


## Graduate Faculty

## Professors

Rebecca G. Adams, PhD, Friendship, popular culture, community, aging
Kenneth D. Allan, PhD, Theory, culture, self, institutions.

Steve Kroll-Smith, PhD, Social psychology, environment, health.

William T. Markham, PhD, Stratification, nongovernment organizations, environmental sociology, globalization, voluntary associations, community.
James C. Petersen, PhD, Applied sociology, organizations, science and technology studies, medical sociology.

## Associate Professors

Julie V. Brown, PhD, Sociology of health, Soviet and Russian society, occupations and professions, comparative and historical sociology (Head of Department).
Shelly L. Brown-Jeffy, PhD, Sociology of education, race and ethnicity, research methods.

Steven R. Cureton, PhD, Criminology and the family.
Sarah C. Daynes, PhD, Cultural sociology, theory, ethnography.

Gwen Hunnicutt, PhD, Gender and crime, violence and society (Director of Graduate Study).
Paul Luebke, PhD, Sociology of politics, social movements, social change, and comparative societies.

Stephen J. Sills, PhD, Globalization, international migration, visual sociology, evaluation research.

Saundra D. Westervelt, PhD, Sociology of law, crime and deviance, miscarriages of justice.

## Assistant Professors

Mikhail Balaev, PhD, Globalization, democratization, political economic sociology, international political economy and quantitative methods.

Jenifer L. Hamil-Luker, PhD, Life course studies, crime, gender, health.

Arielle T. Kuperberg, PhD , Quantitative data analysis, family, demography, gender and work, sexuality.

## Adjunct Assistant Professor

Janice Wassel, PhD, Retirement, work and caregiving, financial gerontology and sociology, demography of aging, business and aging.

## Sociology, MA

The MA in Sociology offers a thesis and a non-thesis option. The thesis option requires 33 semester hours, including 6 hours of thesis. The non-thesis option requires 33 semester hours, including a 6-hour internship.

The program prepares students for further study, for research and administrative positions in public or private organizations, and for teaching sociology in a variety of settings. All of the students in the program acquire a general foundation in sociology, and some elect to complete a concentration in criminology. Other special interests may be pursued in particular substantive, applied, or cognate courses and extended in the writing of a thesis or completion of an internship.

## Application and Admission

Applicants must submit all application materials required by The Graduate School by the appropriate deadline to be considered for Fall, Spring, or Summer admission.

## Degree Requirements

Required Core Courses (12 hours)
SOC $593 \quad$ Thesis Seminar
SOC 615 The Logic of Social Inquiry 3
SOC 616 Advanced Research Methods 3
SOC 618 Advanced Data Analysis 3
Area Courses (9 hours)
Nine hours are selected from the following:
SOC 571 Advanced Topics in Social Psychology 3
SOC 636 Seminar in Social Inequalities: Theory and Research

SOC 640 Cultural Sociology 3
SOC 644 Sociology of Globalization 3
Electives (6 hours)
With prior approval of the advisor, a student will select 6 hours from other 500- or 600-level sociology or social science courses in other departments.

Comprehensive Examination
Successful completion of a thesis proposal or internship proposal defense satisfies the comprehensive examination requirement.
Capstone Experience
Thesis Option (6 hours)
SOC 699 Thesis 1-6
Non-thesis Option (6 hours)
SOC 695 Internship 3-6

## Criminology Concentration

Required Core Courses (21 hours)

| SOC 593 | Thesis Seminar | 3 |
| :--- | :--- | :--- |
| SOC 615 | The Logic of Social Inquiry | 3 |
| SOC 616 | Advanced Research Methods | 3 |
| SOC 618 | Advanced Data Analysis | 3 |
| SOC 651 | Criminology | 3 |
| SOC 653 | Deviance and Social Control | 3 |
| SOC 655 | The Sociology of Law | 3 |

Electives (6 hours)
With prior approval of the advisor, a student will select 6 hours from other 500- or 600-level sociology courses or social science courses in other departments.

Comprehensive Examination
Successful completion of a thesis-proposal or internshipproposal defense satisfies the comprehensive examination requirement.

Capstone Experience
Thesis Option (6 hours)
SOC 699 Thesis 1-6

Non-thesis Option (6 hours)
SOC 695 Internship 3-6

## Specialized Education Services, Department of

444 School of Education Building • (336) 334-5843 • www.ses.uncg.edu

## Graduate Programs

- Post-Baccalaureate Certificate in Leadership in Early Care and Education, 18 hours
- Post-Baccalaureate Alternative Initial Teacher Licensure (PAIL), 21 hours
- Post-Baccalaureate Birth-Kindergarten (BK) Initial Licensure Certificate, 20 hours
- Master of Education (MEd) in Special Education: General Curriculum, Learning Disabilities Licensure or Behavior/Emotional Disabilities Licensure concentration, 30-33 hours
- Master of Education (MEd) in Birth-Kindergarten: Interdisciplinary Studies in Education and Development (jointly with the Department of Human Development and Family Studies), 37 hours
- Doctor of Philosophy (PhD) in Special Education, 66 hours


## Graduate Faculty

## Professors

Bill Bursuck, PhD, Special education/at-risk literacy, inclusive school practices, education of students with learning and behavior disabilities.

## Associate Professors

Mary V. Compton, Ed.D, Deaf teachers and deaf culture, social interaction of young deaf children, telecommunications discourse, narrative analysis, naturalistic inquiry method, interpersonal communication and deafness (Director of Professions in Deafness Program) (Interim Department Chair).

Belinda J. Hardin, PhD, Inclusion and international early childhood education practices, EI/ECSE services for English language learners, family involvement in EI/ECSE services.

Stephanie A. Kurtts, PhD, Inclusive education, online collaborative practice, universal design for learning, mild/moderate disabilities, peer coaching, differentiated instruction.

Marcia Rock, PhD, Special education, emotional and behavior disorders, technology and teacher preparation (e.g., online coaching), effective instruction for students with mild/moderate disabilities, applied behavior analysis, positive
behavior support (Director of Graduate Study PhD).

Pamela Williamson, PhD, Reading and autism, teaching and learning for students with disabilities, special education policy.

## Assistant Professors

Nicole Dobbins, PhD, Emotional/behavioral disorders, social skills training, behavior/classroom management, multicultural education, autism, curricular design and effective teaching strategies for students with disabilities.

Joseph C. Hill, PhD, Sociolinguistics, language attitudes, language variation, language ideologies, bilingualism, language contact

Bree Jimenez, PhD, General curriculum access for students with moderate to severe intellectual disability, with emphasis on inquiry science and mathematics, alternate assessments based on alternate achievement standards.

Jean Kang, PhD, Supporting young children with and without disability and their families' transition to kindergarten, school readiness, Universal Design for Learning in early childhood.

## Clinical Associate Professor

Sam Parker, MFA, Sign language interpreters working in diverse community settings such as medical, mental health, vocational, legal, religious, social service and theatrical environments with an emphasis on ethical codes of conduct and the demands and controls that sign language interpreters face in these settings.

## Clinical Assistant Professors

Margaret Gillis, PhD, Early intervention/early childhood special education, inclusive early childhood education practices, early childhood assessment practices, universal design for learning, individualization strategies, EI/ECSE professional preparation and development.

Teresa Little, PhD, Functional curriculum for students with moderate to severe intellectual disabilities, accessing the general curriculum for students with moderate to severe intellectual disabilities (Director of Graduate Study).

The primary goal of the department is to prepare professionals for diverse roles in working with individuals with disabilities and other exceptional needs across the life span in a variety of community and educational environments. Programs in the department emphasize the delivery of services in integrated settings, with a focus on
interdisciplinary and interagency collaboration. Upon graduation students are prepared for leadership roles in early childhood, special education, and deaf education that enable them to assume positions such as consultant, teacher, early interventionist, community college teacher, special services administrator, advocate, and university faculty member or other leadership roles.

All department programs are fully accredited by the National Council for the Accreditation of Teacher Education. Graduate study in the Department of Specialized Education Services may lead to teacher licensure with the degree of Master of Education. All students enrolled in SES programs must meet departmental technical standards.

## Birth-Kindergarten BK Post- <br> Baccalaureate Initial Licensure Certificate

The online Birth-Kindergarten (BK) Post-Baccalaureate Initial Licensure Certificate provides training for students with a bachelor's degree seeking an initial NC BirthKindergarten teaching license. This certificate program requires 20 semester hours and is offered jointly by the departments of Human Development and Family Studies and Specialized Education Services. The program is designed to provide students with graduate level training and an initial teaching license in BK. Students also have an option for transitioning from this program into the MEd program in which they may be eligible for an advanced license in BK. Course work from the plan of study for the Post-Baccalaureate Initial Licensure Certificate may be applied to the MEd in Birth to Kindergarten: Interdisciplinary Studies in Education and Development (BKISED) provided the student meets all admission requirements of The Graduate School, the Department of Human Development and Family Studies and the Department of Specialized Education Services.

## Application and Admission

Applicants must submit all application materials required by The Graduate School by May 1.

The certificate is available to individuals with a bachelor's degree in early childhood education, child development, early childhood special education, or a related field. Students who wish to transition into the MEd program must submit a new application for the MEd to The Graduate School. It is the students' responsibility to initiate the process and review it with their advisor. It is recommended that that student take the GRE within the first 6 hours of study to guarantee a timelier processing of their application package.

## Certificate Requirements

BK Initial Licensure Required Courses

| SES 601 | Introduction to Inclusive Birth- <br> Kindergarten Services | 3 |
| :--- | :--- | :--- |
| SES 607/HDF <br> 607 | Infant-Toddler Learning in Inclusive <br> Settings | 4 |
| SES 606/HDF <br> 606 | Preschool-Kindergarten Learning in <br> Inclusive Settings | 4 |
| SES 603 | Screening/Assessment in Inclusive Early <br> Childhood Services | 3 |
| SES 649c | Practicum in Special Education | 3 |
| Gainful employment information can be found at: <br> http://www.uncg.edu/hdf/gainful_employ.html. |  |  |

## Certificate with MEd in Birth-Kindergarten: Interdisciplinary Studies in Education and Development (BKISED) (44 hours)

Courses listed in Certificate Requirements plus the following 24 hours:

HDF 650 Theory and Research in Early Childhood 3
ERM 604 Methods of Educational Research 3
$\begin{array}{ll}\text { SES } 602 & \text { Inclusive Family-Centered Practices in } \\ \text { Early Childhood }\end{array}$
$\begin{array}{ll}\text { HDF } 633 & \text { Advanced Curriculum in Early Childhood } \\ & \text { Education }\end{array}$
$\begin{array}{ll}\text { HDF } 636 & \text { Leadership and Mentoring in Educating } \\ \text { Young Children }\end{array}$
SES 604 Internship in Inclusive Early Childhood 6
Elective (3 s.h.)
Professional Portfolio

## Leadership in Early Care and Education, PBC

The online Post-Baccalaureate Certificate in Early Care and Education Leadership requires 18 semester hours and is offered jointly by the departments of Human Development and Family Studies and Specialized Education Services. The program is designed to provide students with graduate level training and a credential to pursue careers in leadership positions in early care and education settings including early intervention, Smart Start, resource and referral, and community college instruction.

## Application and Admission

Applicants must submit all application materials required by The Graduate School by May 1st for Fall admission.

The certificate is available to students with a bachelor's or masters' degree who do not plan to pursue a degree
program or for students who are pursuing a master's degree in Human Development and Family Studies or Specialized Education Services. If pursuing a master's degree simultaneously, students must meet all requirements for admission to The Graduate School, Human Development and Family Studies, and Specialized Education Services. The Certificate is also open to graduate students with background knowledge in early childhood education, child development, early childhood special education, or a closely related field.

## Certificate Requirements

Required Courses (15 hours)

| HDF 634 | Contemporary Issues in Early Childhood Policy | 3 |
| :---: | :---: | :---: |
| HDF 636 | Leadership and Mentoring in Educating Young Children | 3 |
| HDF 650 | Theory and Research in Early Childhood | 3 |
| SES 601 | Introduction to Inclusive BirthKindergarten Services | 3 |
| SES 605 | Diversity and Inclusive Early Care and Education | 3 |
| Electives (3 hours) |  |  |
| With the approval of the advisor, students choose 3 hours of electives at the 500 or 600 level. |  |  |

## Alternative Initial Teacher Licensure, PAIL

The Post-Baccalaureate Alternative Initial Teacher Licensure program is designed to provide the opportunity for initial teacher licensure in Special Education: General Curriculum to individuals who have an undergraduate degree in a field other than special education. In PAIL, students complete foundation courses in assessment in special education, instructional practices for students with mild to moderate disabilities, learning theory, and models of teaching. Specialty area courses in instructional practices for students with mild to moderate disabilities provide an introduction to the field, methods for teaching in the field, programming for the field, and clinical field experience. Throughout the course work, students have numerous opportunities to use cases and problem-based learning that include appropriate implementation of inclusive practices.
Students also have an option for transitioning from this program into the MEd program in which they may be eligible for an advanced license in special education general curriculum. Course work from the plan of study for the Post-Baccalaureate Alternative Initial Teacher Licensure program in Special Education: General Curriculum may be applied to the MEd in special
education provided the student meets all admission requirements of The Graduate School and the Department of Specialized Education Services..

## Application and Admission

In addition to the application materials required by The Graduate School, applicants must submit a resume and Personal Statement of goals, past experience and unique skills.

Applicants must submit all application materials required by The Graduate School by the appropriate deadline. Deadlines include: fall (April 1), spring (October 1), and summer (March 1).
Students who wish to transition into the MEd program must submit a new application for the MEd to The Graduate School. It is the students' responsibility to initiate the process and review it with their advisor. It is recommended that the student take the GRE within the first 6 hours of study to guarantee a timelier processing of their application package.

## Licensure Requirements

Special Education: General Curriculum (21 hours)

| SES 540 | Introduction to Exceptional Individuals | 3 |
| :--- | :--- | ---: |
| SES 640 | Policies and Procedures in Special <br> Education | 3 |
| SES 641 | Assessment of Individuals with Special | 3 |
|  | Needs | 3 |
| SES 642 | Mild Disabilities: Reading Instruction | 3 |
| SES 652 | Mild Disabilities: Math/Written |  |
|  | Language Instruction | 3 |
| SES 659 | Behavior Management | 3 |
| SES 661 | Teaching Students with Disabilities | $3-6$ |

PAIL with MEd in Special Education General Curriculum (39 hours)
Courses listed in General Curriculum plus the following 18 hours:

| ERM 604 | Methods of Educational Research | 3 |
| :--- | :--- | :--- |
| SES 643 | Issues in Educating Individuals with <br> Special Needs | 3 |
| SES 647 | Collaboration and Consultation in <br> Education | 3 |
| SES 649 | Practicum in Special Education (High- <br> Incidence focus) | 3 |
| SES 658 660 | Methods for Teaching Students with <br> Behavior/Emotional Disabilities | 3 |

## Exceptionalities

All department programs are fully accredited by the National Council for the Accreditation of Teacher Education. Graduate study in the Department of Specialized Education Services may lead to teacher licensure with the degree of Master of Education. All students enrolled in SES programs must meet departmental technical standards.

## Special Education: General Curriculum, MEd

## with Emphasis in Learning Disabilities or Behavior/Emotional Disabilities

The MEd in Special Education: General Curriculum requires 30 semester hours for students licensed in special education (Option 1) and 33 semester hours for student licensed in another area of education but not special education (Option 2). Both options lead to eligibility for advanced licensure in General Curriculum. At least 27 hours in the program of study must be in 600-level courses.

## Application and Admission

In addition to the application materials required by The Graduate School, applicants must submit a resume and Personal Statement of goals, past experience, and unique skills.
Applicants must submit all application materials required by The Graduate School by the appropriate deadline. Students are admitted in Fall, Spring, and Summer semesters.

## Option 1: For students licensed in special education

Core (21 hours)

| ERM 604 | Methods of Educational Research |
| :--- | :--- |
| SES 641 | Assessment of Individuals with Special <br> Needs |
| SES 642 | Mild Disabilities: Reading Instruction <br> SES 643 <br> Issues in Educating Individuals with <br> Special Needs |
| SES 645 | Advanced Seminar in Exceptional <br> Individuals |
| SES 647 | Collaboration and Consultation in <br> Education |
| SES 652 | Mild Disabilities: Math/Written <br> Language Instruction |
| Area of Focused Study (9 hours) |  |

Students select one area of focused study. Credits are determined with approval of the advisor:

High-Incidence Disabilities

| SES 656 | Methods for Teaching Students with <br> Learning Disabilities |  |
| :--- | :--- | :--- |
| SES 657 | Characteristics of Students with High- <br> Incidence Disabilities | 3 |
| SES 658 | Methods for Teaching Students with <br> Behavior/Emotional Disabilities | 3 |

Assistive Technology Focus

| SES 662 | Assistive Technology for Inclusive <br> Education | 3 |
| :--- | :--- | ---: |
| TED 610 | Integrating Technology into Subject <br> Matter Instruction | 3 |
| LIS 672/TED | Instructional Design |  |
| 672 |  | 3 |
| Reading Focus |  | 3 |
| TED 614 | Word Study | 3 |
| TED 615 | Literacy in the Early Years |  |
| TED 616 | Literacy Development and Instruction <br> Across the Grades | 3 |
| TED 617a | Diagnosis and Correction of Reading <br> Problems | 3 |
| TED 617b | Advanced Strategies in Diagnosis and <br> Correction | 3 |
| TED 640 | Writing Instruction in the Elementary | 3 |

Leadership Focus

| ELC 660 | The School Principalship | 3 |
| :---: | :---: | :---: |
| ELC 687 | Legal and Ethical Dimensions of Leadership | 3 |
| ELC 691 | Urban School Organizational Leadership: Best Practices | 3 |
| ELC 694 | Cultural and Political Dimensions of Schooling | 3 |
| ELC 670 | Leadership for Teaching and Learning | 3 |
| Birth-Kindergarten Focus |  |  |
| SES 601 | Introduction to Inclusive BirthKindergarten Services | 3 |
| SES 602 | Inclusive Family-Centered Practices in Early Childhood | 3 |
| SES 603 | Screening/Assessment in Inclusive Early Childhood Services |  |

Alternative Area of Focus
courses with a single theme, approved by advisor

## Option 2: For students NOT licensed in special education

| Prerequisites (3 hours) |  |
| :---: | :---: |
| SES 540 | Introduction to Exceptional Individuals |
| Core (33 hours) |  |
| SES 640 | Policies and Procedures in Special Education |
| SES 641 | Assessment of Individuals with Special Needs |
| SES 642 | Mild Disabilities: Reading Instruction |
| SES 643 | Issues in Educating Individuals with Special Needs |
| SES 647 | Collaboration and Consultation in Education |
| SES 649 | Practicum in Special Education (HighIncidence focus) |
| SES 652 | Mild Disabilities: Math/Written Language Instruction |
| SES 658 | Methods for Teaching Students with Behavior/Emotional Disabilities |
| SES 659 | Behavior Management |
| SES 660 | Families, Schools, and Students with Exceptionalities |
| ERM 604 | Methods of Educational Research |

## Additional Requirements for ALL Special Education MEd Students

## Portfolio (Capstone Experience)

In addition to satisfactorily completing the above course work, students also are required to submit a portfolio of work that demonstrates their mastery of knowledge and skills in the six program competency areas: multiple service delivery models, interdisciplinary planning and service delivery, advanced skills for assessing learner needs, advanced skills for effective instruction, collaborative planning and intervention, and improved special education services. Each student's portfolio will be developed in consultation with an advisor and will be based on the student's particular educational and work experiences. The portfolio is designed during the initial semester, refined each semester, and evaluated during the last semester prior to planned graduation. Detailed instructions for completing the portfolio are provided on
the SES website
(www.uncg.edu/ses/gradprog/med_special_edu.html).
Reflective Essays
Prior to the completion of the program, each student is required to submit reflective essays that speak adequately to the ways in which products included in the portfolio meet program objectives and demonstrate attainment of competencies required for advanced licensure. An oral presentation related to the reflective portfolio and essays also are required. If the portfolio and presentation do not meet departmental standards, one revision is allowed. Detailed instructions for completing the reflective essays are located on the SES website
(www.uncg.edu/ses/gradprog/med_special_edu.html).

## Birth-Kindergarten: Interdisciplinary Studies in Education and Development, MEd

The online MEd in Birth-Kindergarten: Interdisciplinary Studies in Education and Development requires 37 semester hours and is offered jointly by the departments of Human Development and Family Studies and Specialized Education Services. Those who do not have initial teaching license in B-K will be required to take prerequisite courses to fulfill this requirement. Upon completion of this program of study, students will be eligible for " M " license in birth-kindergarten.

## Application and Admission

Applicants must submit all materials required by The Graduate School by May 1 for Fall admission.

## Degree Requirements

Research Requirements (6 hours)

| ERM 604 | Methods of Educational Research | 3 |
| :--- | :--- | :--- |
| HDF 650 | Theory and Research in Early Childhood | 3 |

Theory and Practice Requirements (19 hours)

| HDF 636 | Leadership and Mentoring in Educating <br> Young Children | 3 |
| :--- | :--- | :--- |
| SES 601 | Introduction to Inclusive Birth- <br> Kindergarten Services | 3 |
| SES 602 | Inclusive Family-Centered Practices in <br> Early Childhood | 3 |
| SES 603 | Screening/Assessment in Inclusive Early <br> Childhood Services | 3 |
| SES 606/HDF | Preschool-Kindergarten Learning in <br> Inclusive Settings | 4 |
| SES 633 | Advanced Curriculum in Early Childhood | 3 |

Practicum (6 hours)
SES 604 Internship in Inclusive Early Childhood
Electives (6 hours)
To be selected from list or with approval of advisor.

| HDF 610 | Cross-cultural Perspectives on Child Development |
| :---: | :---: |
| HDF 621 | Applied Theories and Principles of Parenting |
| HDF 634 | Contemporary Issues in Early Childhood Policy |
| HDF 653 | Contemporary Research in Family Studies |
| HDF 667 | Infant Development |
| SES 608 | Seminar in Early Childhood Education |
| SES 605 | Diversity and Inclusive Early Care and Education |
| SES 647 | Collaboration and Consultation in Education |
| SES 657 | Characteristics of Students with HighIncidence Disabilities |
| SES 662 | Assistive Technology for Inclusive Education |

Other courses as approved by advisor.

## Professional Portfolio (Capstone Experience)

The final portfolio is the culminating experience. It includes two components: 1) a written document that includes a series of reflective essays and 2) oral defense, discussing the content of the essays and rationale for the use of documents. This portfolio will demonstrate the mastery of skills and knowledge in the program competency areas. It is submitted on TaskStream and evaluated by a team of two faculty and one practicing professional. If the portfolio and presentation do not meet departmental standards, one revision is allowed. The final portfolio is required of all students graduating from the BKISED program.

## Special Education, PhD

The PhD in Special Education is intended for students interested in special education, deaf education, or early intervention. The program requires a minimum of 66 semester hours beyond the master's degree, and it emphasizes four areas: generating knowledge to help shape the future of the field; sharing knowledge with others so that they can understand it and use it to improve their practice; facilitating strong professional relationships through collaboration; and creating, interpreting, and implementing special education policy
and procedures. Required and elective courses, including the research component, are listed below. Students in the SES doctoral program are required to successfully complete all listed course work. Additional course requirements are determined on an individual basis and in consultation with the student's major advisor and advisory/dissertation committee.

## Application and Admission

In addition to the application materials required by The Graduate School, applicants must submit a resume and Personal Statement of goals, past experience and unique skills. Applicants must have 3 years of related professional experience.

The deadline to apply is February 1 for Fall admission.

## Degree Requirements

| Required Core Courses (15 hours) |  |  |
| :--- | :--- | :--- |
| SES 750 | Introduction: Doctoral Studies in Special <br> Education | 3 |
| SES 752 | Interpersonal and Inter-organizational <br> Collaboration | 3 |
| SES 754 | Special Education Policy and Law | 3 |
| SES 756 | Seminar: Accountability in Specialized <br> Education Services | 3 |
| SES 758 | History and Future of Specialized <br> Education |  |
|  |  | 3 |

Research/Inquiry (21 hours)
ERM 642 Evaluation of Educational Programs 3

ERM 680 | Intermediate Statistical Methods in |  |
| :--- | :--- |
|  | Education |

$\begin{array}{ll}\text { ERM } 681 ~ & \text { Design and Analysis of Educational } \\ \text { Experiments }\end{array}$
SES 775 Directed Doctoral Research 3
$\begin{array}{ll}\text { SES } 760 & \begin{array}{l}\text { Advanced Seminar: Single Subject } \\ \text { Research Design }\end{array}\end{array}$
HED 730 Qualitative Methods in Education 3
SES 775: (may be repeated once)
HED 730: or alternative
Professional Practice (3-6 hours)
SES $749 \quad$ Internship in Specialized Education 3
SES 762 Supervision of Student Teaching:
Specialized Education

SES $764 \quad$ College Teaching Practicum 3
Specialization (15-21 hours minimum)

Students are expected to work closely with the major advisor and advisory/dissertation committee members to identify a set of courses in a related area of interest that forms a specialization. This course work may be in the areas of counseling, educational leadership, teacher education, early childhood, family studies, psychology, or others.

Dissertation (12 hours minimum)
SES 799 Dissertation 1-12

Each candidate for a doctoral degree must prepare and present a dissertation that focuses on some aspect of special education, that is, in one of the three areas noted above (early childhood, special education, deaf education). This product must demonstrate independent investigation and a synthesis of the skills learned in the program. The dissertation must be acceptable in form and content to the student's dissertation committee and The Graduate School.

## Teacher Education and Higher Education, Department of

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## Graduate Programs

- Post-Baccalaureate Certificate in Special Endorsement in Computer Education (jointly with Department of Library and Information Studies), 18 hours
- Post-Baccalaureate Certificate in Teaching English to Speakers of Other Languages, 18 hours
- Master of Arts in Teaching, various concentrations, 39 hours
- Master of Education (MEd) in Teacher Education, various concentrations, 33-39 hours
- Master of Education (MEd) in Student Personnel Administration in Higher Education, 42 hours
- Doctor of Philosophy (PhD) in Educational Studies, Teacher Education and Development concentration, 63 hours, or Higher Education concentration (currently not taking applications for Higher Education concentration), 66 hours


## Graduate Faculty

## Professors

Colleen Fairbanks, PhD, Adolescent literacy, and identity, teacher knowledge and development, writing instruction.

Victoria Randal Jacobs, PhD.
Barbara B. Levin, PhD, Teacher education, pedagogical thinking, technology education for teachers and children, case-based teaching, problem-based learning, social studies curriculum.

Catherine E. Matthews, PhD, K-12 science education and environmental education.
Samuel D. Miller, PhD, Literacy development, student motivation, teacher education (Associate Dean).

Dale H. Schunk, PhD, Social cognitive learning, selfregulation, motivation.
Deborah J. Taub, PhD, Identity development of traditional age college students and professional preparation in student affairs.

## Associate Professors

David F. Ayers, EdD, Organization and governance, cultural political economy, program planning.

Heidi B. Carlone, PhD, Anthropology of science education, equity in science education, science curriculum.

Jewell Cooper, PhD, Equity education, ethnic identity development, community-based learning in preservice teacher education (Associate Chair).

Beverly Faircloth, PhD, Educational psychology, student motivation and development, sense of school belonging.

Charles P. Gause, PhD, Cultural and critical perspectives of school leadership, popular culture and schooling, youth identity, black masculinity, gender construction, media representation.

Ye He, Phd, TESOL, teacher education, multicultural education.

Kerri Richardson, PhD, Mathematics education, teacher education, mathematics curriculum.

Amy Vetter, PhD, Literacy and identity, discourse analysis, case studies.

## Assistant Professors

Wayne Journell, PhD, Social studies education, political education, technology integration.
Nicole Martin, PhD, Teacher education and literacy.
Edna Tan, PhD, Urban science education, girls science education, teaching science for social justice.
P. HoltWilson, PhD, Mathematics education, professional development, and learning trajectories.

Melody Patterson Zoch, PhD.

## Special Endorsement in Computer Education, PBC

The Post-Baccalaureate Certificate for Special Endorsement in Computer Education requires 18 semester hours and is offered jointly by the departments of Library and Information Studies and Teacher Education and Higher Education. The certificate provides educators with extensive knowledge and skills to work with students and other teachers to use computers in on-going instructional programs and to serve as a computer education leader for a school. Completion of the certificate provides NC licensed teachers the opportunity to fulfill requirements to apply for the NC endorsement for the position of Technology Facilitator.

## Application and Admission

Applicants must submit all application materials required by The Graduate School by the appropriate deadline and currently hold a NC teaching license.

## Certificate Requirements

Courses

| TED 610 | Integrating Technology into Subject <br> Matter Instruction |
| :--- | :--- |
| LIS 631 | Emerging Technological Trends in <br> Information Access |
| LIS 632 | Managing School/Library Computer <br> Laboratories |
|  | or |
| LIS 630 | Computer-Related Technologies for <br> Information Management |
| LIS 635 | Media Production Services for Library <br> Programs |
| TED 672/LIS | Instructional Design <br> 672 |
| SES 662 | Assistive Technology for Inclusive |

## Teaching English to Speakers of Other Languages, PBC

The Post-Baccalaureate Certificate in Teaching English to Speakers of Other Languages requires 18 semester hours and is intended for those with a bachelor's degree in any field and documented evidence of having studied a foreign language. The curriculum is designed to develop the knowledge, skills, and dispositions of those who are currently teaching or desire to teach language-minority adults and children to understand, speak, read, and write English in a variety of community, educational, and business settings.

## Application and Admission

In addition to the application materials required by The Graduate School, applicants must submit a personal statement and resume.

## Certificate Requirements

Courses

| TED 523 | Legal, Historical, and Cultural Issues in |  |
| :--- | :--- | :--- |
|  | ESL | 3 |
| TED 603 | Literacy Instruction for English Language |  |
|  | Learners | 3 |
| TED 604 | Applied Linguistics for ESL Teachers | 3 |
| TED 614 | Word Study | 3 |
| TED 618 | Teaching English as a Second Language | 3 |

## Teaching, MAT

Various Concentrations

The Master of Arts in Teaching - Classroom Practice Track offers five concentrations-elementary education, middles grades education, social studies education, science education, teaching English to speakers of other languages (TESOL) - that culminate with the development of an Initial Competencies Portfolio, providing eligibility for candidates to apply for "A" licensure from the North Carolina Department of Public Instruction and require 39 semester hours.

The Master of Arts in Teaching - Classroom Practice Track is designed for candidates who have a bachelor's degree but did not pursue teacher education or licensure as an undergraduate. All concentrations in this track will also have prerequisite or corequisite courses, which are required for teaching licensure in North Carolina. The prerequisite or corequisite courses must be completed before a candidate can be recommended for licensure. A list of prerequisite or corequisite courses is available in the Student Advising and Recruitment Center (www.uncg.edu/soe/newsite/sarc/index.html) or the department's web page at www.uncg.edu/cui.

## Elementary Education K-6

Classroom Practice Track (39 hours)
Pedagogical Expertise

| TED 517 | Literacy I: Reading and Writing in the Primary Elementary Grades | 3 |
| :---: | :---: | :---: |
| TED 518 | Mathematics in the Elementary Schools | 3 |
| TED 519 | Science in the Elementary School | 3 |
| TED 520 | Social Studies in the Elementary School | 3 |
| TED 521 | Literacy II: Reading and Writing in the Intermediate Elementary Grades | 3 |
| TED 625 | Mathematics in the Elementary School II | 3 |
| Professional Development/Leadership |  |  |
| TED 650 | The Interaction of Classroom Management and Instruction | 3 |
| TED 680a | Clinical Experience in Teaching | 3-6 |
| TED 680b | Clinical Experience in Teaching Seminar | 3 |
| Middle Grades Education |  |  |
| Classroom Practice Track (39 hours) |  |  |
| Pedagogical Expertise |  |  |
| TED 535 | Literacy in the Content Area | 3 |
| TED 626 | Middle Grades Curriculum and Instruction | 3 |
| TED 634 | Seminar in Middle Grades Education | 3 |


| TED 622 | Differentiated Instruction |
| :---: | :---: |
|  | 6 hours content |
|  | 3 hours methods |
| TED 634: 3 - with internship |  |
| Professional Development/Leadership |  |
| TED 650 | The Interaction of Classroom Management and Instruction |
| TED 680a | Clinical Experience in Teaching |
| TED 680b | Clinical Experience in Teaching |

## Science Education

Classroom Practice Track (39 hours minimum)

| Pedagogical Expertise |  |
| :--- | :--- |
| TED 559 | Teaching Practices and Curriculum in <br> Science |
| TED 623 | Environmental Education <br>  |
|  | 15 hours content courses |

Professional Development/Leadership

| TED 638 | Seminar in Secondary Education |
| :--- | :--- |
| TED 680a | Clinical Experience in Teaching |
| TED 680b | Clinical Experience in Teaching Seminar |

## Social Studies Education

Classroom Practice Track (39 hours minimum)
Pedagogical Expertise

| TED 553 | Teaching Practices and Curriculum in <br> Social Studies |
| :--- | :--- |
| 18 hours content courses |  |

Content Courses: (3-2-1 across 3 different social studies disciplines)

Professional Development/Leadership

| TED 638 | Seminar in Secondary Education | 3 |
| :--- | :--- | ---: |
| TED 680a | Clinical Experience in Teaching | $3-6$ |
| TED 680b | Clinical Experience in Teaching Seminar | 3 |

## Teaching English to speakers of other languages (TESOL)

Classroom Practice Track (39 hours)
Pedagogical Expertise

|  | or |  |
| :--- | :--- | ---: |
| TED 535 | Literacy in the Content Area | 3 |
| TED 523 | Legal, Historical, and Cultural Issues in | 3 |
| TED 603 | Literacy Instruction for English Language |  |
|  | Learners | 3 |
| TED 604 | Applied Linguistics for ESL Teachers | 3 |
| TED 614 | Word Study | 3 |
| TED 618 | Teaching English as a Second Language | 3 |
| Professional Development/Leadership |  |  |
| TED 650 | The Interaction of Classroom | 3 |
| TED 680a | Management and Instruction | 3 |
| TED 680b | Clinical Experience in Teaching | $3-6$ |

## Teacher Education, MEd

## Various Concentrations

The MEd in Teacher Education (formerly Teacher Leadership Track) offers nine concentrations that culminate with the development of an Advanced Competencies Portfolio, providing eligibility for candidates to apply for " M " licensure from the North Carolina Department of Public Instruction. The MEd offers five concentrations-elementary mathematics, instructional technology, middle/secondary English language arts, middle/secondary mathematics, and reading educationoffer only the MEd. All concentrations and tracks require 33-42 semester hours for the master's degree.

The Teacher Leadership Track is designed for candidates who already hold the Standard Professional I license or initial license to teach and wish to pursue more advanced study in a field of education.

The Instructional Technology concentration is designed for teachers and other candidates who wish to focus their studies on instructional technology as it relates to curriculum and instruction. The Instructional Technology Specialist-Computers (077) licensure is attached to this concentration.
Field experiences (school-based activities) are required across the curriculum of the MEd programs.

## Application and Admission

In addition to the application materials required by The Graduate School, applicants must submit a personal statement and resume.

## Degree Requirements

| Core Courses for All Concentrations (9 hours) |  |
| :---: | :---: |
| (unless otherwise noted) |  |
| TED 545 | Diverse Learners |
|  | or |
| TED 646 | Introduction to Equity Education |
|  | or |
|  | approved substitute |
| TED 669 | Educational Implications of Learning and Developmental Theory |
|  | or |
| TED 622 | Differentiated Instruction |
|  | or |
|  | approved substitute |
| ERM 605 | Educational Measurement and |
|  | Evaluation |
|  | or |
| ERM 604 | Methods of Educational Research |
|  | or |
|  | approved substitute |

Advanced Competencies Portfolio and Other Required Culminating Experiences (Capstone Experience)

For some tracks, a technology portfolio and PRAXIS exams are necessary for licensure and graduation, while for others only the Advanced Competencies Portfolio and a possible assessment day are required.

## Elementary Education K-6

Teacher Leadership Track (33 hours)
Pedagogical Expertise
18 hours selected on basis of approved plan of study
Professional Development/Leadership
TED 676 Teacher as Researcher and Leader I
TED 677 Teacher as Researcher and Leader II

## Elementary Mathematics Education

Teacher Leadership Track (33 hours)
Pedagogical Expertise

| TED 658 | Number Systems and Operations: K-5 <br> Mathematical Tasks |
| :--- | :--- |
| TED 659 | Rational Numbers and Operations: K-5 |


|  | Learning Trajectories |  |
| :---: | :---: | :---: |
| TED 660 | Data Analysis and Measurement: K-5 Classroom Interactions | 3 |
| TED 661 | Algebraic Reasoning: K-5 Discourse and Questioning | 3 |
| TED 662 | Geometry and Spatial Visualization: K-5 Assessment | 3 |
| TED 663 | Mathematical Modeling: K-5 Leadership | 3 |
| Professional Development/Leadership |  |  |
| TED 670 | Research in Mathematics Education | 3 |
|  | or |  |
| TED 676 | Teacher as Researcher and Leader I | 3 |
| Teacher as Researcher and Leader II: when TED 670 is not offered |  |  |
| Add-On Licensure |  |  |
| The Elementary Mathematics add-on licensure program is designed for students who are current elementary classroom teachers. The program may include cohorts (teams) of teachers. Upon the completion of the program, students will earn add-on licensure in elementary mathematics. |  |  |
| Required Courses |  |  |
| TED 658 | Number Systems and Operations: K-5 Mathematical Tasks | 3 |
| TED 659 | Rational Numbers and Operations: K-5 Learning Trajectories | 3 |
| TED 660 | Data Analysis and Measurement: K-5 Classroom Interactions | 3 |
| TED 661 | Algebraic Reasoning: K-5 Discourse and Questioning | 3 |
| TED 662 | Geometry and Spatial Visualization: K-5 Assessment | 3 |
| TED 663 | Mathematical Modeling: K-5 Leadership | 3 |

## French Education

(See Languages, Literatures, and Cultures (p. 140 Error! Bookmark not defined.))

## Instructional Technology

Teacher Leadership Track (33 hours)
Currently on moratorium - Effective Fall 2012-2014
Pedagogical Expertise
TED 610 Integrating Technology into Subject Matter Instruction

3


## Middle/Secondary Mathematics Education

Teacher Leadership Track (33 hours)
Pedagogical Expertise

| TED 630 | Trends in Teaching Practices and <br> Curriculum in Secondary School <br> Mathematics |
| :--- | :--- |
| TED 664 | Teaching Problem Solving |
| TED 667 | Technology in Mathematics Education |

Two mathematics courses selected from the following list and under advisement from the Departments of Mathematics and Statistics and Teacher Education and Higher Education

| MAT 503 | Problem Solving in Mathematics | 3 |
| :--- | :--- | :--- |
| MAT 513 | Historical Development of Mathematics | 3 |
| MAT 514 | Theory of Numbers | 3 |
| MAT 516 | Intermediate Abstract Algebra | 3 |
| MAT 517 | Theory of Groups | 3 |
| MAT 518 | Set Theory and Transfinite Arithmetic | 3 |
| MAT 519 | Intuitive Concepts in Topology | 3 |
| MAT 520 | Non-Euclidean Geometry | 3 |
| MAT 521 | Projective Geometry | 3 |
| MAT 531 | Combinatorial Analysis | 3 |
| MAT 532 | Introductory Graph Theory | 3 |
| MAT 540 | Introductory Complex Analysis | 3 |
| MAT 545 | or | 3 |
| Professional Development/Leadership | 3 |  |
| TED 670 | Research in Mathematics Education | 3 |
|  | or | 3 |

Teacher as Researcher and Leader II: when TED 670 is not offered

## Reading Education K-12

Teacher Leadership Track (39 hours)

## Pedagogical Expertise

| TED 614 | Word Study |
| :--- | :--- |
| TED 615 | Literacy in the Early Years |
| TED 616 | Literacy Development and Instruction |


|  | Across the Grades |  |
| :--- | :--- | ---: |
| TED 617a | Diagnosis and Correction of Reading <br> Problems |  |
| TED 617b | Advanced Strategies in Diagnosis and <br> Correction | 3 |
| TED 619 | Research and Programs in Reading <br> Education | 3 |
| TED 640 | Writing Instruction in the Elementary <br> and Middle Grades | 3 |

Professional Development/Leadership

| TED 628 | Trends and Issues in Curriculum and <br> Instruction | 3 |
| :--- | :--- | :--- |
|  | or |  |
|  | approved substitute |  |
| TED 676 | Teacher as Researcher and Leader I | 3 |
| TED 677 | Teacher as Researcher and Leader II | 3 |

Add-on Licensure in Reading (18 hours)
The add-on program in reading is designed for professionals who have already completed a master's program in education or who are currently enrolled in a master's program and would like additional licensure as a reading specialist. The program requires 18 hours of course work. Some of these hours may be completed as part of another master's program such as those offered by the Department of Teacher Education and Higher Education or the Department of Specialized Education Services.

Required Courses

| TED 614 | Word Study | 3 |
| :--- | :--- | :--- |
| TED 615 | Literacy in the Early Years | 3 |
| TED 616 | Literacy Development and Instruction <br> Across the Grades | 3 |
| TED 617a | Diagnosis and Correction of Reading <br> Problems | 3 |
| TED 617b | Advanced Strategies in Diagnosis and <br> Correction | 3 |
| TED 640 | Writing Instruction in the Elementary <br> and Middle Grades | 3 |

## Middle/Secondary Science Education

Teacher Leadership Track (33 hours)
Pedagogical Expertise

| TED 657 | Nature of Science, Technology, and <br> Society | 3 |
| :--- | :--- | :--- |
| TED 623 | Environmental Education | 3 |


or
approved substitute


## Teaching English to Speakers of Other Languages (TESOL)

Teacher Leadership Track (36 hours)
Pedagogical Expertise

| TED 523 | Legal, Historical, and Cultural Issues in |  |
| :--- | :--- | :--- |
|  | ESL | 3 |
| TED 603 | Literacy Instruction for English Language |  |
|  | Learners | 3 |
| TED 604 | Applied Linguistics for ESL Teachers | 3 |
| TED 614 | Word Study | 3 |
|  | or |  |
|  | approved substitute |  |
| TED 618 | Teaching English as a Second Language | 3 |
|  | 6 hours electives under advisement | 6 |

Electives under advisement: to include courses in reading, language arts, math, science, social studies, instructional technology, and special education

Professional Development/Leadership
TED 676 Teacher as Researcher and Leader I 3
TED 677 Teacher as Researcher and Leader II 3

Add-on Licensure in ESL (15 hours)

| TED 523 | Legal, Historical, and Cultural Issues in | 3 |
| :--- | :--- | :--- |
| TED 603 | ESL |  |
|  | Literacy Instruction for English Language <br> Learners | 3 |
| TED 604 | Applied Linguistics for ESL Teachers | 3 |
| TED 614 | Word Study | 3 |

## Student Personnel Administration in Higher Education, MEd

The MEd in Student Personnel Administration in Higher Education prepares graduates to implement transformative and integrated learning experiences in college, university, and other postsecondary setting. In preparation for careers in college student personnel administration, graduate learners complete a minimum of 42 hours in foundation studies, professional studies, assessment and research, and a coherent sequence of supporting courses as well as an internship in college student personnel administration. Graduates may select supporting courses for an emphasis on adult learning.

## Application and Admission

In addition to the application materials required by The Graduate School, applicants must submit a personal statement and resume.

## Degree Requirements

Foundational Studies (9 hours)

| HED 601 | Foundations of College Student Personnel Administration |
| :---: | :---: |
| HED 661 | Higher Education in the U.S. |
| ELC 604 | Moral Dimensions of Education or |
| ELC 661 | Ethics and Education or |
| ELC 696 | Philosophies in Education |
| Professional Studies (18 hours minimum) |  |
| HED 602 | Theoretical Foundations of Higher Learning |
| HED 606 | Administration of Student Affairs in Higher Education |
| HED 627 | Enrollment Management |
| HED 662 | Curriculum in Higher Education or |
| HED 600 | The Community College |
| CED 603 | Contemporary College Students One course in learning interventions |
| Learning Interventions: selected in consultation with advisor, such as HED 663 Planning Programs in Postsecondary Education (3) or HED 625 Academic Advising and Retention in Higher Education (3) |  |

Assessment and Research (3 hours)
ERM 604 Methods of Educational Research
Internship (3 hours)
HED 690 Internship in Higher Education
Supporting Courses (9 hours)
Students select a coherent sequence of supporting courses in consultation with the advisor.

Comprehensive Examination (Capstone Experience)
Please consult with the Director of Graduate Study or departmental secretary for the dates of this examination.

## Educational Studies, Teacher Education and Development, or Higher Education Concentration, PhD

## Application and Admission

In addition to the application materials required by The Graduate School, applicants must submit a personal statement and resume.

The application deadline is January 10 for Fall admission.

## Teacher Education and Development Concentration

The PhD in Educational Studies with a concentration in teacher education and development requires a minimum of 60 semester hours. All students must meet requirements as described below. Additional course requirements are determined on an individual basis through planning by the student and his/her doctoral advisory/dissertation committee.

Required Core Courses (12 hours)

| TED 646 | Introduction to Equity Education | 3 |
| :--- | :--- | :--- |
| TED 765 | or | 3 |
| TED 746 | Research in Equity Education | 3 |
| TED 747 | Seminar: Research on Teaching |  |
|  | Doctoral Seminar in Learning and <br> TED 749 | Disciplined Inquiry in Teacher Education |

Research Requirements (21 hours)
The research component must include both qualitative and quantitative research courses, plus an applied research component. Students are expected to acquire a deep understanding of the concepts of research and inquiry as they relate to curriculum and instruction. The knowledge base should include understanding of various
research paradigms, criticisms of these paradigms, and the ability to conduct scholarly research.

## Research Component

The research component must include one doctoral-level statistics course, one doctoral-level qualitative methods course, one doctoral-level mixed methods research course and at least 6 hours of applied research courses as follows.

TED 730 Qualitative Research Design in Education 3

| TED 738 | Mixed Methods Research Design in |
| :--- | :--- |
|  | Education |

TED 775 Directed Doctoral Research 3
ERM 681 Design and Analysis of Educational Experiments

TED 775: two times for a total of 6 semester hours
ERM 680, prerequisite for ERM 681, can be counted in the 21 hours. The remaining research courses must be selected with advice and approval of the doctoral committee.

Concentration Courses (15 hours)
Students will decide on courses with the advice and approval of the doctoral committee. By carefully selecting courses, students may develop a focus in any of several areas including teacher education, elementary education, middle grades education, reading and literacy education, mathematics education, social studies education, science education, equity education, or an interdisciplinary focus.

## Comprehensive Examination

Each candidate for the doctoral degree is required to successfully pass an oral and written comprehensive examination. Dates for this examination are determined by the student and the doctoral advisory/dissertation committee chair.

Dissertation (12 hours minimum)
Each candidate for a doctoral degree must prepare and present a dissertation that focuses on some aspect of teacher education, shows independent investigation, and is acceptable in form and content to the student's committee and The Graduate School.

## Higher Education Concentration

The PhD in Educational Studies with a concentration in higher education requires 63 semester hours and is intended for experienced administrators and qualified scholars. Students develop the skills, knowledge, and attitudes necessary for investigating, understanding, and shaping the dynamic relations among students, institutions of higher education, and society. Graduates pursue careers as scholar-practitioners in areas such as
student affairs, community college leadership, and general higher education administration.

Core Course Requirements (18 hours)

| HED 744 | Higher Education: Finance and Political <br> Economy | 3 |
| :--- | :--- | :--- |
| HED 745 | Higher Education: Equity, Inclusion and <br> Learning | 3 |
| HED 746 | Theories of College and University <br> Organization | 3 |
| HED 747 | Advanced Student Development Theory | 3 |
| HED 748 | Law of Higher Education | 3 |
| HED 749 | Seminar in Higher Education Research | 3 |

Concentration Course Requirements (12 hours)
In consultation with the advisor, students will select a coherent set of concentration courses focusing on a specific problems of theory, policy, or practice in higher education.

Research Methods (21 hours)
ERM 680 Intermediate Statistical Methods in Education

ERM 681 Design and Analysis of Educational Experiments

HED 775
Directed Doctoral Research
One course in qualitative or interpretive research methods

One advanced course in research methods

One elective research methods course
Academic Portfolio
Students will compile a portfolio consisting of the following:

- Four substantial literature reviews, one for four of the five content courses in the doctoral core.
- Documentation of attendance at one national professional organization in higher education, including NASPA, ACPA, ASHE, or CSCC. This documentation must also include a reflection paper on the value of professional associations and the quality of research presented at the conference attended.
- Evidence of a presentation proposal submitted to one of the conferences listed above.
- A qualifying paper addressing a significant problem of policy, practice, or theory in higher education. Completed during HED 749, this paper amounts to a literature review directly related to the student's intended dissertation research.
- A written plan, developed in consultation with program faculty, highlighting the research skills required for investigating this problem as well as a list of specific courses addressing these skills.
- An approved doctoral committee and an approved plan of study.
Preliminary Oral Examination
Upon completion of the doctoral core and the academic portfolio, students will sit for the preliminary oral examination. During the preliminary oral exam student will respond to two categories of questions: (a) follow-up, clarifying, or in-depth questions related to one or more literature review papers presented in the academic portfolio, and (b) questions requiring the student to situate the qualifying paper within the broader literature in the field of higher education. The latter type of question will require the student to elaborate the relationships between the major area of interest and student development, law, finance, organization and governance, and equity (core courses). The preliminary oral exam may be waived if, by unanimous decision, the full-time program faculty agree that the portfolio demonstrates superior quality scholarship.

Students whose performance on the portfolio and preliminary oral exam is not deemed passable by unanimous decision may revise and resubmit the portfolio as directed by the program faculty and sit for a second round of oral exams. This second round of exams must take place during the semester immediately following the original preliminary oral exam. If by the second round of exams, the portfolio, the preliminary oral exam, or both is deemed unacceptable by a majority of the full-time program faculty, the student will exit the program.
Comprehensive Examination and Oral Examination
The comprehensive examination will require students to demonstrate advanced competence with a set of inquiry skills. As evidence of this competence, students will design a dissertation research project, explain the contribution the proposed program will make to the extant literature, and defend the research methods selected. The student will present to the faculty a written proposal and will sit for an oral defense of the research project. Upon successful completion of the comprehensive examination, students will enter into candidacy for the degree.

Dissertation (12 hours)
Each candidate will complete an original research project and sit for the final defense of the dissertation.

## The Teachers Academy

School of Education • School of Education Building • (336) 334-3045 • www.uncg.edu/ted

## Graduate Programs

- NC TEACH Alternative Licensure Program, 12-18 hours


## Faculty

Director
Barbara Levin, PhD
Coordinator
Debra Ackerman

## NC TEACH Alternative Licensure Program

NC TEACH is an alternative licensure program designed to recruit, train, support, and retain highly qualified individuals with undergraduate degrees in fields other than education who seek to enter the teaching profession. The Teachers Academy administers the NC TEACH Alternative Licensure Program in the following areas: Middle Grades (6-9) Language Arts, Mathematics, Science, and Social Studies; Secondary (9-12) English, Latin, Mathematics, Science, and Social Studies; and K-12 Foreign Language (Spanish or French). Depending on the academic background of the student, the alternative licensure program consists of 12-18 semester hours. Students in the program enroll in a sequence of education courses and engage in field-based experiences as lateral entry teachers in local public school systems. Students may be required to take additional course work in their teaching area for licensure. For most of these teaching areas, students may apply up to 18 semester hours of NC TEACH course work toward a master's degree program provided they apply and are accepted.

## Application and Admission

Applicants must submit all application materials required by The Graduate School by the appropriate deadline to be considered for Fall, Spring, or Summer admission.

## Alternative Licensure Requirements

Program of Study (12-18 hours)

| TED 535 | Literacy in the Content Area | 3 |
| :--- | :--- | ---: |
| TED 545 | Diverse Learners | 3 |
| TED 669 | Educational Implications of Learning and |  |
|  | Developmental Theory | 3 |
| TED 680a | Clinical Experience in Teaching | $3-6$ |

One 3 hour methods course in the licensure area

## Content Courses

Students must have at least 24 semester hours in their teaching areas or passing scores on the PRAXIS II teaching examinations. After a review of transcripts, students may also be required to complete additional course work to meet teaching standards.

## Licensure Requirements

In addition to course requirements, students who seek to obtain North Carolina Standard Professional I (entry-level) licensure must successfully complete one full year of lateral entry teaching, receive acceptable ratings on field placement and disposition assessments, complete a teaching portfolio, and pass the Praxis II examinations in their teaching areas. In addition, middle grades students complete a short module related to their teaching areas.

## Theatre, Department of

202 Taylor Building • (336) 334-5576•
http://performingarts.uncg.edu/theatre

## Graduate Programs

- Master of Fine Arts (MFA) in Drama, Acting, Design, Directing, and Theatre for Youth concentrations, 60 hours
- Master of Education (MEd) in Theatre Education, 37 hours


## Graduate Faculty

## Professors

Deborah L. Bell, MFA, Costume design and history, costume historical patterning/crafts, makeup, millinery, mask making, commedia dell'arte (Director of Graduate Study).
A. James Fisher, MFA, Directing, theatre history and literature, dramatic theory and criticism, American theatre. (Head of Department).

Robert C. Hansen, PhD, Theatre history and literature, musical theatre, scenography, Asian theatre.

Randall J. McMullen, MFA, Scene design, scenography, drafting, scene painting.

## Associate Professors

Rachel Briley, MFA, Theatre for Youth, theatre critical literacy, drama-in-education, theatre-in-education, early elementary education, deaf theatre.

John Gulley, MFA, Directing and acting.
Christine Morris, MFA, Voice/speech and acting.
James M. Wren, MFA, Acting, directing, musical theatre, period acting styles.

## Assistant Professors

Janet M. Allard, MFA, Playwriting, play script analysis.
Michael Flannery, MFA, Acting for the camera, drama appreciation.

Denise Gabriel, MA, Dance, movement/acting.

## Lecturers

Jody Cauthen, MFA, Theatre management, arts management.

Christopher E. Haas, MFA, Technical direction and stage crafts.

Joshua T. Purvis, MED, Theatre education, acting.

The Department of Theatre offers two graduate degrees: the MFA in drama (with concentrations in acting, design,
directing, and theatre for youth) and the MEd in theatre education. The MFA is a terminal master's degree designed to develop individual artistry and provide advanced, specialized training in acting, design, directing, and theatre for youth. The MEd is a degree for K-12 theatre educators who are seeking eligibility for advanced instruction and teaching licensure in theatre. Both are accredited by the National Association of Schools of Theatre.

The Department offers a rich and varied curriculum that combines theory and practice and demands the development of skills and talents. Curricular offerings are matched by an extensive co-curricular program that includes opportunities to participate in the Department's extensive theatre production program which includes UNCG Theatre, N.C. Theatre for Young People, Studio Theatre, Workshop Theatre, and a professional summer theatre season called THTR 232. Students may also be provided production opportunities at Triad Stage, a professional repertory theatre in Greensboro.

Office, classroom, laboratory, studio, and performance space is used in the Taylor, Aycock, Brown, Ferguson, Mclver, and Curry buildings. The faculty of talented artists and scholars have excellent national reputations and are deeply committed to teaching and learning. Graduate students are expected to work closely with faculty on creative and research projects during their course of study.

VISIONS students are restricted from taking any 500-level course without the permission of the Department Head and course instructor. Only students officially admitted to the MFA and MEd programs and students enrolled in the Summer Institute for Theatre Education (SITE) can register for 600-level courses.

In addition to the information contained in The Graduate School Bulletin, students are also required to be familiar with the policies and procedures contained in all departmental handbooks that can be obtained from the Department's Main Office, Room 202, Taylor Building.

## Drama, MFA

with concentrations in Acting, Design, Directing, and Theatre for Youth

## Application and Admission

Admission to the Department's degree programs is very competitive. Marginal compliance with the requirements stated below does not automatically imply admission.

In addition to the application materials required by The Graduate School, applicants must submit a detailed resume of theatre experience and participate in an interview. Acting concentration applicants are required to audition and applicants to the design, directing, and theatre for youth concentrations must submit a portfolio.

Please contact individual programs for specific program requirements. Students entering the program normally have an undergraduate degree in theatre with a strong background in the concentration they wish to pursue. Exceptions are occasionally made for students with significant professional or practical experience. For the design concentration, an undergraduate degree in a related field may be acceptable. Students admitted without the appropriate undergraduate background will be expected to complete remedial work, in addition to normal degree requirements.

## Acting Concentration

The MFA in Drama with a concentration in acting is a 60hour degree that may be completed in four semesters (two years) for students on assistantships. The acting concentration is dedicated to the development of the advanced actor for the professional and academic theatre. Students take classes in voice, movement, contemporary and period scene study, acting for the camera, audition techniques, and related course work in academic and performance disciplines. The program consists of a core of acting courses and practicum experiences all students take and a series of electives the student selects in consultation with his/her advisor. Internships are required for students without past experience in summer theatre or a professional equivalent. Candidates for the degree are accepted every other year.

Major Studies (42 hours)

| THR 532 | Period Acting I | 3 |
| :--- | :--- | :--- |
| THR 539 | Professional Theatre Audition |  |
|  | Techniques | 3 |
| THR 600 | Introduction to Graduate Study | 3 |
| THR 603 | Acting Seminar | 3 |
| THR 621 | Advanced Dynamics: Movement | 2 |
| THR 622 | Advanced Dynamics: Voice | 2 |
| THR 631 | Studies in Acting | 3 |
| THR 632 | Contemporary Acting II | 3 |
| THR 633 | Period Acting II | 3 |
| THR 690 | Graduate Practicum in Theatre | 3 |
| THR 699 | Master Production in Theatre | 3 |

THR 621, THR 622: Required if not in an undergraduate academic background.

THR 621, THR 622: (3-three sections at 2 hours each)
THR 690: ( 6 - two sections at 3 hours each)
THR 699: Capstone Experience
Academic Studies (6 hours)

Students must select a minimum of two courses from the following:

| THR 500 | Theatre History I | 3 |
| :--- | :--- | ---: |
| THR 501 | Theatre History II | 3 |
| THR 502 | Theatre History III | 3 |
| THR 505 | American Theatre History | 3 |
| THR 506 | Non-Western Theatre and/or Film | 3 |
| THR 587 | Theatre Field Studies | $1-3$ |
| THR 601 | Drama Theory and Criticism | $1-3$ |
| THR 602 | Seminar in Drama and Theatre History | 3 |
| ENG 540 | Shakespeare | 3 |
| ENG 555 | English Renaissance Drama | 3 |
| ENG 556 | English Drama of the Restoration and | 3 |
| ENG 582 | Eighteenth Century | 3 |
| ENG 640 | Modern Drama | 3 |
| MST 515 | Studies in Shakespeare | 3 |
| MST 528 | Film Theory | 3 |
| MUS 665 | Topics in Media | 3 |

THR 500, THR 501, THR 502: Required if not in an undergraduate academic background.

Supportive Studies (12 hours)
Students must select a minimum of four courses from the following:

| THR 510 | Directing II | 3 |
| :--- | :--- | ---: |
| THR 610 | or | 3 |
| THR 534 | Applied Play Directing | 2 |
| THR 535 | Advanced Acting for the Camera | 2 |
| THR 596 | Applied Theatre II | $1-4$ |
| THR 620 | Stage Dialects | 3 |
| THR 623 | Advanced Physical Violence for the | 2 |
|  | Stage | $1-3$ |
| THR 695 | Independent Study |  |
|  | or | 3 |
| THR 696 | Advanced Experimentation | 3 |
| THR 510: Required |  |  |

THR 510: Required

## Reviews

All candidates are reviewed each semester for continuance in the program. Reviews assess the candidate's artistic and academic development and success in meeting degree requirements.

## Design Concentration

The MFA in Drama with a concentration in design is a 60hour degree that may be completed in four semesters (two years) for students on assistantships. The design concentration is dedicated to developing well-rounded theatre designers within a scenographic tradition. The program affords students the opportunity to develop and demonstrate competencies in the major design elements used in professional theatre production. Students take classes and execute realized productions in the areas of scenery, costume, and lighting design. They are trained as artists and artisans to work in professional entertainment industry and higher education. Candidates for the degree are accepted every other year.

| Major Studies (41 hours) |  |  |
| :---: | :---: | :---: |
| THR 503 | Period Styles in Performance Design I | 3 |
| THR 504 | Period Styles in Performance Design II | 3 |
| THR 600 | Introduction to Graduate Study | 3 |
| THR 655 | Scene Design Styles | 3 |
| THR 665 | Costume Design Styles | 3 |
| THR 675 | Lighting Design Styles |  |
| THR 656 | Scene Design Application | 2 |
| THR 666 | Costume Design Application | 2 |
| THR 676 | Lighting Design Application |  |
| THR 651 | Scene Design Seminar (2:2) |  |
| THR 660 | Costume Design Seminar | 2 |
| THR 671 | Lighting Design Seminar | 2 |
| THR 614 | Collaboration in Theatrical Production | 3 |
| THR 691 | Graduate Practicum in Costume Design | 2 |
| THR 692 | Graduate Practicum in Lighting Design | 2 |
| THR 693 | Graduate Practicum in Scene Design | 2 |
| THR 699 | Master Production in Theatre | 3 |

THR 651, THR 660, THR 671: Students must take a minimum of 8 hrs. in Seminars. Two sections at 2 hours each.

THR 691, THR 692, THR 693: Students must take a minimum of 2 of the 3 Grad. Practicum areas for a total of 6 hours.

THR 699: Capstone Experience

Academic Studies (6 hours)
Students must select a minimum of two courses from the following:

| THR 500 | Theatre History I | 3 |
| :--- | :--- | ---: |
| THR 501 | Theatre History II | 3 |
| THR 502 | Theatre History III | 3 |
| THR 505 | American Theatre History | 3 |
| THR 506 | Non-Western Theatre and/or Film | 3 |
| THR 587 | Theatre Field Studies | $1-3$ |
| THR 601 | Drama Theory and Criticism | $1-3$ |
| THR 602 | Seminar in Drama and Theatre History | 3 |
| ENG 540 | Shakespeare | 3 |
| ENG 555 | English Renaissance Drama | 3 |
| ENG 556 | English Drama of the Restoration and | 3 |
| ENG 582 | Eighteenth Century | 3 |
| ENG 640 | Modern Drama | 3 |
| MST 515 | Studies in Shakespeare | 3 |
| MST 520 | Film Theory | 3 |
| MST 521 | History of Film to 1938 | 3 |
| MUS 665 | History of Film since 1938 | Topics in Media |

THR 500, THR 501, THR 502: Required if not in undergraduate academic background.

Supportive Studies (13 hours)
Students must select a minimum of four courses and one hr . of Independent Study from the following:

| THR 540 | Advanced Stagecrafts | 3 |
| :--- | :--- | ---: |
| THR 541 | Technical Direction | 3 |
| THR 542 | Scene Painting I | 3 |
| THR 544 | Computer Assisted Drafting | 3 |
| THR 545 | Scene Drafting and Construction | 3 |
| THR 548 | Stage Millinery and Accessories | 3 |
| THR 549 | Historical Costume Pattern Drafting and |  |
|  | Draping | 3 |
| THR 575 | Theatrical Sound Design and Technology | 3 |
| THR 670 | Production Design for Film | 3 |
| THR 695 | Independent Study | $1-3$ |
| THR 651 | Scene Design Seminar (2:2) |  |

THR 660
Costume Design Seminar
THR 671
Lighting Design Seminar
MST 613 Advanced Media Lighting
MST 614
Advanced Media Sound Production
THR 651, THR 660, THR 671: Students may take a maximum of 4 additional hrs in Seminars.

## Reviews

All candidates are reviewed each semester for continuance in the program. Reviews assess the candidate's artistic and academic development and success in meeting degree requirements.

## Directing Concentration

The MFA in Drama with a concentration in directing is a 60 -hour degree. The program seeks to admit only students who have undergraduate theatre degrees. Students admitted without appropriate undergraduate background in theatre will be expected to complete remedial work in addition to normal degree requirements. Students must interview and provide a portfolio than can include promptbooks, production photos, video tapes, directorial position papers, and/or dramaturgical research guides on past productions.

The directing concentration is designed to develop directors trained in the best tradition of becoming theatre artists/teachers to work in professional as well as college and university theatre. Students take a core of courses in directing, theatre history, dramatic theory and criticism, and dramatic literature. The core is designed to provide a basis for synthesizing the historical-theoretical-literary area of directing with production. Candidates for the degree are accepted every other year.

Major Studies (39 hours)

| THR 503 | Period Styles in Performance Design I | 3 |
| :--- | :--- | :--- |
| THR 504 | Period Styles in Performance Design II | 3 |
| THR 600 | Introduction to Graduate Study | 3 |
| THR 603 | Acting Seminar | 3 |
| THR 610 | Applied Play Directing | 3 |
| THR 611 | Advanced Play Directing | 3 |
| THR 612 | Directing Period Plays | 3 |
| THR 613 | Directing Seminar | 3 |
| THR 614 | Collaboration in Theatrical Production | 3 |
| THR 631 | Studies in Acting | 3 |
| THR 690 | Graduate Practicum in Theatre | 3 |
| THR 699 | Master Production in Theatre | 3 |

THR 504 Period Styles in Performance Design II 3

THR 690: 3 sections at 2 hours each - 6
THR 699: Capstone Experience
Academic Studies (12 hours)
Students must select a minimum of four courses from the following:

| THR 500 | Theatre History I | 3 |
| :---: | :---: | :---: |
| THR 501 | Theatre History II | 3 |
| THR 502 | Theatre History III | 3 |
| THR 505 | American Theatre History | 3 |
| THR 506 | Non-Western Theatre and/or Film | 3 |
| THR 587 | Theatre Field Studies | 1-3 |
| THR 601 | Drama Theory and Criticism | 1-3 |
| THR 602 | Seminar in Drama and Theatre History | 3 |
| ENG 540 | Shakespeare | 3 |
| ENG 555 | English Renaissance Drama | 3 |
| ENG 556 | English Drama of the Restoration and Eighteenth Century | 3 |
| ENG 582 | Modern Drama | 3 |
| ENG 640 | Studies in Shakespeare | 3 |
| MST 515 | Film Theory | 3 |
| MST 528 | Topics in Media | 3 |
| MUS 665 | History of Opera | 3 |
| THR 601: Required courses |  |  |
| THR 506: Required if not in undergraduate academic background |  |  |
| Supportive Studies (9 hours) |  |  |
| Students must take the following courses: |  |  |
| THR 584 | Theatre Management | 3 |
|  | Two additional courses in consultation with advisor | 6 |

Reviews
All candidates are reviewed each semester for continuance in the program. Reviews assess candidates artistic and academic development and their success in meeting degree requirements.

## Theatre for Youth Concentration

The MFA in Drama with a concentration in theatre for youth is a 60-hour degree. The program follows the guidelines established by the American Alliance for Theatre and Education and seeks to train theatre artists to take leadership roles in the growing field of theatre for
youth. Students will have classes in creative drama, children's theatre, puppetry, and directing, as well as having the opportunity to select electives from a variety of courses. The student and advisor work closely together to develop an individualized program of courses and experiences tailored to meet specific career goals. Internships are required and are individually arranged by the student and advisor. Candidates are accepted every other year.
Major Studies (41 hours)

| THR 515 | Drama in Education | 3 |
| :---: | :---: | :---: |
| THR 516 | Puppetry | 3 |
| THR 517 | Theatre in Education | 3 |
| THR 600 | Introduction to Graduate Study | 3 |
| THR 610 | Applied Play Directing | 3 |
| THR 611 | Advanced Play Directing | 3 |
| THR 613 | Directing Seminar | 3 |
| THR 614 | Collaboration in Theatrical Production | 3 |
| THR 615 | Advanced Drama in Education | 3 |
| THR 617 | Trends in Theatre for Young Audiences | 3 |
| THR 690 | Graduate Practicum in Theatre | 3 |
| THR 699 | Master Production in Theatre | 3 |
| THR 690: 2 sections at 3 hours each - 6 |  |  |
| THR 699: Capstone Experience |  |  |
| Academic Studies (12 hours) |  |  |
| Students must select a minimum of four courses from the following: |  |  |
| THR 500 | Theatre History I | 3 |
| THR 501 | Theatre History II | 3 |
| THR 502 | Theatre History III | 3 |
| THR 505 | American Theatre History | 3 |
| THR 506 | Non-Western Theatre and/or Film | 3 |
| THR 587 | Theatre Field Studies | 1-3 |
| THR 601 | Drama Theory and Criticism | 1-3 |
| THR 602 | Seminar in Drama and Theatre History | 3 |
| THR 680 | Seminar in Playwriting | 3 |
| ENG 540 | Shakespeare | 3 |
| ENG 555 | English Renaissance Drama | 3 |
| ENG 556 | English Drama of the Restoration and Eighteenth Century | 3 |
| ENG 582 | Modern Drama | 3 |

ENG 640 Studies in Shakespeare 3
MST 515 Film Theory 3
MST 528 Topics in Media 3
MUS $665 \quad 3$
THR 601, THR 680: Required Courses.
THR 500, THR 501, THR 502: Required if not in undergraduate academic background.
Supportive Studies (9 hours)
Students must select a minimum of three courses from the -following:

| THR 584 | Theatre Management | 3 |
| :--- | :--- | ---: |
| THR 621 | Advanced Dynamics: Movement | 2 |
| THR 622 | Advanced Dynamics: Voice | 2 |
| THR 631 | Studies in Acting | 3 |
| THR 695 | Independent Study | $1-3$ |
| THR 584, THR 631: Required courses |  |  |
| Reviews |  |  |
| All candidates are reviewed each semester for <br> continuance in the program. Reviews assess the <br> candidate's artistic and academic development and <br> success in meeting degree requirements. |  |  |

## Theatre Education, MEd

The MEd in Theatre Education requires 37 semester hours and is designed for in-service K-12 teachers holding North Carolina Standard Professional I (formerly "A" level) teaching licensure in theatre arts who are seeking advanced training, professional development, and the opportunity for Advanced Master's (" M ") licensure in theatre arts.

Students with adequate undergraduate preparation, including Standard Professional I (formerly "A" level) teaching licensure, can usually complete the course of study in three summer sessions and two academic semesters devoted to independent-study projects within their in-service teaching position. Degree candidates complete theatre course work through the Summer Institute for Theatre Education (SITE), a special program that is offered each year in a 15-day intensive summer session. Students may earn up to 9 semester hours of graduate level credit toward the degree during each annual summer session. Students may also take some required professional education classes during SITE, regular summer sessions, on-line through Continual Learning, or at other colleges and universities.

## Application and Admission

Admission to the Department's degree programs is very competitive. Marginal compliance with the requirements stated below does not automatically imply admission.

In addition to the application materials required by The Graduate School, applicants must submit a Statement of Purposes and Goals and a resume of theatre and theatre education experience. In lieu of GRE scores, applicants must submit acceptable scores on the PRAXIS II: Theatre Specialty Area test. Prior to admission, applicants must interview with the Director of Theatre Education.

## Degree Requirements

Required Courses (18 hours)
Students must take a required core of three professional education courses (9 hours):

| TED 545 | Diverse Learners |
| :--- | :--- |
| TED 616 | Literacy Development and Instruction <br> Across the Grades |
| TED 635 | Reading in the Secondary School and <br> Content Areas |
| TED 669 | Educational Implications of Learning and <br> Developmental Theory |

Students must take the following three required theatre courses (9 hours):

THR 600 Introduction to Graduate Study
THR 615 Advanced Drama in Education
THR 682 Seminar in Teaching Methods for Theatre Education

Applied Theatre Courses (15 hours)
Students must select five applied theatre courses in consultation with the Director of Theatre Education (15 hours). Students must take courses from at least two categories. Individualized programs of study are designed according to grade levels (K-12) of teaching, individual undergraduate program preparation, professional theatre experience or professional teaching experience.
Theatre History/Dramatic Literature/Theory and Criticism
THR 601 Drama Theory and Criticism 1-3
THR 602 Seminar in Drama and Theatre History 3
THR 680 Seminar in Playwriting
Or other appropriate course
Directing
THR 610 Applied Play Directing
THR 611 Advanced Play Directing

THR 613
Directing Seminar
Or other appropriate course
Acting
THR 534 Acting for the Camera 2
THR 581 Advanced Oral Interpretation 3
THR 603 Acting Seminar 3
THR $631 \quad$ Studies in Acting 3
Or other appropriate course
Technical Theatre/Design

| THR 540 | Advanced Stagecrafts |
| :--- | :--- |
| THR 575 | Theatrical Sound Design and Technology |

Or other appropriate course
Production Field Experience Courses (4 hours)
Students must take two production field experience courses, completed during in-service teaching (4 hours):
THR 694 Theatre Education Cumulative Portfolio 1
THR 696 Advanced Experimentation

## Cumulative Portfolio (Capstone Experience)

The culminating experience of the degree program is in the preparation and presentation of the cumulative portfolio which demonstrates the following:

1. Student documentation that demonstrates their proficiency toward the five standards for graduate teacher candidate (Teacher Leadership, Respectful Educational Environments, Context/Curriculum Expertise, Student Learning and Reflection), approved by the State Board of Education.
2. Student commitment to professional development, leadership, and collaboration.
3. An on-going process requiring students to reflect upon and demonstrate the influences that the content and experiences in the degree program had upon their teaching.

The development of the portfolio is an ongoing process that begins from the first semester of study under the guidance of the Director of Theatre Education. A Cumulative Portfolio Committee (CPC) is created to review the portfolio process. This committee is comprised of three theatre faculty members: the Director of Theatre Education (chair), the student's advisor for THR 696, and a third faculty member who has directly informed the student's development as a teacher. During the final semester of the degree program, the candidate enrolls in THR 694 to facilitate the development and final preparation of the cumulative portfolio. The student begins consultation with the Director of Theatre Education
regarding the portfolio upon completion of THR 696. During the final semester of study in the program, the candidate submits the portfolio for review via an on-line Taskstream module, and subsequently, does an oral presentation to the CPC. The committee evaluates the portfolio project as satisfactory or unsatisfactory, based upon the candidate's mastery of the advanced competencies of a master teacher in theatre arts. For detailed information about the cumulative portfolio, see the Department's Theatre Education Handbook and/or Graduate Handbook.

## Licensure

Students will be eligible for North Carolina Advanced Master's (" $M$ ") licensure upon the completion of the degree program. Individuals who do not hold Standard Professional I (formerly " $A$ " level) teaching licensure in K12 theatre arts must complete requirements for that level licensure, either through lateral entry or add-on licensure via a Regional Alternative Licensing Center prior to applying to the MEd. However, applicants may hold equivalent licensure from a Reciprocal Agreement State in lieu of North Carolina Standard Professional I ("A" level) licensure in K-12 theatre arts.

## Women's and Gender Studies Program

336 Curry Building • (336) 334-5673 • wgs.uncg.edu

## Graduate Programs

- Post-Baccalaureate Certificate in Women's and Gender Studies, 15 hours
- Master of Arts (MA) in Women's and Gender Studies, 36 hours


## Program Faculty

## Professors

Jodi Bilinkoff, PhD, Department of History.
Emily Edwards, PhD, Department of Media Studies.
Diane L. Gill, PhD, Department of Kinesiology.
Jill Green, PhD, Department of Dance.
Derek Krueger, PhD, Department of Religious Studies.
Eugene Rogers, PhD, Department of Religious Studies.
Hephzibah Roskelly, PhD, Department of English (Interim Director of Women's and Gender Studies Program).

Cathryne Schmitz, PhD, Program in Conflict and Peace Studies and Department of Social Work.

## Associate Professors

Danielle Bouchard, PhD, Women's and Gender Studies Program.

Rachel Briley, MFA, Department of Theatre.
Gwen Hunnicutt, PhD, Department of Sociology.
Katherine Jamieson, PhD, Department of Kinesiology.
Janine Jones, PhD, Department of Philosophy.
Elizabeth Keathley, PhD, School of Music.
Nancy Myers, PhD, Department of English.
Lisa Levenstein, PhD, Department of History
Elizabeth Natalle, PhD, Department of Communication Studies.

Tracy Nichols, PhD, Department of Public Health Education.

Mark Rifkin, PhD, Department of English.
Alexandra Schultheis, PhD, Department of English.
Carisa Showden, PhD, Department of Political Science (Director of Graduate Study, Women's and Gender Studies Program).

Paige Hall Smith, PhD, Department of Public Health Education and Director of the Center for Women's Health and Wellness.

Leila Villaverde, PhD, Department of Educational Leadership and Cultural Foundations.

Karen Weyler, PhD, Department of English.

## Assistant Professors

Sarah Jane Cervenak, PhD, African and American Studies and Women's and Gender Studies Program.

Jennifer Feather, PhD, Department of English.
Cybelle McFadden. PhD, Department of Language, Literatures, and Cultures.

Susanne Rinner, PhD, Department of Languages, Literatures, and Cultures.

Amy Vetter, PhD, Department of Teacher Education and Higher Education.

## Women's and Gender Studies, PBC

The Post-Baccalaureate Certificate in Women's and Gender Studies requires 15 semester hours and prepares graduates for interdisciplinary teaching; careers in nonprofit, governmental, and corporate venues; and entry into professional degree programs in such fields as law, child development, and public health. The program combines core courses, elective courses, independent study, and/or internship integrating theory and practice.
Certificate requirements must be successfully completed during five academic years to earn the certificate. At least 9 hours of course work must be at the 600 level or above. Courses fulfilling the certificate program may be used to meet the requirements in a degree program in accordance with the policies of The Graduate School.

Curriculum requirements consist of a core course, WGS 650 ( 3 hours) and 12 hours of electives. Students enrolled in a graduate degree program must take at least 3 hours of course work outside the degree-granting department.

## Application and Admission

In addition to the application materials required by The Graduate School, applicants must submit a statement of goals describing how their previous study and experience have prepared them for the certificate program and specifically how their academic/professional goals may be advanced through study in WGS. No test scores (GRE, MAT) are required; however, if applying for the PostBaccalaureate Certificate along with another degree program, please refer to the degree granting department for admission test requirements. Candidates may present a baccalaureate degree in any field.

## Certificate Requirements

Required Core Course (3 hours)
$\begin{array}{ll}\text { WGS } 650 & \text { Feminist Theory: Intersections of } \\ & \text { Gender, Race and Class }\end{array}$
The following courses may be taken in substitution for WGS 650 with permission of the advisor.

These may also serve as electives.

| WGS 651 | Feminist Research Analysis | 3 |
| :--- | :--- | :--- |
| CST 659 | Communication and Gendered <br> Communities | 3 |
| ELC 678 | Feminist Theories and Education | 3 |
| ELC 680 | Transnational and Postcolonial Feminist <br> Perspectives | 3 |
| ENG 531 | Feminist Theory and Women Writers | 3 |
| ENG 688 | Women's Rhetoric and Feminist <br> Pedagogy | 3 |
| HDF 624 | Feminist Theory and Research <br> Methodologies | 3 |

WGS 651: with permissions of instructor
Electives (12 hours)
Minimum of 12 hours chosen from among the following or other courses as approved by the advisor and the chair of the Women's and Gender Studies Graduate Program Committee:

| WGS 600 | Independent Study | $3-6$ |
| :--- | :--- | ---: |
| WGS 601 | Women's and Gender Studies Internship | 3 |
| CED 574a | Contemporary Topics in Counseling: <br> Counseling Women | 3 |
| CST 659 | Communication and Gendered <br> Communities | 3 |
| ELC 609 | Epistemology and Education | 3 |
| ELC 664 | Foundations of Interpretive Inquiry | 3 |
| ELC 698 | Gender, Art, Politics, and Pedagogy | 3 |
| HDF 673 | Cross-cultural Perspectives on Families | 3 |
| HEA 662 | Gender and Health | 3 |
| HEA 665 | Violence and Public Health | 3 |
| HIS 530 | History of Sexuality: Selected Topics | 3 |
| HIS 551 | Gender and History: Selected Topics | 3 |
| KIN 532 | Women in Sport and Physical Activity | 3 |
| KIN 630 | Sport and Society: Social Inequalities | 3 |
| MLS 610 | Culture and Ideas | 3 |

MLS 620
TED 555 Multicultural Education
WGS 600, WGS 601, CST 659
MLS 610, MLS 620: when focus is on gender
Many graduate courses focusing on gender are offered under special topics numbers. Each semester the Director of the Women's and Gender Studies Graduate Program will designate courses that meet WGS certificate requirements. Students should check the Women's and Gender Studies Program web site or the Schedule of Courses for a current listing.

## Women's and Gender Studies, MA

The interdisciplinary MA in Women's and Gender Studies requires 36 semester hours and prepares graduates for professional employment and for further study. The master's program offers three options: 1) an option for students who wish to pursue a general degree with an individualized program, 2) an option in gender and community leadership, and 3) an option in gender and health. All students will take the common core and capstone experience ( $15-18$ hours) plus 21 or more additional hours. The options in gender and health and gender and community leadership have an important component of professional skills development and prepare students for employment in non-faculty positions in education, in non-profit organizations, government and business. Students completing the program with individualized options will, upon graduation, pursue doctoral degrees in women's and gender studies or other professional degrees; they will find or continue employment in such diverse areas as counseling, university teaching, the arts, and business.

## Application and Admission

Students are admitted to the MA degree program on the basis of academic achievement without regard to undergraduate major. In addition to the application materials required by The Graduate School, applicants must submit a statement of purpose highlighting motivation, specific option/area of interest within the program, relevant experience or background particular to the proposed study and a sample of analytical or professional writing of 5-15 pages.

## Degree Requirements

Required Core Courses ( 9 hours)

| WGS 650 | Feminist Theory: Intersections of <br> Gender, Race and Class |  |
| :--- | :--- | :--- |
| WGS 651 | Feminist Research Analysis | 3 |
| And one of the following theory courses: |  |  |


| CST 659 | Communication and Gendered <br> Communities |
| :---: | :--- |
| ELC 678 | Feminist Theories and Education |
| ELC 680 | Transnational and Postcolonial Feminist <br> Perspectives |
| ENG 531 | Feminist Theory and Women Writers |
| ENG 688 | Women's Rhetoric and Feminist <br> Pedagogy |
| HDF 624 | Feminist Theory and Research <br> Methodologies |

Capstone Experience (6 hours)
All students must select either the thesis or the internship at the end of their course work. Normally, students in the gender and community leadership option and the gender and health option select the internship; students in the individually designed option may elect either option.

| WGS 699 | Thesis | $1-6$ |
| :--- | :--- | ---: |
| WGS 601 | Women's and Gender Studies Internship | 3 |
|  | and |  |
| WGS 602 | Internship Seminar | 3 |

WGS 601 and WGS 602 must be taken in the same semester

## Individualized Program (21 hours)

Students create a concentrated area of interest for further study with a minimum of 9 hours. This option requires a proposed plan of study approved by the advisor or the Director of the Women's and Gender Studies Graduate Program. These courses may come from those approved for WGS credit or from cognate areas. Students take 12 hours of electives chosen from the list below, from the professional development applied skills courses approved for the professional master's options, or from other graduate offerings.

## Courses

| WGS 600 | Independent Study | $3-6$ |
| :--- | :--- | ---: |
| WGS 601 | Women's and Gender Studies Internship | 3 |
| WGS 602 | Internship Seminar | 3 |
| CED 574a | Contemporary Topics in Counseling: <br> Counseling Women | 3 |
| CST 659 | Communication and Gendered <br> Communities | 3 |
| ELC 609 | Epistemology and Education | 3 |
| ELC 662 | Power, Politics, and Schools | 3 |
| ELC 664 | Foundations of Interpretive Inquiry | 3 |


| ELC 670 | Leadership for Teaching and Learning | 3 |
| :--- | :--- | ---: |
| ELC 688 | Contemporary Problems Seminar | $1-3$ |
| ELC 700 | Critical Perspectives in Education, <br>  <br>  <br> ENG 531 | Feadership, and Culture |
| ERM 604 | Methods of Educational Research | 3 |
| HDF 624 | Feminist Theory and Research | 3 |
|  | Methodologies |  |
| HDF 673 | Cross-cultural Perspectives on Families | 3 |
| HEA 662 | Gender and Health | 3 |
| HEA 665 | Violence and Public Health | 3 |
| HIS 530 | History of Sexuality: Selected Topics | 3 |
| HIS 551 | Gender and History: Selected Topics | 3 |
| KIN 532 | Women in Sport and Physical Activity | 3 |
| KIN 630 | Sport and Society: Social Inequalities | 3 |
| MLS 610 | Culture and Ideas | 3 |
| MLS 620 | Human Nature and Society | 3 |
| TED 555 | Multicultural Education | 3 |

WGS 601, WGS 602: if not taken as a requirement
CST 659, ENG 531, HDF 624: if not taken to meet core requirement
MLS 610, MLS 620: when focus is on gender

## Gender and Community Leadership Option (21 hours)

Professional Development Applied Skills (9 hours)
Students should choose a coherent sequence of 9 hours of skills courses with the help of their advisor. Students selecting courses from the MBA sequence are advised to select MBA 706 or MBA 710 . Students selecting courses from the non-profit management (PSC) sequence are advised to take PSC 540 and PSC 550.

| CPS 600 | Fundamentals of Conflict |  |
| :--- | :--- | :--- |
|  | Transformation and Peace Studies | 3 |
| CPS 601 | Global Intercultural Conflict |  |
|  | Transformation | 3 |
| MBA 701 | Quantitative Analysis for Decision | 3 |
|  | Making | 3 |
| MBA 702 | Financial and Managerial Accounting | 3 |
| MBA 703 | Economic Policies and Impact on Global |  |
|  | Outcomes | 3 |



| HEA 640 | Global Health Issues | 3 |
| :---: | :---: | :---: |
| HEA 645 | Health Policy | 3 |
| HEA 662 | Gender and Health | 3 |
| SWK 550 | Social Services in Health Care | 3 |
| GH Electiv | hours) |  |
| Students | 6 hours from the following: |  |
| WGS 600 | Independent Study | 3-6 |
| CED 574a | Contemporary Topics in Counseling: Counseling Women | 3 |
| CST 659 | Communication and Gendered Communities | 3 |
| DCE 560 | The Dancer's Body | 3 |
| ENG 531 | Feminist Theory and Women Writers | 3 |
| ENG 668 | Women's Rhetoric and Feminist Pedagogy | 3 |
| ERM 517 | Statistical Methods in Education | 3 |
| ERM 604 | Methods of Educational Research | 3 |
| HDF 502 | Gender in Families | 3 |
| HDF 624 | Feminist Theory and Research Methodologies | 3 |
| HDF 658 | Research Methods in Human Development and Family Studies | 3 |
| HDF 673 | Cross-cultural Perspectives on Families | 3 |
| HEA 601 | Principles of Community Health Education | 3 |
| HEA 640 | Global Health Issues | 3 |
| HEA 645 | Health Policy | 3 |
| HEA 662 | Gender and Health | 3 |
| HEA 665 | Violence and Public Health | 3 |
| HEA 676 | Problems Seminar | 3 |
| HIS 530 | History of Sexuality: Selected Topics | 3 |
| HIS 551 | Gender and History: Selected Topics | 3 |
| HIS 713 | African Americans after Slavery | 3 |
| KIN 532 | Women in Sport and Physical Activity | 3 |
| KIN 630 | Sport and Society: Social Inequalities | 3 |
| KIN 710 | Sport and Feminisms | 3 |
| MLS 610 | Culture and Ideas | 3 |
| MLS 620 | Human Nature and Society | 3 |
| PHI 602 | Ethics and Genetics | 3 |


| PSY 647 | Advanced Social Psychology | 3 |
| :--- | :--- | :--- |
| PSY 662 | Psychological Disorders in Adults | 3 |
| TED 555 | Multicultural Education | 3 |
| WGS 600: if not taken to meet requirement |  |  |
| CST 659, ENG 531, ENG 668, HDF 624: if not taken to meet |  |  |
| core requirement |  |  |
| HEA 640, HEA 645, HEA 662: if not taken to meet GH core |  |  |
| requirement |  |  |
| MLS 610, MLS 620: when focus is on gender |  |  |

3 3 3

## COURSES

## ACC - Accounting

## ACC 589 - Experimental Course

This number reserved for experimental courses. Refer to the Course Schedule for current offerings.

ACC 600 - Professional Accounting Research (3)

Effective use of resources in financial and tax accounting to complete research assignments.

Prerequisite: Grade of C or better in ACC 420.
ACC 613 - Directed Studies in Accounting (1-3)
(1-3)
Individual study of an issue or problem of interest. Student must arrange topic and course requirements with instructor prior to registration.

Prerequisite: 12 s.h. of graduate level accounting courses or permission of instructor.

## ACC 621 - Accounting Internship (3)

(3)

Combined academic and work components allow students to gain experience in the professional field of accounting. Course supervised by a graduate faculty member and appropriate personnel of the approved organization.

Prerequisite: Grade of C or better in ACC 318 and permission of instructor.
ACC 628 - Accounting Information Systems (3)

Accounting information systems and the role of the accountant in the selection and management of accounting information systems; ethical implications.

Prerequisite: Grade of C or better in ACC 325.
ACC 630 - Seminar in Contemporary Accounting Issues (3)

Analysis, research, and presentation of current topics and issues relevant to professional accountants.

Prerequisite: Grade of C or better in ACC 319.

ACC 631 - Advanced Auditing (3)

## (3:3)

Ethics, reporting, law, statistics, and audit software; directed towards professional external and internal auditing.

Prerequisite: Grade of C or better in ACC 440.
ACC 638 - Information Systems Auditing (3)

Theory and practice of information systems auditing; role of information systems auditor in systems development; computer based system controls.

Prerequisite: Grade of C or better in ACC 440.
ACC 642 - Specialized Accounting Entities (3)
(3:3)
Theory and practice associated with business combinations, consolidated financial statements, partnerships, international operations, bankruptcy and other accounting topics related to specialized accounting entities.

Prerequisite: Grade of C or better in ACC 319.

## ACC 645 - Seminar in Financial Accounting Theory (3)

Normative analysis in theory development and recent transition to empirical analysis; informational and positive theory paradigms; role of regulation.

Prerequisite: Grade of C or better in ACC 319.
ACC 652 - Taxation of Estates, Gifts and Trusts (3)

Principles and procedures involved in determining federal estate tax; tax planning using gifts and trusts.

Prerequisite: Pr. or Coreq. ACC 600. Corequisite: Pr. or Coreq. ACC 600.

ACC 655 - Taxation of Corporations and Shareholders (3)
(3:3)
Federal taxation of business transactions affecting corporations and shareholders.

Prerequisite: Pr. or Coreq. ACC 600. Corequisite: Pr. or Coreq. ACC 600.
ACC 656 - Taxation of Flow-Through Business Entities (3)

Federal taxation of business transactions affecting flowthrough business entities, including partnerships, S corporations, limited liability companies and their owners.

Prerequisite: Pr. or Coreq. ACC 600. Corequisite: Pr. or Coreq. ACC 600.

## ACC 688 - Advanced Business Law (3)

(3:3)
Explores legal issues in contract and sales law, negotiable instruments, agency, and business associations and at the same time considers ethical and managerial issues involved when these legal issues arise.
Prerequisite: MGT 330 or permission of Program Director.
ACC 699 - Thesis (1-3)
(1-3)

## ACC 711 - Experimental Course

This number reserved for experimental courses. Refer to the Course Schedule for current offerings.

ACC 801 - Thesis Extension (1-3)
(1-3)
ACC 803 - Research Extension (1-3)
(1-3)

## AFS - African American Studies

AFS 554 - Independent Black Politics in the 19th Century (3)

The origins, rise, and collapse of Black Populism, the independent black political movement between Reconstruction and the consolidation of Jim Crow, in the South.

Prerequisite: African American Studies major or enrollment in post-baccalaureate certificate program.
AFS 610 - African American Theoretical Perspectives (3)

Historical and theoretical approaches to analyzing race, gender, and class as related to African Americans.

AFS 650 - Topics in African American Gender Studies (3) (3:3)
Constructed gender identity of African Americans and intersections of race, gender, class, and sexuality. Politics of African American gender construction, historical notions of gender performance, and aspects of black sexuality.
AFS 652 - Topics in Black Performance Studies (3) (3:3)
Implications of historical displays of Black people in relation to contemporary black performance, particularly as it involves a shift in bodies and terms.

AFS 653 - Perspectives on the African American Experience (3)

## (3:3)

Investigates selected individuals, events, and social and cultural movements that have fundamentally shaped the course of African American advancement in mainstream society

## APD - Apparel Product Design

APD 545 - Experimental Product Design (3)

## (3:2:3)

Experimentation with a variety of materials to create apparel using both traditional and innovative methods. Emphasis on design development and originality. Investigation of various specialty markets for apparel design.

Prerequisite: Grade of C (2.0) or better in APD 444.

## ARE - Art Education

ARE 563 - Trends and Teaching in Art: Special Populations (3)

## (3:2:1)

Curricular and instructional principles, processes and designs applicable to special populations in various school, institutional, or community settings.

Prerequisite: Completion of ARE 363, student teaching, or equivalent or permission of instructor.
ARE 565 - Issues in Art Education (3)

Exploration of issues in art or education which affect the teaching of art.
Prerequisite: Graduate status or permission of instructor.

## ARH - Art History

ARH 500 - Traditions of Art Criticism (3)

## (3:3)

A study of the major critical traditions from the Italian Renaissance to the present, aiming to define the role of criticism in the production and reception of works of art.
Prerequisite: Junior standing or graduate status.

## ARH 501 - Topics in the History of Art (3)

Special topics in the history of art, ancient to modern.
Prerequisite: Junior standing or graduate status.
ARH 502 - Historiography and Methodology (3)

Case studies in the development of art history as a discipline and applied practice of methodologies developed for art-historical analysis.
Prerequisite: Graduate status in the Art Department, completion of 15 or more undergraduate hours in art history, or written permission of the instructor. Offered: (Fall).
ARH 590 - Museum Studies (3)

## (3:3)

A study of the diverse operations and institutional missions of art museums, including management, governance, development, collections management, education, and curatorial activities.

Prerequisite: Junior standing and permission of instructor.

## ARH 600 - Writing Art Criticism (3)

## (3:3)

Examination of the assumptions and methods of modern and contemporary art criticism through a close reading of texts and the writing of original criticism.

ARH 601 - Public Art (3)

Study of traditional monuments, such as the pyramids, Michelangelo's David, and recent large-scale works, including the Vietnam Memorial, with attention to questions of site, scale, purpose, and audience.
ARH 602 - The Teaching of Art from Vasari to Albers (3) (3:3)

A study of ways in which artists have taught art to other artists from the Renaissance of Michelangelo to the Modern period of such artists as De Kooning.

ARH 605 - Perspectives in Contemporary Art (3)

## (3:3)

Seminar on artists whose work or writings have raised critical questions relevant to recent art.
ARH 606-A Study of the Artist (3)
(3:3)
Study of the biography, development, and critical evaluation of one artist, such as Michelangelo, Rembrandt, Rodin, Cézanne, Picasso, Matisse, or Pollock.

ARH 618 - Topics in the History of Art (3)

Special topics in the history of art, ancient to modern.
Prerequisite: Permission of instructor.
ARH 619 - Research Problems in Art History, Art Criticism (3)

## (3:3)

Independent research in art history or criticism.

## ART - Studio Art

ART 501 - Topics in the History of Art (3)
ART 520 - Anatomy for the Artist (3)
(3:1:6)
Visual analysis of the human form with an emphasis on the skeleto-muscular system.
Prerequisite: ART 220 or permission of instructor.

## ART 525 - Advanced Metal Casting (3)

Advanced theory and practice of metal casting.
Prerequisite: ART 353 or permission of instructor.
ART 529 - The Multi-Media Print (3)

Experimental forms of image making utilizing diverse sources of technical and aesthetic references including electronic media, photography, monoprints, collagraphy, 3-D constructions, and traditional printmaking methods and processes.

Prerequisite: ART 326 or ART 328 or ART 329, ART 240 or ART 241. Offered: (Fall \& Spring).

## ART 540 - Digital Visualization and Methods (3)

## (3:2:3)

Studio investigation of the ways that digital methods expand and change the visual vocabulary and methods. Emphasis on refining personal artistic vision and establishing connections between traditional and digital methods.

Prerequisite: ART 240 or ART 241 and ART 340, ART 341 or ART 344, senior status or MFA status, or permission of instructor.

## ART 545 - Interactive Web Design (3)

(3:2:3)
Development of Web graphics and interactive Web-based environments that demonstrate an understanding of navigation, usability, and functionality within a creative framework.

Prerequisite: ART 240 or ART 241, ART 345, or permission of instructor. Offered: (Fall).

## ART 550-Sculpture/Installation (3)

## (3:1:6)

Investigation of the sculptural possibilities of a space through art making, conceptual development, and personal research with a focus on contemporary and historical issues.

Prerequisite: ART 355, ART 356, ART 481, or permission of instructor. Offered: (Occ).

## ART 557-Site-Specific Sculpture (3)

## (3:1:6)

Provides opportunity to make site-specific sculptures; process of making work in the public arena from initial conception, interaction with jury committee to completed sculpture.

Prerequisite: ART 355, or permission of instructor. Offered: (Spring).

## ART 589 - Experimental Course

This number reserved for experimental courses. Refer to the Course Schedule for current offerings.
ART 590-Museum Studies (3)
ART 592 - Professional Practices, Aesthetics, and Preparation for the Visual Artist (3)

Emerging artists participate in their community and acquire the skills of career professionals. Students will engage in critical dialog related to gallery lectures, exhibitions, and symposia, and prepare to exhibit, present, and document their studio work

Prerequisite: Graduate students: full time graduate status; undergraduates: completion of 50 s.h. toward studio major, or permission of instructor. Offered: (Fall \& Spring).

## ART 600 - Writing Art Criticism (3)

ART 605 - Perspectives in Contemporary Art (3)
ART 618 - Topics in the History of Art (3)
ART 620 - Drawing (3)

## (3:2:4)

Drawing from observation, memory, imagination. Drawing as a record of the reflection and invention by which visual ideas are explored and developed.
Prerequisite: Admitted to MFA in studio arts or permission of instructor.

## ART 622 - Drawing Marathon (3)

(3:1:6)
Four two-day sessions of intensive drawing from figure, interior, still life, and imagination using a variety of materials. Emphasis on longer periods of uninterrupted drawing.

Prerequisite: Admitted to MFA in studio arts or permission of instructor.

## ART 626 - Woodcut and Wood Engraving (3)

## (3:2:4)

Aesthetic and technical exploration of relief methods in woodcut.
Prerequisite: Admitted to MFA in studio arts or permission of instructor.

## ART 627 - Lithography (3)

(3:2:4)
Aesthetic and technical exploration of planographic methods in lithography.

Prerequisite: Admitted to MFA in studio arts or permission of instructor.

## ART 628 - Etching (3)

Aesthetic and technical exploration of intaglio methods in etching.

Prerequisite: Admitted to MFA in studio arts or permission of instructor.

## ART 629 - Studio Problems in Drawing, Painting, or Printmaking (3)

## (3)

Independent work in drawing, painting, or printmaking.
Prerequisite: Admission to candidacy and permission of instructor.

## ART 631 - Painting and Drawing (3)

## (3:3:6)

Creative work in painting and drawing with an emphasis on observation.

Prerequisite: 6 semester hours undergraduate painting and drawing or a working knowledge of painting and drawing techniques.

ART 632 - Painting and Drawing (3)
(3:3:6)
Creative work in painting and drawing with an emphasis on observation.

Prerequisite: 6 semester hours undergraduate painting and drawing or a working knowledge of painting and drawing techniques.

ART 633 - Painting and Drawing (6)
(6:3:9)
Creative work in painting and drawing with an emphasis on observation.

Prerequisite: 6 semester hours undergraduate painting and drawing or a working knowledge of painting and drawing techniques.

ART 634 - Painting and Drawing (6)
(6:3:9)
Creative work in painting and drawing with an emphasis on observation.

Prerequisite: 6 semester hours undergraduate painting and drawing or a working knowledge of painting and drawing techniques.

ART 635 - Painting (6)
(6:3:9)
Advanced practice and theory of painting with an inclusive interpretation of painting. .

Prerequisite: Admitted to MFA in studio arts or permission of instructor.

## ART 636 - Painting Research Seminar (6)

Research and study on selected painting problems.
Prerequisite: Admitted to MFA in studio arts or permission of instructor.

## ART 637 - Painting Research Seminar (6)

(6:3:9)
Research and study on selected painting problems.
Prerequisite: Admitted to MFA in studio arts or permission of instructor.

## ART 641 - New and Expanded Media (6)

Special studio topics in design ranging from digital photography to systems based art.

## ART 649 - Studio Problems in New Media (3)

(3)

Independent work in digital media or photography.
Prerequisite: Admission to candidacy and permission of instructor.

ART 655 - Sculpture (3)
(3:3:6)
Advanced work in sculpture.
Prerequisite: 6 semester hours undergraduate sculpture or a working knowledge of basic sculpture techniques and permission of instructor.
ART 656 - Sculpture (3)

Advanced work in sculpture.
Prerequisite: 6 semester hours undergraduate sculpture or a working knowledge of basic sculpture techniques and permission of instructor.

## ART 657 - Sculpture (6)

## (6:3:9)

Advanced work in sculpture.
Prerequisite: 6 semester hours undergraduate sculpture or a working knowledge of basic sculpture techniques and permission of instructor.

## ART 658 - Sculpture (6)

## (6:3:9)

Advanced work in sculpture.
Prerequisite: 6 semester hours undergraduate sculpture or a working knowledge of basic sculpture techniques and permission of instructor.

ART 659 - Studio Problems in Sculpture (3)

## (3)

Independent work in sculpture.
Prerequisite: Admission to candidacy and permission of instructor.

## ART 663 - Practicum: Schools, Museums, or Other Settings (3)

(3)

Planned administrative or research and development activities in a school, museum, or community setting.

ART 665 - Art Education (3)

## (3:3)

Selected problems of curricula, administration, method, and general education.

## ART 669 - Special Problems in Art Education (3)

Independent work in Art Education for advanced graduate students.

## ART 682 - Ceramics (6)

## (6:3:9)

Advanced work in ceramics.
Prerequisite: 6 semester hours of undergraduate ceramics or a working knowledge of basic ceramic techniques and permission of instructor.

ART 685 - Photography (6)
(6:3:9)
Advanced work in photography.
Prerequisite: 6 studio hours in undergraduate photography or a working knowledge of photographic techniques or permission of instructor.
ART 690 - Experimentation and Analysis: Studio Arts (3) (3:1:6)

Designed to provide non-studio art majors an understanding of studio arts as creative activities.

ART 699-Thesis (1-6)
(1-6)

Prerequisite: Third or fourth semester MFA candidate.

## ART 711 - Experimental Course

This number reserved for experimental courses. Refer to the Course Schedule for current offerings.
ART 801 - Thesis Extension (1-3)
(1-3)
ART 803 - Research Extension (1-3)
(1-3)

## AST - Astronomy

AST 609 - Solar System Astronomy for Teachers (3)

Basic concepts of planetary astronomy are introduced, including atmospheres, geology, and observing. High school mathematics is utilized. Teaching materials and strategies are developed.

AST 635 - Stars and Galaxies for Teachers (3)
(3:3)
Basic concepts of stellar and galactic astronomy are introduced, including stellar evolution, galaxies, and cosmology. High school mathematics is utilized. Teaching materials and strategies are developed.

## ATY - Anthropology

ATY 501 - Selected Topics in Anthropology (3)

## (3:3)

Opportunity for advanced students to study in depth topic or issue of special interest.

Prerequisite: Permission of instructor.
ATY 502 - Selected Topics in Anthropology (3)

Opportunity for advanced students to study in depth topic or issue of special interest.

Prerequisite: Permission of instructor.
ATY 520 - Economic Anthropology (3)
(3:3)
An analysis of the economic organization of tribal and peasant peoples with special attention given to their participation in a world economy; emphasis is on economic models of social change.

ATY 523 - Applied Archaeology: Shovel Bums to Managers (3)

Overview of theory and skills needed to work as an applied archaeologist in the public sector. Topics include cultural resource management and public outreach projects.
Prerequisite: Not open to freshmen.
ATY 524 - Applied Anthropology (3)
(3:3)
Application of anthropological method and theory in situations of directed sociocultural change.

Prerequisite: not open to freshmen or sophomores.
ATY 525 - The Social Roots of Health and Disease (3)

## (3:3)

Examination of the local and global processes that shape the current health environment in developing countries, drawing on work within social science and public health.
Prerequisite: Minimum of junior standing or permission of instructor.

## ATY 526 - Anthropological Perspectives on Food and Agriculture (3)

## (3:3)

Examines the linkages among food producers, marketing strategies, and natural resource use in different cultures, and explores the influence of agriculture on society and the environment.

Prerequisite: Not open to freshmen and sophomores. Offered: (Alt Spring).

## ATY 547 - Myth, Magic, and Religion (3)

## (3:3)

Examination of sacred and secular beliefs in cross-cultural perspective. Emphasis on symbols, ritual, and their functions.

## ATY 553 - Human Osteology: Description, Data Collection, and Analysis (3)

## (3:2:3)

Detailed coverage of anatomical structures on bone and methods involving inventory, description, data collection, and analysis of human remains. Topics include functional and comparative skeletal anatomy, bone microstructure, and physiology.

Prerequisite: ATY 253 or BIO 105 or BIO 111.
ATY 555 - Human Evolution (3)

## ATY 557 - Primate Behavior (3)

## (3:3)

An overview of primatology and of methods for studying the behavior of prosimians, monkeys, and apes. Involves experience in data collection, computerized data analysis, and producing a scientific report.

Prerequisite: ATY 357 or ATY 361.

## ATY 559 - Disease and Nutrition in Ancient Populations

 (3)Evaluation of past disease and nutritional status using skeletal remains and other tissues. Topics include differential diagnosis of pathology. Analysis of mummified material, and chemical methods of dietary reconstruction.

Prerequisite: ATY 253 or NTR 213 or BIO 105 or BIO 111.
ATY 578 - Research Methods in Historical Archaeology (3)

Advanced training in research methods in Historic Archaeology, involving on-site training in field, laboratory, and library components of Historic Archaeology.
Prerequisite: Not open to freshmen and sophomores. Crosslisted as: Same as HIS 578, IAR 578.

## ATY 583 - Culture and Society (3)

(3:3)
Concepts of culture and society and their employment in understanding human behavior in a cross-cultural context.

ATY 589 - Experimental Course: Political Violence and Its Aftermath (3)

Examines violent conflict, its causes and effects, as well as attempts to rebuild post-conflict societies, focusing on the lived experiences from examples such as the Holocaust, Rwanda, and former Yugoslavia.

Offered: (Offered fall '09 and fall '10).

## ATY 595 - Contemporary Issues in Anthropology (3)

## (3:3)

A capstone seminar focusing on current issues in various sub-fields of anthropology, how they relate to the discipline, and their significance to anthropology's role in the modern world.

Prerequisite: Senior status.

## ATY 597 - Special Problems in Anthropology (3)

(3)

Opportunity for advanced students to undertake independent study or research of special interest.
Prerequisite: Permission of instructor.
ATY 598 - Special Problems in Anthropology (3) (3)

Opportunity for advanced students to undertake independent study or research of special interest.

Prerequisite: Permission of instructor.
ATY 601 - Selected Topics in Anthropology (3) (3)

Advanced level work on a selected topic in anthropology.
Prerequisite: Permission of instructor.

## ATY 602 - Selected Topics in Anthropology (3)

(3)

Advanced level work on a selected topic in anthropology.
Prerequisite: Permission of instructor.
ATY 671 - Ethnographic Methods (3)
(3:3)
A guide to the conduct of ethnographic research; an introduction to culture theory, the elements of research design, data collection and analysis, and the sociological significance of an interpretative paradigm.

## BIO - Biology

BIO 501 - Advanced Topics in Animal Ecology (3)

## (3:3)

Directed readings in the literature of physiological ecology, growth and regulation of populations, community structure, energy flow, mineral cycling, and other areas of current research interest.

Prerequisite: Permission of instructor.
BIO 502 - Advanced Topics in Animal Physiology (3) (3:3)
Study of physiological mechanisms; selected problems from current literature.

Prerequisite: Permission of instructor.

BIO 503 - Advanced Topics in Biochemistry (3)
(3:3)
Directed readings and reports from the biochemical literature. Structure and biosynthesis of macromolecules and the composition and kinetic characteristics of biochemical pathways.

Prerequisite: Permission of instructor.
BIO 504 - Advanced Topics in Cell Biology (3)
(3:3)
Advanced treatment of cell biology covering selected topics such as gene regulation, protein sorting, cell cycle control, apoptosis. The course will consist of lectures and discussion of research articles.

Prerequisite: Permission of instructor.

## BIO 505 - Advanced Topics in Ecological Physiology (3)

Study of a major topic in ecological physiology of animals, including mechanisms by which physiological processes change in response to environmental alterations and the ecological significance of those changes.

Prerequisite: Permission of instructor.

## BIO 506 - Advanced Topics in Genetics (3)

## (3:3)

Basic mechanisms of gene action in microbes, animals, and plants.

Prerequisite: Permission of instructor.
BIO 507 - Advanced Topics in Neurobiology (3) (3:3)

Directed readings on fundamental physiological principles of nervous system functioning. Topics may include motor pattern generation, sensory transduction, sensori-motor integration, neurohormonal modulation of behavior.
Prerequisite: Permission of instructor.

## BIO 509 - Advanced Topics in Microbiology (3)

Critical review of current research covering a wide range of topics including infectious diseases, bacterial physiology, marine microbiology, and immunology. Focus on students' interests or needs.

Prerequisite: Permission of instructor.

## BIO 510 - Advanced Topics in Plant Ecology (3)

(3:3)
Studies of special terrestrial communities or plant groups.
Prerequisite: Permission of instructor.
BIO 511 - Advanced Topics in Plant Physiology (3)

## (3:3)

The physiology of growth and development in vascular plants treated in terms of phytohormones, nutrition, theories of transport, and environmental factors.

Prerequisite: Permission of instructor.
BIO 512 - Advanced Topics in Plant Structure and Evolution (3)

Study of current topics in plant structure, development, and evolution. A term paper is normally required.

Prerequisite: Permission of instructor.
BIO 513 - Advanced Topics in Reproductive Biology (3) (3:3)

Directed readings and original research on reproductive biology, with emphasis on structural, regulatory, behavioral, and evolutionary aspects.
Prerequisite: Permission of instructor.
BIO 515 - Advanced Topics in Vertebrate History (3)
(3:3)
Directed/independent study of classification and phylogeny of particular vertebrate groups that results in a term paper.

Prerequisite: Permission of instructor.

## BIO 520 - Ecosystem Ecology (3)

## (3:3)

Introduction to ecosystem function, structure, and dynamics; basic ecosystem theories; discussions of key processes governing energy flow and nutrient cycling; comparison of ecosystems; selected original literature.

Prerequisite: BIO 301. Offered: (Alt Spring).
BIO 522 - Landscape Ecology (3)

## (3:3)

Introduction to patch-corridor-matrix structure of landscapes and their impact on ecological processes. Discussion of landscape indices, spatial heterogeneity, current issues, and general approaches in landscape ecology.

Prerequisite: BIO 301; STA 271 recommended.
Corequisite: BIO 523. Offered: (Fall).
BIO 523 - Landscape Ecology Laboratory (1)
(1:0:4)
Field labs to observe different landscape structures and conduct course projects for comprehending principles of landscape ecology. Students will use computer labs for GIS basics, landscape analyses.

Prerequisite: BIO 301. Corequisite: BIO 522. Offered: (Fall).

BIO 526 - Conservation Biology (3)

## (3:3)

Introduction to habitat and species conservation; topics include genetic diversity, demographic patterns of rare species, habitat fragmentation, design and management of nature reserves, ecological restoration.

Prerequisite: BIO 301 and BIO 392; STA 271
recommended. Offered: (Even Fall).
BIO 527 - Terrestrial Plant Ecology (3)

## (3:2:3)

Application of principles of ecology to plants and plant communities. Experimental methods stressed in laboratory work. Two required weekend field trips.

Prerequisite: Permission of instructor. Offered: (Odd Fall).

## BIO 528 - Microbial Ecology (3)

(3:3)
Emphasis on current areas of active research with reference to applied problems.

Prerequisite: BIO 280 or BIO 481, or permission of instructor. Offered: (Even Spring).

## BIO 529 - Aquatic Ecology (3)

The study of the geology, physics, chemistry, and ecology of lakes, including reservoirs and streams with comparisons to the ocean.

Prerequisite: BIO 301 and CHE 114, or permission of instructor.

## BIO 530 - Aquatic Ecology Laboratory (1)

## (1:0:4)

Practical study of water chemistry methods, lake and stream morphometry, identification of freshwater zooplankton, benthic invertebrates and fish, and field trips to area reservoirs and streams.

Prerequisite: BIO 301. Corequisite: BIO 529. Offered: (Fall).

## BIO 535 - Biochemistry: Metabolic Regulation in Health and Disease (3)

## (3:3)

Chemical properties of major cellular compounds; biosynthesis, degradation, and function of carbohydrates, lipids, proteins, nucleic acids, vitamins, and hormones; energy metabolism; enzymatic catalysis.

Prerequisite: BIO 355 or BIO 392, or permission of instructor. Offered: (Spring).

BIO 536 - Biology of Aging (3)
(3:3)
An integrative look at biological theory and mechanisms to explain the diversity of the aging process, including human implications.
Prerequisite: BIO 301, BIO 355, BIO 392, or permission of instructor. Offered: (Alt Fall).

## BIO 540 - Genes and Signals (3)

(3:3)
Investigates the regulation of gene expression in bacteria, yeast, and higher eukaryotes, and explores how such regulatory systems have evolved.

Prerequisite: BIO 355 and BIO 392. Offered: (Alt Spring).

## BIO 541 - Entomology (3)

## (3:2:3)

A theoretical and practical overview of the insect orders, selected topics of insect behavior, ecology, and evolution, and an introduction to human-insect interactions.

Prerequisite: BIO 301 and BIO 341, or permission of instructor. BIO 392 recommended. Offered: (Alt Fall).

## BIO 543 - Biophysics (3)

## (3:3)

Introduction to cellular biophysics, with emphasis on the physical properties of membranes, including membrane transport mechanisms and electrical properties of membranes.

Prerequisite: BIO 355; and PHY 211/PHY 212 or PHY 291/PHY 292; and MAT 191; and CHE 114; or permission of instructor. Crosslisted as: Same as PHY 543. Offered: (Alt Fall).

BIO 545 - General Biochemistry Laboratory (1)
(1:0:3)
Experimental work designed to complement lecture material of 535.

Prerequisite: Pr. or Coreq. BIO 535. Offered: (Fall).

## BIO 549 - Current Topics in Biology (1-3)

(1-3)
Advanced topics courses in the biological sciences. Topics vary with instructor.

Prerequisite: BIO 112 and permission of instructor.

## BIO 552 - Metamorphosis (3)

(3:3)
Readings, discussions, and oral presentations of current literature on metamorphosis in animals. Mechanisms controlling metamorphosis, evolution of complex life cycles, and adaptations to differing habitats.
Prerequisite: Three from BIO 301, 302, 322, 341, 355, 370, or 392 or permission of instructor.

## BIO 555 - Vertebrate Reproduction (3)

(3:3)
An advanced treatment of the diversity of vertebrate reproductive biology, with emphasis on structural, regulatory, behavioral, and evolutionary aspects.
Prerequisite: One of BIO 277, BIO 370, BIO 425, BIO 453, BIO 464, or BIO 477.

BIO 560-Symbiosis (3)
(3:3)
Symbiotic interactions of living organisms from an evolutionary perspective. Metabolic, genetic, behavioral, and ecological adaptations which allow symbioses to be formed and maintained will be discussed.

Prerequisite: Three from BIO 301, BIO 322, BIO 341, BIO 354, BIO 355, BIO 370, or BIO 392, or permission of instructor. Offered: (Odd Spring).

## BIO 567 - Chemical Senses (3)

## (3:3)

Exploration and interactive discussion of chemosensory stimuli, chemosensory transduction mechanisms, neural processing of chemosensory information, and organismal consequences of chemoreception.

Prerequisite: BIO 355, and one of the following: BIO 277, BIO 472, BIO 477, BIO 479, PSY 435, PSY 436, or permission of instructor.

## BIO 573 - Drugs and the Brain (3)

(3:3)
Pharmacology of major neurotransmitter systems in the brain and nervous system. Actions of clinically relevant drugs on these systems will be analyzed along with major drugs of abuse.

Prerequisite: BIO 355, and one of the following: BIO 277, BIO 477, BIO 479, PSY 230; or permission of instructor. Offered: (Alt Fall).

## BIO 575 - Neuroanatomical Techniques (3)

(3:2:4)
Practical experience with a variety of neuroanatomical procedures used to investigate the structural framework of nervous systems in invertebrate and vertebrate preparations. Students will learn to conduct independent projects.

Prerequisite: BIO 111 and BIO 112, and BIO 355 and one of the following: BIO 453, BIO 472, BIO 477, BIO 479, PSY 435 , or permission of instructor. Offered: (Odd Spring).

## BIO 578 - Hormones in Action (3)

## (3:3)

Hormonal signaling in humans and other animals is examined using developmental, physiological, behavioral, cellular, and molecular perspectives, with special emphasis on the adrenal glands and the gonads.
Prerequisite: BIO 355 and BIO 392.
BIO 579 - Environmental Physiology (3)
(3:3)
Lectures, discussions, and student presentations on the physiology of animals as it is influenced by and is adapted to environmental conditions.

Prerequisite: BIO 112, and BIO 341 or BIO 355 or BIO 370, and BIO 277 or BIO 477. Offered: (Odd Fall).

## BIO 583 - Virology (3)

## (3:3)

Selected topics in virology. Emphasis upon new trends in the study of animal, plant, and bacterial viruses at both molecular and cellular levels.

Prerequisite: BIO 481 or permission of instructor. Offered: (Even Spring).

## BIO 584 - Immunology (3)

Principles of immunology and serology covering both humoral and cellular aspects of immunobiology. Selected topics include: $T$ and $B$ cell, immunoglobulins, tolerance, hypersensitivity.

Prerequisite: BIO 481 or permission of instructor. Offered: (Odd Spring).

## BIO 586 - Cell Cycle and Cancer (3)

## (3:3)

Molecular basis of cell division and cancer examined through lectures and discussions of primary literature. Topics include cell cycle control, genomic stability, carcinogenesis, and cancer genetics.

Prerequisite: BIO 355 and BIO 392, or permission of instructor. Offered: (Alt Spring).

## BIO 587 - Epigenetics (3)

## (3:3)

Study of epigenetic mechanisms involved in chromatin structure, DNA and histone modifications, gene expression, dosage compensation, imprinting, heterochromatin structure, stem cell differentiation, development, human disease, and environmental-gene inter

Prerequisite: BIO 355 and BIO 392. Offered: (Alt Fall).

## BIO 589 - Experimental Course

This number reserved for experimental courses. Refer to the Course Schedule for current offerings.

## BIO 589A - Experimental Course: Ecology of Infectious

 Diseases (4)
## (4:4)

Discussion of the ecological drivers of infectious disease dynamics, distribution, and evolution ranging from the individual to biospheric factors. Includes theory, case studies, lab work, and field work.

Prerequisite: BIO 301. Offered: (Offered fall '10).

## BIO 591 - Population Genetics and Molecular Evolution (3)

Application of population genetic and molecular evolutionary theory to the study of natural history, natural selection, genome variation and organization, human evolution, conservation biology, and forensics.

Prerequisite: BIO 392 or permission of instructor. Offered: (Alt Spring).

## BIO 593 - Genetics of Complex Traits (3)

Theory, experimental methods, and analysis related to the genetic basis for variation in complex traits, including quantitative and threshold traits in animals and plants, and complex human diseases.

Prerequisite: BIO 392 or permission of the instructor. Offered: (Alt Spring).

BIO 595 - Advanced Genetics (3)
(3:3)
Selected topics in genetics at an advanced level. Emphasis placed on comparative view of molecular mechanisms underlying animal and plant development.

Prerequisite: BIO 392. Offered: (Even Spring).
BIO 596 - Molecular Biological Approaches in Research (1)

Use of novel molecular approaches to address current questions in the life sciences will be explored by analyzing recent research reports and learning the principles underlying these approaches.

Prerequisite: BIO 392.
BIO 597 - Workshops in Biotechnology (1)
(1:0:3)
Individual, intensive four-week workshops focused on specific techniques in biotechnology. Provides hands-on experience designing and implementing a focused project utilizing current methods and bioinformatics.

Prerequisite: BIO 494 or permission of instructor. Offered: (Fall \& Spring).

## BIO 600 - Introduction to Graduate Studies (1)

Training in research ethics and oral-visual communication. Topics include plagiarism, experimental design, statistical interpretation, conflicts of interest, animal safety, authorship, peer review, and scientific presentations.

Prerequisite: Biology graduate student or permission of instructor.

## BIO 601 - Seminar in Animal Ecology (3)

Literature of animal ecology including both classical and recent papers; using student presentations and class discussions, the ontogeny of some overarching ecological themes explored.

Prerequisite: BIO 301.
BIO 602 - Seminar in Animal Physiology (3)

Discussion of recent breakthroughs in topics ranging from the hormonal and neural mechanisms involved in homeostasis to the interactive effects of physiology and behavior.

Prerequisite: BIO 477.

BIO 603 - Seminar in Biochemistry (3)
(3:3)
Study of recent progress in biochemical research; reading, discussion, and critical evaluation of current literature.

Prerequisite: At least one previous course in biochemistry.

## BIO 604 - Seminar in Ecological Physiology (3)

(3:3)
Discussions of primary literature in the physiological ecology of animals.

Prerequisite: BIO 477, BIO 505, or BIO 579.

## BIO 605 - Seminar in Ecology (3)

## (3:3)

Broad view of ecological literature and in-depth studies of selected aspects of population and community ecology.
Prerequisite: Previous course in ecology.
BIO 606 - Seminar in Evolutionary Biology (3) (3:3)
Discussion of fundamental concepts involving the interrelationships of population genetics, ecology, systematics, and neo-Darwinian evolution; review of recent literature.
Prerequisite: BIO 430 or permission of instructor.
BIO 607 - Seminar in Environmental Health Science (2) (2:2)

Development of critical-thinking and writing skills through discussions and critiques of primary literature in environmental health science and through writing assignments.

Prerequisite: Biology graduate student or permission of instructor.

## BIO 608 - Seminar in Microbiology (3)

(3:3)
Study of recent progress in microbiological research; reading, discussion, and evaluation of current literature.

Prerequisite: BIO 481.
BIO 609 - Seminar in Molecular Cell Biology (3)

Topics in cell and molecular biology will be reviewed through discussion of research journal articles. Emphasis on modern experimental techniques and approaches.
Prerequisite: BIO 355.

## BIO 610 - Seminar in Molecular Genetics (3)

## (3:3)

Recent advances in molecular genetics; reinforcing basic concepts underlying these developments and understanding their impact on the life sciences.

Prerequisite: BIO 355 and BIO 392.
BIO 612 - Seminar in Plant Structure and Evolution (3)

Reading and discussion of current research in plant structure, development and evolution.
Prerequisite: BIO 322, BIO 354 or BIO 440.
BIO 613 - Seminar in Reproductive Biology (3)

Directed readings and original research on selected topics in reproductive biology, with emphasis on structural, regulatory, behavioral, and evolutionary aspects.

## Prerequisite: BIO 464.

BIO 614 - Prenatal Development: Embryology and Teratology (3)

Human embryological development with emphasis on normal and abnormal development. Issues in teratology and birth defects, clinical problems associated with birth defects and their means of prevention.

Prerequisite: Enrollment in MS genetic counseling program or permission of instructor. Crosslisted as: GEN 614.

## BIO 616 - Human Molecular Genetics (3)

(3:3)
Review and extension of basic principles of molecular genetics and their application for the characterization, understanding, and treatment of genetically based disorders and susceptibilities.

Prerequisite: Enrollment in MS genetic counseling program or permission of instructor. Crosslisted as: GEN 616.

BIO 621 - General Biology for Teachers I (3)

## (3:3)

Topics include scientific method, biochemistry, cells, cellular processes, animal development, and animal physiology.
Prerequisite: Enrollment restricted to those seeking the MEd in comprehensive science.

## BIO 622 - General Biology for Teachers II (3)

(3:3)
Topics include botany, cell division, genetics, evolution, and ecology.
Prerequisite: BIO 621; enrollment restricted to those seeking the MEd in comprehensive science.

BIO 625 - Advanced Animal Behavior (3)

Current research and theories including development and evolution of behavior, sociobiology, behavioral genetics, behavioral ecology, and the use of comparative method.

Prerequisite: BIO 435, or BIO 436, or BIO 438, or permission of instructor. Crosslisted as: PSY 625.

BIO 631 - Environmental Health Science I: Ecosystems to Individuals (3)

Causes of environmental problems that society faces and the effects on ecosystem and community function and species survival. Implications for environmental and human health are explored.

Prerequisite: Biology graduate student or permission of instructor.

## BIO 632 - Environmental Health Science II: Individuals to Molecules (3)

## (3:3)

Introduction to fundamentals of toxicology with a focus on toxicological consequences of environmental perturbations on physiological and cellular processes, genome structure, and gene function.
Prerequisite: Biology graduate student or permission of instructor.

## BIO 633 - Workshops in Environmental Health Science (1)

(1:0.5:3)
Individual six-week workshops focusing on analytical tools and experimental approaches used in freshwater/riparian ecosystem analysis, environmental genomics, environmental forensics, and cellular/physiological research.

Prerequisite: Biology graduate student or permission of instructor.

## BIO 634 - Current Research in Environmental Health Science (1)

## (1:1)

Weekly discussion of research journal articles in the area of environmental health science. Students will present and discuss research journal articles.

BIO 635 - Molecular Toxicology (3)

## (3:3)

Molecular mechanisms involved in the toxicant-induced adverse health effects and discussion of molecular pathways altered in cells in response to environmental xenobiotic exposure.

BIO 641 - Stream Ecology (3)

## (3:3)

Study of ecology and management of flowing water ecosystems. Topics such as community and ecosystem processes, major paradigms, management of point versus non-point pollutants, and restoration addressed.
Prerequisite: BIO 301 or equivalent.
BIO 645 - Ecoepidemiology of Infectious Diseases (4:3:3)
(4:3:3)
Understanding and managing emerging infectious diseases, primarily zoonotic, using an ecologically-based approach. Students learn theory and skills in the epidemiology and ecology of infectious diseases.

Prerequisite: Permission of instructor. Registration in both lecture and laboratory is mandatory. .

BIO 649 - Research Lab Rotations (1)
(1)

Optional course providing credit for participation in laboratory meetings and/or the initiation of preliminary research training in the labs of 1 to 3 potential thesis advisors.

## BIO 658 - Molecular Diagnostics (1)

(1:0:3)
A survey of current clinical methods used for the diagnosis of human genetic disorders. Special emphasis given to the molecular principles, interpretations, and limitations of these tests.

Prerequisite: Enrollment in MS genetic counseling program or permission of instructor. Crosslisted as: GEN 658.

## BIO 692 - Genomics

An examination of genomic concepts and technologies; their application to understanding genome content, structure, function, and evolution; implications for understanding fundamental biological and health questions; and management of genomic data.

Prerequisite: 392 or permission of instructor.

## BIO 695 - Biological Research (3-6)

(3-6:0:9-18)
Student engages in advanced biological research under the supervision of a member of the Graduate Faculty. Course may be repeated with a maximum of 9 hours credit counting toward the MS degree.

## BIO 699 - Thesis (1-6)

(1-6)
BIO 790 - Directed Study in Environmental Health Science (1-6)
(1-6)
Advanced research in environmental health science under the direction of a graduate faculty advisor. Preparation of doctoral research proposal and planning for dissertation research. May be repeated for a maximum of 12 hours credit counting towards the PhD degree.

Prerequisite: Admitted to PhD in environmental health science and approval of graduate faculty advisor.

## BIO 791 - Independent Doctoral Research (1-6)

## (1-6)

Independent research in environmental health science related to the student's primary area of research specialization leading to dissertation. May be repeated for a maximum of 15 hours credit counting towards the PhD degree.

Prerequisite: Admitted to candidacy.
BIO 799 - Dissertation (1-18)
(1-18)
Individual research for the completion of the doctoral dissertation.

Prerequisite: Admitted to candidacy.
BIO 801 - Thesis Extension (1-3)
(1-3)
BIO 803 - Research Extension (1-3)
(1-3)

## BUS - Business Administration

BUS 540 - Social Entrepreneurship: Justice and a Green Environment (3)

Interdisciplinary engagement of social entrepreneurship as model for change on an issue of environmental sustainability. Exploration of models that respond to social, economic, environmental, and justice issues.

Prerequisite: Upper-division undergraduate or graduate student status. Crosslisted as: Same as CPS 540, CST 540, ENT 540, SWK 540, WGS 540.

## BUS 589 - Experimental Course

This number reserved for experimental courses. Refer to the Course Schedule for current offerings.

## BUS 605 - Entrepreneurial Family Business (3)

## (3:3)

Explores and analyzes in detail the management, ownership, family/business leadership skills, succession and governance practices found in entrepreneurial familyowned and family-controlled businesses.

Crosslisted as: ENT 605.

## BUS 606 - International Entrepreneurship (3)

## (3:3)

Issues related to starting, joining, or holding stakes in international ventures, the creation and management of business ventures that have international dimensions, economic and formal/informal institutions affecting entrepreneurship.
Crosslisted as: ENT 606.
BUS 607 - Entrepreneurship: Venture Opportunities and Plan (3)

Knowledge and skills to evaluate ideas to determine if they are potential opportunities by developing a feasibility analysis, culminating in a venture plan to launch and grow a new business.

Crosslisted as: ENT 607.

## BUS 608 - Corporate Entrepreneurship (3)

Examination of the challenges and opportunities for employees and organizations in creating and maintaining an entrepreneurial culture. Students consult with local for profit or non-profit organizations to perform an entrepreneurial audit.

Crosslisted as: ENT 608.

## BUS 609 - Franchising (3)

(3:3)
Develop knowledge and skills needed to succeed as a franchisee, franchisor, or franchise executive, including understanding the Franchise Disclosure Document and the role of entrepreneurship in franchising.

Crosslisted as: ENT 609.

## BUS 611 - Analysis of Research (3)

Intensive study, analysis, and evaluation of research in business and related fields.

BUS 612 - Field Study (1-3)
(1-3)
Individual investigation conducted in absentia with periodic conferences and reports. Students are encouraged to study their individual problems with approved research technique.

BUS 613 - Independent Study in Business and/or Marketing Education (1-3)
(1-3)
Prerequisite: Demonstrated capacity for independent work and permission of instructor.

BUS 699 - Thesis (1-3)
(1-3)
BUS 711 - Experimental Course
This number reserved for experimental courses. Refer to Course Schedule for current offerings.

BUS 801 - Thesis Extension (1-3)
(1-3)

## CCI - Classical Civilization

CCI 501 - Independent Study (1-3)
(1-3)
Directed program of reading, research, and individual instruction in Classical Studies.

Prerequisite: Permission of instructor.
CCI 502 - History of Latin Literature (3)
(3:3)
A survey of Latin literature in English translation from the third century b.c. to the beginnings of the Middle Ages.

Prerequisite: Permission of instructor.

## CCI 512 - The Archaeology of Roman Daily Life (3)

(3:3)
Study of Roman daily life and the evidence from archaeology and ancient literature for daily life.
CCI 541 - Ancient World: Selected Topics (3)
(3:3)
Varying topics in ancient Near Eastern, Greek, and Roman history, including politics and public rituals, patterns of social organization, ancient slavery, and cross-cultural interactions.

Crosslisted as: Same as HIS 541.
CCI 550 - Selected Topics in Classical Studies (3)

Varying topics in Greek and/or Roman literature, archaeology, or culture, chosen according to the needs of the students. All readings in English translation.

Offered: (Fall or Spring or Summer).

## CCI 579 - Readings in Roman History (3)

Survey of major topics in Roman history through primary sources in translation from the founding of the Republic in 509 B.C. to Marcus Aurelius' death in A.D. 180.

Prerequisite: Permission of instructor.

## CCI 589 - Experimental Course

This number reserved for experimental courses. Refer to the Course Schedule for current offerings.

CCI 605 - Mythology in Art and Literature (3)

## (3:3)

Study of Greek and Roman mythology as represented in literature and art from the Classical times to the present.

## CCI 711 - Experimental Course

This number reserved for experimental courses. Refer to the Course Schedule for current offerings

## CED Counseling Educational

Development
CED 506 - Institutes in Education (1-3)
(1-3)
Practicum or workshop experiences to focus on issues, problems, or approaches in the profession.

## CED 574 - Contemporary Topics in Counseling (3)

Designed to study issues, problems, and new approaches in helping relationships. Emphasis placed on current topic(s) of interest.

Prerequisite: Advanced undergraduates in appropriate major.
CED 574a - Contemporary Topics in Counseling: Counseling Women (3)

## CED 589 - Experimental Course

This number reserved for experimental courses. Refer to the Course Schedule for current offerings.

CED 602 - Student Development in Higher Education (3) (3:3)
Study of development services. Areas such as admissions, orientation, career counseling, academic advising, student activities, housing, and financial aid are reviewed.

Prerequisite: Pr. or Coreq. CED 610 or permission of instructor. Corequisite: Pr. or Coreq. CED 610 or permission of instructor. Coreq. CED 653.

CED 603 - Contemporary College Students (3)

Developmental tasks and processes, including cognitive, moral, emotional, career, and identity, as applied to traditional and nontraditional students and diverse populations.

Prerequisite: CED 602 or permission of instructor.
CED 605 - Counseling Diverse Populations (3)
(3:3)
Examination of substantive and theoretical issues concerning counseling diverse populations. Includes study of counseling issues relevant to race/ethnicity, gender, sexual orientation, and other diversity topics.
Prerequisite: Pr. or Coreq. CED 610 and counseling major. Corequisite: Pr. or Coreq. CED 610 and counseling major. Coreq. CED 653.

## CED 610 - Helping Relationships (3)

(3:3)
Fundamental principles of providing a helping relationship through counseling and interviewing are integrated in a conceptual framework for subsequent professional studies in counseling. Personal and professional development through skills training in tec

Corequisite: For counseling majors CED 653.

## CED 611 - The Counselor as Scientist-Practitioner (3)

(3:3)
Ways in which counselors can demonstrate accountability in a broad range of settings and from a variety of theoretical perspectives.

Prerequisite: Counseling major.

## CED 612 - Developmental Counseling (3)

## (3:3)

Developmental theories and processes of diverse individuals, families, and groups form the basis for understanding and applying techniques of developmental assessment and intervention. Cognitive-developmental approaches are emphasized.

Prerequisite: CED 610, CED 620; counseling major. Pr.Pr. or Coreq. human development/developmental psychology or equivalent or permission of instructor. Corequisite: Pr. or Coreq. human development/developmental psychology or equivalent or permission of instructor. Coreq. CED 653.

## CED 616 - Entrepreneurship in Clinical Settings (2)

Crosslisted as: ENT-616.
CED 620 - Counseling Theories and Practice (3) (3:3)
Examine various counseling theories, their philosophical underpinnings, techniques, cultural implications, and the relationship between theory and practice. Apply theories through case conceptualization, observations, and supervised practice.

Prerequisite: CED 610 and counseling major. Corequisite: CED 653.

## CED 641 - Counseling Children (3)

## (3:3)

Case conceptualization and intervention strategies for working with young children in school and community settings, with an emphasis on play therapy and behavioral interventions.

Prerequisite: CED 610, CED 620, and/or permission of instructor. Corequisite: CED 653.
CED 642 - Substance Abuse Counseling (3)

## (3:3)

Counseling intervention strategies related to prevention, substance use, abuse and dependency will be emphasized. Etiology, assessment, and professional counseling concerns discussed.

Prerequisite: Pr. or Coreq. CED 610 or permission of instructor. Corequisite: Pr. or Coreq. CED 610 or permission of instructor. Coreq. CED 653.

## CED 644 - Counseling in Community Settings (3)

 (3:3)Theoretical and applied information for counselors working in community settings. Explores mental health counseling delivery systems and various counseling procedures and techniques related to counseling individuals, groups, couples, and families in these

Prerequisite: Pr. or Coreq. CED 610; counseling major. Corequisite: Pr. or Coreq. CED 610; counseling major. Coreq. CED 653.

## CED 645 - Mental Health Issues for Genetic Counselors (3)

## (3:3)

Overview of mental health-related theories and constructs relevant to genetic counseling. Development of interviewing skills and strategies. Focus on professional self-awareness, with emphasis on demands of professional practice.

Prerequisite: Matriculation to fourth semester of the MS in genetic counseling.

## CED 647b - Consultation in Counselor Education: Theory and Process (3)

(3:3)
Skill development in consultation.
Prerequisite: CED 610 and counseling major. Corequisite: CED 653.

## CED 648 - Foundations of School Counseling (3)

## (3:3)

The role and functions of school counselors, including their work with students, teachers, administrators, and parents, as well as their complimentary relationships with other student services personnel.

Prerequisite: Pr. or Coreq.CED 610 and counseling major. Corequisite: Pr. or Coreq.CED 610 and counseling major. Coreq.CED 653.

## CED 650 - Group Counseling Theory and Practice (3)

Develop understanding and skills in the theory and practice of group work, the relationship of group activities to counseling, and fundamental group counseling techniques.

Prerequisite: CED 610, CED 620, and counseling major. Corequisite: CED 653.

## CED 653 - Practicum in Counseling (1)

(1:1)
Skill development and application of theory to practice in counseling, assessment and consultation through supervised work with clients in a laboratory setting.

Prerequisite: Counseling major. Coreq. liability insurance.

## CED 661 - Group Counseling in Schools (3)

(3:3)
Practical considerations and approaches to developing and implementing group counseling experiences in K-12 schools.

Prerequisite: Admission to the Post-Master's Certificate Program in Advanced School Counseling.

## CED 662 - Multicultural Considerations in School Counseling (3)

## (3:3)

Explore the influence of student diversity on the role of school counselor. Racial identity, self-awareness, diversity knowledge, and multicultural counseling skills.

Prerequisite: Admission to the Post-Master's Certificate Program in Advanced School Counseling.
CED 663 - School Counselors as Consultants in Educational Settings (3)

Consultation methods for school counselors working with parents and teachers in a collaborative, strength-based approach. Strategies for improving student interaction in educational settings.

Prerequisite: Admission to the Post-Master's Certificate Program in Advanced School Counseling.
CED 664 - Advanced Contemporary Topics in School Counseling (3)

Current topics affecting school counselors: the impact of leadership and advocacy, the ASCA National Model, and ethics and legal issues.
Prerequisite: Admission to the Post-Master's Certificate Program in Advanced School Counseling.

## CED 669 - Career Development and Career Counseling (3)

 (3:3)Traditional and contemporary career development theories. Career counseling processes, techniques, and information resources. Career development influences and needs of diverse populations.

Prerequisite: CED 610, CED 620, and counseling major. Corequisite: CED 653.
CED 671 - Understanding and Counseling Adolescents (3) (3:3)
Contemporary adolescence; theories of psycho-social, cognitive, emotional and moral development, combined with selective readings on adolescent problems, and evaluating the implications of these ideas for developing more effective approaches in working wi
Prerequisite: Pr. or Coreq. CED 610 or permission of instructor. Corequisite: Pr. or Coreq. CED 610 or permission of instructor. Coreq. CED 653.
CED 672 - Counseling for Middle and Later Life (3)

Theories of middle and late-life development and counseling theories are integrated to develop understanding of persons in middle and later life and for selecting appropriate counseling interventions to meet their needs.

Prerequisite: Pr. or Coreq. CED 610; permission of instructor. Corequisite: Pr. or Coreq. CED 610; permission of instructor. Coreq. CED 653.

CED 673 - Group Process and Leadership (3) (3:3)
Overview of theories and research regarding group work, processes and dynamics, cultural influences, and group leadership in a variety of settings. Supervised experience as a group leader.
Prerequisite: CED 610, CED 620,CED 650, and/or permission of instructor. Corequisite: CED 653.

CED 675 - Counseling Field Practicum (3)

Introduction to staff, structures, functions, programs, and policies of a counseling site through a minimum of 45 hours of field-based experiences and weekly supervision session on campus.
Corequisite: CED 605, ED 610,ED 620 and ED 678; ED 602 or ED 644; any ED 653 corequisite experiences for these courses. Must have liability insurance.

CED 676a-f - Organization and Administration of Student Development Services (3)

## (3:3)

Organizing and administering student development services for postsecondary institutions of varying types and sizes; process and function of management in student development, student financial aid, student union programming and management, residential life, admissions, career counseling and placement, student development services.

Prerequisite: CED 602; counseling major.
CED 677 - School Certification (3)

## (3:3)

Introduction to staff, structures, functions, programs and policies of a school counseling program through a minimum of 45 hours of field-based experiences and weekly supervision sessions on campus.

Corequisite: Liabiity insurance.
CED 678 - Professional Orientation (3)

History, goals, and objectives of professional organizations, codes of ethics, legal considerations, standards of preparation, certification, licensing, and role identity of counselors in various settings.

Prerequisite: Counseling major.

## CED 679 - Advanced Counseling Practicum (3)

Application of counseling skills, theories and multicultural competencies through a minimum of 40 direct service hours with clients in Departmental Clinic, under intense/close supervision.
Prerequisite: Counseling major, CED 605, CED 610,CED 620,CED 678, and CED 602/CED 644/CED 648 and related CED 653 corequisites. Must have liability insurance.
CED 680a - Counseling Internship (6)
(6:0:20)
On-the-job experience for counselors totaling a minimum of 600 hours over a one-year period.

Prerequisite: Advanced standing and recommendation by the major professor. Corequisite: Liabiity insurance.

## CED 680b - Counseling Internship (6)

(6:0:20)
On-the-job experience for counselors totaling a minimum of 600 hours over a one-year period.

Prerequisite: Advanced standing and recommendation by the major professor. Coreq. liability insurance.

## CED 680c - Counseling Internship (6)

(6:0:20)
On-the-job experience for counselors totaling a minimum of 600 hours over a one-year period.

Prerequisite: Advanced standing and recommendation by the major professor. Coreq. liability insurance.

## CED 680d - Counseling Internship (6)

(6:0:20)
On-the-job experience for counselors totaling a minimum of 600 hours over a one-year period.

Prerequisite: Advanced standing and recommendation by the major professor. Coreq. liability insurance.

## CED 682 - Application of Measurement and Clinical Appraisal Techniques (3)

(3:3)
Selecting, administering, and interpreting a variety of standardized and nonstandardized instruments, assessments, and appraisal techniques in various settings with diverse populations. Relevant psychometric principles and ethical/legal issues.

Prerequisite: Counseling major. Corequisite: CED 653.

## CED 687 - Diagnosis and Treatment Planning in

 Counseling (3)Provides the skills needed to diagnose accurately and effectively and to develop a comprehensive treatment plan. Emphasis on understanding and evaluating diagnosis with a diverse clientele.

Prerequisite: CED 610, CED 644 and counseling major. Corequisite: CED 653.

## CED 688 - Contemporary Problems Seminar (1-3)

(1-3)
Specific course title identified each semester by subscript, e.g., Contemporary Problems Seminar; Issues in Professional Counseling.

Prerequisite: Advanced master's or doctoral standing, or permission of instructor.

## CED 689 - Global Perspectives in Counseling (6)

(6:6)
This course will require travel, cultural immersion, and the provision of services to members of that community, with an overarching goal of improving cultural competence and awareness as a counselor.

Prerequisite: Admission to CED graduate programs, successful completion of CED 610, or permission of instructor.

## CED 690 - Counselors Working with Families (3)

Counseling families from family systems and multicultural theoretical perspectives. Clinical skills including assessment, treatment planning, and techniques.
Prerequisite: CED 610, CED 620. Corequisite: CED 653.
CED 691 - Advanced Clinical Topics in Couple and Family Counseling/Therapy (3)

Advanced seminar in the scientific and cultural foundations for practice of couple and family counseling/therapy.

Prerequisite: CED 690 or permission of instructor. Coreq. CED 653.

## CED 692 - Independent Study (1-4)

(1-4)
Guided readings, research, and individual project work under direction of a staff member.

Prerequisite: Permission of instructor.
CED 698 - Implementing and Evaluating School Counseling Programs (3)

Methods for designing, implementing, and evaluating comprehensive school counseling programs, in relation to the academic, career, and personal-social development of children and adolescents.

Prerequisite: CED 648. Coreq. CED 641, CED 671, and CED 680.

## CED 711 - Experimental Course

This number reserved for experimental courses. Refer to Course Schedule for current offerings.
CED 720a - Research Apprenticeship (3)
CED 720b - Research Apprenticeship (3)

## CED 740 - Research Practicum in Counseling (3)

Individual data-based work on problems of special interest in counseling and development. Registration requires approval of dissertation committee chair.

Prerequisite: ERM 680, ERM 681, or equivalent courses.
CED 756a - Advanced Counseling Theory and Research
Prerequisite: Admission to doctoral program or permission of instructor.

CED 756b - Advanced Counseling Theory and Research
Prerequisite: Admission to doctoral program or permission of instructor.

CED 757 - Internship in University Teaching in Counseling (3)

Supervised teaching in the area of counseling and development in a college or university setting.

Prerequisite: Permission of instructor.
CED 760a - Consultation in Counseling and Counselor Education (2)

Theory pertaining to the principles and practice of consultation in a variety of settings. Includes models, skills, issues, and ethical considerations in consultation.
Prerequisite: Doctoral standing or permission of instructor.

CED 760b - Leadership in Counseling and Counselor Education (2)
(2:2)
Theory pertaining to the principles and practice of leadership in a variety of settings. Includes models, skills, issues, and ethical considerations in leadership.
Prerequisite: CED 760A and doctoral standing, or permission of instructor.

CED 774 - Advanced Career Theories and Career Counseling (3)

In-depth analysis and application of career counseling theories to diverse populations. Critical examination of career-related constructs and research. Supervised supervision of career counseling.

Prerequisite: CED 669 or permission of instructor. Corequisite: CED 653.

CED 775 - Directed Doctoral Research (3)
(3)

Individual work on research problems consisting of collection, analysis, critical review, integration, and interpretation of research literature on a topic.

Prerequisite: Advanced doctoral standing or permission of instructor.

## CED 777a - Seminar in Counseling (3)

## (3:3)

Research methods in counseling; clinical assessment tools and issues; contemporary issues and trends in counselor education, including professional and ethical issues and global perspectives.

Prerequisite: Advanced doctoral standing in counselor education and recommendation of doctoral adviser.

CED 777b - Seminar in Counseling (3)
(3:3)
Research methods in counseling; clinical assessment tools and issues; contemporary issues and trends in counselor education, including professional and ethical issues and global perspectives.

Prerequisite: Advanced doctoral standing in counselor education and recommendation of doctoral adviser.

## CED 777c - Seminar in Counseling (3)

## (3:3)

Research methods in counseling; clinical assessment tools and issues; contemporary issues and trends in counselor education, including professional and ethical issues and global perspectives.

Prerequisite: Advanced doctoral standing in counselor education and recommendation of doctoral adviser.

## CED 777d - Seminar in Counseling (3)

Research methods in counseling; clinical assessment tools and issues; contemporary issues and trends in counselor education, including professional and ethical issues and global perspectives.
Prerequisite: Advanced doctoral standing in counselor education and recommendation of doctoral adviser.

CED 779 - Advanced Counseling Practicum (3)

Counseling skills, multicultural competencies and applied counseling theories for 40 direct hours with actual clients under faculty supervision.
Prerequisite: Full doctoral admisson.

## CED 780a - Advanced Counseling Internship (6)

(6:0:20)
In-depth supervised field experience for advanced doctoral students in counselor education. Concentrated practice in individual, group, family, and/or consultation modes of counseling with individual faculty supervision in selected clinical settings.

Prerequisite: CED 756 or CED 774. Corequisite: Liabiity insurance.

CED 780b - Advanced Counseling Internship (6)
(6:0:20)
In-depth supervised field experience for advanced doctoral students in counselor education. Concentrated practice in individual, group, family, and/or consultation modes of counseling with individual faculty supervision in selected clinical settings.

Prerequisite: CED 756 or CED 774. Corequisite: Liabiity insurance.

## CED 780c - Advanced Counseling Internship (6)

(6:0:20)
In-depth supervised field experience for advanced doctoral students in counselor education. Concentrated practice in individual, group, family, and/or consultation modes of counseling with individual faculty supervision in selected clinical settings.

Prerequisite: CED 756 or CED 774. Corequisite: Liabiity insurance.

CED 780d - Advanced Counseling Internship (6)
(6:0:20)
In-depth supervised field experience for advanced doctoral students in counselor education. Concentrated practice in individual, group, family, and/or consultation modes of counseling with individual faculty supervision in selected clinical settings.
Prerequisite: CED 756 or CED 774. Corequisite: Liabiity insurance.

## CED 781a - Counseling Supervision (3)

Counseling supervision theories, models, research, interventions and skills, relationship and diversity issues; ethical and legal considerations. Didactic instruction followed by graduated supervised experiences.
Prerequisite: CED 780a, advanced doctoral standing, and recommendation by the major professor. Corequisite: Liabiity insurance, CED 653 for CED 781a.

## CED 781b - Counseling Supervision (3)

(3:3)
Counseling supervision theories, models, research, interventions and skills, relationship and diversity issues; ethical and legal considerations. Didactic instruction followed by graduated supervised experiences.

Prerequisite: CED 780a, advanced doctoral standing, and recommendation by the major professor. Corequisite: Liabiity insurance, CED 653 for CED 781a.

CED 781c - Counseling Supervision (3)
(3:3)
Counseling supervision theories, models, research, interventions and skills, relationship and diversity issues; ethical and legal considerations. Didactic instruction followed by graduated supervised experiences.
Prerequisite: CED 780a, advanced doctoral standing, and recommendation by the major professor. Corequisite: Liabiity insurance, CED 653 for CED 781a.

## CED 781d - Counseling Supervision (3)

Counseling supervision theories, models, research, interventions and skills, relationship and diversity issues; ethical and legal considerations. Didactic instruction followed by graduated supervised experiences.

Prerequisite: CED 780a, advanced doctoral standing, and recommendation by the major professor. Corequisite: Liabiity insurance, CED 653 for CED 781a.
CED 781e - Counseling Supervision (3)
(3:3)
Counseling supervision theories, models, research, interventions and skills, relationship and diversity issues; ethical and legal considerations. Didactic instruction followed by graduated supervised experiences.

Prerequisite: CED 780a, advanced doctoral standing, and recommendation by the major professor. Corequisite: Liabiity insurance, CED 653 for CED 781a.

CED 799 - Dissertation (1-12)
(1-12)
Individual direction in the development and execution of a doctoral dissertation.

## CED 802 - Dissertation Extension (1-3)

(1-3)
CED 803 - Research Extension (1-3)
(1-3)

## CHE - Chemistry/Biochemistry

CHE 531 - Instrumental Analysis (3)
(3:3)
Theory and practice of advanced analytical techniques with emphasis on instrumental methods of analysis.
Prerequisite: CHE 331, CHE 333, CHE 205 or CHE 352 (either may be taken concurrently), PHY 212 or PHY 292. Offered: (Spring).

CHE 533 - Instrumental Analysis Laboratory (1)
(1:0:4)
Laboratory work to accompany CHE 531.
Corequisite: CHE 531 must be taken concurrently. Offered: (Spring).
CHE 536 - Computational Chemistry (3)

## (3:2:3)

Survey of modern computational chemistry methods, including molecular mechanics, molecular dynamics simulations, conformational searching, and computational quantum mechanics.

Prerequisite: CHE 352, MAT 291, PHY 212 or PHY 292, or permission of instructor. Offered: (Spring).
CHE 553 - Advanced Organic Chemistry I (3)
(3:3)
Advanced topics in organic chemistry with special emphasis on reaction mechanisms and stereochemistry.
Prerequisite: CHE 352. Offered: (Fall).
CHE 555-Organometallic Chemistry (2)
(2:2)
Theoretical and synthetic aspects of organometallic chemistry and applications to catalysis and synthetic organic chemistry.
Prerequisite: CHE 352, CHE 442. Offered: (Spring).
CHE 556 - Biochemistry I (3)
(3:3)
Introductory biochemistry presented from a chemical perspective. Topics include amino acids, proteins and enzymes, carbohydrates, nucleic acids, lipids, membranes, and carbohydrate catabolism.
Prerequisite: CHE 352, BIO 111-BIO 112. Offered: (Fall).

## CHE 557 - Biochemistry II (3)

(3:3)
Continuation of CHE 556. Enzyme catalytic mechanisms, additional topics in intermediary metabolism, genetic biochemistry, and selected topics in molecular physiology.

Prerequisite: CHE 352, CHE 556, BIO 111-BIO 112, or permission of instructor. Offered: (Spring).
CHE 558 - Biochemistry Laboratory (1)

## (1:0:4)

Introduction to biochemical techniques, including isolation, purification and characterization of biological molecules.

Prerequisite: CHE 556 or equivalent, CHE 354, CHE 333, or permission of instructor. Offered: (Spring).

## CHE 570 - Special Topics in Chemistry (1-3)

(1-3)
Study in special areas of chemistry as listed below. Hours per week and credit to be arranged. May be repeated for a maximum of six credits when topic varies. Areas identified as follows: 570A, Analytical; 570B, Biochemistry; 570C, Inorganic; 570D, Organic; 570E, Physical; 570F, Chemical Education.

Prerequisite: Permission of instructor.

## CHE 589 - Experimental Course

This number is reserved for experimental courses. Refer to the Course Schedule for current offerings.
CHE 601 - Graduate Seminar I (1)

Oral reports from the current literature of chemistry by the student's, as well as attendance at presentations by other students, staff, and guest speakers.

Prerequisite: CHE 401 or equivalent.

## CHE 602 - Graduate Seminar II (1)

Oral reports from the literature and the student's thesis research, as well as attendance at presentations by other students, staff, and guest speakers.

Prerequisite: CHE 601.

## CHE 604 - Advanced Polymer Chemistry (3)

## (3:3)

Modern concepts of addition, ring opening, and condensation polymerization, and the application of physical instrumentation to the characterization of polymers.

Prerequisite: CHE 352.

## CHE 615 - Entrepreneurship for the Sciences (3)

## (3:3)

Develop knowledge and skills in entrepreneurship to identify and evaluate sciences and technology ideas in chemistry and the life sciences as opportunities to take through the feasibility and business plan.

Crosslisted as: Cross Listed with ENT 615.

## CHE 632 - Advanced Analytical Chemistry (3)

## (3:3)

Current research activities in the analytical area, primarily for first year graduate students. Four areas emphasized: chemical equilibrium, spectroscopy, separations, and electrochemistry.

Prerequisite: CHE 462 or CHE 406 or equivalent. One semester of instrumental analysis (CHE 531) recommended.

## CHE 633 - Bioanalytical Chemistry (3)

## (3:3)

Comprehensive study on various analytical methods used to characterize nucleic acid and protein drug targets and their molecular interactions with therapeutic agents.

Prerequisite: Permission of instructor.

## CHE 641 - Advanced Inorganic Chemistry II (3)

(3:3)
Group theory, its applications, and other topics in advanced inorganic chemistry.

Prerequisite: CHE 442.

## CHE 651 - Advanced Medicinal Chemistry (3)

Advanced topics in medicinal chemistry including drug design, chemistry of High Throughput Screening and focused libraries, lead development/optimization.

Prerequisite: Two courses in undergraduate organic chemistry and one course in undergraduate biochemistry.

## CHE 652 - Synthetic Organic Chemistry (3)

(3:3)
Methods and problems in multi-step organic synthesis, including use of transition metal reagents and asymmetric synthesis. Applications in drug synthesis.

Prerequisite: Two courses in undergraduate organic chemistry.
CHE 653 - Physical Organic Chemistry (3)

## (3:3)

Structure and mechanisms of organic chemistry. Topics include bonding theory, stereochemistry, conformational analysis, reactions, reaction mechanisms, reactivity.

Prerequisite: Two courses in undergraduate organic chemistry.

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CHE 656-Enzyme Mechanisms (3)
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## (3:3)

Detailed look at how enzymes catalyze a broad range of chemical reactions. Particular emphasis on the role of organic cofactors and metal ions in catalysis.

Prerequisite: CHE 352 and either CHE 420 or CHE 556, or permission of instructor.
CHE 657 - Drug Metabolism and Pharmacogenetics (3)

## (3:3)

Introduction to the major classes of drug metabolizing enzymes in the body. Chemical mechanisms of action and potential drug interactions related to the induction or inhibition of these systems.

Prerequisite: CHE 556 or permission of instructor.

## CHE 658 - Nucleic Acid Biochemistry (3)

Structure and functions of nucleic acid and their biochemical reactions with cellular proteins. Emphasis on the genomic approach to identify and validate drug targets.

Prerequisite: Permission of instructor.
CHE 659 - Receptor Biochemistry (3)
(3:3)
Structure and biochemical properties of the various cellsurface receptors. Emphasis on specific receptors chosen as drug targets for various diseases.

Prerequisite: One course in undergraduate biochemistry.

## CHE 660 - Biochemical Pharmacology and Disease Targets (3)

## (3:3)

Drug action at the biochemical and molecular level. Focus on the biochemical and cellular mechanisms of action that guide the drug discovery and development process.

Prerequisite: One course in undergraduate biochemistry.

## CHE 661 - Advanced Physical Chemistry I (3)

(3:3)
Selected topics in quantum chemistry, spectroscopy, statistical thermodynamics, and chemical kinetics will be developed with attention to methods of application.

Prerequisite: CHE 461 and CHE 462 or equivalent (one year of physical chemistry).

## CHE 662 - Advanced Physical Chemistry II (3)

(3:3)
Advanced topics in quantum chemistry, spectroscopy, statistical thermodynamics, and chemical kinetics.

Prerequisite: CHE 661.
CHE 663 - Spectroscopy and Analysis of Biomolecules (3) (3:3)
Spectroscopic and structural methods for application to molecules of biochemical relevance. Topics include fluorescence, circular dichroism, chromatography, electrophoresis, mass spectrometry, FTIR, NMR, EPR, Xray crystallography.
Prerequisite: CHE 406 or CHE 461 ,CHE 420 or CHE 556, or permission of instructor.

## CHE 670 - Advanced Special Topics in Chemistry (1-6)

(1-6)
Advanced study in special areas of chemistry as listed below. Hours per week and credit to be arranged. May be repeated for a maximum of six credits when topic varies. Areas identified as follows: CHE 670a Analytical (Pr.CHE 632); CHE 670b Biochemistry (Pr .CHE 556); CHE 670c Inorganic (Pr .CHE 641); CHE 670d Organic (Pr. CHE 553); CHE 670e Physical (Pr. CHE 661).

CHE 680 - Research Problemsin Chemistry and Biochemistry (1-6)
(1-6)
Advanced research in specialized areas of chemistry or biochemistry under the direction of a faculty member. Preparation for master's thesis. May be taken for credit over two or more semesters.

Prerequisite: Permission of instructor and department head.

CHE 691 - Introduction to Graduate Research (1)
(1)

Guides new students in the selection of a research advisor. Professors present brief summaries of their research projects. Topics relevant to research are also discussed.

Prerequisite: Admitted to graduate program in department.

CHE 699 - Thesis (1-6)
(1-6)
Prerequisite: Approval of research proposal by thesis committee.

## CHE 711 - Experimental Course

This number reserved for experimental courses. Refer to the Course Schedule for current offerings.

## CHE 751 - Literature Seminar (1)

(1:1)
A literature-based seminar focusing on scientific literature databases and presentation skills.

Prerequisite: CHE 780.
CHE 752 - Dissertation Seminar (1)
(1:1)
A research-based seminar focusing on the student's dissertation research during the semester the student expects to graduate.

Prerequisite: CHE 780.

## CHE 780-Research Problems in Medicinal Biochemistry

 (1-18)(1-18)
Advanced research in specialized areas of medicinal biochemistry under the direction of a faculty member. Research to be utilized for the preparation of the dissertation.

Prerequisite: Permission of instructor.

## CHE 790 - Medicinal Biochemistry Internship (3)

(3:0:12)
Practical experience in a local industrial setting. Includes biweekly meetings with departmental internship coordinator. Student must complete a minimum of 12 hours per week at the internship site. May be repeated for 6 hours.

Prerequisite: Permission of departmental internship coordinator and department head.

## CHE 799 - Dissertation Research in Medicinal Biochemistry (1-18)

(1-18)
Prerequisite: Permission of instructor.
CHE 801 - Thesis Extension (1-3)
(1-3)
CHE 803 - Research Extension (1-3)
(1-3)

## CPS - Conflict and Peace Studies

CPS 540 - Social Entrepreneurship: Justice and a Green Environment (3)

## (3:3)

Interdisciplinary engagement of social entrepreneurship as model for change on an issue of environmental sustainability. Exploration of models that respond to social, economic, environmental, and justice issues.

Prerequisite: Upper-division undergraduate or graduate student status. Crosslisted as: Same as BUS 540, CST 540, ENT 540, SWK 540, WGS 540.

## CPS 589 - Experimental Course

This number reserved for experimental courses. Refer to the Course Schedule for current offerings.

## CPS 600 - Fundamentals of Conflict Transformation and Peace Studies

Introduction to the interdisciplinary theory, research conflict analysis and intervention strategies which form the foundation of peace and conflict studies.

Distribution: SVL.

## CPS 601 - Global Intercultural Conflict Transformation

Explores multiple dimensions of diversity in creating and resolving conflicts. Students will explore their own culture beliefs and values as well as diverse conflict models and systems around the world.

Distribution: SVL.
CPS 602 - Professional Practice Seminar (1.5)
(1.5:1.5)

Introductory seminar. Students learn and apply the seven competencies required for conflict and peace studies: theory, global and cultural competence, collaboration, practice skills, public policy, and project management.
Prerequisite: CPS 600 and CPS 601.

CPS 605 - Skills and Techniques of Conflict Transformation (3)

## (3:3)

Theory and practice to develop a foundation of interpersonal skills and techniques needed by conflict professionals such as communication, negotiation, mediation, assessment, and presentation. Service learning project required.
CPS 606-Organizational Conflict: Theories and Practices (3)

## (3:3)

Theories, methods, and practices in assessing and transforming conflict in modern organizations

Prerequisite: CPS 600 and CPS 601 or permission of instructor.

## CPS 607 - Professional Research Seminar (1.5)

Introductory research seminar. Within the context of the theory underlying peace and conflict studies, students are exposed to research design, interviewing skills, and data analysis methods.

Prerequisite: CPS 602.

## CPS 609 - Community Engaged Research (3)

## (3:3)

After exploration of qualitative, quantitative, mixedmethod, and action research philosophy and methods. Teams of students design an action research proposal.

Prerequisite: CPS 607 or permission of instructor.
CPS 610 - Conflict Transformation: Reconciliation and Healing (3)
Explore nonviolent responses to conflict and violence that are oriented to the restoration of relationships damaged by crime, war, community, and workplace violence.
CPS 625 - Conflict Resolution in Education: K-12 (3) (3:3)
Explores conflict resolution theory, practice, and programming in educational settings and community organizations. Peer, professional, and systemic conflicts will be examined.

Prerequisite: CPS 600 or permission of instructor.
CPS 626 - Conflict Resolution in Higher Education
(3:3)
Explores conflict resolution theory, practice, and programming in higher education settings. Student, staff, faculty, administrative, and organizational conflicts will be examined.

CPS 631 - Crisis Management: Response and Resolution (3)
(3:3)
Overview of critical incident response, management and resolution in relation to individual, family, community, and organizational perspectives.

## CPS 633 - Restorative Justice: Theory and Practice (3)

Examines the principles and practice of restorative justice, evaluating the potentials and limitations of restorative methods and interventions in the US and internationally.

## CPS 645 - Conflict Practice (3)

Supervised application of dispute resolution programs and practices with Campus Conflict Resource Center and other CIVIC Project programs. Field experience required.

Prerequisite: CPS 605 or CPS 647 or permission of instructor.

CPS 647 - Moving Conflict through Negotiation and Mediation (3)

## (3:3)

Engage with negotiation and mediation practices for transforming conflict. Build from negotiation and mediation theory to strategies and tactics. Learn and apply skills.
Prerequisite: None for certificate or master's students; permission of instructor for non-majors. Corequisite: None for certificate or master's students; permission of instructor for non-majors.
CPS 650 - Independent Study (3)

Intensive study guided by the graduate faculty

## CPS 652 - Conflict Resolution in Groups (3)

(3:3)
Examines the range of practices of group facilitation with a focus on current theories and techniques of professional facilitation in conflict resolution practice and training.

CPS 665 - Conflict Analysis in Religious Communities (3)
(3:3)
Overview of conflict analysis and intervention strategies in religious communities and organizations. Analyze and implement models of reconciliation and forgiveness.

CPS 676 - Peace Development and Community Building (3)

Approaches to community and peacebuilding, with emphasis on understanding power and conflict, are taught within a global context. Strategies are developed for building peace and community through civic engagement.
Prerequisite: CPS 600 and CPS 601, or permission of instructor.

## CPS 677 - Advocacy Theory and Practice

Explores advocacy law, theory and practice for victims of violence and trafficking, women, children, the disabled, and those identified as mentally ill. Analysis and discussion based on case studies.
CPS 679 - Gender and Peacebuilding (3)

## (3:3)

Examines the role of gender, sex, diversity, and power relations in the creation and resolution of conflict and building of peace.

Prerequisite: CPS 600 and CPS 601 or permission of instructor.

CPS 685 - Resolving Conflict in Health Care Systems: Achieving Peace through Health (3)

Peace building and conflict resolution in health care and humanitarian initiatives; human rights and social justice perspective.

## CPS 690 - Integrated Colloquium (3)

## (3:1.5:4.5)

Final capstone course in which students integrate theory, research, and practice skills through an integrative project and electronic portfolio. (Research or Field Hours required).
Distribution: SVL. Prerequisite: CPS 600, CPS 601, CPS 602, CPS 605, CPS 606, CPS 607, CPS 609, CPS 610.

CPS 803 - Research Extension (1-3)
(1-3)

## CRS - Consumer Apparel Retail Studies

CRS 513 - Apparel and Related Consumer Products Analysis and Standards (3)
(3:3)
Process of developing and analyzing product standards as they relate to consumers, industry, and international trade. Analysis of products in relation to existing or proposed standards.

Prerequisite: Grade of C (2.0) or better in CRS 312 or graduate standing.

CRS 530 - Economics of the Textile and Apparel Complex (3)

Economics and social aspects of production, distribution, and utilization of apparel and textiles.

Prerequisite: Grade of C or better in ECO 201 or its equivalent as determined by the instructor or graduate standing.

CRS 582 - Problems in Consumer, Apparel, and Reatil Studies (2-6)

## (2-6)

Individual study.

## CRS 589 - Experimental Course

This number reserved for experimental courses. Refer to the Course Schedule for current offerings.

CRS 605 - Research Methodology in Consumer, Apparel, and Retail Studies (3)

Beginning graduate course in research methodology within the domains of consumer, apparel, and retailing. Concepts, frameworks, and relationships of theory and research. Epistemological issues, types of analysis, methods.

## CRS 614 - Textile Products Market Analysis (3)

Quantitative and qualitative approaches to the analysis of global markets for textiles and apparel. Embraces information sources and techniques for market, competitor, and company analysis to support strategic marketing decisions.

CRS 615 - Advanced Textiles and Experimental Methods (3)

## (3:2:3)

Analysis of structure and functional performance of advanced textiles (geotextiles, biomedical, nonwovens) using experimental methods such as Kawabata Hand Evaluation System. Differential Scanning Calorimeter, Thermal Gravimetric Analysis.
Prerequisite: CRS 614, CHE 205 or CHE 351, or permission of instructor.

CRS 620 - Analysis of Apparel and Related Industries (3) (3:3)

Analysis of apparel and related industries from raw materials through consumption. Examination of production and marketing of products, technological developments, and domestic and global market strategies.

CRS 630 - Economic Dynamics of the Retail Complex (3) (3:3)
Application of economic concepts to consumption behaviors in the retail industry with special emphasis on apparel and related products. Impact of history, trends, brands, and demographics explored.
Prerequisite: CRS 530 and MBA 603 or permission of instructor.

CRS 632 - Supervised Industry Practicum in Consumer, Apparel, and Retail Studies (3)

## (3:0:9)

Supervised industry practicum combining practical and academic elements. Course supervised by DGS or designated faculty member.
Prerequisite: Permission of Director of Graduate Studies.
CRS 660 - International Textile Products Marketing (3)

International textile products marketing environment; global markets, marketing programs and organizations.

Prerequisite: CRS 560 or permission of instructor.
CRS 663 - Experience in Consumer, Apparel, and Retail Issues Abroad (3)

Cultural, political, business, and consumer issues within the apparel and retail industries of a specific country. May be repeated for credit with different country.

Prerequisite: CRS 560 or permission of instructor.
CRS 664 - International Retailing: Theory and Practice (3)

Investigation of international retailing from a combined theory and practice perspective. Analysis of global retail systems and strategy. Retail supply chains. Multinational consumer issues.
Prerequisite: CRS 484 and CRS 560 or permission of instructor.

CRS 671 - Issues in Apparel and Related Industries Entrepreneurship Research (3)
(3:3)
Current state of research on entrepreneurship studies in general and particularly within the apparel and related products industry.
Crosslisted as: ENT 671.
CRS 681 - Directed Individual Study in Consumer, Apparel, and Retail Studies (1-6)
(1-6)
CRS 682 - Graduate Seminar in Consumer, Apparel, and Retail Studies (1)

## (1:1)

Fundamentals of graduate studies in Consumer, Apparel, and Retail Studies, including guidelines for development and critique of research.
CRS 683 - Problems in Apparel (1-3)
(1-3)
CRS 684 - Problems in Retail Marketing (1-3)
(1-3)
CRS 685 - Problems in Retail and Consumer Studies (1-3)
(1-3)
CRS 686 - Readings in Apparel (1-3)
(1-3)
CRS 687 - Readings in Retail Marketing (1-3)
(1-3)
CRS 688 - Readings in Retail and Consumer Studies (1-3)
(1-3)
CRS 690 - Minor Research (2-6)
(2-6)
CRS 699 - Thesis (1-6)
(1-6)
CRS 700 - Seminar in Consumer, Apparel, and Retail Studies (1)
(1:1)
Study, reporting, and discussion of current research.

CRS 701 - Literature and Thought in Consumer, Apparel, and Retail Studies (3)

## (3:3)

Overview of concepts, frameworks, theory, thought, and empirical research within the domains of consumer, apparel, and retailing. Emphasis on contemporary thinking and identifying opportunities and directions for future research streams.

Prerequisite: Admission to PhD in consumer, apparel, and retail studies and permission of instructor.

## CRS 711 - Experimental Course

This number reserved for experimental courses. Refer to the Course Schedule for current offerings.

CRS 712 - Theory Development in Consumer, Apparel, and Retail Studies (3)

## (3:3)

Examination of business related marketing theories to consumer, apparel, and retail studies. Analysis of marketing theories, models, and conceptual frameworks. Includes business-to-business, consumer, customer relationship, and economic theories.
Prerequisite: CRS 630, CRS 660, CRS 662, or permission of instructor.

CRS 713 - Qualitative Methodology in Consumer, Apparel, and Retail Studies (3)
(3:3)
Exploration of development and use of qualitative research methodology in consumer, apparel, and retail studies. Focus on application of qualitative methodology to diverse research problems, data collection procedures, and analysis approaches.

CRS 714 - Advanced Quantitative Methods in Consumer, Apparel, and Retail Studies (3)

## (3:3)

Concepts, frameworks, theory, and empirical research methods and models within the consumer, apparel, and retailing domains. Emphasis on application of research methods and multivariate statistical models of consumer and retail research issues.

Prerequisite: STA 671 or ERM 682 or equivalent and admission to PhD in consumer, apparel, and retail studies, or permission of instructor.

CRS 720 - Social Psychology of Consumption (3)
(3:3)
Investigation of approaches to research on consumption within social psychology. Focus on the study of apparel and related consumer products.

CRS 721 - Consumer Behavior in Apparel and Retailing (3)
(3:3)
Current theories and research in consumer behavior. Application of consumer behavior models to apparel, apparel-related products, and retailing through individualized research products.
Prerequisite: CRS 562 or permission of instructor.
CRS 731 - Special Topics in Consumer, Apparel, and Retail Studies (3)

## (3:3)

Investigation of select topics specific to consumer, apparel, and retail studies.

CRS 765 - College Teaching Practicum in Consumer, Apparel, and Retail Studies (3)
(3)

Supervised, structured experiences in planning, teaching, and evaluating a college level course. Professors provide guidance and mentoring of graduate students during the experience.

Prerequisite: Admission to PhD program in consumer, apparel, and retail studies and permission of instructor.

## CRS 790 - Independent Doctoral Research (1-6)

(1-6)
Individual work on research problem(s) related to student's primary area(s) of specialization. Research conducted with faculty guidance and direction. Objective: develop one or more publishable manuscript(s).
Prerequisite: STA 661, STA 662.
CRS 799 - Dissertation (1-12)
(1-12)
CRS 801 - Thesis Extension (1-3)
(1-3)
CRS 802 - Dissertation Extension (1-3)
(1-3)
CRS 803 - Research Extension (1-3)
(1-3)

## CSC - Computer Science

CSC 521 - Computer Graphics (3)
(3:3)
Survey of graphics algorithms, data structures, and techniques.

Prerequisite: Grades of at least C (2.0) in CSC 340, CSC 350 , and MAT 292, or permission of instructor.

## CSC 522 - Digital Image Processing (3)

Image representation, enhancement, compression, coding, restoration, and wavelet transforms.

Prerequisite: Grades of at least C (2.0) in CSC 330, CSC 350, and MAT 292, or permission of instructor. Successful completion of STA 271 or STA 290 recommended.

CSC 523 - Numerical Analysis and Computing (3) (3:3)
Number systems and errors, solutions of non-linear and linear systems, eigenvalue problems, interpolation and approximation, numerical differentiation and integration, solution of differential equations.
Prerequisite: Grades of at least C (2.0) in CSC 130, CSC 350, and MAT 293, or permission of instructor.

CSC 524 - Numerical Analysis and Computing (3)

Continuation of 523 with special topics in numerical analysis, emphasis on applied mathematics.
Prerequisite: Grade of at least C (2.0) in CSC 523.
CSC 526 - Bioinformatics (3)

## (3:3)

Introduction to the problems and methods in Bioinformatics. Problem areas include restriction mapping, map assembly, sequencing, DNA arrays, and sequence comparison.

Prerequisite: Permission of instructor.
CSC 529 - Artificial Intelligence (3)

Logical foundations, knowledge representation and reasoning, search, and selected topics such as natural language processing and reasoning under uncertainty.
Prerequisite: Grade of at least C (2.0) in CSC 330 and CSC 350 or permission of instructor.

## CSC 539 - Introduction to Compiler Design (3)

Basic techniques of compiler design and implementation: lexical analysis, parsing, code generation. Sizable programming project implementing a compiler for a block-structured language with strong typing.

Prerequisite: Grades of at least C (2.0) in CSC 261 and CSC 330 or permission of instructor.

CSC 540 - Human-Computer Interface Development (3) (3:3)

Survey of concepts and techniques for human-computer interface development. Topics include user-centered design, user interface programming, and usability evaluation.

Prerequisite: Grades of at least C (2.0) in CSC 340 or permission of instructor.

CSC 550 - Combinatorics on Words (3)
(3:3)
Introduction to the problems and methods in algorithmic combinatorics on words. Problem areas include periodicity, primitivity, and borderedness.
Prerequisite: Permission of instructor.
CSC 553 - Theory of Computation (3)
(3:3)
Finite state automata and regular expressions, contextfree grammars, push-down automata and their use in parsing, overview of language translation systems, models for programming language semantics, computability and undecidability.

Prerequisite: Grade of at least C (2.0) in CSC 350, or permission of instructor.

CSC 555 - Algorithm Analysis and Design (3)
(3:3)
Sequential algorithm design and complexity analysis. Dynamic programming. Greedy algorithms. Graph algorithms. Selected advanced topics from NPcompleteness; approximation, randomized, parallel, number-theoretic algorithms; Fast Fourier Transform; computa

Prerequisite: Grade of at least C (2.0) in CSC 330.

## CSC 561 - Principles of Computer Architecture (3)

(3:3)
Hardware and software components of computer systems, their organization and operations. Topics: comparative instruction set architectures, microprogramming, memory management, processor management, I/O, interrupts, and emulation of processors.
Prerequisite: Grades of at least C (2.0) in CSC 261, CSC 330 , and CSC 350, or permission of instructor.

CSC 562 - Principles of Operating Systems (3)

Techniques and strategies used in operating system design and implementation: managing processes, input/output, memory, scheduling, file systems, and protection.

Prerequisite: Grades of at least C (2.0) in CSC 261 and CSC 340 or permission of instructor.

## CSC 567 - Principles of Computer Networks (3)

## (3:3)

Hardware and software components of computer networks, their organization and operations. Topics: open system interconnection; local area networks; TCP/IP internetworking, routing, and packet switching; network programming.

Prerequisite: Grades of at least C (2.0) in CSC 261 and CSC 330, or permission of instructor.

## CSC 568 - Principles of Wireless Networks (3)

(3:3)
Digital communications, communication networks, wireless communication technology, wireless networking, wireless LANs, and wireless network programming.

Prerequisite: Grades of at least C (2.0) in CSC 330 and CSC 567, or permission of instructor.
CSC 580 - Cryptography and Security in Computing (3)
(3:3)
Modern development of cryptography and secure encryption protocols. Program security and viruses. Operating system protection. Network and distributed system security. Database security. Administering security.
Prerequisite: Grades of at least C (2.0) in CSC 330 and one of CSC 471 , CSC 561 , CSC 562 , or CSC 567 , or permission of instructor.

CSC 583 - Firewall Architecture and Computer Security (3)
(3:3)
Firewall hardware and software technologies.
Architectures, protocols and their applications.
Prerequisite: Grades of at least C (2.0) in CSC 567 and CSC 580 , or permission of instructor.

## CSC 589 - Experimental Course

This number reserved for experimental courses. Refer to the Course Schedule for current offerings.
CSC 593 - Directed Study in Computer Science (1-3)
(1-3)
CSC 594 - Directed Study in Computer Science (1-3)
(1-3)
CSC 621 - Advanced Computer Graphics (3)
(3:3)
Advanced computer graphics algorithms, data structures, and techniques.

Prerequisite: CSC 521 or permission of instructor.
CSC 622 - Advanced Digital Image Processing (3)

Image restoration, segmentation, coding, representation and description, morphological transforms, object recognition.
Prerequisite: CSC 522 or permission of instructor.
CSC 626 - Advanced Bioinformatics (3)
(3:3)
Advanced topics in bioinformatics related to sequence comparison and database search, fragment assembly of DNA, physical mapping of DNA, phylogenetic trees, genome rearrangements, and molecular structure prediction.
Prerequisite: CSC 526 or permission of instructor.

## CSC 640 - Software Engineering (3)

(3:3)
Organization and scheduling of software engineering projects and structured software design. Specification methods, metrics, software engineering tools, design, prototyping, version control, and testing.
Prerequisite: CSC 330, or permission of instructor.

## CSC 650 - Language Theory (3)

## (3:3)

Important aspects of language theory. Advanced topics such as grammar, codes, L systems, and combinatorics on words.

Prerequisite: CSC 550 or permission of instructor.

## CSC 653 - Advanced Theory of Computation (3)

Computability theory: Church-Turing thesis (Turing machines, variants, other models); decidability (decidable and undecidable problems for automata and grammars, the halting problem); reducibility (undecidability of mathematical truth).

Prerequisite: CSC 553, or permission of instructor.

## CSC 655 - Advanced Topics in Algorithms (3)

## (3:3)

Modern development of algorithm design and analysis for sequential and parallel computers; parallel, numbertheoretic, probabilistic, and approximation algorithms, string matching, computational geometry, NPcompleteness: worst-case versus average-case.

Prerequisite: Grade of at least C in CSC 555.
CSC 656 - Foundations of Computer Science (3)

## (3:3)

Introduces the mathematical foundations that support advanced studies in computer science including computer programming and the analysis of algorithms.

Prerequisite: CSC 350 or permission of instructor.
CSC 663 - Advanced Topics in Computer Systems (3)

Distributed and parallel systems. High-speed and wireless networks. Mobile computing. Communication, synchronization, distributed shared memory, real-time and fault-tolerant systems; current implementations.

Prerequisite: CSC 330 and CSC 567 or CSC 561 or CSC 562, or permission of instructor.

## CSC 665 - Advanced Wireless Networks (3)

Wireless technology and architecture, wireless network types, wireless network design approaches, wireless application development and wireless network programming.
Prerequisite: CSC 330 or equivalent and one of the following: CSC 561 or CSC 562 or CSC 567 or permission of instructor.

CSC 671 - Advanced Database Systems (3)

## (3:3)

Modern database models. User interface and operations. Applications design. Introduction to multi-database systems: interoperability and data integration. Selected topics of current interest.

Prerequisite: CSC 330, or permission of instructor.

## CSC 672 - Database System Architecture (3)

## (3:3)

File organization and indexing techniques. Query processing and optimization. Concurrency control and crash recovery. Distributed and heterogeneous database systems. Selected topics of current interest in database and knowledge-base systems.

Prerequisite: CSC 570 or CSC 671, or permission of instructor.

CSC 675 - Principles of XML Databases (3)
(3:3)
XML from a database point of view, concentrating on information retrieval (querying) and integration.

Prerequisite: CSC 671 or permission of instructor.

## CSC 676 - Topics in Database Systems (3)

## (3:3)

Selected topics of current interest such as: deductive databases, modeling and management of uncertain and inaccurate information, multi-database systems, data mining, on-line analytical processing and data warehousing.

Prerequisite: CSC 671 or permission of instructor.

## CSC 680 - Advanced Topics in Computer Security (3)

## (3:3)

Topics in cryptography and computer security, including cryptographic protocols, Web server security, Java security, security in the healthcare domain, and experimental quantum cryptography.

Prerequisite: CSC 339 and CSC 580.

## CSC 693 - Advanced Topics in Computer Science (3-6)

Algorithms, architecture, languages, systems, theory, or other areas of computer science.
Prerequisite: Permission of instructor.

CSC 695 - Current Problems in Computer Science (3)
(3:3)
Topics of current research interest in computer science.
Prerequisite: Permission of instructor.
CSC 697 - Research Problems in Computer Science (3)

## (3:3)

Advanced research in specialized areas of computer science under the direction of a faculty member. Preparation for master's thesis.

Prerequisite: Permission of instructor.
CSC 698 - Project in Computer Science (3-6)
(3-6)
Prerequisite: Permission of instructor.
CSC 699 - Thesis (1-6)
(1-6)

## CSC 711 - Experimental Course

This number reserved for experimental courses. Refer to Course Schedule for current offerings.

CSC 801 - Thesis Extension (1-3)
(1-3)
CSC 803 - Research Extension (1-3)
(1-3)

## CSD - Communication Sciences Disorders

## CSD 550 - Diagnostic Procedures: Inquiry, Observation and Measurement (3)

Processes and techniques of data acquisition and analysis for the diagnosis, assessment, and evaluation of communication disorders.
Prerequisite: Completion of all CSD 300-level courses required for the major or permission of the instructor.

CSD 551 - Speech and Language Disorders: Diagnostic Procedures (3)

Differential diagnosis of speech, language, voice, and rhythm problems.
Prerequisite: Permission of instructor.

CSD 552 - Communication and Aging (3)
(3:3)
Development of communication in old age; factors affecting development and competency; communication evidence and theories of aging; facilitation of life-long functional communication.

Prerequisite: CSD 308 or permission of instructor.
CSD 554 - Advanced Speech Science (3)
(3:3)
Acoustic theory and methods of analysis; acoustic structure of speech and its physiological correlates; application of acoustic information to clinical management of disorders of communication.

Prerequisite: CSD 306, CSD 307, CSD 308, CSD 309.

## CSD 556 - Aural Rehabilitation (3)

(3:3)
Principles of aural rehabilitation with hearing impaired adults and their significant others.

Prerequisite: CSD 334. Offered: (Spring).
CSD 557 - Pediatric Aural Rehabilitation (3)
(3:3)
Study of new technologies available for children with hearing impairment and the impact of these technologies on therapy and teaching.

Prerequisite: CSD 334 for undergraduates; permission of instructor for graduate students. Offered: (Spring).
CSD 571 - Beginning Clinical Practice in Speech-Language Pathology (3)
(3:2:4)
Beginning clinical practice in diagnosis of and therapy for communication disorders.

Prerequisite: Admission to the appropriate degree program or permission of instructor.

CSD 575 - Instrumentation for Communication Disorders (3)
(3:3)
Instrumentation commonly used in communication disorders; operation and measurement techniques for clinical and research applications.

Prerequisite: Permission of instructor.

CSD 588 - Neurology of Speech, Language and Hearing (3)

## (3:3)

An overview of neuroanatomy and neurophysiology with a concentration on neurological mechanisms related to speech, language and hearing.

Prerequisite: CSD 309 or permission of instructor.

## CSD 589 - Experimental Course

This number reserved for experimental courses. Refer to the Course Schedule for current offerings.

## CSD 600 - Professional Issues and Ethics in SpeechLanguage Pathology (3)

Issues related to the profession, service delivery, ethics, legal considerations, funding issues, program administration and credentialing. Content is in accordance with the American Speech-Language-Hearing Association Scope of Practice.

Prerequisite: Admission to appropriate degree program or permission of instructor.

CSD 601 - Special Topics in Communication Sciences and Disorders (1-3)
(1-3)
Topics in communication sciences and disorders.
Prerequisite: Admission to MA in speech-language pathology or permission of instructor.
CSD 602 - Seminar in Speech Pathology: Organic Disorders (3:3)

Study of organic disorders of communication.
Prerequisite: CSD 551 or equivalent and admission to appropriate degree program, or permission of instructor.

## CSD 603 - Seminar in Voice Problems (3)

Investigation of current literature and theories of vocal anomalies. Organic deviations.

Prerequisite: CSD 551 or equivalent and admission to appropriate degree program or permission of instructor.

## CSD 604 - Fluency Disorders (2)

(2:2)
Assessment, diagnosis, and treatment of fluency disorders in children, adolescents, and adults.

Prerequisite: Admission to appropriate degree program or permission of instructor.

CSD 605 - Seminar in Speech and Language Pathology (3)

Studies dealing with specialized areas of communication disorders. Topic to be announced each semester course is offered.

Prerequisite: Graduate-level courses in appropriate content area and admission to appropriate degree program, or permission of instructor.

CSD 606 - Cognitive-Linguistic Disorders in Adults (3) (3:3)
Assessment, diagnosis, and treatment of communication disorders resulting from stroke, dementia, and traumatic brain injury.

Prerequisite: Admission to appropriate degree program, or permission of instructor.

## CSD 608 - Seminar in Cleft Palate (3)

(3:3)
Investigation of current literature and theories in cleft palate. Speech and hearing aspects; controversial procedures in repair and rehabilitation.
Prerequisite: CSD 551, CSD 570 or equivalent and admission to appropriate degree program, or permission of instructor.

## CSD 612 - Augmentative and Alternative Communication

 (1)Knowledge of augmentative and alternative communications and problem-solving in the design and application of appropriate AAC systems.

Prerequisite: Admission to appropriate degree program or permission of instructor.

## CSD 613 - Communication Problems in Aging (3)

## (3:3)

Nature, assessment, and management of communication disorders in the elderly.

Prerequisite: Permission of instructor.
CSD 614 - Language Learning Disabilities (3)

Assessment and treatment of spoken and written language learning disabilities in school-age children and adolescents with special emphasis on the collaborative role of the speech-language pathologist in school-based settings.
Prerequisite: Admission to appropriate degree program or permission of instructor.

## CSD 615 - Communication and Severe/Profound Disabilities (3)

Nature, assessment, and management of communication disorders in persons of all ages who have severe/profound disabilities.

Prerequisite: Permission of instructor.
CSD 616 - Motor Speech Disorders (3)
(3:3)
Neurologic basis, assessment and treatment of dysarthria and apraxia.
Prerequisite: Admission to appropriate degree program or permission of instructor.

## CSD 617 - Language Disorders and Neurological Theory

 (3)Latest knowledge on the specialization of the two hemispheres and clinical syndromes/language disorders resulting from left and right hemisphere dysfunction.

Prerequisite: Admission to appropriate degree program or permission of instructor.
CSD 618 - Counseling and Interviewing Skills in Communication Sciences and Disorders (1)

Instruction and practice in counseling and interviewing skills during the assessment and treatment of speech, language, and hearing disorders.

Prerequisite: Admission to appropriate degree program or permission of instructor.
CSD 619 - The Supervisory Process in Communication Sciences and Disorders (1)
(1:1)
Study and practice of clinical supervision in speechlanguage pathology. Theoretical models of supervision, pertinent research, and clinical practice.
Prerequisite: Admission to appropriate degree program or permission of instructor.

CSD 623 - Seminar in Central Auditory Processing (3) (3:3)
Anatomy and physiology of the central auditory nervous system, methods and techniques of measurement and interpretation for the assessment, diagnosis, evaluation, and rehabilitation of individuals with central auditory processing disorders.

Prerequisite: Admission to appropriate degree program or permission of instructor.

CSD 626 - Professional Writing and Speaking in Communication Sciences and Disorders (1)

## (1:1)

Instruction and practice in writing professional reports, research papers, and in making oral presentations.
Prerequisite: Admission to appropriate degree program or permission of instructor.

CSD 627 - Multicultural Issues in Communication Sciences and Disorders (1)
(1:1)
Identification and treatment of speech and language differences in diverse populations.
Prerequisite: Admission to appropriate degree program or permission of instructor.

CSD 629 - Dysphagia (3)
(3:2:1)
Anatomical bases of normal and disordered swallowing in children and adults; evaluation and treatment of swallowing disorders.

Prerequisite: Admission to appropriate degree program or permission of instructor.

CSD 630 - Fundamentals for Speech and Language Analysis (3)
(3:3:1)
Basic linguistic structures that support oral and written English, including phonetics and phonology, morphology, orthography, semantics, and syntax.
Prerequisite: Admission to appropriate degree program or permission of instructor.

CSD 631 - Structured Language Intervention for Language-Literacy Impairments (3)

## (3:3:1)

Certification course in the Language! TMCurriculum (Sopris West, Inc.), an intervention curriculum for individuals at risk for literacy problems.

Prerequisite: Admission to appropriate degree program or permission of instructor.
CSD 632 - Introduction to Research in Communication Sciences and Disorders (3)

Introduction to research procedures in the study of communication sciences and disorders.

Prerequisite: Admission to appropriate degree program or permission of instructor.

CSD 633 - Special Projects in Communication Sciences and Disorders (3)

## (3:3)

Individual scholarly project developed by the student with faculty guidance.

Prerequisite: Admission to appropriate degree program or permission of instructor.

CSD 634 - Research Design in Communication Sciences and Disorders (2)

## (2:2)

Development of research proposal, from generation of hypothesis through data analysis and interpretation.

Prerequisite: Admission to appropriate degree program or permission of instructor.

CSD 635 - Advanced Phonetic Transcription (1)

Detailed transcription of normal and disordered speech using the International Phonetic Alphabet.

Prerequisite: Completion of an introductory phonetics course and admission to appropriate degree program or permission of instructor.

CSD 636 - Prevention, Assessment, and Intervention of Communication Disorders: Birth - 5 (3)

## (3:3)

Communication development and disorders (speech, language, and hearing) in infants, toddlers, and preschoolers.
Prerequisite: Admission to appropriate degree program or permission of instructor.

CSD 637 - Prevention, Assessment, and Intervention of Communication Disorders: School Age (3)

## (3:3)

Communication development and disorders in school age children and adolescents.

Prerequisite: Admission to appropriate degree program or permission of instructor.

CSD 638 - Minor Area Clinical Practicum for SpeechLanguage Pathology Majors (1)
(1)

Instruction for speech-language pathology majors in performing hearing screenings. Helps obtain the 20 clock hours in the minor area required by the American Speech-Language-Hearing Association (ASHA).

Prerequisite: CSD 334, graduate standing, and completion of 25 observation hours.

CSD 639 - Prevention, Assessment, and Intervention of Communication Disorders: Late Adolescence and Early Adulthood (3)

Communication development and disorders (speech, language, and hearing) in late adolescents and young adults.

Prerequisite: Admission to appropriate degree program or permission of instructor.

CSD 640 - Prevention, Assessment, and Intervention of Communication Disorders: Middle and Older Adults (5)
(5:5:2)
Communication development and disorders (speech, language, and hearing) in middle aged and older adults.

Prerequisite: Admission to appropriate degree program or permission of instructor.

CSD 650 - Independent Study (1-3)
(1-3)
Topic to be determined by faculty advisor and student.
Prerequisite: Admission to appropriate degree program or permission of instructor and major advisor.

CSD 670 - Diagnostic Audiology I (3)
(3:2:2)
Basic diagnostic procedures in audiology. Includes anatomy, physiology, and disorders of the hearing mechanism, basic evaluation and interpretation of auditory function.

Prerequisite: CSD 334 or permission of instructor.
CSD 673 - Studies and Practice in Supervision of Communication Sciences and Disorders (3)

Supervision in speech-language pathology and audiology. Theoretical models of supervision, pertinent research, and clinical practice. Opportunities for observation.

Prerequisite: Permission of instructor.
CSD 674 - Diagnostic Audiology II (3)

Non-organic hearing loss; differential diagnosis; special problems in diagnosis.

Prerequisite: CSD 570 or equivalent.

CSD 677 - Internship in Communication Disorders (3-9)
(3-9)
Clinical experience under supervision of a certified speech-language pathologist in an off-campus facility.
Prerequisite: Permission of instructor.
CSD 678 - Advanced Clinical Practice in Speech-Language Pathology (3)

Advanced clinical practice in diagnosis of and therapy for communication disorders.
Prerequisite: Admission to appropriate degree program or permission of instructor.

CSD 688 - Research Design in Communication Disorders (3)

Development of research proposals, from generation of hypothesis through data analysis and interpretation. Includes pilot study project.
Prerequisite: Admission to appropriate degree program and at least one semester of clinical practicum and two semesters of graduate courses.

## CSD 698 - Experimental Design in Communication Disorders (3)

Research of normal communication processes and speech, language, and hearing disorders. Preparation of research for presentation or publication.

Prerequisite: CSD 688 and statistics and admission to appropriate degree program, or permission of instructor.
CSD 699 - Thesis (1-6)
(1-6)
Prerequisite: Admission to appropriate degree program, or permission of instructor and major advisor.

## CSD 711 - Experimental Course

This number reserved for experimental courses. Refer to the Course Schedule for current offerings.

## CSD 751 - Professional Seminars in Communication Sciences and Disorders (1)

(1:1)
Weekly seminar on contemporary issues in communication sciences and disorders.

CSD 760 - Advanced Seminar in Communication Sciences and Disorders (3)
(3:3)
Critical analysis of special topics in communication sciences and disorders. Topics change each semester.

CSD 771 - Best Practices in Teaching Communication Sciences and Disorders (3)

## (3:3)

Introduction to best practices in teaching in communication sciences and disorders.
Prerequisite: Permission of instructor for non-CSD majors.
CSD 772 - Doctoral Seminar in Grant Writing (3)
(3:3)
The grant writing process, including the procedures and technical strategies for developing and submitting a grant proposal for funding.

Prerequisite: Permission of instructor for non-CSD majors. Corequisite: CSD 790 with faculty advisor or course instructor for individualized mentoring of the grant writing project. Crosslisted as: KIN 798.

CSD 773 - Practicum in Teaching Communication Sciences and Disorders (3)

## (3:3)

Practicum in teaching in communication sciences and disorders.
Prerequisite: Pr. or Coreq. CSD 771. Pr.permission of instructor for non-CSD majors. Corequisite: Pr. or Coreq. CSD 771.

CSD 780 - Independent Study (1-3)
(1-3)
Guided readings, research, and individual project work.
Prerequisite: Permission of doctoral advisory committee and graduate faculty mentor.

## CSD 790 - Directed Research (1-3) <br> (1-3)

Individual work on directed research or topics of special interest: collection and analysis of data, critical review, integration, and interpretation of research literature on a topic pertinent to the student's research.
Prerequisite: Permission of doctoral advisory committee and graduate faculty mentor.

## CSD 799 - Dissertation (1-12)

(1-12)
Prerequisite: Completion of doctoral examinations.

CSD 801 - Thesis Extension (1-3)
(1-3)
CSD 802 - Dissertation Extension (1-3)
(1-3)
CSD 803 - Research Extension (1-3)
(1-3)

## CST - Communication Studies

CST 502 - The Semiotics of Everyday Life (3)

Language, meaning, and sign systems as communication process. Emphasis on projects to apply theoretical concepts from general semantics and semiotics to promote understanding of how humans symbolically construct reality.

Prerequisite: Graduate status or permission of instructor.
CST 506 - Speaking Out for Community Change (3)

Exploration of theory and practice in community advocacy. Focus on public deliberation, moral conflict, and community dialogue in value-laden topics and controversies.
Prerequisite: CST 305 recommended for undergraduates. Offered: (Fall or Spring).
CST 520 - African American Culture and Identity (3)

## (3:3)

Examines dynamic ways that African Americans construct, maintain, and negotiate their social identities in a variety of contexts. Explores the connections among race/ethnic identity, communication, and culture.

CST 540 - Social Entrepreneurship: Justice and a Green Environment (3)

## (3:3)

Interdisciplinary engagement of social entrepreneurship as model for change on an issue of environmental sustainability. Exploration of models that respond to social, economic, environmental, and justice issues.
Prerequisite: Upper-division undergraduate or graduate student status. Crosslisted as: Same as BUS 540, CPS 540, ENT 540, SWK 540, WGS 540.

CST 555 - Relational Communication and the Hollywood Feature Film (3)
(3:2:3)
Analysis and applicaton of images, discourses, and practices concerning human communication and relationships as they are represented in the powerful cultural medium of film.
Prerequisite: Undergraduates: CST 207, CST 300 or CST 305, and upper division standing. Offered: (Alt Years).
CST 562-Organizational Change: Diversity and Identity (3)
(3:3)
Contemporary theory and practices of communication applied to changing organizations. Emphasis on the role of diversity and issues of identity driving change.
Prerequisite: Graduate status or permission of instructor.
CST 589 - Experimental Course: African-American Culture and Identity (3)

## (3:3)

Examines dynamic ways that African Americans construct, maintain, and negotiate their social identities in a variety of contexts. Explores the connections among race/ethnic identity, communication, and culture.

Prerequisite: Junior or senior standing and permission of instructor. Offered: (Offered spring '10).
CST 589B - Experimental Course: Communication and Health Innovation (3)

## (3:3)

Theories, methods, and practices related to communication and health innovation; theories of persuasion and message design that address innovation; study of how to lead organizations and health institutions through innovative change processes.
Offered: (Offered spring '11).
CST 599 - Communication Pedagogy (3)

Seminar focusing on the effect of communication upon learning. For graduate teaching assistants in any discipline, graduates or undergraduates interested in teaching or training. Emphasis on pedagogical principles and instructional materials.

Prerequisite: Graduate status or permission of instructor.

## CST 601 - Engaging Communication Theories (3)

(3:3)
Contemporary theories of communication, including interpretive, critical, rhetorical, and scientific. Emphasis on engaging social and cultural contexts in which to utilize theory.

Prerequisite: Admission to appropriate degree program or permission of instructor.
CST 602 - Engaging Communication Research Methodology (3)
(3:3)
Provides a foundation in communication research methodology. Introduces positivist, interpretivist, and critical research paradigms, and links these to focus groups, in-depth interviewing, participant observation, and document analysis.

CST 605 - Communicating for Social Change (3)

Theoretical and practical views on how to work inside and outside institutions of power to transform values, assert credibility, and mobilize others. Emphasis on how communication creates social change. Topics and emphasis vary by semester.
CST 612 - Seminar in Communication Studies (3)

Subject matter varies.
Prerequisite: Admission to appropriate degree program or permission of instructor.

CST 630-Organization, Democracy, and Community (3)

Draws upon critical organizational communication and critical/cultural studies to consider the role of communication in creating and sustaining democratic organizing in micro, meso, and macro contexts.

CST 632 - Seminar in Communication Ethics (3)

Theory and practice of communication ethics in a free society. Issues and cases ranging from intrapersonal to mass media communication situations.

Prerequisite: Admission to appropriate degree program or permission of instructor.

CST 635 - Identity, Culture, and Communication (3)

## (3:3)

Takes critical/cultural studies approaches to examine how culturally significant identity sites such as race, ethnicity, gender, and diaspora are constructed, negotiated, and resisted through communication.

## CST 650 - Independent Study (1-3)

(1-3)
Topic to be determined by faculty advisor and student.
Prerequisite: Admission to appropriate degree program or permission of instructor and major advisor.
CST 652 - Research Practicum in Communication (1-3)
(1-3:0:3-9)
Engagement in communication research with the direct supervision of a member of the Graduate Faculty.

Prerequisite: Permission of Graduate Faculty member with whom student wishes to work.

## CST 659 - Communication and Gendered Communities (3)

## (3:3)

Ways in which communication process constructs gendered communities. Analysis of gendered language codes, speech communities, and messages that transform community.

## CST 663 - Seminar in Relational Communication (3:3)

Major interpersonal communication theories and constructs, and methods for investigating them.

Prerequisite: Admission to appropriate degree program or permission of instructor.
CST 698 - Capstone Experience in Communication (Final Research Project) (1-3)
(1-3)
Synthesis of theories, research methods, and practices of communication that will shape the 21st Century, demonstrated through independent scholarly research (conducted in consultation with faculty committee).

## CST 711 - Experimental Course

This number reserved for experimental courses. Refer to the Course Schedule for current offerings.

CST 803 - Research Extension (1-3)
(1-3)

## CTR - Community and Therapeutic Recreation

## CTR 511 - Seminar in Recreation and Parks (3)

Examination of current practices in recreation and parks with emphasis on their impact in the delivery of programs and services, and their technological, economic, and political significance in society.
Prerequisite: RPM 315, senior standing, or permission of instructor.

CTR 519 - Directed Research in Recreation and Parks (3)
(3)

Identification and investigation of research questions in recreation and parks. Opportunity for students to conduct research with direction from scholars in the field.
Prerequisite: Permission of instructor.
CTR 535 - Animal Assisted Therapy (3)
(3:3)
An introduction to the theories, concepts, and techniques used in animal assisted therapy in long-term care, rehabilitation, acute care hospitals, special schools, and other settings.

## CTR 589 - Experimental Course

This number reserved for experimental courses. Refer to the Course Schedule for current offerings.

CTR 611 - Foundations of Recreation and Parks (3)

Understand and apply various theories and concepts, as well as current research, which influence the study of leisure behavior and the delivery of recreation services.
CTR 612 - Research Applications in Recreation and Parks (3)

Utilization and application of current data analytic procedures in leisure research in the context of various research methods.

Prerequisite: ERM 604, GRO 620, KIN 601, or SOC 616; ERM 517, HEA 604, or KIN 610.

## CTR 613 - Recreation and Parks Management (3)

## (3:3)

Theories and patterns of management appropriate for leisure service delivery systems. Organizational planning, legal foundations, financial management, personnel management, and the politics of leisure service delivery systems.

Prerequisite: CTR 611 or permission of instructor.
CTR 614-Organizational Behavior in Recreation and Parks (3)
(3:3)
Organizational behavior within recreation and park organizations. Management and organizational behavior, perception, motivation, diversity, power and politics, leadership, group dynamics, communications, conflict, and organizational design, culture, and change.

Prerequisite: CTR 613 or permission of instructor.
CTR 630 - Geriatric Recreational Therapy Practice: Roles and Responsibilities (3)
(3:3)
Analysis of advanced roles and responsibilities of geriatric recreational therapists in the broad delivery of evidencebased treatment services in long term care.

Prerequisite: Certified Therapeutic Recreation Specialist (CTRS) or permission of instructor.
CTR 631 - Geriatric Assessment for Therapists (3)

Development of necessary skills to master the process and techniques required to assess older adults and interpret assessment values for planning and treatment and evaluation of outcomes.

Prerequisite: Certified Therapeutic Recreation Specialist (CTRS) or permission of instructor.
CTR 632 - Evidence-based Practice in Geriatric Recreational Therapy (3)

Introduces recreational therapy practitioners to principles of evidence-based practice and policy, practice guidelines, and information utilization for practice modeling.

Prerequisite: Certified Therapeutic Recreation Specialist (CTRS) or permission of instructor.

CTR 633 - Professional Issues in Therapeutic Recreation (3)

Study of professional issues in therapeutic recreation including professionalism, credentialing, research, professional preparation, continuing education, health care, ethics, advocacy, legislation, marketing, and role of TR managers in addressing these issues.

CTR 634 - Advanced Procedures in Therapeutic Recreation (3)

## (3:3)

Health care delivery service in community and medical arenas. Role of therapeutic recreation within that system. Administrative/managerial procedures.
Prerequisite: CTR 611 or permission of instructor.
CTR 637 - Advanced Facilitation Techniques in Therapeutic Recreation (3)
(3:3)
Planning, implementation, and evaluation of a variety of therapeutic recreation facilitation techniques to include intervention descriptions, historical perspectives, efficacy research, and theoretical foundations.
Prerequisite: CTR 611 or permission of instructor.
CTR 645 - Financial Trends in Recreation and Parks (3)

Study of financial trends in the public and private nonprofit sectors of recreation and parks. Emphasis on financing and acquiring recreation and park resources.
Prerequisite: CTR 613 or equivalent, or permission of instructor.
CTR 646 - Seminar: Community Recreation Management (3)
(3:3)
Concepts, principles, and practices in recreation and park management. Emphasis on policy-making process; program, service, and event management; physical resources planning/management; legal environment/risk management; professionalism; issues and trends

Prerequisite: CTR 613 or permission of instructor.

## CTR 695 - Independent Study (3)

(3)

Independent study to support graduate-level research and demonstration projects under the close supervision of a graduate faculty member in CTR.
Prerequisite: Permission of instructor.

## CTR 696 - Directed Readings (3)

(3)

Opportunity to conduct in-depth study and library work on a particular topic in recreation and parks under close supervision of a graduate faculty member in CTR.

Prerequisite: Permission of instructor.
CTR 697 - Internship in Recreation and Parks (3-6)
(3-6)
A supervised field experience including a final paper.
Prerequisite: CTR 611, CTR 612, CTR 613; either CTR 633 or CTR 645.
CTR 698 - Field Project in Recreation and Parks (3-6)

A supervised field project including a major literaturebased paper.
Prerequisite: CTR 611, CTR 612, CTR 613; either CTR 633 or CTR 645.
CTR 699 - Thesis (1-6)
(1-6)
Individual guidance in the development and examination of a research problem.
Prerequisite: CTR 611, CTR 612, CTR 613; either ERM 604, KIN 611, SOC 616, or GRO 620; ERM 517, HEA 604, or KIN 610; either CTR 633 or CTR 645; either CTR 634 or CTR 646.

## CTR 711 - Experimental Course

This number reserved for experimental courses. Refer to the Course Schedule for current offerings.
CTR 801 - Thesis Extension (1-3)
(1-3)
CTR 803 - Research Extension (1-3)
(1-3)

## DCE - Dance

DCE 505 - Contemporary Dance: Aesthetic and Cultural Practice (3)

Study of cultural issues and aesthetic priorities of dance in the late postmodern world, especially contemporary dance. Provides opportunities to present ideas about and debate issues concerning contemporary dance. All sections are taught as Speaking Inte

Prerequisite: DCE 305; graduate students must have satisfied the dance history requirement for admission to a graduate dance program. Offered: (Spring).
DCE 555 - Technology in the Creation and Preservation of Dance Works (3)

A study of software applications useful in the creation and/or preservation of dance works. Areas of study include soundscore creation, video editing, and graphics manipulation.

Prerequisite: DCE 355, or admission to graduate study in dance, or permission of the instructor. Offered: (Fall).

## DCE 560 - The Dancer's Body (3)

An introduction to the study of body theories and practices in dance. Topics include somatic theory and practice, and body issues related to dance performance, choreography, and pedagogy.

Prerequisite: Two semesters of dance technique, and DCE 340 or equivalent, or permission of instructor. Offered: (Every fourth summer).

## DCE 581 - Dance on Video (3)

Introduction to working with dance and video, including composing for the camera, recording dancers in action, and editing footage to create original work.

Prerequisite: DCE 555 or permission of instructor. Crosslisted as: Same as MST 581. Offered: (Fall or Spring).

## DCE 589 - Experimental Course

This number reserved for experimental courses. Refer to the Course Schedule for current offerings.

## DCE 610 - Dance: The Phenomenon I (3)

An exploration and confrontation with the nature and meaning of dance as an art form.

Prerequisite: Admission to graduate degree program in dance and completion of undergraduate dance history prerequisite. Offered: Fall.

## DCE 611 - Dance: The Phenomenon II (3)

In-depth personal inquiry into the nature and making of meaning for a selected area of concern in dance. Includes significant individual project.

Prerequisite: Grade of B or better in DCE 610 or approval of instructor. Offered: Spring.
DCE 620 - Music for Dancers (3)

The relationship of sound and movement, accompaniment and dance, accompanist/composer and teacher/choreographer, and bringing these understandings to practical application.

DCE 621 - Administration of Dance (3)

## (3:3)

Introduction to the business of dance including aspects of grant writing, company development and management, public relations, concert production and presentation, and touring.

## DCE 622 - Dance Criticism (3)

## (3:3)

Current theories, materials, and techniques of dance criticism. Group study, choreographic evaluation, and individual projects related to critical writing in dance.

## DCE 624 - Movement for Dance (1)

(1:0:5)
Opportunities for dancers to practice their craft, developing working knowledge of different styles of contemporary dance, ballet, improvisation, and other movement forms. Style and emphasis will vary each semester.
Prerequisite: Graduate standing in dance.

DCE 630 - Advanced Body Theories and Practices in Dance (4)
(4:2:2)
Advanced study of body theories and practices in dance. Topics include sociocultural constructions of dancer bodies, somatic theory, body pedagogies, and somatic practices related to dance performance, choreography, and pedagogy.

Prerequisite: Two semesters of dance technique and DCE 340 or equivalent; or permission of instructor.

DCE 646 - Reflective Practice in P-12 Dance Education (3)

## (3:3)

Planning and implementation of projects related to master's standards for dance licensure, with ongoing reflection and dialogue.
Prerequisite: Admission to MA in dance education. Offered: Spring.

## DCE 650 - Dance Design Practicum (3)

Advanced practicum in the technical, aesthetic and theoretical aspects of dance design.

Prerequisite: DCE 555 and graduate standing in dance.
DCE 651 - Choreographic Practice (3)

Exploration of diverse perspectives on choreography: process, period, style, and genre. Individualized problems and projects developed with each student artist.

DCE 654-P-12 Dance Education: Technique and Performance (1)

Theory and practice related to teaching dance technique and performance to school-aged populations. Includes planning, teaching, and assessing student learning in one unit of study.

Prerequisite: DCE 560 and admission to MA in dance education.

DCE 655 - P-12 Dance Education: Choreography (1)

Theory and practice related to teaching choreography to school-aged populations, with an emphasis on collaboration. Includes planning, teaching, and assessing student learning in one unit of study.

Prerequisite: DCE 651 or other graduate choreography course; admission to MA in dance education.

DCE 656-P-12 Dance Education: Critical Thinking/Literacy (1)

## (1:1)

Theory and practice related to teaching critical thinking and dance literacy with school-aged populations, including interdisciplinary relationships. Includes planning, teaching, and assessing student learning in one unit of study.
Prerequisite: DCE 610 and admission to MA in dance education.

## DCE 660 - Issues in Planning the Dance Curriculum (3)

## (3:3)

Curriculum planning for dance in educational settings. Involvement with issues in the field.

Prerequisite: Graduate standing in dance. Offered: Offered alternate years.
DCE 661 - Dance Pedagogy in Higher Education (2)

Consideration of pedagogical issues and strategies in teaching dance studio and theory courses at the undergraduate college/university level.

Prerequisite: Graduate standing in dance or permission of instructor(s).
DCE 662 - Practicum in Teaching Dance (1-3)
(1-3)
Observation of dance teaching and supervised practice at the university or K-12 level; some sections may include a required seminar.

Prerequisite: Graduate standing in dance; or permission of instructor and previous teaching experience; or 18 graduate semester hours in dance.
DCE 663 - PreK-12 Dance Education Practicum (3-6)
(3-6)
Supervised teaching culminating in development of a portfolio demonstrating competencies required for Standard Professional I licensure.

Prerequisite: Admission to graduate program in dance.

## DCE 664 - Action Research in Dance Education (3)

(3)

Review of recent research relevant to dance education; planning, implementation, and evaluation of action research project.

Prerequisite: DCE 611.

## DCE 676 - Problems Seminar (3)

(3:3)
Specific course title identified each semester by subscript, e.g., Problems Seminar: Dance as Therapy.

Prerequisite: Graduate standing in dance.
DCE 687 - Performance Theory and Practice (2)

Rehearsal and performance of work designed to challenge graduate students at their level of performance. Choreography by graduate faculty.

Prerequisite: Graduate standing in dance or permission of instructor.

## DCE 688 - Practicum in Dance Performance (1-3)

 (1-3)Rehearsal and performance of choreography created or reconstructed by faculty or guest artist.

Prerequisite: Graduate standing in dance or permission of the instructor.
DCE 693 - Portfolio in K-12 Dance Education (1-6)
(1-6)
Development of teaching portfolio to meet specific requirements for M licensure in dance. Students may substitute National Board Professional Teaching Standards portfolio with prior permission.

Prerequisite: Satisfactory completion of (a) all required courses for the MA in dance with a dance education (M license) concentration, (b) Portfolio Review, and (c) at least two years full-time (or equivalent) teaching K-12 dance.

## DCE 695 - Independent Study (1-3)

(1-3)
Intensive study in an area of special interest in dance.
Prerequisite: Demonstrated competency for independent work and consent of departmental academic adviser and the instructor.

## DCE 697 - Masters Production Project (1-6)

(1-6)
Culminating choreography research with a performed or presented outcome. Possibilities include structured choreography, improvisation, lecture demonstration, master class, community based or historical research with performance, and digitally based projects.

Prerequisite: Admission to candidacy, successful completion of proposal.

DCE 698 - Field Project in Dance (1-6)
(1-6)
Research, development, and completion of approved project which substantially contributes to mastery in MFA or MA concentration and integrates knowledge gained through the degree program.

Prerequisite: MA students and MFA candidates with approved project proposals.
DCE 699 - Thesis (1-6)
(1-6)
Prerequisite: Satisfactory completion of portfolio review.

## DCE 711 - Experimental Course

This number reserved for experimental courses. Refer to the Course Schedule for current offerings.
DCE 801 - Thesis Extension (1-3)
(1-3)
DCE 803 - Research Extension (1-3)
(1-3)

## ECO - Economics

ECO 510 - Law and Economics (3)
(3:3)
Applies economic theory in analysis of law. Presents framework for analysis, examines property rights, studies public regulation, and examines antitrust laws.

Prerequisite: ECO 301. Offered: (Spring).
ECO 513 - Directed Studies in Economics I (1-3)
(1-3)
Individual study of economic problems of special interest to the student. Regular conferences with instructor required.
Prerequisite: 21 s.h. of economics and permission of instructor.

## ECO 517 - American Economic History: Colonial Times to

 1865 (3)Evolution of the American economy through the Civil War. Emphasis on sources of economic growth and welfare.
Prerequisite: ECO 201. Crosslisted as: Same as HIS 517.

## ECO 518 - American Economic History: 1865 to Present

 (3)
## (3:3)

Evolution of the American economy from the Civil War to present. Emphasis on economic performance through time measured against goals of full employment, price stability, and rapid growth. Course taught as Writing Intensive (WI) and Speaking Intensive (SI

Prerequisite: ECO 201. Crosslisted as: Same as HIS 518. Offered: (Spring).

## ECO 523 - Topics in Public Policy (3)

(3:3)
Examination of market failure, public goods, economic efficiency, and income incidence, allocative effects, and public policy.
Prerequisite: ECO 301. Offered: (Fall).

## ECO 530 - Urban and Regional Economics (3)

Application of analytical tools of economics to explain economic organization of cities, metropolitan areas, and larger regions and to deal with their economic problems. Problem areas analyzed include growth, poverty, housing, transportation.

Prerequisite: ECO 301.

## ECO 553 - Economic Forecasting (3)

Forecasting economic trends and fluctuations. Applications for regression analysis, exponential smoothing techniques, and Box-Jenkins procedures to forecast such economic variables as gross national product and unemployment levels.

Prerequisite: ECO 351.

## ECO 555 - History of Economic Thought (3)

Main currents in evolution of economic thought with emphasis on classical and neoclassical schools and developments in economic ideas during twentieth century.

Prerequisite: ECO 202. Offered: (Fall).

## ECO 570 - Topics in Labor Economics (3)

## (3:3)

Advanced theory and research related to labor supply and demand theory, investments in human capital, job search theory, migration, unemployment, theories of discrimination, income distribution theory, and public policy.
Prerequisite: ECO 301.
ECO 575 - Industrial Organization and Public Policy (3) (3:3)

Theoretical and empirical study of firms relative to their rivals, suppliers, and customers. Use of theory and industry studies to understand the nature of competition and consequences of imperfect competition.

Prerequisite: ECO 301.

## ECO 589 - Experimental Course

This number reserved for experimental courses. Refer to the Course Schedule for current offerings.
ECO 613 - Directed Studies in Economics II (1-3)
(1-3)
Individual study of an advanced topic in economics. Regular conferences with the instructor are required.
Prerequisite: Graduate admission and permission of the Director of Graduate Study in economics and the professor who will supervise the study.

## ECO 619 - Mathematical Economics (3)

Reviews statistics and probability, matrix algebra and optimization and introduces theory and applications in integral calculus and differential equations.
Prerequisite: ECO 301, ECO 319 or equivalent.

## ECO 641 - Microeconomics I (3)

Theory of consumer and firm behavior under certainty and uncertainty including exchange, production, income distribution, market structure and welfare economics.
Prerequisite: ECO 301, ECO 619, or permission of instructor.

## ECO 642 - Microeconomics II (3)

## (3:3)

Examination of market failures that can occur within competitive, decentralized market systems. Topics include market power, uncertainty, asymmetric information, externalities, and public goods.

Prerequisite: ECO 641 or permission of instructor.

## ECO 643 - Econometric Methods (3)

## (3:3)

Introduction to advanced econometric applications. Topics include seemingly unrelated regressions, simultaneous equations, identification, two-stage least squares, probit, tobit, sample selection models; application to economic data using Stata or other s

Prerequisite: ECO 351, ECO 619, or permission of instructor.

## ECO 644 - Econometric Theory (3)

## (3:3)

Theory of econometric models: topics include the standard linear model, classical assumptions, violations of assumptions, hypothesis testing, and corrective procedures; application to economic data using SAS or other statistical software.

Prerequisite: ECO 643 or permission of instructor.

## ECO 646 - Macroeconomics (3)

Advanced theory of aggregate economic activity. Economic models developed to explain economic growth, activity, and fluctuations based on classical, Keynesian, monetarist, and new classical schools of thought.
Prerequisite: ECO 619, ECO 641, or permission of instructor.

## ECO 652 - Advanced Economic and Business Statistics I (1.5-3)

(1.5-3)

Topics will include regression analysis, analysis of variance, and nonparametric tests. SAS is employed.
Prerequisite: MBA 600, MBA 610, or permission of instructor.

## ECO 691 - Economics Internship (1-3)

(1-3)
Individual course of study consisting of an applied economics and/or data analysis component and written work that complements the program's academic work. Supervised by faculty and an appropriate manager.

Prerequisite: Permission of the MA Program Director.

## ECO 694 - Literature Review Seminar (2)

## (2:2)

Students present their proposed research project, write a literature review, and present their on-going research.
Prerequisite: ECO 644, ECO 646, or permission of instructor.

## ECO 695 - Seminar and Research in Economics II (4)

Supervised independent research culminating in the completion of an economic research paper or project.
Prerequisite: Permission of Director of Graduate Study.

## ECO 699 - Thesis (1-6)

(1-6)

## ECO 711 - Experimental Course

This number reserved for experimental courses. Refer to the Course Schedule for current offerings.

ECO 712 - Directed Studies in Economics III (1-3)
Individual study of an advanced topic in economics. Regular conferences with the instructor are required.

Prerequisite: Permission of Director of Graduate Study.

## ECO 721 - Empirical Microeconomics (1-4)

(1-4)
Examines empirical investigations of advanced microeconomic theory including experimental and nonexperimental designs and natural experiments. Applications vary by semester but are typically drawn from labor, health, public and financial economics.

Prerequisite: ECO 641, ECO 643, ECO 644, or permission of instructor.

ECO 722 - Time Series and Forecasting (1-4)
(1-4)
Students learn to analyze and forecast time series data. Topics include stochastic linear difference equations, tests for trends and stationarity, and ARIMA modeling. Application to economic data emphasized.

Prerequisite: ECO 643, ECO 644, ECO 646, or permission of instructor.

## ECO 723 - Predictive Data Mining (1-4)

(1-4)
Provides a working knowledge of statistical tools important to the emerging and practically relevant field of predictive data mining and the discovery of patterns in big data sets.

Prerequisite: ECO 643 and ECO 644 or permission of instructor.

## ECO 725 - Data Methods in Economics (3)

## (3:3)

Advanced techniques in data preparation; topics include data formats, error checking, merging data, large data sets, and missing observations. Students work extensively with SAS and STATA in the UNIX environment.
Prerequisite: ECO 721 or permission of instructor.

## ECO 726 - Data Project in Economics (3)

A supervised empirical project. Students identify research questions, develop empirical models and assemble data, test models and their predictions, and present results and interpretations orally and in writing.
Corequisite: ECO 725 or permission of instructor.

## ECO 731 - Applied Policy Methods (3)

Provides applied foundation for policy study with emphasis on an economic efficiency perspective including history of policy analysis, market and government failure, and alternative methods for policy analysis.

Prerequisite: ECO 642 and ECO 644 or permission of instructor.

## ECO 732 - Appraising Economics (2)

## (2:2)

Examines historical and methodological issues in applied economics research. Topics include the limitations of theoretical and empirical analysis, the question of progress in economics, and alternative approaches to economic analysis.
Prerequisite: ECO 642 and ECO 644 or permission of instructor.

## ECO 733 - Special Topics in Applied Public Policy (2)

 (2:2)Application of economic theory and policy evaluation tools to a specific public policy issue.

Prerequisite: ECO 731 or permission of instructor.
ECO 734 - Public Policies Toward innovation and Sustainability (3:3)

## (3:3)

Examines public-sector innovation and sustainability policies from a domestic and global perspective.

Prerequisite: ECO 642, 644, and 731 or permission of instructor.

## ECO 735 - Labor Economics (1-4)

(1-4)
Examines the operation of the labor market, its institutions, and labor market policies. Topics include labor supply and demand, returns to education, family and household economics, wage inequality, and unions.

Prerequisite: ECO 641 and ECO 642, or permission of instructor.

## ECO 736 - Public Economics (1-4)

(1-4)
Examines governmental expenditures and taxes and the constraints imposed on them within a federal, multitiered governmental structure. Topics include education, public health, housing and community development, infrastructure, and environmental regulation
Prerequisite: ECO 641 and ECO 642, or permission of instructor.

ECO 737 - Health Economics (1-4)
(1-4)
Examines the market for health services and the production of health. Topics include the demand and supply for health care professionals, health insurance and financing, and regulation of medical markets.

Prerequisite: ECO 641 and ECO 642, or permission of instructor.

## ECO 738 - Topics in Economics (1-4)

(1-4)
Application of economic theory and econometrics to a specific topic in public, labor, or health.

Prerequisite: ECO 641 and ECO 643 or permission of instructor.

## ECO 739 - Independent Field Course (1-4)

(1-4)
A faculty-directed, independent study of a research area that is particularly related to a student's primary field of interest.

Prerequisite: ECO 641, ECO 642, and permission of Director of Graduate Study.

## ECO 741 - Advanced Mathematical Economics (3)

## (3:3)

Mathematical concepts and techniques that are used in advanced economic theory. Material includes sets and functions, constrained and unconstrained programming, and difference and differential equations.

Prerequisite: ECO 619, ECO 641, or permission of instructor.

## ECO 742 - Advanced Microeconomic Theory (3)

## (3:3)

Examines decision making by households and firms with an emphasis on the meaning and empirical interpretation of theoretical models. Topics include duality theory, general equilibrium, and welfare economics.

Corequisite: ECO 741 or permission of instructor.
ECO 743 - Advanced Microeconomic Theory II (3)

Examines decision making under uncertainty and in strategic environments, covering probability and risk, expected utility, a brief discussion of complete information games, and more intensively, incomplete information games.

Prerequisite: ECO 742 or permission of instructor.

## ECO 745 - Advanced Econometric Theory (3)

(3:3)
Presents fundamental concepts in statistics and least squares estimation and inference within single-equation linear models, instrumental variable approaches, and multivariate regression contexts. Concludes with introduction to nonlinear regression. Inclu

Corequisite: ECO 741 or permission of instructor.

## ECO 746 - Advanced Econometric Theory II (3)

 (3:3)Advanced methods in microeconometric analysis Covers linear models for panel data with unobserved heterogeneity, M-estimators, maximum likelihood, generalized methods of moments, and discrete response models. Includes lab.

Prerequisite: ECO 745 or permission of instructor.

## ECO 754 - Applied Theory I: Game Theory (2)

Examines decision making under uncertainty and in strategic environments, covering probability and risk, expected utility, complete information games, and, more intensively, dynamic games and games of incomplete information.

Prerequisite: ECO 742 or permission of instructor.

## ECO 755 - Applied Theory II: Economics of Information

 (2)An examination of adverse selection and moral hazard in labor, insurance, and credit markets. Students learn the impact of information imperfections on individual choice, equilibrium, welfare, and regulation.

Prerequisite: ECO 742 or permission of instructor.

## ECO 756 - Applied Theory III: Intertemporal Economics

 (2)Examines concepts and tools required to build and understand dynamic economic models; theory is applied to topics including job search, human capital formation, savings decisions, and related policy issues.

Prerequisite: ECO 742 or permission of instructor.

## ECO 757 - Applied Theory IV: Public Goods (2)

(2:2)
Analysis of public goods, non-market decision-making, and the implications for public policy. Emphasis on constraints imposed by such decision-making on policy and evaluation of policies under alternative normative criteria.

Prerequisite: ECO 742 or permission of instructor.

## ECO 758 - Applied Theory V: Directed Study (2)

## (2:2)

A faculty-directed, independent study of applied theory for a topic particularly related to a student's primary field of interest.

Prerequisite: ECO 742 and permission of Director of Graduate Study.

## ECO 761 - Advanced Econometrics I (2)

## (2:2)

Advanced methods in microeconometric analysis. Covers M-estimators, maximum likelihood, generalized methods of moments, and discrete response models.

Prerequisite: ECO 745 or permission of instructor.
ECO 762 - Advanced Econometrics II (2)

## (2:2)

Advanced methods in microeconometric analysis. Covers linear models for panel data with unobserved heterogeneity, count data, and duration analysis.
Prerequisite: ECO 745 or permission of instructor.
ECO 763 - Applied Econometrics (1-4)
(1-4)
Advanced methods in microeconometric policy evaluation. Issues include sample attrition, stratified sampling, and weighting procedures. Applications include estimating treatment effects, dealing with self-selection, and using duration analysis. Includes I
Prerequisite: ECO 745 or permission of instructor.
ECO 797 - Seminar in Empirical Economics (3-6) (3-6)
A supervised seminar in which students formulate a major empirical research project and identify, collect, and assemble the data required to pursue that research.

Prerequisite: Permission of Director of Graduate Study.

ECO 798 - Seminar in Economic Research (3-6)
(3-6)
A supervised research seminar in which students complete an extensive review of the literature in their chosen area of research specialization.

Prerequisite: Permission of Director of Graduate Study.
ECO 799 - Dissertation (1-12)
(1-12)
ECO 801 - Thesis Extension (1-3)
(1-3)
ECO 802 - Dissertation Extension (1-3)
(1-3)
ECO 803 - Research Extension (1-3)
(1-3)

## ELC - Educational Leadership and Cultural Foundations

ELC 506 - Institutes in Education (1-3)
(1-3)
Practicum or workshop experiences to focus on issues, problems, or approaches in the profession.
ELC 581 - Teaching in the Urban School (3)
(3:3)
This course is designed to provide an opportunity for educators to examine research and literature related to the problems of teaching in the urban school.
Prerequisite: Admission to the Teacher Education Program or permission of instructor.

## ELC 589 - Experimental Course

This number reserved for experimental courses. Refer to the Course Schedule for current offerings.

ELC 604 - Moral Dimensions of Education (3)

Values involved in educational decision making; application of various moral discourses to educational practices.

Prerequisite: ELC 696 or ELC 697 or their equivalents.

## ELC 609 - Epistemology and Education (3)

(3:3)
An overview of several systems of knowledge and the problems of knowing, knowing how, and belief. Deals with intellect, rationality, and positional knowledge.

Prerequisite: ELC 696 or ELC 697 or their equivalents.

## ELC 615 - Foundations of Curriculum (3)

## (3:3)

Historical, cultural, and sociopolitical foundations of curriculum theory and practice. Emphasis on ideological shifts in transformative practice, curriculum development/analysis, and relations between curriculum, individual, and society.

## ELC 616 - Culturally Responsive Leadership (3)

## (3:3)

Theories of and strategies related to culturally responsive leadership that will prepare K-12 school leaders to develop effective and equitable, multicultural school communities.

## ELC 625 - Seminar in Teaching and Social Foundations of Education (3)

(3:3)
Critical consideration of the purpose and philosophy of undergraduate social foundations courses, perspectives and approaches to teaching, and reflection on issues and problematics of critical pedagogy.
ELC 659 - Education Finance (3)

## (3:3)

Financial management of education; how funds are provided for public education, administered, and effectively utilized. Issues of equity in hte provision of school services and support.

## ELC 660 - The School Principalship (3)

For prospective principals. Functions in organizing people to meet educational goals, leadership in instruction, supervision, curriculum design and development, personnel administration, and ethical and legal responsibilities.

## ELC 661 - Ethics and Education (3)

## (3:3)

Appraisal of human aims and practices, attitudes towards character, and conceptions of desirable human life, as these are related to educational theory and practice.

Prerequisite: ELC 696 or ELC 697 or their equivalents.

ELC 662 - Power, Politics, and Schools (3)
(3:3)
The politics of education as the set of interactions that influence and shape the authoritative allocation of values in this society and its educational organizations.

ELC 663 - Educational Administration in Historical Perspective (3)
(3:3)
Evolution of administrative thought and practice in ancient, medieval, and modern times and their relevance to the functioning of educational organizations.
ELC 664 - Foundations of Interpretive Inquiry (3)

Theoretical and philosophical dimensions of interpretive inquiry in education; concepts that are the foundation for qualitative methodologies in educational research.
ELC 665 - Approaches to Qualitative Inquiry (3) (3:3)
Introduction to empirical qualitative research: philosophical foundations, research design strategies, methods for data collection and analysis (especially interviewing and field observation), options for reporting research. Emphasis on skill development.

Prerequisite: ELC 609, ELC 664 recommended.

## ELC 666 - Writing Preparation and Proposal Development (3)

## (3:3)

Workshop addresses dissertation process and academic professional development in ways that build on the theory and practice of scholarly writing.

## ELC 670 - Leadership for Teaching and Learning (3)

## (3:3)

Examines conceptions of 'good' schools and the nature of instruction, curriculum, assessment, and professional development. Explores leadership, change, and school renewal that works toward good schooling and pedagogy.
Prerequisite: Admission to MSA, PMC, EdS, or EdD program in educational leadership or permission of instructor.

## ELC 671 - Principal Fellows Seminar (3)

Provides enrichment activities for Principals Fellows as required by the Principal Fellows Program.

Prerequisite: Enrollment as a Principal Fellow.

ELC 672 - Technology and Administrative Leadership (3)

How school leaders can use technology to meet their management, instructional, inquiry, and problem solving responsibilities.
ELC 673 - Principal Leadership for Special Education (3) (3:3)
Strategies school principals can use to advocate and implement programs for exceptional children that are effective for students and compliant with legal requirements.

## ELC 675 - Schools as Centers of Inquiry (3)

## (3:3)

Effective schools function as professional learning communities characterized by a culture of inquiry and collaboration. Builds the skills of students in facilitating individual and whole school inquiry.

Prerequisite: Admission to MSA, PMC, EdS, or EdD program in educational leadership or permission of instructor.

## ELC 676 - Educational Sociology: Race, Class, and Gender Power Dynamics (3)

Key sociological concepts and theories are utilized to analyze, critique, and understand how power operates on both micro and macro levels within United States educational systems.

## ELC 678 - Feminist Theories and Education (3)

Where feminism and education intersect, specifically how gender and other social categories impact lived experience. Political, economic, social inequities studied to transfer theory and practice in educational contexts.
ELC 679 - History of Education in the United States (3)

## (3:3)

Historical foundations of the educational system in the U.S. Contributions of selected educational leaders and the responses of the educational system to the dilemmas posed by major events and movements in the history of the country.

## ELC 680 - Transnational and Postcolonial Feminist Perspectives (3)

(3:3)
Study of transnational and postcolonial feminist perspectives in multiple world regions. Emphasis on global political developments, grassroots efforts to use education as social change, and developing critical power literacies.

## ELC 683 - Engaging the Public in Education (3)

 (3:3)Examination of parent involvement in schooling, school/family/community partnerships, civic deliberation about education, school's role in community transformation. Emphasis on equity/justice, school's accountability to the public, research evidence, effective practice.

ELC 684 - Teacher Rights, Recruitment, Retention, and Evaluation (3)

## (3:3)

Processes and systems to recruit, induct, support, evaluate, develop, and retain a high quality staff. Legal and ethical reasoning systems influencing school administrators with regard to teachers' legal rights.
ELC 685 - Passionate Pedagogies (3)
(3:3)
Examination of how passion, on the part of both teachers and learners, can become a motivating force for deeper understandings of ourselves and critical social issues.

## ELC 686 - Curriculum Theory (3)

## (3:3)

The nature of theory and of theory building; application of theoretical criteria to the field of curriculum.
Prerequisite: ELC 515 or its equivalent.

## ELC 687 - Legal and Ethical Dimensions of Leadership (3)

The constitutional and statutory precedents and principles underlying the roles of federal, state, and local governments in public education. Recent court decisions relating to public education; development of awareness of freedoms and constraints of law
Prerequisite: Basic knowledge of history of American education, governance and organization of education and basic U.S. history and/or constitutional law.

## ELC 688 - Contemporary Problems Seminar (1-3)

(1-3)
Specific course title identified each semester by subscript, e.g., Contemporary Problems Seminar; Issues in Professional Negotiations.

## ELC 689 - Seminar in Leadership Development (6)

(6)

For students from all disciplines who intend to pursue a career in administrative positions. Development of creative leadership potential and maximization of personal growth. Students requested to make emotional as well as intellectual commitment to development of leadership qualities.

Crosslisted as: MBA 689.

## ELC 690 - Practicum in Educational Administration (3-6)

## (3-6)

Planned administrative functions in appropriate school setting with objective of providing direct experience with processes and functions of educational administration. Supervision is shared responsibility of university and public school faculties.

Distribution: SVL. Prerequisite: For educational administration majors at either master's or sixth-year level. Completion of 12 hours in MSA program and permission of instructor.

ELC 691 - Urban School Organizational Leadership: Best Practices (3)

## (3:3)

Examines organizational dimensions of urban schooling (structure, culture, politics, bureaucracy, community); explores practical organizational leadership reform initiatives that aim to promote educational excellence and encourage social justice.

## ELC 692 - Independent Study (1-4)

(1-4)
Guided readings, research, and individual project work under direction of a staff member.
Prerequisite: Approval of instructor.
ELC 693 - Introduction to Critical Pedagogy (3)

## (3:3)

Introduction to the theory and practice of critical pedagogy including its relationship to critical social theory. Emphasis on education as vehicle for social change, moral critique, and personal transformation.

ELC 694 - Cultural and Political Dimensions of Schooling (3)
(3:3)
Structures and processes of school governance, including the impacts of district, state and Federal policies, and influence of special interest groups. Attention to policy development, advocacy, implementation, analysis, and critique.

## ELC 695 - Comparative Education (3)

(3:3)
Definition, purpose, and scope of comparative education; the role of such factors in education as race, language, religion, geography, economics, nationalism, socialism, and democracy; a survey of education in England, France, Germany, U.S.S.R., China, Japan, and India.
ELC 696 - Philosophies in Education (3)
(3:3)
Major philosophic viewpoints (traditional and contemporary) as they apply to education; analysis of past and present changes in educational outlook and practices.

ELC 697 - Selected Critical Issues in American Education (3)
(3:3)
Identification and analysis of selected major policy questions facing education; relationship between the social, political, and cultural milieus, and issues in education.

## ELC 698 - Gender, Art, Politics, and Pedagogy (3)

 (3:3)Focus on artists whose art is political and pedagogical. How artists use art as public voice, identity formation, documentation of public memory/history, redefinition of aesthetics, and reconstruction of learning.

## ELC 699 - Thesis (1-6)

## (1-6)

Individual guidance and direction in the development of a research problem in the master's degree thesis.
ELC 700 - Critical Perspectives in Education, Leadership, and Culture (3)
(3:3)
Explores the challenges of educational transformation, including improved teaching and learning, equity/social justice, and democracy in institutions with complex cultural contexts. Introduction to habits of mind for advanced graduate study.

## ELC 701 - The School Superintendency (3)

(3:3)
Designed for both aspiring superintendents and central office administrators. Focuses on basic knowledge and skill development around a broad range of issues critical to superintendent success.

Prerequisite: Admission to EdS or EdD program in educational leadership or permission of instructor.

## ELC 711 - Experimental Course

This number reserved for experimental courses. Refer to the Course Schedule for current offerings.
ELC 721 - Social and Cultural Change and Education (3)

Consideration of social, cultural, political, and moral challenges facing education in the 21st century. Critical social and educational perspectives on the crises of meaning, democracy, globalization, religion, and identity.

Prerequisite: ELC 696 or ELC 697 or their equivalents.

## ELC 722 - Aesthetics, Visual Studies, and Critical Pedagogy (3)

## (3:3)

Aesthetics, visual literacy, visual culture, semiotics, and their influences in contemporary education. Development of critical visual literacy for the understanding and integration of the arts in pedagogy.

## ELC 749 - Doctoral Dissertation Seminar (1-3)

(1-3)
Develop, discuss, and defend a dissertation prospectus.
Prerequisite: Permission of instructor.
ELC 750 - Advanced Seminar in School Law Research (3)
(3:3)
Case studies in school law.
ELC 751 - Cases and Concepts in Educational Leadership (3)
(3:3)
Uses cases and problem-based learning as opportunities to explore key analytic/theoretical perspectives and research evidence relevant to leadership for meaningful and equitable educational reform.

## ELC 752 - Theories in Educational Administration (3)

The nature of theory, definition, utilization; contemporary theories applied to educational administration; system theory and its application possibilities to educational administration.

## ELC 753 - Problems and Dilemmas in Administering Education (1-3)

(1-3:6)
Student/faculty teams will identify problems of administrative practice in education, identify methods or processes to study each problem, analyze problems/solutions in situ, explore alternative solutions (e.g. literature search) and develop conclusions.

ELC 754 - Personal Leadership Assessment and Enhancement (3)

For students who intend to pursue educational leadership roles and careers in administration. Emphasizes development of creative leadership potential and maximization of personal growth.

Prerequisite: Admission to EdS or EdD program in educational leadership or permission of instructor.

ELC 755 - Law and Policy in Special Education
Examination of legal, ethical, and policy perspectives in the leadership of special education programs in schools and school districts and their integration into diverse organizational settings.

Prerequisite: ELC 673 or equivalent, or permission of instructor.
ELC 767 - Qualitative Data Collection and Analysis (3) (3:3)

In-depth experience in qualitative data collection and analysis beyond the introductory level. Completion of a qualitative research project in collaboration with other students in the class.

Prerequisite: ELC 664, ELC 665, or other course in qualitative research. Crosslisted as: HED 767, TED 767.

ELC 770 - Community Engaged Research and Practice (3:3)
An in-depth exploration of the history, theory, ethics, research methods, and reporting of community-engaged research with an emphasis on positionality and reflexivity. Research practices in community settings are required.
Prerequisite: TED 730, ELC 664, ELC 665, ERM 750 or permission of instructor.

## ELC 775 - Directed Doctoral Research (3)

(3)

Individual work on dissertation research problems: collection analysis, critical review, integration, and interpretation of research literature on a topic pertinent to the student's dissertation.

Prerequisite: Doctoral students in ELC or TED/HED and permission of instructor.
ELC 790 - Internship in Educational Leadership (3-18)
(3-18)
Directed year-long internship in an appropriate educational administration field-based setting. Supervision shared by department faculty and field-based mentors.

Prerequisite: Minimum of 24 semester hours beyond the master's, or a minimum of all prerequisite courses and 24 additional semester hours for those admitted to the program without a master's degree. All such work to be approved in writing by the student's Advisory/Dissertation Committee.

ELC 799 - Dissertation (1-12)
(1-12)
Individual direction in the development and execution of a doctoral dissertation.

ELC 801 - Thesis Extension (1-3)
(1-3)
ELC 802 - Dissertation Extension (1-3)
(1-3)
ELC 803 - Research Extension (1-3)
(1-3)

## ENG - English

ENG 510 - Old English (3)

Language and literature of the Anglo-Saxon period (a.d. 600-1100). The language is studied primarily in conjunction with literary texts in the context of their history and culture.
ENG 513 - History of the English Language (3)

Origins and development of the English language, methods of historical language study, and competing theories of linguistic change. Practical emphasis on reading and analysis of texts in Old, Middle, and Early Modern English.

ENG 522 - Teaching Composition: Theories and Applications (3)

## (3:3)

Theories of the composing process and of discourse generally as they apply to the problems of teaching composition. Background studies in language and other related areas. Specific approaches to teaching composition, their rationales and their comparative

ENG 524 - Writing—Advanced: Analytical and Technical (3)
(3:3)
Problems of organization and expression in books, articles, and reports. For those writing for publication or whose work in business or government requires a great deal of writing.
ENG 531 - Feminist Theory and Women Writers (3) (3:3)

Examines gender and creativity, women's place in literary tradition, and connections among art, gender, race, and class. Focuses on contemporary theory and on literary works from one historical period.
ENG 535 - Entrepreneurship and Independent Press Publishing (3)

## (3:3)

Exploration, analysis, and participation in independent press publishing from inception to final product while practicing the entrepreneurial strategies needed to begin a successful venture.

Prerequisite: Permission of instructor. Crosslisted as: Same as ENT 535. Offered: (Spring).
ENG 537 - Middle English Literature (3)
(3:3)
Language and literature of the thirteenth-, fourteenth-, and fifteenth-century England.

ENG 540 - Shakespeare (3)
(3:3)
Major comedies, histories, tragedies selected for topical study. Related background readings and criticism.

ENG 541 - Milton (3)
(3:3)
Milton's major poems and his most important prose works in their seventeenth-century setting.

ENG 545 - Nineteenth-Century British Writers (3)

## (3:3)

Major Romantic and/or Victorian writers. Attention to poetry and prose.
ENG 549 - The Critical Canon and Contemporary Issues (3)

## (3:3)

Important critical writings from ancient Greece through the nineteenth century, emphasizing their influence upon modern theory and practice.

## ENG 550 - Modern British Writers (3)

## (3:3)

Major novelists, poets, and playwrights of the modernist period.
ENG 553 - Topics in English Studies (3)
(3:3)
Studies in selected topics in English or American literature or language.
ENG 555 - English Renaissance Drama (3)
ENG 555 - English Renaissance Drama (3)
ENG 556 - English Drama of the Restoration and Eighteenth Century (3)

ENG 556 - English Drama of the Restoration and Eighteenth Century (3)
ENG 558 - American Poetry After 1900 (3)
(3:3)
Critical and historical study of major twentieth-century American poets to World War II.

ENG 559 - Twentieth-Century British Poetry (3) (3:3)
Critical and historical study of twentieth-century British poetry to World War II.

ENG 561 - Eighteenth-Century British Writers (3) (3:3)
Selected major writers, 1660-1800, from among Dryden, Swift, Pope, Johnson, and others.

ENG 563 - American Poetry Before 1900 (3)

American poetry and related critical theory with special emphasis on Taylor, Poe, Emerson, Whitman, and Dickinson.

ENG 564 - American Prose Before 1900 (3)
(3:3)
Genres, themes, and movements of American prose, fiction and non-fiction, written before 1900.

ENG 565 - American Prose After 1900 (3) (3:3)
American prose written after 1900, with an emphasis on historical context, prose traditions in America, and the development of form, style, and genre.

ENG 582 - Modern Drama (3)

## (3:3)

Drama of late nineteenth century and twentieth century, continental, English, and American.

## ENG 589 - Experimental Course

This number reserved for experimental courses. Refer to the Course Schedule for current offerings.

ENG 590 - Literacy, Learning, and Fieldwork (4)

## (4:3:3)

Examines the historical, pedagogical, ideological and theoretical threads of literacy studies, debates and programs. Includes training/tutoring fieldwork in local literacy programs, primarily in the public libraries.

ENG 602 - Electronic Research, Writing, and Editing (3) (3:3)
Theory and application of computer technology in the study of language, rhetoric and composition, and literature, including related ethical, social, and philosophical issues.
ENG 604 - Electronic Discourse and User Documentation (3)

The study of such user documentation as reference manuals, tutorials, and operating procedures in its traditional, paper-based form and its transformation into electronic form.

## ENG 608 - Chaucer (3)

Chaucer's major works, including The Canterbury Tales and Troilus and Criseyde.
ENG 616 - Restoration and Eighteenth-Century Drama (3)

Critical and historical study of comic and serious plays from the period 1660-1800.

## ENG 617 - The Eighteenth-Century British Novel (3)

## (3:3)

Historical and critical study of such novelists as Defoe, Richardson, Fielding or Burney.
ENG 620 - Contemporary Publishing (3)
(3:3)
An introduction to current practices in the publishing industry from manuscript preparation to the printed book or magazine.

ENG 621 - Seminar on Publishing (3)

## (3:3)

Intensive study of a major area of the publishing industry from manuscript or proposal to final form as magazine or book. Topics to vary.
Prerequisite: ENG 620.
ENG 622 - Writing and Editing Internship (3)
(3:3)
Practicalexperience in writing and editing. Students work under supervision of professionals.

Prerequisite: ENG 620 or permission of instructor.
ENG 623 - Writing—Advanced: Nonfiction (3)

Workshop in writing and publishing essays and nonfiction literature (including biography, autobiography, literary and cultural criticism, and extended forms of investigative and analytical reporting).
ENG 625 - MFA Fiction Workshop (3)
(3:3)
ENG 626 - MFA Fiction Workshop (3)

ENG 627 - MFA Poetry Workshop (3)
(3:3)
ENG 628 - MFA Poetry Workshop (3)

ENG 630 - Early American Literature (3)

Literature in the New World to 1820. Topics include exploration and contact, Puritanism, the Great Awakening, the Revolution, and the rise of captivity and travel narratives and the novel.

## ENG 638 - Southern American Writers (3)

(3:3)
Principal authors, from colonial times to the present, and literary movements related to the development and influence of the Southern tradition in American literature.

ENG 639 - American Literary and Cultural Criticism (3) (3:3)
"Survey of major movements of the criticism of American literature, including the first definers of 'American' literature, the New Criticism, American Studies, Gender Criticism, New Historicism, and Ethno-Criticism."

ENG 640 - Studies in Shakespeare (3)
ENG 640 - Studies in Shakespeare (3)
ENG 641 - Elizabethean and Jacobean Drama (3)
(3:3).
Representative plays of the early modern theatre, especially various comedies and tragedies staged between 1585 and 1625, from Marlowe to Ford. Textural and cultural analysis.

ENG 646 - The Nineteenth-Century British Novel (3) (3:3).
Historical and critical study of such novelists as Austen, Dickens, Eliot, and Hardy.

ENG 650 - Modern Literary and Cultural Theory (3) (3:3)
Survey of literary theory from the linguistics of Saussure through recent developments such as poststructuralism, feminist theory, reception theory, and cultural studies. Emphasis on relationships among language, culture, and literature.

## ENG 653 - Modern Irish Literature (3)

(3:3)
Irish literature from the Literary Revival to the present, usually emphasizing Yeats, Synge, Joyce, and O'Casey.

ENG 654 - Contemporary American and British Poetry (3) (3:3)
Critical and historical study of American and British poetry from World War II to the present.

ENG 657 - James Joyce (3)
(3:3)
Study of the writings of James Joyce, with emphasis on Ulysses.

ENG 659 - Digital Literacies and Online Rhetorics (3)

## (3:3)

Analysis of online rhetorics, digital literacies, and Internet/multimedia technologies as applicable to research on readers and writers interacting within online environments.

## ENG 660 - Modern Language Theory (3)

Linguistic approaches, such as traditional, structural, and transformational-generative, to the study of English structure, American English dialects, and discourse.

## ENG 661 - Second Language Writing (3)

Survey of first and second language writing theories and research methods; pedagogical approaches to working with linguistically and culturally diverse writers.

Distribution: SVL.
ENG 663 - Postcolonial Literary and Cultural Theory (3) (3:3)

Literary and cultural theory that pertains to European colonialism and its aftermath. Topics include orientalism, colonial discourse analysis, critiques of colonialism, resistance theories, nationalism, postcolonial gender studies, globalization.

Prerequisite: ENG 701 or ENG 650 or permission of instructor.

ENG 668 - Women's Rhetoric and Feminist Pedagogy (3)
ENG 670 - Directed Master's Research (3)
(3:3)
Directed research project for students in the MEd program. To be taken at the end of the student's plan of study.

Prerequisite: Limited to MEd candidates.
ENG 671 - Graduate Tutorial in Writing: Fiction (3)

ENG 672 - Graduate Tutorial in Writing: Fiction (3)

ENG 673 - Graduate Tutorial in Writing: Poetry (3)
(3:3)
ENG 674 - Graduate Tutorial in Writing: Poetry (3)

ENG 675 - Scholarly and Critical Writing for the Profession (3)
(3)

Instruction in scholarly and professional writing for doctoral students in English. Emphasis on writing for presentation and publication in the field. Practice in disciplinary conventions through in and out-of-class exercises.

Prerequisite: Enrollment in PhD Program in English or permission of instructor.

ENG 677 - Special Problems in Writing (3)
(3:3)
ENG 678 - Special Problems in Writing (3)
(3:3)
ENG 680 - Teaching Internship in English (3)
(3)

Practice in planning and conducting college-level classes under guidance of senior faculty member. Research project in conjunction with internship, under guidance of supervisor and assigned faculty.

Prerequisite: Admission to graduate degree program.

## ENG 682 - The Structure of Verse (3)

Verse forms and sound patterns in English and American poetry.
ENG 683 - The Structure of Fiction (3)

Elements of prose fiction, with an emphasis on the theory and art of narrative structure.

Prerequisite: Admission to MFA program or permission of instructor.

## ENG 688 - Women's Rhetoric and Feminist Pedagogy (3)

Seminar in history and theory of women's rhetoric and feminist approaches to teaching. Examines women's writing and teaching in their cultural, social, ethnic, racial contexts.

ENG 689 - Institutional History of Composition Studies (3) (3:3)
History and politics of composition studies as a discipline both within the Department of English and universities as a whole.

## ENG 690 - History of Rhetoric: Classical through Renaissance (3)

## (3:3)

Origins, developments, and competing views of rhetoric from classical antiquity into the 17th century; intersections of rhetoric and public discourse, poetics, education, and gender.
ENG 691 - History of Rhetoric: Enlightenment through Contemporary (3)
(3:3)
Developments and competing views of rhetoric from the Enlightenment to the present; intersections of rhetoric and public discourse, poetics, education, and gender.

ENG 693 - Classical Rhetoric (3)

## (3:3)

Theories of persuasion of the philosophers and teachers of Greece and Rome with an emphasis on the writings of Plato, Aristotle, Cicero, and Quintillian.

ENG 697 - Composing Theories in Reading and Writing (3)
(3:3)
Theories of composition and reading and implications for research and teaching; process of theories of writing, psycholinguistic, transactional and feminist theories of reading and the connections between them.
ENG 699-Thesis (6)
ENG 701 - English Studies: Content, Methods, and Bibliography (3)
(3:3)
A general consideration of the discipline of English, the most useful materials and approaches, and the objectives, problems, and issues in the study of language and literature.

ENG 704 - Studies in Contemporary Literary and Cultural Theory (3)

Problems and topics in literary and critical theory studied in conjunction with specific cultural contexts and phenomena.

Prerequisite: ENG 701 or ENG 650.
ENG 705 - Cultural Studies (3)
(3:3)
Problems and topics in contemporary cultural studies; recent trends, issues, methods in the study of literature as a site of cultural, social, and political reflection.

Prerequisite: ENG 701 or ENG 650.

ENG 708 - Studies in Middle English Literature (3) (3:3)

Historical and cultural approach to a major work, author, genre, or topic of Middle English literature. Methodology of medieval scholarship.

ENG 710 - Studies in English Renaissance Literature (3) (3:3)
Investigation of selected authors or topics.

## ENG 711 - Experimental Course

This number reserved for experimental courses. Refer to the Course Schedule for current offerings.

ENG 712 - Studies in Sixteenth-Century British Literature (3)
(3:3)
Works of early Renaissance literature and culture, encompassing significant literary modes, major authors, and European and English intellectual concerns.

ENG 713 - Studies in Seventeenth-Century British Literature (3)

## (3:3)

Selected writers, topics, and genres characteristic of the Stuart era in English literature. Topics include 17th century English lyrics and 17th century prose.

ENG 714 - Studies in Shakespeare (3)
(3:3)
Problems of text, interpretation, and structural, stylistic, and character analysis of selected plays or poems.

ENG 717 - Studies in Eighteenth-Century British Literature (3)

Study of a major author, movement, or genre, 1660-1800.
ENG 719 - Studies in British Romanticism (3)
(3:3)
Study of one or more British Romantic writers, and of Romanticism as a movement.

ENG 721 - Studies in Victorian Literature and Culture (3)

Topics in Victorian literature, with emphasis on such broad cultural issues as empire, gender, industrialization, or aestheticism.

ENG 724 - Studies in British Literature after 1900 (3)

Selected modern and contemporary writers, such as
Conrad, Shaw, Forster, Larkin, Stoppard, and Byatt.
ENG 725 - Studies in Modernism (3)
(3:3)
Study of literary modernism in the period 1890-1940, with particular emphasis on the range of textual and ideological experiment characteristic of the era.

ENG 729 - Postcolonial Literatures (3)
(3:3)
Postcolonial literature from South Asia, Africa, the Caribbean, Australia and Canada in critical and historical context.
ENG 730 - Studies in American Literature (3)

## (3:3)

Exploration of topics in American literature to connect works from different periods, genres, and communities, uncovering broad patterns and trends.

ENG 731 - Studies in American Literature before 1900 (3) (3:3)
Selected major literary figures and movements.
ENG 733 - Studies in American Literature after 1900 (3)
(3:3)
Selected major literary figures and movements.
ENG 734 - Studies in American Women Writers (3)

Intensive study of a particular area of American women's writing and affiliated critical work.
ENG 735 - Studies in African-American Literature (3) (3:3)
Topics, theories, movements, and authors that comprise the African-American literary tradition.

ENG 737 - Studies in Multi-Ethnic American Literature (3) (3:3)
Literatures of American ethnic groups, especially lesstaught texts written by Chicano/Latino/Latina-, Asian-, African-, Native-, and Euro-Americans (Jewish, Italian, Irish, German, etc.).
ENG 740 - Studies in Contemporary and Postmodern American Literature (3)

Topics in contemporary and postmodern American literature, culture, and theory.

ENG 742 - Studies in Rhetorical Theory and Practice (3) (3:3)
Themes, eras, and/or theorists in the history of rhetorical theory and practice.

ENG 744 - Seminar in Composition Studies (3)
(3:3)
Studies in special topics related to literacy, the process of composing, composition pedagogy, and composition research.
Prerequisite: ENG 522, ENG 747, or permission of instructor.

## ENG 745 - Seminar in Writing Program Administration

 (3)Focus on current theories and practices of writing program administration; design and implementation of first-year and writing-intensive program curricular development, assessment and review; and historical studies of the WPA.

ENG 746 - Studies in Contemporary Rhetorical Theory (3:3) (3)

Problems and topics in contemporary rhetorical theory; recent trends, issues, methods of rhetorical theory and related disciplines.

ENG 747 - Teaching College Writing (3)
(3:3)
The teaching of first-year writing at the college level, including history and theories of writing pedagogy and current best practices.
Prerequisite: Teaching assistant appointment in English.

## ENG 778 - Directed Reading (3-6)

(3-6)
Individual conferences. Program of reading formulated to meet the varying needs of each student.
Prerequisite: Admission to PhD program, 24 hours of course work beyond the MA, and permission of the Director of Graduate Study.

## ENG 780 - Independent Doctoral Study (1-6)

(1-6)
Intensive review of literature and criticism in a given field in preparation for preliminary examination or dissertation.
Prerequisite: 36 hours of PhD course work and permission of Director of Graduate Study.

ENG 799 - Dissertation (1-21)
(1-21)
ENG 802 - Dissertation Extension (1-3)
(1-3)
ENG 803 - Research Extension (1-3)
(1-3)

## ENT - Entrepreneurship

## ENT 535 - Entrepreneurship and Independent Press Publishing (3)

## (3:3)

Exploration, analysis, and participation in independent press publishing from inception to final product while practicing the entrepreneurial strategies needed to begin a successful venture.

Prerequisite: Permission of instructor. Crosslisted as: Same as ENG 535. Offered: (Spring).

ENT 540 - Social Entrepreneurship: Justice and a Green Environment (3)

## (3:3)

Interdisciplinary engagement of social entrepreneurship as model for change on an issue of environmental sustainability. Exploration of models that respond to social, economic, environmental, and justice issues.

Prerequisite: Upper-division undergraduate or graduate student status. Crosslisted as: Same as BUS 540, CPS 540, CST 540, SWK 540, WGS 540.

## ENT 589 - Experimental Course: Theatre Entrepreneurship (3)

## (3:3)

Entrepreneurial concepts applied to the formation and management of a new theatre/performing arts company.
Offered: (Offered fall '08).

## ENT 605 - Entrepreneurial Family Business (3)

## (3:3)

Explores and analyzes in detail the management, ownership, family/business leadership skills, succession, and governance practices found in entrepreneurial familyowned and family-controlled businesses.

Crosslisted as: BUS 605.

## ENT 606 - International Entrepreneurship (3)

## (3:3)

Issues related to starting, joining, or holding stakes in international ventures, the creation and management of business ventures that have international dimensions, economic and formal/informal institutions affecting entrepreneurship.

Crosslisted as: BUS 606.
ENT 607 - Entrepreneurship: Venture Opportunities and Plan (3)

## (3:3)

Knowledge and skills to evaluate ideas to determine if they are potential opportunities by developing a feasibility analysis, culminating in a venture plan. to launch and grow a new business.
Crosslisted as: BUS 607.

## ENT 608 - Corporate Entrepreneurship (3)

Examination of the challenges and opportunities for employees and organizations in creating and maintaining an entrepreneurial culture. Students consult with local for profit or non-profit organizations to perform an entrepreneurial audit.

Crosslisted as: BUS 608.
ENT 609 - Franchising (3)

Develop knowledge and skills needed to succeed as a franchisee, franchisor, or franchise executive, including understanding the Franchise Disclosure Document and the role of entrepreneurship in franchising.
Crosslisted as: BUS 609.

## ENT 615 - Entrepreneurship for the Sciences (3)

Develop knowledge and skills in entrepreneurship to identify and evaluate science and technology ideas in chemistry and the life sciences as opportunities to take through the feasibility and business plan.
Crosslisted as: CHE 615.

## ENT 616 - Entrepreneurship in Clinical Settings (2)

## (2:2)

Develop knowledge and skills in entrepreneurship to effectively build and implement a successful business model (e.g. private practice) for the design and delivery of clinical practices, or related services.

Crosslisted as: CED 616.
ENT 661 - Entrepreneurial Career Development in Music (3)

## (3:3)

Focus on the entrepreneurship knowledge, skills, and career development to enable students to become the architect of his/her future.

Crosslisted as: MUS 661.
ENT 671 - Issues in Apparel and Related Industries Entrepreneurship Research (3)

Current state of research on entrepreneurship studies in general and particularly within the apparel and related products industry.

Crosslisted as: CRS 671.
ENT 672 - Web Programming (3)
(3:3)
Apply fundamental programming concepts in designing and implementing applications for the web. Foundations for developing web applications.

Crosslisted as: ISM 672.
ENT 677 - Entrepreneurship Opportunities in Healthy Aging (3)

## (3:3)

Examination of entrepreneurship opportunities related to the aging population, with specific attention to products and services that extend the healthy lifespan. Includes development of Business Opportunity Analysis.

Crosslisted as: GRO 677, KIN 677.
ENT 701 - Promoting and Protecting Health through Entrepreneurship (3)

Introduction to Federal Small Business Research grant mechanisms for entrepreneurial research. Preparation of a grant proposal for submission to NIH, CDC, or Department of Education.

Crosslisted as: HEA 701.

## ENT 711 - Experimental Course

This number reserved for experimental courses. Refer to Course Schedule for current offerings.

## ENT 803 - Research Extension (1-3)

(1-3)

## ERM - Educational Research Methodology

ERM 517 - Statistical Methods in Education (3) (3:3)
Introductory course in applied descriptive statistics, correlational methods, and linear regression that provides a conceptual and theoretical foundation for more advanced work and a thorough grounding in the use of computers for descriptive statistical analysis, and interpretation of results.
Prerequisite: Elementary algebra.
ERM 600 - Validity and Validation

## (3:3)

Validity is fundamental to all testing operations. The course covers seminal theories, critical perspectives, as well as prominent validation research of critical importance to professionals working in diverse industry settings.
ERM 604 - Methods of Educational Research (3)
(3:3)
Techniques and uses of research in education. Designed to provide the student with the ability to read, understand, and critically evaluate published empirical research.
ERM 605 - Educational Measurement and Evaluation (3)

For teachers, counselors, and administrators. Principles of measurement and evaluation; methods of scoring and interpreting tests. Construction and use of teacher-made tests. Statistical concepts basic to understanding and interpreting test data.
ERM 633 - Second Language Assessment and Testing (3)

## (3:3)

Theoretical and practical issues related to second language testing with special attention paid to the assessment of English as a second language, world Englishes, and foreign languages.

ERM 636 - Advanced Studies in Second Language Testing (3)

## (3:3)

Language testing for English and foreign language learners as well as the World Englishes domain. Policies, theories, research, and tools employed to measure different language modalities.
ERM 642 - Evaluation of Educational Programs (3)

## (3:3)

Existing and emerging formulations of educational evaluation. Developing operational guidelines for conducting evaluations in educational settings.
Prerequisite: Permission of instructor and ERM 617 or equivalent.

## ERM 643 - Applied Educational Evaluation (3)

## (3:3)

An application course that uses modern evaluation models, data collection, statistical analyses, and interpretation of findings to establish the effectiveness and utility of an educational program.

Prerequisite: ERM 642.

## ERM 667 - Foundations of Educational Measurement

 Theory (3)Statistical foundations, classical test theory, reliability, validity, item analysis, and norms; selected topics in modern test theory. Designed for those who will develop, evaluate, and select measurement instruments in their professional roles.
Prerequisite: ERM 680 or equivalent course.
ERM 668 - Survey Research Methods in Education (3) (3:3)

Theory, methods, and procedures of survey research as this methodology is applied to problems in education. Sampling from finite populations.

Prerequisite: ERM 617 and ERM 680 or equivalent.

## ERM 669 - Item Response Theory (3)

## (3:3)

Conceptual and mathematical foundations, parameter estimation, tests of model assumptions and goodness of fit, and practical applications of IRT.
Prerequisite: ERM 667, and either ERM 681 or STA 662, or equivalent courses and permission of instructor.

## ERM 675 - Data Presentation and Reporting (3)

## (3:3)

Modern techniques for summarizing and visualizing univariate and multivariate data using various statistical and graphical software packages. Covers theories and research on graphics and the perception of visual data.

Prerequisite: ERM 680.
ERM 680 - Intermediate Statistical Methods in Education (3)
(3:3)
Applied descriptive and inferential statistics. Topics include applied probability, power analysis, chi-square distributions, hypothesis testing for a variety of applications, and correlation and regression. Concept learning, applications, and computer analyses are stressed.

Prerequisite: Elementary algebra.
ERM 681 - Design and Analysis of Educational Experiments (3)

## (3:3)

Advanced inferential statistics including factorial ANOVA, repeated measures design, multiple regression, ANCOVA, log-linear analysis. Applications in education and the social sciences.

Prerequisite: ERM 680 or equivalent, or permission of instructor.

## ERM 682 - Multivariate Analysis (3)

## (3:3)

Multivariate normal distribution. Cluster analysis, discriminant analysis, canonical correlation, principal component analysis, factor analysis, multivariate analysis of variance. Use and interpretation of relevant statistical software.
Prerequisite: ERM 680 and ERM 681, or STA 573, or STA 662, or permission of instructor. Crosslisted as: STA 671.

## ERM 685-R for Education and the Social Sciences

Using R to learn about programming fundamentals, data management, automating large numbers of analyses, conducting simulation studies, conducting specialized analyses, and producing high quality graphics.
Prerequisite: ERM 680, 681, or permission of instructor.

ERM 688 - Contemporary Problems Seminar (1-3)
(1-3)
Specific course title identified each semester by subscript, e.g., Contemporary Problems Seminar; Issues in Professional Negotiations.

Prerequisite: Advanced master's or doctoral standing, or permission of instructor.

## ERM 692 - Independent Study (1-4)

(1-4)
Guided readings, research, and individual project work under direction of a staff member.
Prerequisite: Permission of instructor.
ERM 693 - Seminar in Advanced Research Methods (3) (3:3)
Advanced techniques of research or measurement applied to educational or social and behavioral science problems.

Prerequisite: ERM 604, ERM 605, ERM 680, ERM 681, or equivalent.
ERM 699 - Thesis (1-6)
(1-6)
Individual guidance and direction in the development of a research problem in the master's degree thesis.

## ERM 711-Experimental Course

This number reserved for experimental courses. Refer to the Course Schedule for current offerings.
ERM 725 - Applied Methodsof Educational Research (3)

Investigates procedures and methodologies necessary to pursue research problems in measurement, evaluation, and applied statistics. Student work must demonstrate the ability to organize and conduct a research project.
ERM 726 - Advanced Topics in Educational Measurement (3)

Technical developments and applications in classical test theory, item response theory, generalizability theory, models of selection bias, differential item functioning, and test score equating.

Prerequisite: ERM 680, ERM 667 or permission of instructor.

## ERM 727 - Computer-Based Testing: Methods and Applications (3)

## (3:3)

Computer-based testing applications including automated test assembly, item banking, computer-adaptive and multistage testing, web-based testing, large scale assessment development and support systems, and computer-based performance assessments. Covers state-of-the-art research and developments.

Prerequisite: ERM 667.
ERM 728 - Exploratory and Confirmatory Factor Analytic Methods for Scale Construction (3)

Exploratory and confirmatory factor analysis methods for developing and validating measurement scales. Includes PCA, common factor models, and structural equation modeling applications using SPSS, SAS, Systate and LISREL statistical packages.
Prerequisite: ERM 682 or permission of instructor.
ERM 729 - Advanced Item Response Theory (3) (3:3)
Estimation techniques for various unidimensional dichotomous and polytomus IRT models using various software packages. IRT applications such as computerized testing, equating, test construction, and differential item/test functioning are also covered.
Prerequisite: ERM 669 or equivalent.
ERM 730 - Practicum in Educational Research and Evaluation (3)
(3)

Field-based and mentored practicum.
Prerequisite: Permission of instructor.

## ERM 731 - Structural Equation Modeling in Education (3)

## (3:3)

Formulation of structural models, estimation of structural coefficients using LISREL, estimation of model fit, confirmatory factor analysis models, practical applications.

Prerequisite: ERM 682 or permission of instructor.

ERM 732 - Hierarchical Linear Modeling (3)

## (3:3)

Structure of hierarchical data, random intercepts, individual change/growth models, applications in metaanalysis, assessing hierarchical models, hierarchical generalized linear models, hierarchical models for latent variables, cross-classified random effects, estimation.

Prerequisite: ERM 682, STA 671, or permission of instructor.

ERM 734 - Equating (3)

Equating designs, equating and scaling assumptions, design of anchor sets, observed score equating methods, true-score equating methods, standard error of equating, use and interpretation of relevant statistical software.
Prerequisite: ERM 681, ERM 667, or permission of instructor.

ERM 735 - Multidimensional Item Response Theory (3) (3:3)
Multidimensional item response theory models including their estimation, representation, and application. Use of relevant estimation and graphing software discussed.
Prerequisite: ERM 669 and ERM 729 or permission of instructor.

ERM 742 - Advanced Topics in the Evaluation of Educational Programs (3)

Theoretical understanding of evaluation design and strengthening of practical program evaluation skills.
Prerequisite: ERM 642 and permission of instructor.
ERM 750 - Case Study Methods in Educational Research (3)

Overview of the methodology of case study research; enhancement of students' skills in using case study methods.
Prerequisite: ERM 604, ERM 642, or equivalent.
ERM 775 - Directed Doctoral Research (1-6)
(1-6)
Individual work on dissertation research problems: collection and analysis of data; critical review, integration, and interpretation of research literature on a topic pertinent to the student's dissertation.

Prerequisite: Doctoral students in ERM and permission of instructor.

ERM 799 - Dissertation (1-12)
(1-12)
Individual direction in the development and execution of a doctoral dissertation.

ERM 801 - Thesis Extension (1-3)
(1-3)
ERM 802 - Dissertation Extension (1-3)
(1-3)
ERM 803 - Research Extension (1-3)
(1-3)

## FIN - Finance

## FIN 589 - Experimental Course

This number reserved for experimental courses. Refer to the Course Schedule for current offerings.

FIN 613 - Directed Studies (3)
(3)

Individual study of problems in the field of finance.
Regular conferences with instructor required.
Prerequisite: MBA 630 and permission of Director of MBA program and instructor who will supervise study.

## FIN 711 - Experimental Course

This number reserved for experimental courses

## FRE - French

FRE 507 - Teaching French through French Literature (3)

Strategies for teaching the French language through its literature. All major genres represented.

Prerequisite: FRE 353 or departmental permission.
FRE 511 - The Theory and Practice of French Translation (3)
(3:3)
An exploration of the theory and practice of translation from and into French.

Prerequisite: FRE 315 or permission of instructor.

FRE 532 - French and Francophone Civilization and Culture (3)

## (3:3)

Study of the vast heritage of French civilization. Discovery of the historical, geographical, sociological, political, cultural, and artistic life of France and the Francophone world.
Prerequisite: FRE 331, FRE 332, or FRE 496, or permission of instructor.

FRE 553 - Topics in French Literary Movements (3) (3:3)
In-depth study of a major literary trend: mannerism, classicism, realism, naturalism, and others.

Prerequisite: FRE 353 or departmental permission.

## FRE 554 - Topics in French Prose Fiction (3)

(3:3)
Studies in prose fiction-roman, conte, nouvelle, etc.through a variety of critical and historical approaches, each topic focusing on one such approach.

Prerequisite: FRE 353 or departmental permission.
FRE 555 - Topics in French Poetry (3)
(3:3)
Studies in French poetry through a variety of critical and historical approaches.

Prerequisite: FRE 353 or departmental permission.
FRE 556 - Topics in French Theatre (3)

## (3:3)

Studies in French theatre through a variety of critical and historical approaches.
Prerequisite: FRE 353 or departmental permission.
FRE 557 - Advanced Topics in French Literature (3)
(3:3)
Nontraditional perspectives on literature in the French language: thematic topics, and others.

Prerequisite: FRE 353 or departmental permission.

## FRE 558 - Topics in Francophone Literature (3)

Studies in Francophone literature through a variety of aspects or genres, each topic focusing on one such aspect or genre.
Prerequisite: FRE 353 or departmental permission.

FRE 561 - The Auteur Director (3)
(3:3:2)
Works of an individual film director. Subject differs from offering to offering.

Prerequisite: Permission of department. Crosslisted as: Same as ITA 517, SPA 561.

FRE 562 - Studies in Film Genre (3)
(3:3:2)
Technical, dramatic, social, and rhetorical dimensions of a film genre or genres. Subject differs from offering to offering.

Prerequisite: Permission of department. Crosslisted as: Same as ITA 518, SPA 562.

FRE 589 - Experimental Course
This number reserved for experimental courses. Refer to the Course Schedule for current offerings.

FRE 599 - Community-Based Service Learning in Francophone Studies (3)

## (3:2:8)

Field experience for French graduate students, French majors and minors, and advanced French undergraduates requiring interaction/active language use with Francophone immigrant families in the community.

Prerequisite: 15 s.h. of course work in French at the 300 level or above; minimum 3.0 GPA (overall and in major); and permission of the instructor. Offered: (Fall or Spring).
FRE 615 - Advanced Composition for Graduate Students (3)
(3:3)
French syntax; principles of expository and analytical writing. Training in written French for the preparation of papers, examinations, and theses.

## FRE 653 - Seminar in French Literature (3)

(3:3)
Advanced study and investigation of current scholarship on a topic of French literature.

## FRE 671 - French Literary Criticism (3)

Developments in French literary criticism from SaintBeuve to the present; issues of contemporary criticism and theory in France.

FRE 693 - Special Problems in French Language and Literature (3)

## (3:3)

Problems and areas of French and Francophone civilization, language, and literature.

FRE 695 - Independent Study (3)
(3:3)
Directed program of reading or research in an area of special interest in French studies.
Prerequisite: Permission of instructor and Director of French Graduate Study.
FRE 699 - Thesis (1-6)
(1-6)

## FRE 711 - Experimental Course

This number reserved for experimental courses. Refer to the Course Schedule for current offerings.
FRE 801 - Thesis Extension (1-3)
(1-3)
FRE 803 - Research Extension (1-3)
(1-3)

## GEN - Genetic Counseling

## GEN 589 - Experimental Course

This number reserved for experimental courses. Refer to the Course Schedule for current offerings.
GEN 601 - Principles of Genetic Counseling I (3)

Introduction to techniques used in genetic evaluation and counseling. Issues in preconception and prenatal genetic counseling. Skill development including basic interviewing techniques, psychosocial assessment, pedigree construction, searching on-line res

Prerequisite: Enrollment in MS genetic counseling program.
GEN 602 - Principles of Genetic Counseling II (3)

Issues in genetic counseling for pediatric and adult-onset genetic disorders including cancer genetics. Skill development, including working with special populations, decision-making, elements of informed consent.

Prerequisite: Matriculation to second semester of MS genetic counseling program.

## GEN 605 - Research Design in Genetic Counseling (3)

## (3:3)

Knowledge and skills basic to critical analysis, interpretation of research findings. Use of the scientific method and research process to address issues in the practice of genetic counseling.
Prerequisite: Matriculation to second semester of MS genetic counseling program.
GEN 610 - Genetic Counseling and the Community (2)

## (2:1.5:3)

Impact of genetic disorders on patients and families, structure and function of support groups, and role of allied health professionals in evaluation, treatment and referral of patients with genetic disorders.
Prerequisite: Enrollment in MS genetic counseling program.

GEN 614 - Prenatal Development: Embryology and Teratology (3)

## (3:3)

Human embryological development with emphasis on normal and abnormal development. Issues in teratology and birth defects, clinical problems associated with birth defects and their means of prevention.

Prerequisite: Enrollment in MS genetic counseling program or permission of instructor. Crosslisted as: BIO 614.

GEN 616 - Human Molecular Genetics (3)

Review and extension of basic principles of molecular genetics and their application for the characterization, understanding, and treatment of genetically based disorders and susceptibilities.

Prerequisite: Enrollment in MS genetic counseling program or permission of instructor. Crosslisted as: BIO 616.

## GEN 630 - Medical/Clinical Genetics I (3)

## (3:3)

Introduction to clinical/medical genetics for genetic counseling students. Topics include clinical cytogenetics and molecular genetics, Mendelian and non-traditional inheritance, dysmorphology, genetics of common cancers.
Prerequisite: Enrollment in MS genetic counseling program, BIO 614, BIO 616.

## GEN 658 - Molecular Diagnostics (1)

(1:0:3)
Survey of current clinical methods used for the diagnosis of human genetic disorders. Special emphasis given to the molecular principles, interpretations, and limitations of these tests.

Prerequisite: Enrollment in MS genetic counseling program or permission of instructor. Crosslisted as: BIO 658.

## GEN 669 - Clinical Skills Seminar (1)

(1:1)
Skill development, eliciting histories, pedigree construction, case preparation and presentation, written documentation of clinical contacts. Introduction to components of clinical and dysmorphology examination and physical measurements.

Prerequisite: Matriculation to Summer Session I of MS genetic counseling program.

GEN 671 - Quantitative Risks in Practice: Understanding Risk Assessment (1)

## (1:3)

Analytical and mathematical techniques utilized in genetic risk assessment. Topics include pedigree analysis, probability and segregation analysis. Bayes theorem, Hardy Weinberg, empiric risk counseling.

Prerequisite: Matriculation to Summer Session I of MS genetic counseling program.

## GEN 688 - Genetics Journal Club (1)

Students will select or be assigned articles from the genetics literature for presentation/class discussion. Topics will reflect current trends in research, clinical practice, public policy and social issues.

Prerequisite: Enrollment in MS genetic counseling program or permission of instructor.

## GEN 698 - Summer Clinical Rotations (1)

(1)

Introduction to clinical genetic counseling. Supervised observational and participatory activities, skill development.

Prerequisite: Matriculation to Summer Session II of MS genetic counseling program.

## GEN 701 - Principles of Genetic Counseling III (3)

(3:3)
Issues in professional development, public policy and health care systems. Introduction to legal issues in genetic counseling. Skill development including advanced genetic counseling skills, case management and preparing educational programs.
Prerequisite: Matriculation to third semester of MS genetic counseling program.

## GEN 711 - Experimental Course

This number reserved for experimental courses. Refer to the Course Schedule for current offerings.

GEN 718 - Clinical Rotations I (4)
(4:0:15)
Supervised clinical experiences in genetic counseling: case preparation, risk assessment and intervention, psychosocial assessment and support, identification of testing and support resources for patients, skill development.
Prerequisite: Matriculation to second year of MS genetic counseling program.

## GEN 719 - Clinical Rotations II (4)

## (4:0:15)

Supervised clinical experiences in genetic counseling: case preparation, risk assessment and intervention, psychosocial assessment and support, identification of testing and support resources for patients, skill development.

Prerequisite: Matriculation to second year of MS genetic counseling program.
GEN 730 - Medical/Clinical Genetics I (3)

GEN 748 - Research Project (3)
(3)

Research project in genetic counseling.
Prerequisite: Matriculation to third semester (GEN 748) and fourth semester (GEN 749) of MS genetic counseling program and successful completion of PSY 624.

## GEN 749 - Research Project (3)

(3)

Research project in genetic counseling.
Prerequisite: Matriculation to third semester (748) and fourth semester (749) of MS genetic counseling program and successful completion of PSY 624.

## GEN 803 - Research Extension (1-3)

(1-3)

## GEO - Geography

GEO 502 - Urban Planning (3)
(3:3)
Experiences in planning and primary concepts and procedures utilized by planners in city and local government agencies for improving the quality of the urban environment.

## GEO 504 - Political Geography (3)

## (3:3)

A systematic overview of relationships among space, place, and politics at multiple geographic scales. Topics include boundaries, geopolitics, nationalism, resource distribution, means of controlling space, and the spatiality of globalization.

Prerequisite: Junior level or permission of instructor.

## GEO 510 - Biogeography (3)

## (3:3)

Study of the geographic distribution of organisms and the factors/processes accountable. Emphasis on the increasingly important role humans play in influencing biogeographic processes.

Prerequisite: GEO 311 or GEO 314 or BIO 301 or admission to graduate program in geography or permission of instructor.

GEO 511 - Advanced Weather and Climate-Synoptic Climatology (3)

Exploration of atmospheric dynamics and general circulation patterns throughout the world. Emphasis on cyclogensis, surface-upper atmosphere links, tropospheric waves, vorticity, and forecasting.

Prerequisite: GEO 311 or admission to graduate program in geography or permission of instructor.

## GEO 522 - Seminar in Population and Urban Studies (3)

## (3:3)

Advanced study of population processes and urban concepts from an interdisciplinary viewpoint. Emphasis on accessing and interpreting data from the U.S. census and other sources.

GEO 533 -Regional Economic Development (3)
(3:3)

Theories of location of economic activity; techniques to assess impact of types of economic activity; policy and institutional issues related to local, state, and global economic development.
GEO 557 - Advanced Cartography (3)

## (3:3)

Advanced instruction in cartographic production techniques and introduction to cartographic research. Students will learn to evaluate academic literature and to implement research ideas using state-of-the-art technology.

Prerequisite: GEO 357 or permission of instructor.
GEO 559 - Advanced Remote Sensing-Imaging (3) (3:3)
Remote sensing of the environment using scientific visualization and digital image processing techniques.

Prerequisite: GEO 359 or permission of instructor. Offered: (Fall).
GEO 560 - Seminar in Regional Geography (3)
(3:3)
Case studies of regionalism and the regional method in geography.
Offered: (Occ).
GEO 570 - Applied Physical Geography (3)

Applications in physical geography. Topics include field experience in hydrology, dendrochronology, geomorphology, climatology, and mapping.

GEO 589 - Experimental Course:
Geophysical/Archaeology Remote Sensing Field School (3)

Geophysical and archaeological remote sensing field methods. The use, analysis, and interpretation of Ground Penetrating Radar (GPR), Magnetometer, and Global Positioning System (GPS) data collected in situ.
Offered: (Offered summer '11).

## GEO 601 - Research Trends in Geography (1)

Overview of major research themes in geography. Student will meet faculty and other professional geographers, facilitating the development of research through field experience, colloquia, and conferences.

Prerequisite: Admission to graduate program in geography.

## GEO 602 - Regional Planning (3)

(3:3)
Regional development and planning processes focused on regional planning techniques and law.
GEO 603 - Understanding Geographic Information
Systems (3)
(3:3)
Study and application of geographic information systems for professional problem-solving, spatial analysis, and mapping.

## GEO 605 - Seminar in Environmental Studies (3)

(3:3)
Selected topics of current interest in environmental studies.
GEO 606 - Environmental Planning (3)

## (3:3)

Examination and analysis of environmental concepts and their relationship to various planning and management scenarios, including environmental issues, strategies, and plans.

## GEO 607 - Earth Science for Educators (5)

## (5:3:6)

Study of the processes that shape Earth's lithospheric, hydrospheric, and atmospheroic realms. Practicum and course content are synchronized with the NC Standard Course of Study for Earth and Environmental Science.
GEO 608 - Weather and Climate for Educators (5)
(5:3:6)
Examination of Earth's physical atmospheric processes as they apply to weather and climate systems. Practicum and course content are synchronized with the NC Standard Course of Study for Earth and Environmental Science.

## GEO 609 - Hydrology for Educators (5)

## (5:3:6)

Examination of Earth's water sphere, including EarthAtmosphere interactions, and its importance as a resource. Practicum and course content are synchronized with the NC Standard Course of Study for Earth and Environmental Science.

## GEO 610 - Physical Geology for Educators (5)

(5:3:6)
Study of the materials that comprise Earth, and the processes shaping its near-surface environment. Practicum and course content are synchronized with the

NC Standard Course of Study for Earth and Environmental Science.

## GEO 611 - Natural Hazards and Society for Educators (5)

## (5:3:6)

Study of the Earth's near-surface natural hazards, with discussion of anthropogenic influences and societal consequences. Practicum and course content are synchronized with the NC Standard Course of Study for Earth and Environmental Science.
GEO 612 - Natural Resource Geography (3)

## (3:3)

Application of geographical theory to natural resource use and distribution. Emphasis on resource use and constraints to development.
GEO 613 - Advanced Geographic Information Systems (3)

## (3:3)

Development and application of geographic information systems. Emphasis on spatial data structures and their relationship to the analytic processes of geography and planning.

Prerequisite: GEO 603 or permission of instructor.
GEO 614 - GIS Programming and Design Application (3)

## (3:3)

Theory and practice in the creation of Geographic Information Systems using logic based programming and database construction tools. Emphasis on modeling of spatial information and logic-based approaches to GIS.
Prerequisite: GEO 613.

## GEO 620 - Spatial Analysis (3)

## (3:3)

Theory and practice in combining Geographic Information Systems software with statistical analysis software. Emphasis will be on the quantitative analysis and visual display of spatial information.

Prerequisite: GEO 613 and STA 571 or equivalent.

## GEO 621 - Seminar in Geographic Information Science (3)

## (3:3)

Research in geographic information science. Focus on current research in application of remotely sensed imagery, geographic information systems, and maps in the visualization and analysis of spatial data.

Prerequisite: GEO 359 and GEO 613 or permission of instructor.
GEO 622 - GIS Applications in Urban Planning (3)
(3:3)

Theory and practice integrating Geographic Information Systems with land use planning practice. Emphasis on advanced analysis and display of spatial data and information in support of land use planning decisionmaking.

Prerequisite: GEO 322 (or equivalent) and GEO 603 or permission of instructor.

## GEO 631 - Transportation Planning (3)

## (3:3)

Theory and practice of transportation planning with an emphasis on urban transportation systems.
Prerequisite: GEO 502 or permission of instructor.
GEO 633 - Advanced Topics in European Geography (3) (3:3)

In-depth analysis of select advanced topics related to Europe. Combines systematic and regional traditions within geography. Possible themes include European integration, immigration, urbanization and cities, cultural preservation, tourism, the environmen

## GEO 635 - Geography of Asia (3)

## (3:3)

Examines dynamic economic, sociocultural, and political changes in Asia by looking at their roots in physical and human resources influencing rapid modernization within an ancient cultural framework.

## GEO 641 - Earth Surface Processes and Landforms (3)

## (3:3)

Advanced systematic study of geomorphology with applications to human responses to natural hazards and environmental management.
Prerequisite: GEO 314/GEO 314L or equivalent advanced undergraduate course in geomorphology.

## GEO 690 - Research Problems in Applied Geography (3)

(3)

Independent study on a topic of special interest.
Prerequisite: Graduate course on the topic.

## GEO 695 - Internship (1-6)

## (1-6)

Practical experience in a professional setting related to the student's main topic of interest. Includes written paper linking the topic to the experience.

Prerequisite: 18 hours in the M.A. in applied geography program.
GEO 699 - Thesis (1-6)
(1-6)
Prerequisite: Permission of Geography Thesis Committee.

## GEO 711 - Experimental Course

This number reserved for experimental courses. Refer to the Course Schedule for current offerings.
GEO 750 - Advanced Spatial Analysis (3)
(3:3)
Theory and practice in spatial analysis with an emphasis on spatial statistics. Spatial pattern analysis, spatial association and interpolation, spatial data mining.

Prerequisite: GEO 620.

## GEO 760 - Research Design (3)

(3:3)
Design and execution of applied research projects as practiced by professional geographers.

Prerequisite: STA 571 or equivalent.

## GEO 761 - History of Geographic Thought (3)

(3:3)
Seminar on the nature of geography and what geographers do. Focus on the history of the discipline, approaches to its study, major paradigms, and application of geographic theory.

Prerequisite: Admission to doctoral program in geography or allied field.

## GEO 771 - Doctoral Seminar in Geographic Information

 Science (3)(3:3)
Advanced seminar in the theory, practice, and technical aspects of Geographic Information Science. .

GEO 781 - Seminar in Earth Science/Natural Resources (3)
(3:3)
Directed readings and research proposal development on selected aspects of natural resource policy and management from the perspective of earth science.

Prerequisite: GEO 612 or GEO 641 or permission of instructor.

## GEO 790 - Independent Geographic Research (3)

## (3:3)

Independent study on topic of interest in theoretical geography.

Prerequisite: Graduate course in topic.
GEO 791 - Seminar in Urban Planning/Economic Development (3)

Directed readings on selected aspects of urban planning/economic development focused on theory and policy issues from a geographic perspective.

Prerequisite: GEO 502 or GEO 533 or permission of instructor.

## GEO 792 - Seminar in Regional Economic Development

 (3)A geographic perspective is applied to analysis of regional economic performance and change in the developed and developing world. Theory is integrated with strategies for development policy and planning.
Prerequisite: GEO 533 or permission of instructor.
GEO 799 - Dissertation (1-21)
(1-21)
Prerequisite: Completion of all PhD course requirements and examinations.

GEO 801 - Thesis Extension (1-3)
(1-3)
GEO 802 - Dissertation Extension (1-3)
(1-3)
GEO 803 - Research Extension (1-3)
(1-3)

## GER - German

GER 589 - Experimental Course
This number reserved for experimental courses. Refer to the Course Schedule for current offerings.

GER 711 - Experimental Course
This number reserved for experimental courses. Refer to the Course Schedule for current offerings.

## GRK - Greek

GRK 501 - Independent Study (1-3)
(1-3)
Directed program of reading, research, and individual instruction in Greek language and literature.

Prerequisite: Permission of instructor.
GRK 550 - Topics in Greek Studies (3)

Studies in selected topics in Greek literature or language, e.g., the development of a genre, the nature of a period in literary history, or the treatment of a particular theme.
Prerequisite: Permission of instructor.

## GRK 589 - Experimental Course

This number reserved for experimental courses. Refer to the Course Schedule for current offerings.

## GRK 711 - Experimental Course

This number reserved for experimental courses. Refer to the Course Schedule for current offerings.

## GRO - Gerontology

GRO 501 - Seminar: Critical Issues of Aging (3)
(3:3)
Intensive review and analysis of the literature and research on issues and unresolved problems of aging.
Offered: (Fall).

## GRO 600 - Proseminar in Gerontology (1)

Introduction and gateway to the profession and study of gerontology including career roles and paths, professional development and ethics, and research processes and conduct.

## GRO 601 - Practical Issues in Aging (1)

(1:1)

Examination of a topic in aging from an applied perspective applicable to professionals working in the field of aging.

GRO 610 - Life Planning for the Third Age (3)

## (3:3)

Integrative approach to explore how trends in finances, relationships, health, self-development, housing and work/leisure time interact to impact quality of life and options available to aging adults.

## GRO 611 - Issues in Aging and Business (3)

GRO 611A - Silver Industries (1.5)

## (1.5:1.5)

Comprehensive overview of the gerontological trends and associated business consequences that characterize an aging society. Case illustrations highlighted.

GRO 611B - The Boomer Demographic Phenomena (1.5)
(1.5:1.5)

Comprehensive overview of the current and future societal and demographic trends as a consequence of the Boomer Demographic Phenomena with implications for government, community, and business markets. Applied demographic exercises.

## GRO 611C - Workforce and Human Resource Polices for Aging Societies (1.5)

## (1.5:1.5)

Examines the impact of aging societies on workforce issues and the need for government and employer policies and programs.
GRO 620 - Research Methods in Gerontology (3)

## (3:3)

The integration and application of qualitative and quantitative research designs and methods used in gerontology. Additional attention focuses on the formulation and writing of a research proposal.

Prerequisite: GRO 501 and permission of instructor.

## GRO 621 - Health and Aging (3)

Examines aspects of health and aging from an integration of biomedical and psychosocial perspectives. Foundations for the professional practice ofgerontology.

## GRO 622 - Financing Longevity: Topics in Insurance (3)

Overview of concepts and products of insurance related to financing longevity in the United States. Topics include Medicare, Medicaid, long term care insurance and related products.

## GRO 631 - Planning and Evaluation for Professionals in Aging (3)

## (3:3)

Introduction to the knowledge and skills related to planning and evaluating innovative responses to the aging of society using program theory as a foundation.

GRO 632 - Communities Responding to an Aging Society (3)

Addresses community responses to an aging society and how those responses may be enhanced through civic engagement, infrastructure development, and public/private initiatives. Emphasizes developing and sustaining innovative programs.

## GRO 633 - Long Term Care Public Policy (3)

Addresses public policy related to the organization, financing, and delivery of the broad continuum of long term care with a concentration on the care of frail older adults.

## GRO 649 - Gerontology Internship or Research Experience I (3)

## (3:0:10-12)

First internship or research experience for graduate students in gerontology. 140 to 160 hours in a program approved site developed from among nonprofit, governmental, or business settings.

Prerequisite: GRO 501 and permission of instructor.
GRO 651 - Integrative Seminar in Gerontology (3)
(3:3)
Integration of current literature and theoretical applications in gerontology focusing on specific area(s) of student's specialty and internship experiences. Additional emphasis on professional writing, presentations, networks, and extramural funding.

Prerequisite: Enrollment in the MS in gerontology program and completion of at least 24 hours of course work including: 501, 620, 649, ERM 517 or STA 571 (plus lab), and 12 hours of gerontology electives. Offered: Spring.
GRO 676 - Special Topics in Gerontology (1-3)
(1-3)
Study of a special topic in gerontology.

GRO 677 - Entrepreneurship Opportunities in Healthy Aging (3)
(3:3)
Examination of entrepreneurship opportunities related to the aging population, with specific attention to products and services that extend the healthy lifespan. Includes development of Business Opportunity Analysis.
Crosslisted as: ENT 677, KIN 677.
GRO 679 - Gerontology Internship or Research Experience II (3)
(3:0:12-15)
Final internship or research experience for graduate students in gerontology. 160 to 200 hours in a program approved site developed from among nonprofit, governmental, or business settings
Prerequisite: Admission to the MS in gerontology. Completion of at least $2 / 3$ course work, including GRO 501, GRO 600, GRO 620, and GRO 649, CITI certification for social and behavioral sciences, and permission of instructor.

GRO 695 - Independent Study (1-3)
(1-3)
Intensive study in an area of special interest in gerontology.

GRO 699 - Thesis (1-6)
(1-6)
Individual guidance in the development of a specific research problem.

Prerequisite: GRO 501, GRO 620, GRO 649, GRO 651, GRO 660.

## GRO 711 - Experimental Course

This number reserved for experimental courses. Refer to the Course Schedule for current offerings.
GRO 801 - Thesis Extension (1-3)
(1-3)
GRO 803 - Research Extension (1-3)
(1-3)

## HDF - Human Development Family Studies

## HDF 502 - Gender in Families (3)

## (3:3)

Influence of social, philosophical, political, and technological change on gender relationships in families in the past, present and future.
Prerequisite: HDF 211, HDF 212, HDF 410 or permission of instructor.

HDF 510 - Child and Family Ecology (3) (3:3)
Study of children and families in their social contexts; examination of issues such as parent-child relations, child maltreatment, divorce and single-parent families, and work-family linkages.
Prerequisite: HDF 452 or graduate standing.
HDF 527 - Problems in Human Development and Family Studies (2-6)
(2-6)
In-depth study of new areas in child and family studies such as: children and technology; multi-cultural families; developmental consequences of child maltreatment.
Prerequisite: HDF 211, HDF 212.

## HDF 589 - Experimental Course

This number reserved for experimental courses. Refer to the Course Schedule for current offerings.
HDF 601 - Directed Individual Study in Human Development and Family Studies (1-6) (1-6)
Prerequisite: 6 semester hours of HDF graduate courses and permission of instructor.

HDF 602 - Problems in Human Development and Family Studies (2-4)
(2-4)
Designated special problems such as Child Care Administration, Parent Education, Practicum, Child Guidance.

HDF 603 - Research Laboratory Practicum in Human Development and Family Studies (1)
(1:0:3)
Supervised practicum experiences in planning, designing, and implementing research investigations in the field of human development and family studies.

HDF 606 - Preschool-Kindergarten Learning in Inclusive Settings (4)

## (4:3:3)

In-depth exploration of the principles of early childhood care and education and learning strategies for preschool/kindergarten children with and without disabilities. Field placements in BK setting are required.
Prerequisite: Admission to BKISED degree program and SES 601. Crosslisted as: SES 606.

HDF 607 - Infant-Toddler Learning in Inclusive Settings (4)

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(4: 3: 3)
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An examination of development in infancy and toddlerhood and strategies for facilitating very young children's growth and learning in early childhood care and educational settings. Field placement required.

Prerequisite: HDF or SES major or pemission of instructor. Crosslisted as: SES 607.

## HDF 610 - Cross-cultural Perspectives on Child Development (3)

## (3:3)

Examines how culture influences children's development and also is influenced by members of that culture.

HDF 621 - Applied Theories and Principles of Parenting (3)

Examination of established parenting models and programs. Theoretical foundations and issues related to program development, adaptation, and implementation. Implications for outcome analyses and program evaluation.

## HDF 624 - Feminist Theory and Research Methodologies

 (3)
## (3:3)

Research issues associated with the study of women and families from a feminist perspective on scholarship. Examination of feminist research methods focusing on interpretive inquiry and critical science.
HDF 626 - Social and Economic Problems of the Family (3)

Social and economic conditions in the U.S. as they affect the welfare of families in general and influence or interact with an individual family's values, goals, and resource development and use.

HDF 631 - Families of Individuals with Special Needs (3) (3:3)
Current theory, research and intervention models concerning family coping and adaptation to children's exceptional development: physical handicaps, developmental disabilities, chronic illness, and psychiatric disorders.

Prerequisite: HDF major or permission of instructor.
HDF 633 - Advanced Curriculum in Early Childhood Education (3)

## (3:3)

Examination of theoretical and developmental foundations of early childhood curriculum approaches, including critique of accepted early childhood practices, action research, and published research in curriculum and program effectiveness.

Prerequisite: SES 606/HDF 606.
HDF 634 - Contemporary Issues in Early Childhood Policy (3)

Analysis of how federal, state, and local policies impact early childhood programs, early childhood professionals, children, and families.

## HDF 636 - Leadership and Mentoring in Educating Young Children (3) <br> (3:3)

Examination of advanced leadership, mentoring, lifelong learning, and teaching skills for those who develop and implement early childhood programs.
HDF 640 - Professional Seminar I (1)
(1:1)
Conceptual and methodological perspectives of multidisciplinary study in the field of human development and family studies. Required of all first-year master's and doctoral students.

HDF 644 - Applications of Theory and Research in Family Studies (3)

Abbreviated examination of theories that relate to family studies and contemporary research findings in the areas of family studies relevant to family life/parent education.

## HDF 650 - Theory and Research in Early Childhood (3)

(3:3)
Examination of theory and current research pertaining to the development of children from birth through kindergarten within the context of the family, community, and larger society.

Prerequisite: ERM 604, SES 601.

## HDF 651 - Contemporary Research in Human Development (3)

Examination of contemporary research findings in the field of human development.

## HDF 652 - Theories of Human Development (3)

Survey of selected theories of individual development.
HDF 653 - Contemporary Research in Family Studies (3) (3:3)
Examination of contemporary research findings in the field of family studies.

## HDF 654 - Applications of Theory and Research in Human Development (3)

(3:3)
Abbreviated examination of theories that relate to human development and contemporary research findings in the areas of human development relevant to family life/parent education.

HDF 655 - Family Theory (3)

Theories that relate to studying families; linking conceptual ideas, theorizing, and research examples relevant to families.

HDF 658 - Research Methods in Human Development and Family Studies (3)

Research methods and designs of research with children and families.

## HDF 660 - Families in Middle and Later Life (3)

Pr.admitted to a graduate program or permission of instructor

## HDF 661 - Professional Seminar II (1)

## (1:1)

Professional activities and ethical responsibilities of university teachers and research scholars; professional writing, peer-review, extramural funding, and research practices with human subjects.

HDF 665 - Social and Emotional Development (3)

## (3:3)

Integrates theory and research focusing on socialemotional growth across the lifespan. Importance of peer and family relations in personality development; social and emotional competence and adjustment difficulties.
Prerequisite: HDF 651 (or HDF 650) and HDF 652, or permission of instructor. Crosslisted as: PSY 608.
HDF 666 - Intellectual Development in Young Children (3)

Current theories and recent research on intellectual development from infancy through middle childhood; language acquisition, thinking, conceptual representation, learning, memory, and perceptual development.

Prerequisite: HDF 651 (or HDF 650 or HDF 654), HDF 652, or permission of instructor.

HDF 667 - Infant Development (3)
(3:2:3)
Principles of perceptual, motor, cognitive and socioemotional development in infants and very young children.

Prerequisite: HDF 651 (or HDF 650), HDF 652, or permission of instructor.
HDF 668 - Seminar in Adolescence (3)

Integrates theory, research, and practice focusing on dimensions of normative and problematic adolescent development within its ecological contexts.

Prerequisite: HDF 651 (or HDF 650) or permission of instructor.
HDF 671 - Contemporary Family Life (3)
(3:3)
Contemporary families; the nature of family dynamics and the needs of family members in a changing social context.
Prerequisite: HDF 653, HDF 655, or permission of instructor.

## HDF 672 - Divorce, Remarriage, Cohabitation (3)

Integrates theory and research focusing on variations within and changes to family structures and processes (e.g., communication, intimacy, conflict management). Sociocultural variations within and across groups.

Prerequisite: HDF 653, HDF 655 or permission of instructor.

## HDF 673 - Cross-cultural Perspectives on Families (3)

Family patterns in different cultures; viewing family systems within their cultural contexts.

## HDF 674 - Close Relationships in Adulthood (3)

## (3:3)

Interdisciplinary introduction to close relationships in adulthood, including the major theoretical perspectives scholars use to examine close relationships, the methods researchers employ, and the substantive foci that characterize the field.

Prerequisite: HDF 653 or HDF 644 or permission of instructor.

## HDF 675a - Family Conflict Resolution (3)

## (3:3)

Explores the theory, research and methods of working with family conflicts related to divorce (financial and parenting), parent-child, and older adult issues. Assignments include reading, case studies, and role plays.

Prerequisite: HDF 672 or permission of instructor.

## HDF 675b - Divorce Mediation Practicum (3)

(3)

Skill development and application of theory to practice in divorce mediation through supervised work with clients in a laboratory setting.

Prerequisite: HDF 675a or permission of instructor.

## HDF 695 - Professional Seminar in Family Life and Parent

 Education (1)Professional issues and career development skills in the field of family life and parent education.

HDF 696 - Supervised Professional Experience in Human Development and Family Studies (1-6)
(1-6:0:3-12)
Supervised professional experience in selected commercial or industrial organizations, public or private agencies. Completion of a major project or activities appropriate to the goals of the agencies.
Prerequisite: Permission of instructor.
HDF 699 - Thesis (1-6)
(1-6)
Prerequisite: Permission of instructor.
HDF 697 - College Teaching in Human Development and Family Studies I (2)
(2:1:3)
Introduction to college teaching through observation and exploration of issues for beginning teachers. Students are assigned to work with graduate faculty members.

Prerequisite: 2nd year master's student and above.
HDF 701 - Minor Research (2-6)
(2-6)
Prerequisite: Permission of instructor.
HDF 710 - Advanced Theory in HDFS (3)
(3:3)
In-depth study of particular theories used to study children and families. Theories addressed will vary by instructor. May include mechanics of theory building and refining.

Prerequisite: HDF 652, HDF 655, or permission of instructor.

## HDF 711 - Experimental Course

This number reserved for experimental courses. Refer to Course Schedule for current offerings.

## HDF 712 - Advanced Research Design in Human Development and Family Studies (3)

## (3:3)

Methods and designs of research with individuals and families from problem specification, data collection and reduction, to data analysis.

Prerequisite: HDF core requirements and two graduate statistics courses or permission of instructor.

## HDF 721 - Seminar in Parent-Child Relations (3)

(3:3)
Synthesizes theoretical perspectives and current research on parent-child relations. Topics include: links between parenting and child outcomes, determinants of parenting, links between parenting and adult development/relationships. Integrates applied implications.
Prerequisite: HDF 651, HDF 652, and HDF 653; or permission of instructor.

HDF 750 - Professional Seminar III (1)

Job search methods and strategies in human development and family studies for doctoral students.

Prerequisite: HDF 640, HDF 661.
HDF 765 - College Teaching Practicum in Human Development and Family Studies II (3)

Supervised experiences in planning, teaching, and evaluating a college-level course.

HDF 790 - Independent Doctoral Research (1-6)
(1-6)
Individual work on problems related to the student's primary area(s) of specialization. Work may consist of empirical research or of critical reviews and integrations of existing literature.
HDF 799 - Dissertation Problem (1-12)
(1-12)
Required of all candidates for the Doctor of Philosophy degree.
Prerequisite: Permission of instructor.
HDF 801 - Thesis Extension (1-3)
(1-3)
HDF 802 - Dissertation Extension (1-3)
(1-3)
HDF 803 - Research Extension (1-3)
(1-3)

## HEA - Public Health

## HEA 589 - Experimental Course

This number reserved for experimental courses. Refer to the Course Schedule for current offerings.

HEA 600 - Contemporary Problems in Health (3)
(3:3)
Current personal, community, and world health problems through critical analysis of literature and research.

HEA 601 - Principles of Community Health Education (3) (3:3)

Factors affecting health and disease, principles underlying health education practice, and the role of health education in health promotion and disease prevention.

Prerequisite: Admission to the MPH program or permission of instructor. Offered: Fall.
HEA 602 - Epidemiology (3)

Disease etiology and identification of risk factors, utilizing epidemiologic and biostatistical concepts and methods. Applications of epidemiology and biostatistics to assess the efficacy of community health programs.

Offered: Spring.
HEA 603 - Community Health Analysis (3)

Assessment of community structure, residents, organizations and associations, to determine healthrelated capacities, needs, and interests. Emphasizes the use of both primary and secondary data sources for community analysis.
Prerequisite: Admission to the MPH program or permission of instructor. Offered: Fall.

HEA 604 - Public Health Statistics (3)

Investigation of data sources and methods used to gather, analyze and interpret health data; emphasis on computer applications.

Prerequisite: Admission to the MPH program or permission of instructor. Offered: Fall.

HEA 606 - Workshops in Health Education (1-3)
(1-3)
Current and comprehensive health or health education concerns of schools and society.

## HEA 608 - Environmental Health (3)

(3:3)
Analysis of local, national, and international environmental issues influencing the health of individuals and communities; air and water quality, waste management, disease control, occupational settings, population, and environmental planning.
Offered: Fall.
HEA 609 - Community Health Interventions (3) (3:3)

Overview of theories, successful intervention strategies, and methods of implementation across the social ecology and their application to the development of health education programs.

Prerequisite: HEA 601, HEA 603, HEA 604, HEA 608. Pr.Pr. or Coreq. HEA 602. Offered: Spring.

## HEA 612 - Management of Community Health Organizations (3)

Analysis and skill development in management of community health organizations, including self-reflection, planning, staffing, marketing, building and managing agency and community teams. Literature reviews, community interviews, case study and experienti

Prerequisite: Admission to a graduate degree program or permission of instructor. Offered: Spring.

## HEA 616 - Workplace Health Promotion (3)

## (3:3)

Public and private worksite health promotion programs. Skills and knowledge to oversee the planning, implementation, and evaluation of these programs. Links to employee benefits and successful programs to be critically examined.

Prerequisite: Admission to a graduate degree program or permission of instructor.

HEA 617 - Conflict Resolution and Coalition Building (3) (3:3)

Theory, analysis, and skill development in conflict resolution, negotiation, and coalition building for health education and human service professionals.

Prerequisite: Admission to a graduate degree program or permission of instructor.

HEA 620 - School Health Programs (3)
(3:3)
The components of comprehensive school health programs, review of research and evaluation literature. The role of school health coordinators or administrators is examined in the context of North Carolina schools.

Prerequisite: HEA 601, HEA 602 or permission of instructor.

HEA 622 - Social Epidemiology (3)
(3:3)
Content, methods and theory of social epidemiology.
Prerequisite: Pr. or Coreq. HEA 602, HEA 604. Corequisite:
Pr. or Coreq. HEA 602, HEA 604.
HEA 625 - Community Health Education Program
Evaluation (3)

## (3:3)

Issues, problems, and techniques involved in evaluation of community health education programs.
Prerequisite: HEA 601, HEA 602 and completion of or concurrent enrollment in HEA 603, or permission of instructor. Offered: Fall.

## HEA 635 - Health Education in the Community and School

 (3)Planning, preparation, and presentation of health education information and programs for school and community groups.

Prerequisite: Permission of instructor.

## HEA 640 - Global Health Issues (3)

Examine global health issues with an analysis of the determinants of health status in selected world regions and analyze global prevention efforts. Study of international organizations' roles and programs.

## HEA 645 - Health Policy (3)

## (3:3)

Health policy process in the US; examination of historical and current health policy issues, and survey of methods for analyzing health policy options.

Prerequisite: Admission to a graduate degree program or permission of instructor. Offered: Spring.

## HEA 648 - Applied Program Planning (3)

(3:3)
Methods and models of planning health education programs for various settings.
Prerequisite: GPA of 3.0 or better, HEA 609 and HEA 645, or permission of instructor. Offered: Fall.

HEA 650 - Community Health Internship/Practicum (6)

## (6)

Supervised experience in the observation, delivery, and evaluation of health education services in community settings.
Prerequisite: GPA of 3.0 or better and HEA 648, or permission of instructor. Offered: Spring.

HEA 651 - Advanced Health Promotion in Higher Education (3)

## HEA 660 - Human Sexual Relationships (3)

(3:3)
The development of human sexuality and ensuing interpersonal relationships and sexual behavior in today's society.

Offered: Summer.
HEA 662 - Gender and Health (3)

## (3:3)

Health issues and health problems with respect to gender differences, similarities and historical conceptions.
Prerequisite: Admission to a graduate degree program or permission of instructor.

## HEA 665 - Violence and Public Health (3)

The origins and epidemiology of violence, factors influencing our social response to violence and role of public health professionals in a community response. Literature and field-based analysis.
Prerequisite: Admission to a graduate degree program or permission of instructor.

## HEA 666 - Health Communication (3)

Overview of theory, practice of designing/implementing/evaluating public health communication campaigns and programs. Focus on audience, message, and channel factors; mass media, social marketing and risk communication strategies.

Prerequisite: Pr. or Coreq. HEA 601 or permission of instructor. Corequisite: Pr. or Coreq. HEA 601 or permission of instructor.

## HEA 670 - Adolescent Health (3)

(3:3)
Survey of adolescent health problems and needs. Focus on epidemiological trends, behavioral and social etiological factors, and public health interventions to reduce specific adolescent health problems.
HEA 671 - Immigrant and Refugee Health (3)

## (3:3)

Overview of health status of immigrant and refugee populations. Focus on migration, resettlement, adaptation, epidemiological, behavioral, cultural, socioeconomic, legal, and political factors impacting health, and interventions to address needs.

Prerequisite: Admission to a graduate program in public health education or permission of instructor.
HEA 676 - Problems Seminar (3)
(3)

Specific course title identified each semester by subscript, e.g., Problems Seminar: Professional Literature in Health Education.

Prerequisite: Previous course work in appropriate content areas or permission of instructor.

## HEA 680 - Community Health Seminar (3)

## (3:3)

Culminating experience to help students synthesize and integrate community health education knowledge, theory, and principles.

Prerequisite: Pr. or Coreq. HEA 648, HEA 650 or permission of instructor. Corequisite: Pr. or Coreq. HEA 648, HEA 650 or permission of instructor. Offered: Spring.
HEA 695 - Independent Study (1-3)
(1-3)
Intensive study in an area of special interest in health education.

Prerequisite: Demonstrated competency for independent work and permission of departmental academic adviser and the instructor.
HEA 697 - Community Health Field Project (1-3)
(1-3)
Supervised community health education field project including a major literature-based paper.
Prerequisite: HEA 601, HEA 602, HEA 603 and HEA 625, or permission of instructor.

## HEA 698 - School Health Field Project (1-3)

(1-3)
Supervised school health setting project including a major literature-based paper.
Prerequisite: HEA 601, HEA 602, HEA 620 and a related research or evaluation course or permission of instructor.

## HEA 699 - Thesis (1-6)

(1-6)
Prerequisite: Permission of instructor and application due March 15 prior to final year of study.

## HEA 701 - Promoting and Protecting Health through Entrepreneurship (3)

Introduction to Federal Small Business Research grant mechanisms for entrepreneurial research. Preparation of a grant proposal for submission to NIH, CDC, or Department of Education.

Crosslisted as: ENT 701.
HEA 702 - Professional Grant Writing for Community
Organizations (3)
(3:3)
Theoretical and applied avenues to learning Professional Grant Writing for Health and Human Service Organizations in the Community.

Prerequisite: Enrolled graduate students in the School of HHS, or Permission of Instructor.

## HEA 711 - Experimental Course

This number reserved for experimental courses. Refer to the Course Schedule for current offerings.
HEA 725 - Advanced Community Health Projects (1-6)
(1-6)
Scholarly inquiry project developed by the student with faculty guidance.

Prerequisite: Permission of instructor.
HEA 735 - Topics in Community Health Research (3)

Specific course title identified each semester offered by subtitle (e.g., Organizational Behavior, Women and Girls Health, Applied Research in Communities). May be repeated for credit when topic varies.
Prerequisite: Permission of instructor.

## HEA 751 - Foundations of Research for Public Health Education (3)

## (3:3)

Central issues in the philosophy of social and behavioral science with application to public health. Assumptions, models, and methodologies necessary to pursue research in community health education.
Prerequisite: Admission to DrPH program or permission of instructor.

## HEA 752 - Quantitative Methods in Public Health (3)

## (3:3)

Research methods and ecologic, experimental, and observational research designs in community health education. Topics include advanced study designs, reliability, validity, generalizability, bias, sampling and power.

Prerequisite: HEA 751.

## HEA 753 - Qualitative Methods in Public Health (3)

(3:3)
Competing paradigms in qualitative research, integration of qualitative and quantitative methods, sampling, data collection and analysis in qualitative research for public health.

Prerequisite: HEA 751, HEA 752 or permission of instructor.

## HEA 755 - Community Research Practicum (3)

## (3:1:6)

Supervised practicum experiences in developing, conducting, funding, and disseminating community-based participatory research in public health education.
Prerequisite: Admission to DrPH program or permission of instructor.

## HEA 758 - Advanced Theoretical Basis for Community Health Education (3)

Examination of theories used by health educators to conduct research in organizational, community, or individual change and improvement in health and quality of life.

Prerequisite: HEA 609, HEA 751, HEA 752, or permission of instructor.

HEA 759 - Community-Based Health Education Research (3)

## (3:3)

Foundational work in research methods applied to the challenges inherent in the development of skills associated with community-based participatory research of health promotion programs.
Prerequisite: Permission of instructor.
HEA 760 - Teaching in Community Health Education (3)

## (3:3)

Introduction to principles and practices of good undergraduate teaching in public health. Includes course planning, teaching techniques, assessment strategies, legal and ethical issues, and supervised practice.
Prerequisite: Permission of instructor.
HEA 765 - Advanced Program Evaluation in Public Health Education (3)
(3:3)
Advanced education in program evaluation, evaluation designs, and their application to complex public health interventions. Emphasis on evaluation practices relevant for Community-Based Participatory Research programs in public health education.

Prerequisite: Pr. or Coreq. HEA 602, HEA 604, HEA 622, HEA 751, HEA 752, HEA 753. Corequisite: Pr. or Coreq. HEA 602, HEA 604, HEA 622, HEA 751, HEA 752, HEA 753.
HEA 799 - Doctoral Dissertation Research (1-15)
(1-15)
HEA 801 - Thesis Extension (1-3)
(1-3)
HEA 803 - Research Extension (1-3)
(1-3)

## HED - Higher Education

HED 600 - The Community College (3)
HED 601 - Foundations of College Student Personnel Administration (3)

HED 602 - Theoretical Foundations of Higher Learning (3)

HED 606 - Administration of Student Affairs in Higher Education (3)

Basic skills and theory of organizing and managing student affairs programs in higher education. Includes human and resource management, technology, and strategic planning.

Prerequisite: HED 601.
HED 607 - Adult Learning and College Teaching (3)
HED 608 - Leadership in Higher Education (3) (3:3)
Examines the concepts of "good' and "effective" leadership and the nature of leadership development in higher education. Explores and investigates leadership models, theories, and frameworks in higher education.
HED 611 - Survey of Adult Education (3)
HED 612 - Current Issues in Higher Education (3)
HED 627 - Enrollment Management (3)
HED 661 - Higher Education in the U.S. (3)
Policy governance and legal issues affecting contemporary higher education in the U.S. and their historical background.
HED 662 - Curriculum in Higher Education (3)
HED 663 - Planning Programs in Postsecondary Education (3)
HED 690 - Internship in Higher Education (3)
Provides experiential learning opportunities in functional area of higher education. Learners engage in professional work activities and explore carrier interests.

Prerequisite: HED 601 and 602 and permssion of instructor.

HED 730-Qualitative Methods in Education (3)
HED 744 - Higher Education: Finance and Political Economy (3)

HED 745 - Higher Education: Equity, Inclusion and Learning (3)

HED 746-Theories of College and University Organization (3)
HED 747 - Advanced Student Development Theory (3)
HED 748 - Law of Higher Education (3)
HED 749 - Seminar in Higher Education Research (3)
HED 775 - Directed Doctoral Research (3)

## HHS - Health and Human Sciences

HHS 702 - Professional Grant Writing for Community Organizations (3)

Theoretical and applied avenues to learning Professional Grant Writing for Health and Human Service Organizations in the Community.

Prerequisite: Enrolled graduate students in the School of HHS, or Permission of Instructor.
HHS 776 - Higher Education Administration and Leadership in Health and Human Sciences (3)
(3:2:3)
Addresses the major areas of responsibilities of a variety of academic administrative roles within a university, from program director and department chair/head to provost, from the base of HHS.
Prerequisite: Students must have an administrative mentor who agrees to participate in the practicum section of this course.

## HIS - History

HIS 502 - African American History: Selected Topics (3) (3)

Examination of selected topics in black history including African beginnings, slavery, racial attitudes, and civil rights.

## HIS 505 - Introduction to Archival Management (3)

## (3:3)

Principles of archival management, featuring both classroom instruction in archival theory and practical experience in manuscript repositories and public and private archives.
Prerequisite: Permission of instructor. Crosslisted as: Same as LIS 505.
HIS 508 - Latin America and Caribbean: Selected Topics (3)

A study of select political and economic developments from a historical perspective. Topics include an examination of Hispanic democracy, the evolution of the military, and land tenure. Seminar format.
Prerequisite: One course in Latin American history or permission of instructor.

## HIS 510 - Historiography (3)

(3:3)
Development of the historical profession and perspectives on historical methodology. Selected readings by philosophers of history and practicing historians.

Prerequisite: Admission to a graduate program in history, or permission of instructor.

## HIS 511A - Seminar in Historical Research and Writing (3)

(3:3)
Locating and using historical source materials, written and oral, published and unpublished. 511A: American; 511B: European; and 511C: Wider World.

Prerequisite: For social studies licensure students: HIS 430 and permission of instructor; for all other History majors: HIS 391 and permission of instructor.

HIS 511B - Seminar in Historical Research and Writing (3)
(3:3)
Locating and using historical source materials, written and oral, published and unpublished. 511A: American; 511B: European; and 511C: Wider World.
Prerequisite: For social studies licensure students: HIS 430 and permission of instructor; for all other History majors: HIS 391 and permission of instructor.
HIS 511C - Seminar in Historical Research and Writing (3) (3:3)
Locating and using historical source materials, written and oral, published and unpublished. 511A: American; 511B: European; and 511C: Wider World.

Prerequisite: For social studies licensure students: HIS 430 and permission of instructor; for all other History majors: HIS 391 and permission of instructor.
HIS 512 - Public History (3)

A history of America's past through museums (indoor and outdoor); collections and their interpretation; exhibitions and park and wilderness areas.

HIS 515 - American Diplomatic History: The Twentieth Century (3)

Emphasis on most important crises and making of basic policy decisions from Spanish American war to present.

HIS 517 - American Economic History: Colonial Times to 1865 (3)

## (3:3)

Evolution of the American economy through the Civil War. Emphasis on sources of economic growth and economic welfare.

Prerequisite: ECO 201 or permission of instructor. Crosslisted as: Same as ECO 517.
HIS 518 - American Economic History: 1865 to Present (3)

## (3:3)

Evolution of the American economy from the Civil War to the present. Emphasis on economic performance through time measured against the goals of full employment, price stability, and rapid growth. Course taught as Writing Intensive (WI) and Speaking Inten

Prerequisite: ECO 201 or permission of instructor. Crosslisted as: Same as ECO 518. Offered: (Spring).
HIS 520 - Southern History: Selected Topics (3)

## (3:3)

Selected topics in the history of the American South from the colonial origins to our time. Examples include politics, education, economic development, reform, race, and gender.
HIS 522 - Early American History: Selected Topics (3) (3:3)
Varying topics in early American history including settlement, economic development, Puritanism, the Great Awakening, slavery, ethnicity, and pre-Revolutionary politics.
HIS 524 - Twentieth-Century U.S. History: Selected Topics (3)

Varying topics in twentieth-century U.S. history including Progressive Era, World War I, the 1920s, the Great Depression and New Deal, World War II, McCarthyism, Civil Rights Movement, Vietnam War, the 1960s.
HIS 526 - The Civil War and Reconstruction: Selected Topics (3)
(3:3)
Causes of the Civil War. Military events and developments on the home front in wartime, North and South. Reconstruction policy in Washington and its implementation in the South.

## HIS 530 - History of Sexuality: Selected Topics (3)

Intensive exploration of critical themes in the history of sexuality, including such issues as fertility control, sexual identity, and sexual politics.

Prerequisite: For undergraduates, HIS 359 or the permission of the instructor.
HIS 534 - The American Revolution (3)

## (3:3)

Politics of Empire, colonial political culture, War for Independence, constitutionalism, race, partisanship from the 1750 s to 1800 .

Prerequisite: None; HIS 211 recommended. Offered: (Alt).

## HIS 536 - History of Decorative Arts (3)

(3:3)
Study of stylistic and cultural developments in the decorative arts with special concentration on America.
Crosslisted as: Same as IAR 536.
HIS 541 - Ancient World: Selected Topics (3)

Varying topics in ancient Near Eastern, Greek, and Roman history, including politics and public rituals, patterns of social organization, ancient slavery, cross-cultural interactions.

Crosslisted as: Same as CCI 541.
HIS 542 - Middle Ages: Selected Topics (3)

## (3:3)

Varying topics in medieval culture and society chosen from the broad categories of political, social, economic, intellectual, or religious history.
HIS 543 - Historic Preservation: Principles and Practice (3)

Study of change in historic preservation theory and practice since the 1800 s with emphasis on preservation of built environment. Development of philosophical approach for designers to contemporary preservation projects.

Prerequisite: Admission to a graduate program in History or Interior Architecture or permission of instructor. Crosslisted as: Same as IAR 543.

## HIS 544 - Early Modern Europe: Selected Topics (3)

(3:3)
Varying topics in early modern European history, including Renaissance cities, Protestant Reformation, Catholic Reformation, court cultures, impact of printing, gender and identity and the Age of Discovery.

HIS 545 - Southern History and Southern Material Culture in a Museum Context (3)
(3)

Combined southern history and material culture with a museum practicum. Students selected by individual application.

Prerequisite: Permission of instructor; students must submit written application. Crosslisted as: Same as IAR 545. Offered: (Summer).

HIS 546 - American Cultural History: Selected Topics (3)

Varying topics in the creation and development of American culture including the role of technology, environment, ethnic diversity, and the history of ideas.

Offered: (Spring).

## HIS 547 - History Museum Curatorship: Collections Management (3)

Professional practices in the care and management of historic site and history museum collections, including principles of collection development, object registration, cataloging, and preservation.

Prerequisite: Admission to a graduate program in history or interior architecture, or permission of instructor. Crosslisted as: Same as IAR 547. Offered: (Alt Spring).

## HIS 548 - Architectural Conservation (3)

(3:3)
Overview of contemporary architectural conservation principles, practice and technology. A series of field exercises, group projects and investigation of an individual research topic expand upon lectures and readings.

Prerequisite: Admission to a graduate program in History or Interior Architecture or permission of instructor.
Crosslisted as: Same as IAR 548.

HIS 549 - American Social History: Family and Religion (3)
(3:3)
American social history from the eve of colonization to Reconstruction, the family and communal organization of early American society, and the assumptions about human nature and destiny underlying culture and change.
HIS 551 - Gender and History: Selected Topics (3)
(3:3)
Varying topics in Gender and History including Gender and Popular Culture; Gender, Labor, Race, and Class; History of Masculinity.

## HIS 552 - History and Theories of Material Culture (3)

## (3:3)

Material culture as it has been defined and interpreted in the past by scholars from the disciplines of History, Anthropology, Geography, Art History, Psychology, Linguistics, and Archaeology.
Prerequisite: Admission to a graduate program in history or interior architecture, or permission of instructor.
Crosslisted as: Same as IAR 552. Offered: (Spring).
HIS 555 - Field Methods in Preservation Technology (3)

Intensive on-site fieldwork experience addressing issues of architectural conservation and historic building technology. Includes methods, techniques, and theories of preservation technology and accepted conservation practices.

Prerequisite: Admission to a graduate program in history or interior architecture, or permission of instructor. Crosslisted as: Same as IAR 555. Offered: (Summer).

## HIS 559 - Doing Visual History (3)

(3:3)
Explores the interstices of history, documentary production, and personal narratives.

Crosslisted as: Same as MST 559. Offered: (Alt).
HIS 560 - Nineteenth-Century Europe: Selected Topics (3) (3:3)

Selected topics address comparative political, social, and economic development of major European states and changing power relationships from the defeat of Napoleon to the end of the First World War.

## HIS 562 - Twentieth-Century Europe: Selected Topics (3)

(3:3)
Topics in 20th-century European history including World War I, its impact on European thought and culture, the origins of World War II, the movement for European Unity, the Cold War.

HIS 563 - Early Modern England: Selected Topics (3) (3:3)

Varying topics in early modern British history, including the Protestant Reformation, political revolutions and economic and social change.
HIS 564 - Modern Britain: Selected Topics (3)
(3:3)
Varying topics in modern British history such as the industrial revolution, parliamentary reform, loss of one empire and the creation of a second, World War I and II.

HIS 567 - French History: Selected Topics (3)

Study of specific themes and/or problem areas in French History.

HIS 571 - Modern European Thought: Selected Topics (3) (3:3)
Study of selected themes and/or problems in European intellectual and cultural history.
HIS 574 - Modern Germany: Selected Topics (3)

Varying topics in modern German history including the Third Reich, Germany during World War I, Bismarckian Germany, ideology in Germany.
HIS 575 - Modern Russian History: Selected Topics (3)

Varying topics in modern Russian history, including "Great Reforms," industrialization, revolutionary movement, Marxism- Leninism, tsarist and Soviet foreign policy, Soviet politics, post-World War II changes, Gorbachev era, and end of Soviet

HIS 578 - Research Methods in Historical Archaeology (3) (3:3)
Advanced training in research methods in Historic Archaeology, involving on-site training in field, laboratory, and library components of Historic Archaeology.

Prerequisite: Junior, senior, or graduate status. Crosslisted as: Same as ATY 578, IAR 578.
HIS 581 - African History: Selected Topics (3)

Varying topics in African history including Central African Kingdoms, Pre-colonial West African Kingdoms, "Stateless" Societies of Africa.

## HIS 587 - Southern African History (3)

(3:3)
The rise and decline of African nations in nineteenthcentury southern Africa: economic and social change; the creation of the Union of South Africa and the roots of apartheid.
HIS 588 - East Asian History: Selected Topics (3) (3:3)
Varying history in East Asian history: a detailed examination of specific social, economic, political and intellectual facets of Chinese, Korean and Japanese history.

HIS 589 - Experimental Course: Peripheries of the British Empire: Ireland and India (3)
(3:3)
This course will explore the shared colonial experiences of India and Ireland from the mid-nineteenth century to the late-twentieth century. Particular themes will include: famine, nationalism, military involvement, violence, and partition. The course wil

Offered: (Offered fall '12).
HIS 624 - History of American Landscapes and
Architecture (3)

Examination of the social and cultural forces affecting the design and use of landscapes and buildings in North America from the colonial period through the midtwentieth century.
Prerequisite: Admission to a graduate program in history or interior architecture, or permission of instructor. Crosslisted as: IAR 624.

## HIS 625 - Preservation Planning and Law (3)

(3:3)
Examination and analysis of the relationship of government programs and policies, community and regional planning strategies, and legal case precedents to the field of historic preservation.

Prerequisite: Admission to a graduate program in history or interior architecture, or permission of instructor. Crosslisted as: IAR 625.

## HIS 626 - The Practice of Public History (3)

(3:3)
Basic principles in the administration of museums, historic sites, and other cultural resources. Subjects include fundraising, personnel and volunteer management, working with board members, and museum law and ethics.

Prerequisite: Admission to a graduate program in history or interior architecture, or permission of instructor. Crosslisted as: IAR 626.

## HIS 627 - Museum and Historic Site Interpretation: Principles and Practice (3)

## (3:3)

Theory and practice of interpreting history to the public in the context of museums and historic sites. Topics include exhibit planning and technologies, living history, research methods, and audience evaluation.
Prerequisite: Admission to a graduate program in history or interior architecture, or permission of instructor. Crosslisted as: IAR 627.

HIS 628 - Identification and Evaluation of the Historic Built Environment (3)

## (3:2:2)

Methods, techniques, and theories of researching, analyzing, documenting, and evaluating the historic built environment. Includes architectural survey field methods, documentation techniques, archival research, and approaches to evaluating historic signif
Prerequisite: Admission to a graduate program in history or interior architecture, or permission of instructor. Crosslisted as: IAR 628.

## HIS 629 - Museum Education (3)

## (3:3)

Survey of the principles and practices of museum education. Explores the kinds of learning that occur in museums and how educational programming can engage diverse audiences.

Prerequisite: Admission to graduate study in history or interior architecture, or permission of instructor.

## HIS 630a - Historical Conceptualization (3)

## (3:3)

Historical developments: urbanism, the family, material consumption, deviance, revolution, science and technology, warfare, and other topics through the use of comparative history, social and political theory, and analytical tools from other disciplines.

## HIS 630b - Historical Conceptualization (3)

## (3:3)

Historical developments: urbanism, the family, material consumption, deviance, revolution, science and technology, warfare, and other topics through the use of comparative history, social and political theory, and analytical tools from other disciplines.

## HIS 630c - Historical Conceptualization (3)

Historical developments: urbanism, the family, material consumption, deviance, revolution, science and technology, warfare, and other topics through the use of comparative history, social and political theory, and analytical tools from other disciplines.

## HIS 631 - Digital History (3)

This seminar explores the possibilities and challenges of doing history in digital spaces. Students will gain handson training in tools and practices and will design original digital public history projects.

Prerequisite: Restricted to graduate students in the History/Museum Studies Program, unless by written permission of the instructor.

## HIS 633 - Community History Practicum (3)

## (3:3)

Hands-on course, students work corroboratively and engage community partners as they research, design, and complete public projects that engage audiences in local/regional history.
Prerequisite: HIS and IAR graduate students who have completed HIS 626/IAR 626, or permission of instructor.

## HIS 690 - Internship (3)

(3)

Supervised professional experience in selected museum, historic site, or other professional setting in accordance with the major course of study of the student.

Prerequisite: At least 12 hours in history MA or interior architecture MS program and permission of Director of Graduate Study. Crosslisted as: IAR 690.

## HIS 692 - Advanced Topics in History (3)

## (3:3)

Topics in history and thematic topics not otherwise covered at the graduate level.
Prerequisite: Admission to graduate study in history and permission of instructor.

HIS 697 - Directed Reading (1-4)
(1-4)
A directed program of reading and research, available to the qualified student upon the recommendation of an instructor and the department head.
Prerequisite: Admission to graduate study in history and permission of instructor and Director of Graduate Study.

## HIS 699 - Thesis (1-6)

(1-6)
HIS 701 - Colloquium in American History before 1865 (3)

Issues of historical interpretation from the Revolution through the Civil War.

Prerequisite: Admission to graduate study in history.
HIS 702 - Colloquium in American History since 1865 (3) (3:3)

Issues of historical interpretation from Reconstruction to the present.
Prerequisite: Admission to graduate study in history.

## HIS 703 - Seminar in History (3)

(3:3)
Research and writing on selected topics in history.
Prerequisite: Admission to graduate study in history.
HIS 704 - Seminar in History (3)
(3:3)
Research and writing on selected topics in history. Prerequisite: Admission to graduate study in history.

HIS 705 - Colloquium in European History before 1789 (3)
(3:3)
Topics in European social, economic, political and intellectual history from the Middle Ages to the French Revolution. Methodology and the diversity of historical approaches.
Prerequisite: Admission to graduate study in history.
HIS 706 - Colloquium in European History since 1789 (3) (3:3)
Interpretations of selected historical problems from the French Revolution to the present.

Prerequisite: Admission to graduate study in history.
HIS 707 - Seminar in European History (3)
(3:3)
Research and writing on selected topics in European history.

Prerequisite: Admission to graduate study in history.
HIS 708 - Seminar in European History (3)
(3:3)
Research and writing on selected topics in European history.

Prerequisite: Admission to graduate study in history.
HIS 709 - Introductory Research Seminar (3)
(3:3)
Will focus on methods, sources, and writing; research paper based on primary and contextualized in secondary sources.
Prerequisite: Admission to graduate study in history.
HIS 710 - Colloquium in the Atlantic World (3)

Introduction to the history of the Atlantic trading system, the historiography of Atlantic World studies, and comparative, cross-cultural approaches to historical research.

Prerequisite: Admission to graduate study in history or permission of instructor.

## HIS 711 - Experimental Course

This number reserved for experimental courses. Refer to the Course Schedule for current offerings.

## HIS 712 - Slavery in the Americas (3)

(3:3)
Comparative analysis of slavery and race relations in South and Central America, the Caribbean, British North America, and the United States, 1501-1888.

Prerequisite: Admission to graduate study in history or permission of instructor.

## HIS 713 - African Americans after Slavery (3)

## (3:3)

African American history during the Civil War, Reconstruction, the era of Jim Crow, the civil rights and post-civil rights eras.

Prerequisite: Admission to graduate study in history or permission of instructor.

HIS 714 - Varieties of Teaching (3)

## (3:3)

Introduction to college level teaching in history with attention to syllabi, lecturing, examinations, discussions, grading, and responding to student input. Students participate in teaching actual courses.

Prerequisite: MA in history.
HIS 715 - Atlantic World: Selected Topics (3)

Topics include European migration, comparative colonization, African diaspora, and "underdevelopment" in Latin America and Africa.

Prerequisite: Admission to graduate study in history or permission of instructor.

## HIS 716 - Graduate Colloquium in World History

Introduction to World history, the historiography of World studies, and comparative, cross-cultural approaches to historical research.

## HIS 720 - Public History Capstone I (3)

Conceiving, researching, planning, and creating an original public history project, the first part of a two-semester sequence.

Prerequisite: Students must have completed 15 hours of graduate level course credits.

## HIS 721 - Public History Capstone II (3)

## (3:1:6)

Conceiving, researching, planning, and creating an original public history project, the second part of a two-semester sequence.

Prerequisite: HIS 720.

## HIS 722 - Early America: Selected Topics (3)

## (3:3)

Topics in early American history from New World encounters, popular culture, race, gender, religion, or politics to 1800.

Prerequisite: Admission to graduate study in history or permission of instructor.

## HIS 723 - Selected Topics in Nineteenth-Century United

 States History (3)
## (3:3)

Varying topics that explore political, social, economics, intellectual, cultural, or religious history of nineteenthcentury U.S. History.

Prerequisite: Admission to graduate study in history or permission of instructor.

HIS 724 - Selected Topics in Twentieth-Century American History (3)

Major developments in the political, social, and cultural history of the United States since 1900.

Prerequisite: Admission to graduate study in history or permission of instructor.
HIS 740 - Selected Topics in European History (3)

## (3:3)

Varying topics that explore political, social, economic, intellectual, cultural, or religious history of European History.
Prerequisite: Admission to graduate study in history or permission of instructor.

## HIS 750 - PhD Readings Course (3)

(3)

Designed to provide doctoral students with a program of focused readings in the student's field of study.
Prerequisite: Permission of Director of Graduate Study.

## HIS 751 - PhD Dissertation Seminar (3)

(3:3)
Students will develop a doctoral dissertation topic.
Prerequisite: Completion of all course requirements and qualifying examination.

HIS 799 - Dissertation (1-12)
(1-12)
HIS 801 - Thesis Extension (1-3)
(1-3)
HIS 802 - Dissertation Extension (1-3)
(1-3)
HIS 803 - Research Extension (1-3)
(1-3)

## IAR - Interior Architecture

IAR 500 - Supervised Professional Experience (1-4)
(1-4:0:3-12)
Supervised professional experience in selected commercial or industrial organizations, public or private agencies, in accordance with the major course of study of the student.

## IAR 501 - Advanced Interior Architecture I (6)

(6:0:12)
Advanced design problems having complex functional, social, and economic implications, with emphasis on problem identification, formulation, and design development. IAR 501 taught as Writing Intensive (WI).
Prerequisite: IAR 412 for undergraduates.
IAR 502 - Advanced Interior Architecture II (6)
(6:0:12)
Advanced design problems having complex functional, social, and economic implications, with emphasis on problem identification, formulation, and design development. IAR 501 taught as Writing Intensive (WI).
IAR 527 - Problems in Interior Architecture (2-6)
(2-6)
Individual study.
Prerequisite: Permission of instructor.

## IAR 531 - Design Seminar (2)

(2:2)
Investigation of current research and subjects of topical interest in environmental design.

Prerequisite: Permission of instructor.
IAR 535 - Architectural Lighting Design (2)
(2:2)
Study of architectural lighting design: uses and control of light, lighting fixtures, and lighting installation for desired effect.

## IAR 536 - History of Decorative Arts (3)

(3:3)
Study of stylistic and cultural developments in the decorative arts with special concentration on America.

Crosslisted as: Same as HIS 536.

## IAR 540 - Evolution of Furniture (3)

A study of basic furniture forms-chairs, stools, tables, beds, chests-that follows a chronological route from Ancient Egypt to 21st-century Minimalism and examines changes in each historic period.

Prerequisite: ART 100 or ART 101, or IAR 222, or permission of instructor. Offered: (Fall or Spring).

IAR 541 - Contemporary Trends in Interior Product Design (3)

## (3:3)

Focusing on furniture, lighting, and textiles, the course studies trade events, showrooms, retailers, designers, and trade and consumer media all as forces shaping 21stcentury trends.
Prerequisite: ART 100 or ART 101, or IAR 222, or permission of instructor. IAR 540 recommended. Offered: (Fall).
IAR 543 - Historic Preservation: Principles and Practice (3)
(3:3)
Change in historic preservation theory and practice since the 1800s with emphasis on preservation of built environment, and development of philosophical approach for designers to contemporary preservation projects.

Prerequisite: Admission to a graduate program in Interior Architecture or History or permission of instructor. Crosslisted as: Same as HIS 543.

## IAR 545 - Southern History and Southern Material Culture in a Museum Context (3)

(3)

Combined southern history and material culture with a museum practicum. Students selected by individual application.

Prerequisite: Permission of instructor; students must submit written application. Crosslisted as: Same as HIS 545. Offered: (Summer).

IAR 547 - History Museum Curatorship: Collections Management (3)

## (3:3)

Professional practices in the care and management of historic site and history museum collections, including principles of collection development, object registration, cataloging, and preservation.
Prerequisite: Admission to a graduate program in history or interior architecture, or permission of instructor. Crosslisted as: Same as HIS 547. Offered: (Alt Spring).
IAR 548 - Architectural Conservation (3)

Overview of contemporary architectural conservation principles, practice and technology. Field exercises, group projects and investigation of an individual research topic expand upon lectures and readings.

Prerequisite: Admission to a graduate program in Interior Architecture or History or permission of instructor. Crosslisted as: Same as HIS 548.

IAR 552 - History and Theories of Material Culture (3) (3:3)
Material culture as it has been defined and interpreted in the past by scholars from the disciplines of History, Anthropology, Geography, Art History, Psychology, Linguistics, and Archaeology.
Prerequisite: Admission to a graduate program in history or interior architecture, or permission of instructor. Crosslisted as: Same as HIS 552. Offered: (Spring).
IAR 555 - Field Methods in Preservation Technology (3)

## (3:1:6)

Intensive on-site fieldwork experience addressing issues of architectural conservation and historic building technology. Includes methods, techniques, and theories of preservation technology and accepted conservation practices.

Prerequisite: Admission to a graduate program in history or interior architecture, or permission of instructor. Crosslisted as: Same as HIS 555. Offered: (Summer).

## IAR 560 - Advanced Computer-Aided Design and Research Seminar (3)

## (3:3)

With specific attention to how computational tools affect interior architectural design decision-making processes, rigorous examination of their origins, evolution, applications, and significance will be undertaken.
Prerequisite: IAR 202, IAR 212, IAR 222, or graduate standing, or permission of the instructor. Offered: (Fall).

IAR 565 - Materials and Methodologies Seminar (3) (3:3)
Investigation of materials, methods, and technologies for the design, fabrication, manufacturing, and production of products and components of interior architecture.

Prerequisite: IAR 333, or graduate standing, or permission of instructor. Offered: (Alt Fall).

IAR 578 - Research Methods in Historical Archaeology (3) (3:3)
Training in research methods in Historic Archaeology. Involves on-site training in field, laboratory and library components of Historic Archaeology.

Prerequisite: Junior, senior or graduate status. Crosslisted as: Same as ATY 578, HIS 578.

## IAR 589 - Experimental Course

This number reserved for experimental courses. Refer to the Course Schedule for current offerings.
IAR 600 - Supervised Professional Experience (1-4)
(1-4:0:3-12)
Supervised professional experience in selected commercial or industrial organizations, public or private agencies in accordance with the major course of study of the student. May be repeated for a maximum of 8 credits.

IAR 601 - Directed Self-Study in Interior Architecture (16)

Prerequisite: Permission of instructor.

## IAR 602 - Advanced Interior Architecture III (6)

(6)

Design issues or problems relevant to the individual student's concentration or area of specialization are explored in real or simulated studio projects.
Prerequisite: IAR 501 or IAR 502.

## IAR 611 - Graduate Seminar (0)

(0)

## IAR 624 - History of American Landscapes and Architecture (3)

(3:3)
Examination of the social and cultural forces affecting the design and use of landscapes and buildings in North America from the colonial period through the midtwentieth century.

Prerequisite: Admission to a graduate program in history or interior architecture, or permission of instructor. Crosslisted as: HIS 624.

## IAR 625 - Preservation Planning and Law (3)

(3:3)
Examination and analysis of the relationship of government programs and policies, community and regional planning strategies, and legal case precedents to the field of historic preservation.
Prerequisite: Admission to a graduate program in history or interior architecture, or permission of instructor.
Crosslisted as: HIS 625.

## IAR 626 - The Practice of Public History (3)

Basic principles in the administration of museums, historic sites, and other cultural resources. Subjects include fundraising, personnel and volunteer management, working with board members, and museum law and ethics.

Prerequisite: Admission to a graduate program in history or interior architecture, or permission of instructor. Crosslisted as: HIS 626.

IAR 627 - Museum and Historic Site Interpretation: Principles and Practice (3)

## (3:3)

Theory and practice of interpreting history to the public in the context of museums and historic sites. Topics include exhibit planning and technologies, living history, research methods, and audience evaluation.

Prerequisite: Admission to a graduate program in history or interior architecture, or permission of instructor. Crosslisted as: HIS 627.

## IAR 628 - Identification and Evaluation of the Historic Built Environment (3)

(3:2:2)
Methods, techniques, and theories of researching, analyzing, documenting, and evaluating the historic built environment. Includes architectural survey field methods, documentation techniques, archival research, and approaches to evaluating historic signif

Prerequisite: IAR 624, admission to a graduate program in history or interior architecture, or permission of instructor. Crosslisted as: HIS 628.

IAR 631 - Environmental Design Research (3)

## (3:3)

Advanced skills for identifying research questions and methods for accomplishing research in the environmental design field. Design research project is planned. Emphasis on research process including problem identification, literature review, data collect

## IAR 645 - Seminar in Interior Architecture (3)

Introduction to basic research methodologies and examination of contemporary research questions and issues in interior architecture and related fields.

IAR 665 - Problems in Interior Architecture (2-4) (2-4)

May be repeated for a maximum of 8 credits.

## IAR 690 - Internship (3)

(3)

Supervised professional experience in selected museum, historic site, or other professional setting in accordance with the major course of study of the student. May be repeated for a maximum of 6 credits.

Prerequisite: At least 12 hours in history MA or interior architecture MS program and permission of Director of Graduate Study. Crosslisted as: HIS 690.

## IAR 699 - Thesis (1-6)

(1-6)
Required of all candidates for the Master of Science in interior architecture.

## IAR 711 - Experimental Course

This number reserved for experimental courses. Refer to the Course Schedule for current offerings.

## IAR 801 - Thesis Extension (1-3)

(1-3)
IAR 803 - Research Extension (1-3)
(1-3)

## ISM - Information Systems and Supply Chain Management

ISM 512 - Open Source Software and Applications (3) (3:3)
Study of open source systems (OSS), the concept and state of the art OSS applications; experience with the installation, administration, development, and deployment of OSS in organizations.
Prerequisite: ISM 240 or equivalent.
ISM 515-Object-Oriented Programming (3)

Provides a foundation in Object-Oriented (OO) concepts and programming for students who wish to learn how to develop applications in a contemporary OO programming language.
Prerequisite: ISM 240 or equivalent.

## ISM 589 - Experimental Course

This number reserved for experimental courses. Refer to the Course Schedule for current offerings.

## ISM 600 - Desktop Data Management Tools (1.5)

(1.5:1.5)

Computer hardware, software and micro processing applications including the internet, word processing, spreadsheets, databases, and web page design. Emphasis on effective collaboration and file sharing techniques.

Prerequisite: Admission to a Bryan School graduate program.

ISM 613 - Directed Studies (1-3)
(1-3)
Individual study problems in the field. Regular conferences with instructor required.

Prerequisite: Permission of MSITM Program Director and instructor who will supervise study.

ISM 616-Object-Oriented Programming (3)

Provides a foundation in object-oriented concepts and programming course for students who wish to learn how to develop applications in Java.

Prerequisite: ISM 672 or permission of MSITM Program Director.

ISM 659 - Seminar in Management Information Systems (3)
(3:3)
The relationships of information systems planning to overall business goals, policies, management and industry conditions with an overview of strategies and techniques of structured analysis and design.
ISM 671 - Data Management (3)
(3:3)
Fundamental concepts of database management systems, including database design, implementation, and the use of the SQL query language.
ISM 672 - Web Programming (3)
(3:3)
Applyfundamental programming concepts in designing and implementing applications for the web. Foundations for developing web applications.

Crosslisted as: ENT 672.
ISM 673 - Telecommunications and Distributed Networks (3)
(3:3)
Technology related to internal and external network/telecommunication services. Managerial and business issues related to the identification, acquisition, and management of network/telecommunications services in the contemporary enterprise.
ISM 674 - Systems Analysis and Design (3)

## (3:3)

Study of systems analysis and structure methodologies to create conceptual blue prints of systems and their processes using systems design principles. Covers principles of software engineering, testing, and software quality.
ISM 675 - Business Analytics (3)

The interactive process of analyzing and exploring enterprise data to find valuable insights that can be
exploited for competitive advantage. IT capabilities and infrastructure needed are discussed.

## ISM 676 - Information Security and Privacy (3)

## (3:3)

Study of the technical, managerial, and organization issues in systems security, including systems security models, analysis of business process and technology for systems security, and information assurance.
Prerequisite: ISM 673 or permission of MSITM program director; admission to a UNCG graduate program.
ISM 677 - Information Systems Management (3)

Examines the role of information technology to improve processes and business performance, Analyze the interaction of business strategies, work processes, competitive markets, technology and people for effective IT management.

## ISM 678 - Project Management (3)

(3:3)
Modern methods of defining, planning, and executing large IT and other projects. Computer software and network modeling are used to support the efficient scheduling of interdependent activities.
Prerequisite: Admission to MSITM program or MBA 701.
ISM 679 - Special Topics in Information Systems (3)

Special topics in information systems, technology, and management.

## ISM 680 - Healthcare Information Technology Management (3)

## (3:3)

Introduction to management competencies for computer technology related to healthcare data and the tools and techniques for collecting, storing, retrieving, and reporting healthcare data.

## ISM 681 - Healthcare Decision Making for IT Managers

 (3)Learning and applying qualitative and quantitative techniques for decision-making related to health information technology. Methods for implementing HIT decisions using evidence-based materials covered.

## ISM 695 - Special Topics in IT (1.5)

(1.5:1.5)

Specific course title identified each time the course is offered. Selected topics will address contemporary issues in information technology and its management.

Prerequisite: Admission to MSITM degree program and permission of MSITM Program Director.

## ISM 696 - Organizational Internship (1-3)

## (1-3:1-3)

Academic and required work components allow students to gain organization experience. Course supervised by a designated graduate faculty member and an organization manager.

Prerequisite: Permission of MSITM Program Director.

## ISM 698 - Project in Information Technology (3)

Capstone experience in which the student demonstrates a broad knowledge of the material covered in the MSITM curricula by undertaking a project approved in consultation with the MSITM Program Director.

Prerequisite: Completion of at least 18 hours of required course for MSITM.

## ISM 699 - Thesis (1-6)

## (1-6)

An independent, theory-based inquiry in which a student applied knowledge and skills acquired to the scholarly study of information technology and management.

## ISM 711 - Experimental Course

This number reserved for experimental courses. Refer to the Course Schedule for current offerings.

## ISM 753 - Seminar in IS Planning, Management, and Global Issues (3)

Research issues in IS planning management, and global information technology management. Topics includes strategy formulation, tactics, process integration, business alignment, global environment, outsourcing, transborder dataflows, and cultural issues.

Prerequisite: ISM 677 or permission of PhD Director.

ISM 754 - Seminar in Inter-organizational Systems (3)
(3:3)
Current research issues on organizational processes and inter-organizational linkages that are transformed by the emergence of general information technology and Internet based applications.

Prerequisite: ISM 677 or permission of PhD Director.
ISM 755 - Seminar in Current and Emerging Information Technologies (3)
(3:3)
Research related to current and emerging information technologies in organizations. Topics include communications and network technologies, serviceoriented architecture, workflow systems, semantic web technologies and virtual world environments.
Prerequisite: ISM 677 or permission of PhD Director.
ISM 756 - Seminar in Information Systems Behavioral Topics (3)

Issues in design, development, use and impact of information systems from a behavioral perspective. Topics include ethical, privacy, societal, decision support, user interface, system usability and training aspects.

Prerequisite: Permission of PhD Director.
ISM 782 - Practicum in IS Teaching (1-3)
(1-3)
Supervised teaching of an information systems (IS) course. Faculty mentorwill guide in planning and delivery.

Prerequisite: Permission of PhD Director.

## ISM 783-Organizational Research Internship (3-6)

## (3-6)

Organizational work and research in information systems in actual organization. Expose student to practical and relevant research problems. Supervised by designated faculty member and organization manager.

Prerequisite: Permission of PhD Director.

## ISM 785 - Theories of Information Systems (3)

## (3:3)

Examines underlying theories in information systems research. Theories from organizational behavior, strategic management, economics, other disciplines inside and outside business, and IS will be discussed.

Prerequisite: Permission of PhD Director.

ISM 786 - Introduction to Research and Frameworks in Information Systems (3)

## (3:3)

Provides an in-depth understanding of the research process. Topics include: IS frameworks and research methodologies, models, development, and evaluation.

Prerequisite: Permission of PhD Director.
ISM 787 - Research Development in Information Systems (3)
(3:3)
Variety of field experiences in a community setting.
Prerequisite: ISM 786 or permission of PhD Director.
ISM 788 - Seminar in IS Research Methods (3)
(3:3)
Research process and various design elements for quantitative and qualitative research in information systems.
Prerequisite: STA 661, STA 662, and permission of PhD Director.

ISM 789 - Research Seminar in Information Systems (1-3) (1-3)
Explores current and emerging research topics in information systems.

Prerequisite: ISM 786 or permission of PhD Director.
ISM 790 - Independent Doctoral Research (1-6)
(1-6)
Individual work on research issues related to the student's primary area(s) of specialization. Work may consist of original research and/or critical examination and integration of existing literature.

Prerequisite: Permission of PhD Director.
ISM 799 - Dissertation (1-24)
(1-24)
Prerequisite: Admission to candidacy.
ISM 802 - Dissertation Extension (1-3)
(1-3)
ISM 803 - Research Extension (1-3)
(1-3)

## ITA - Italian

ITA 517 - The Auteur Director (3)
(3:3:2)
Works of an individual film director. Subject differs from offering to offering.
Prerequisite: Permission of department. Crosslisted as: Same as FRE 561, SPA 561.

## ITA 518 - Studies in Film Genre (3)

Technical, dramatic, social, and rhetorical dimensions of a film genre or genres. Subject differs from offering to offering.
Prerequisite: Permission of department. Crosslisted as: Same as FRE 562, SPA 562.

## ITA 589 - Experimental Course

This number reserved for experimental courses. Refer to the Course Schedule for current offerings.

## ITA 711 - Experimental Course

This number reserved for experimental courses. Refer to the Course Schedule for current offerings

## KIN - Kinesiology

KIN 519 - Mentoring in Community Youth Development Programs (2)

## (2:1:2)

Service learning experience mentoring an elementary or middle school youth in a community youth sport program. On campus seminars required.

Offered: (Fall \& Spring).
KIN 520 - Physical Activity Programs for Underserved Youth (3)

Overview of community-based programs designed to meet the needs of underserved youth; roles of universities and community agencies in such programs; development of leadership skills.

Offered: (Spring).

## KIN 521 - Evaluation of Physical Activity Programs in Youth Development (3)

## (3:3)

Examination of traditional and nontraditional strategies for effective youth program evaluation; attention to analysis and interpretation of data used in conducting such evaluations.
Prerequisite: KIN 520. Offered: (Spring).

## KIN 522 - Internship in Community Youth Sport Development Programs (6)

## (6:1:15)

Supervised field experience in qualified agencies. Course involves specific assignments, seminars on campus, and evaluation of student's performance.
Prerequisite: KIN 520, KIN 521; undergraduates must have a 2.50 GPA or permission of instructor. Offered: (Fall \& Spring \& Summer).

## KIN 530 - Play, Games, and Sport (3)

## (3:3)

Examination of major conceptualizations of play, games, and sport; comparisons and contrasts among the concepts.

## KIN 531 - Issues in Competitive Sports for Children and Youth (3)

In-depth examination of significant issues related to competitive sports in the lives of today's children and youth. Special attention given to studying the roles and responsibilities of the adults involved.
Prerequisite: Permission of instructor.
KIN 532 - Women in Sport and Physical Activity (3) (3:3)
Examination of women's experiences in sport and physical activity. Consideration of historical, biological, psychological, and socio-cultural perspectives.

Prerequisite: Junior standing or higher in Kinesiology or Women's and Gender Studies, or permission of instructor.
KIN 535 - Exercise Science/Fitness Internship (3)
(3:0:8)
Field experience in fitness leadership in qualified agencies providing fitness programs. Students must purchase professional liability insurance.

Prerequisite: KIN 568 or instructor's approval. Permission of instructor required.

KIN 536 - Anatomical Basis of Athletic Injury (2)
(2:1:3)
Focus on the link between anatomical structure, function, and athletic injury evaluation. The functional consequence of injury and rehabilitation on anatomical structures will also be addressed.

Prerequisite: Undergraduate anatomy and physiology. Offered: (Summer).

## KIN 545 - Psychology of Coaching (3)

(3:3)
Overview of sport psychology principles applied to the teaching and coaching of sport activities.

Prerequisite: PSY 121 or permission of instructor.

## KIN 550 - Sports Clinic (1)

(1)

Designed to improve teaching and coaching techniques in various sports utilizing current game strategies.

KIN 559 - Water Exercise for Therapy and Rehabilitation (3)

Design and implementation of therapeutic aquatic exercise programs for persons with injuries or disabilities. Understanding of anatomical structure and movement provide the basis for aquatic protocols.

Prerequisite: KIN 375 or KIN 376 (may be taken concurrently). Offered: (Spring).

## KIN 560 - Aquatic Therapeutic Modalities (3)

(3:2:2)
Mobility assessment and identification of contraindications for movement therapies used in therapeutic aquatics; development of techniques and protocols to increase mobility/decrease pain in persons with disability/injury.
Offered: (Fall).
KIN 563 - Development of Physical Education in the Western World (3)

Historical overview of development of physical education in Western Civilization from classical times to the present age.

KIN 565 - History of the Olympic Games (3)

## (3:3)

Development of the Olympic Games movement in both the ancient world and modern era. Consideration of cultural, philosophical, political, economic, and performance perspectives.

Offered: (Spring).

## KIN 567 - Measurement and Evaluation in Physical Education (3)

Survey of tests and application of measurement in physical education. Elementary testing procedures.

## KIN 568 - Health/Fitness: Assessment and Prescription

 (3)(3:3)
Scientific principles of exercise emphasizing design of safe, appropriate, individualized exercise programs for all ages; foundation for future ACSM certification as a health/fitness instructor. Emphasizes health-related physical fitness.

Prerequisite: KIN 375 and KIN 376, or permission of instructor; CPR must be current throughout the course.

## KIN 569 - Exercise Instruction (3)

## (3:3)

An instructional development course. Application of principles of content selection, effective presentation, and evaluation to practice in exercise settings for participants at various developmental levels.

Prerequisite: KIN 375 or KIN 575, and KIN 568, or permission of instructor.
KIN 570 - Development and Implementation of Fitness Programs (3)

## (3:3)

Preparation in planning, designing, developing, organizing, programming, implementing, directing, and evaluating fitness programs.
Prerequisite: KIN 468 and KIN 469, GPA of 2.50 and admission to the fitness leadership concentration, or permission of instructor; grades of $C$ (2.0) or better in all required KIN courses.

KIN 571 - Physical Education for Individuals with Special Needs (Advanced) (3)

## (3:3)

Advanced study of physical education for persons with mental and physical disabilities. Clinical experience is provided.

Prerequisite: KIN 381 or permission of instructor.
KIN 576 - Nutrition and Physical Fitness (3)
(3:3)
Metabolism during exercise, ergogenic aids, nutrients' effects on performance, and body composition alterations during training. Gender and age-specific needs and responses to exercise and dietary intake.

Prerequisite: Grade of C (2.0) or better in BIO 277, NTR
213, and NTR 413 or equivalent required. KIN 375 recommended. Crosslisted as: Same as NTR 576.

KIN 578 - Needs Assessment of Persons with Disabling Conditions (3)

Determination of gross motor and perceptual/gross motor performance needs of persons with disabilities. Analysis of published and teacher-made instruments. Construction of new tests for physical education for persons with special needs in physical activit

Prerequisite: Permission of instructor.

## KIN 579 - Exercise and Older Adults (3)

## (3:3)

Basic principles underlying exercise/aging. The delivery of exercise information and the conduct of exercise programs for older adults.

Prerequisite: Junior admission only by permission of instructor.

KIN 589 - Experimental Course: Teambuilding: Leadership and Group Dynamics (2)

Theories, information, and hands-on experience with challenge activities related to teambuilding, leadership, and group dynamics.

Offered: (Offered fall '08).

## KIN 595 - Exercise Science Internship (6)

(6:1:20)
A supervised field experience in qualified agencies. Application process is required for permission to register. Course involves specific assignments, supervision, seminars on campus, and evaluation of student's performance.

Prerequisite: Permission of instructor required, in addition to the following: cumulative GPA of 2.50 or better; admission to the fitness leadership concentration; completion of all KIN core courses and additional concentration courses except KIN 570; grades of C . Corequisite: KIN 570 must be taken prior to enrollment in or concurrently with IN 595.

KIN 601 - Applying Research to Professional Practice (3:3)
This course is designed for future practitioners in health and physical activity to gather, read, interpret, assess, and apply research to their fields.
KIN 606 - Workshops in Physical Education (1-3)
(1-3)
Practices, problems, and new approaches in physical education. Individual study and writing.
KIN 610 - Statistical Methods for Kinesiology (3)

Basic statistics with applications for kinesiology.
KIN 611 - Research Methods for Kinesiology (3)

Concepts and methods of research for kinesiology; formulation of problems, design and methodologies, evaluation of research, development of research proposals.

## KIN 612 - Research in Kinesiology II: Advanced Topics (3)

## (3:3)

Examination of selected strategies, methods, statistical or interpretative analytic processes used in kinesiology research.

Prerequisite: KIN 611 or permission of instructor.

## KIN 613 - The Meaning and Significance of Physical

 Education (3)Integration and application of principles related to the art and science of human movement as a foundation for a practical philosophy of contemporary physical education.

KIN 614 - Qualitative Inquiry in Health and Human Performance (3)

## (3:3)

Concepts and methods of qualitative research in health and human performance. Philosophical and practical approaches to collection, management, analysis, and presentation of qualitative data.

## KIN 615 - Ethnographic Methods in Kinesiology (3)

## (3:2:3)

Conducting research in public schools, coaching, community, youth and recreational settings, including identifying relevant sites and data sources, negotiating entry, gathering and triangulating participant perspectives, and using computer technology/soft
KIN 617 - Current Theories and Practice of Teaching Sports (3)

## (3:3)

Contemporary approaches to sports analysis and sports teaching in instructional physical education.

KIN 620 - Athletic Training Clinical Experience (3)
(3:0:20)
Supervised field experience in an assigned athletic training clinical setting. Students are required to complete 300 clock hours under the supervision of an approved clinical instructor.

Prerequisite: Admission to the MSAT degree program.
KIN 630 - Sport and Society: Social Inequalities (3)

Survey of current theories and research in the sociological study of sport, physical activity, and exercise; focus on sport and major social institutions, social inequalities, and social change.

Prerequisite: KIN 330, introductory sociology, or permission of instructor.
KIN 632 - Sport and Society: Global and Ethnic Relations (3)

Structural and ideological dimensions of international, national, and local sport. Analysis of the political economy of sport, including colonialism, neo-colonialism, national identities, and social movements.

Prerequisite: KIN 630 or permission of instructor.

## KIN 634 - Athletic Training Foundations (2)

## (2:1:3)

Introduction to athletic training emphasizing concepts and skills of prevention of athletic injuries, and management of life-threatening and catastrophic injuries.

Prerequisite: Admission to MSAT degree program or permission of instructor.
KIN 635 - Gender Issues in Kinesiology (3)

## (3:3)

Interdisciplinary seminar emphasizing psycho-social issues and feminist perspectives on gender relations in sport and physical activity. Topics include historical, biological, psychological and socio-cultural influences and interrelations.

## KIN 636 - Athletic Injury Evaluation (3)

## (3:3)

Recognizing and evaluating orthopedic injuries commonly sustained in the athletic environment. Additional topics include the body's pathological response to injury and methods of documentation.

Prerequisite: KIN 390, KIN 376, or permission of instructor.

## KIN 637 - Athletic Injury Evaluation Laboratory (1)

Laboratory course focused on the development of psychomotor competencies in orthopedic injury evaluation.

Prerequisite: Admission to MSAT degree program or permission of instructor.

## KIN 638 - Therapeutic Modalities (3)

## (3:3)

Theoretical foundation of therapeutic modalities as a component of athletic injury reconditioning programs. Theory and clinical aspects of delivery of therapeutic modalities are examined.

Prerequisite: BIO 271, BIO 277, or permission of instructor.

## KIN 639 - Therapeutic Modalities Laboratory (1)

Laboratory course focused on the development of psychomotor competencies in therapeutic modalities.
Prerequisite: Admission to MSAT degree program or permission of instructor.

KIN 640 - Rehabilitation Techniques for Athletic Injuries (3)

## (3:3)

Awareness, understanding, and application of principles and skills pertaining to rehabilitation of injuries in physically active populations.

Prerequisite: BIO 271, BIO 277, or permission of instructor.

KIN 641 - Rehabilitation Techniques Laboratory (1) (1:0:3)

Laboratory course focused on the development of psychomotor competencies in therapeutic exercise and rehabilitation techniques.

Prerequisite: Admission to MSAT degree program or permission of instructor.
KIN 642-Optimizing Athletic Performance (3)
(3:2:3)
Exploration of sports nutrition, ergogenic aids, and strength and conditioning principles within the context of sport injury and rehabilitation.

Prerequisite: Admission to MSAT degree program or permission of instructor.
KIN 643 - Mechanical Analysis of Motor Skills (3)

Mechanical principles applied to the teaching and analysis of selected sports activities; evaluation of modern biomechanical techniques.

KIN 644 - Psychology of Sport and Exercise (3)

Theories and research related to sport psychology; individual differences, motivation and social influence processes related to sport and exercise behavior.
Prerequisite: Introductory psychology or permission of instructor.

## KIN 645 - Exercise Psychology (3)

Examination of the effects of exercise on various factors (e.g., stress, mood) and the effects of psychological variables (e.g., biofeedback, motivation) on exercise.

Prerequisite: KIN 644, KIN 575 or permission of instructor.

## KIN 646 - Theoretical Considerations of Physical Education for Children (3) <br> (3:3)

Theories upon which the current physical education program for children ages 4-12 are based. Relationship between theory and practice and implications for teacher education.
KIN 647 - Motor Development and Human Movement (3)

## (3:3)

Changes of motor behavior over time and factors that affect these changes. Ability to observe movement and interpret it developmentally. Laboratory experiences.

KIN 648 - Learning and Performance of Physical Skills (3) (3:3)
Application of principles of learning to the learning and performance of physical skills, including the social, emotional, and personality factors affecting skill acquisition.
Prerequisite: General and developmental psychology (9 hrs.), or permission of the instructor.

KIN 650 - Scientific Factors Affecting Human Performance (3)

Assessment and analysis of human performance through the application of basic principles and current research in biomechanics and exercise physiology.
KIN 651 - Motor Behavior and Aging (3)
(3:3)
Changes in motor behavior at the upper end of the life span, focuses on improvement/maintenance of quality of life and activities of daily living.

## KIN 652 - Curriculum Development in Physical Education

 (3)Modern principles and practices in curriculum construction and current theories of physical education.
KIN 653 - History of American Sport and Exercise Science (3)
(3:3)
Study of development of sport and exercise science in the U.S. with special emphasis on the evolving institutional involvement of schools and colleges.

KIN 654 - Seminar in Curriculum Development in Physical Education (3)

Current theories and research in curriculum and instruction in the field of physical education.

Prerequisite: KIN 652, ELC 615, or permission of instructor.

## KIN 655 - Analysis of Teaching Behavior (3)

## (3:3)

Introduction to quantitative/qualitative methods for evaluating teaching and learning including techniques of classroom observation, classroom climate analysis, and student engagement. Extends the research competencies of those interested in pedagogical assessment.
KIN 656 - Psycho-Social Aspects of Teaching Physical Education and Sport (3)

## (3:3)

Social and psychological factors that influence instructional interactions and the perceptions of teachers, coaches and students.

Prerequisite: Previous teaching experiences or permission of instructor.

## KIN 657 - Teacher Education in Physical Education (3)

Theoretical and practical dimensions of teacher education programs in physical education as reflected in current texts, accreditation standards, and research in teaching and teacher education. Limited field work included.

## KIN 658 - Multiculturalism and Physical Education Curriculum (3)

## (3:3)

Cultures, cultural influence, race, gender and class roles, as they intersect with physical ability in physical activity, hidden curriculum issues, diverse cultures as curricular resources, culturally relevant pedagogy in PE.

## KIN 661 - Movement Theory (3)

## (3:3)

The theoretical structure of human movement; opportunity for developing an individual theory of movement.

## KIN 663 - Supervision of Physical Education (3)

## (3:3)

Current theoretical approaches to supervision with practice using teacher behavior observation tools and techniques to supervise undergraduate student teachers in physical education and health settings.

KIN 664 - PE Program Evaluation and Evidence-Based Practice (3)

Program evaluation concepts, processes, and issues in physical education/activity interventions; reflection and critique of different evaluation philosophies, theories, and policy ramifications in program evaluation.

## KIN 665 - Physical Activity and Health (3)

## (3:3)

Health benefits and risks of physical activity/exercise. Course content parallels the 1996 U.S. Surgeon General's report Physical Activity and Health with updated referencing.

Prerequisite: KIN 375 or equivalent or permission of instructor.

## KIN 667 - Exercise Electrocardiography and Cardiopulmonary Medications (3)

## (3:3)

Electrocardiography and mechanisms/side effects of cardiopulmonary medications most likely encountered in clinical exercise settings. Particularly appropriate for students interested in cardiopulmonary rehabilitation and clinical exercise testing.

Prerequisite: KIN 375 or equivalent or permission of instructor. Coreq. KIN 670 or permission of instructor.

## KIN 668 - Advanced Exercise Assessment (3)

## (3:2:2)

Exercise testing for cardiorespiratory fitness and disease diagnosis. Knowledge of ECG interpretation and cardiorespiratory pharmacology applied to clinical exercise testing. Also covers body composition and musculoskeletal fitness testing.

Prerequisite: KIN 468 or equivalent, KIN 670, or permission of instructor.

## KIN 669 - Advanced Exercise Prescription (3)

## (3:3)

Prescription of exercise for healthy, at-risk, and diseased individuals. Covers exercise prescription objectives for American College of Sport's Medicine's Exercise Specialist and Health Fitness certifications.

Prerequisite: KIN 670 or permission of instructor.

## KIN 670 - Physiology of Exercise (3)

(3:3)
In-depth study of the physiological basis of human physical performance with emphasis on the acute response and chronic adaptations of the body to exercise.

Prerequisite: KIN 375 or permission of instructor.
KIN 675 - Applied Human Work Physiology (3)

## (3:3)

Physiological factors which influence the exercise and performance capabilities of humans.
Prerequisite: KIN 375 or equivalent, or by permission of instructor.

KIN 676 - Problems Seminar (3)

Specific course title identified each semester by subscript, e.g., Problems Seminar: Tension and Relaxation Theories Applied to Sports.
Prerequisite: Previous course work in appropriate content areas.

## KIN 677 - Entrepreneurship Opportunities in Healthy Aging (3)

## (3:3)

Examination of entrepreneurship opportunities related to the aging population, with specific attention to products and services that extend the healthy lifespan. Includes development of Business Opportunity Analysis.
Crosslisted as: GRO 677, KIN 677.
KIN 679 - Exercise and Older Adults: Advanced (3)

Scientific and theoretical bases of exercise/aging and guidelines regarding leadership and planning of exercise programs.
Prerequisite: Previous course work in motor development, motor learning and exercise physiology.
KIN 694 - Internship in Kinesiology (3-6)
(3-6)
Supervised field experience appropriate to the student's interests and background in selected settings during the final phases of the student's curricular plan.
Prerequisite: Permission of instructor.

KIN 695 - Independent Study (1-3)
(1-3)
Intensive study in an area of special interest in physical education.

Prerequisite: Demonstrated competency for independent work and permission of departmental academic adviser and the instructor.
KIN 696 - Laboratory Technology in Kinesiology (1 or 2)

## (1:0:3 or 2:0:6)

Cost, function, and operation of laboratory equipment used in the area of exercise science (e.g., oxygen consumption, cinematography, body composition, kinetic analysis, specific computer applications, and timing techniques).
Prerequisite: KIN 670 or KIN 718 and KIN 643.

## KIN 697 - Field Practicum in Kinesiology (3-6)

(3-6)
Developing, implementing, and/or evaluating a focused set of professional activities in a field setting. Requires guidance, approval, and evaluation by one faculty member.

## KIN 699 - Thesis (1-6)

(1-6)
KIN 700 - Special Topics in Kinesiology (3)
(3)

Advanced study in special topics from the various subspecialities within the field of kinesiology.

Prerequisite: Prerequisites and defined research competencies will vary according to topic.
KIN 701 - Research Topics in Kinesiology (3)

## (3:3)

Intensive examination of specific topics; critical review of current literature.

Prerequisite: Prerequisites and defined research competencies will vary according to topic.

## KIN 702 - Research Seminar in Applied Neuromechanics (1)

Exploration of the assessment of neuromechanical function of the extremities and its relationship to performance, joint instability, and injury risk.
Prerequisite: Graduate student in KIN with an applied neuromechanical focus or permission of instructor.

## KIN 704 - Athletic Training Seminar (1)

(1:1)
Structured review for the National Athletic Trainers' Association Board of Certification (BOC) examination.
Prerequisite: Admission to the MSAT degree program.
KIN 705 - Applied Rehabilitation Concepts (1)
(1:0:6)
Capstone experience involving the supervision of a comprehensive orthopedic rehabilitation project.

Prerequisite: Admission to the MSAT degree program.
KIN 707 - Critical Analysis of Professional Literature in Pedagogical Kinesiology (3)

## (3:3)

Analysis, synthesis, and critique of scientific, critical, postmodern, poststructural, and phenomenological literature in pedagogical kinesiology.

Prerequisite: KIN 652, KIN 654, or permission of instructor.

## KIN 708 - College Teaching in Kinesiology (1)

## (1:1)

Introduction to issues and methods for teaching kinesiology in higher education. Seminar and online discussion format.

Prerequisite: Permission of instructor.
KIN 709 - Mentored Teaching in Kinesiology (1-3) (1-3)
Mentored teaching experience in kinesiology developed by student and faculty mentor, beyond graduate assistantship.
Prerequisite: Permission of instructor.
KIN 710 - Sport and Feminisms (3)
(3:3)
Emergence of U.S. feminist theories, including U.S. Third World feminisms. Application of feminisms to sport as cultural practice.

Prerequisite: Undergraduate/graduate feminist theory course or permission of instructor.
KIN 711 - Experimental Course (3)

This number reserved for experimental courses. Refer to the Course Schedule for current offerings.

KIN 718 - Cardiovascular Aspects of Exercise Physiology (3)
(3:3)
Effects of acute and chronic exercise on heart function and size, peripheral vasculature, hemodynamics and cardiac output.

Prerequisite: KIN 670 or permission of instructor.
KIN 719 - Muscular Aspects of Exercise Physiology (3) (3:3)

Effects of acute and chronic exercise on muscular mechanics, blood supply, size of muscle, fiber types, fatigue and physical performance.

Prerequisite: KIN 670 or permission of instructor.
KIN 720 - Pathophysiology and Pharmacology (3)
(3:3)
In-depth study of the pathophysiology and pharmacologic treatment of major illnesses, injuries, and diseases observed in clinical settings.
Prerequisite: KIN 375 and BIO 111 or equivalent or permission of instructor.

## KIN 721 - General Medical Conditions (3)

(3:2:4)
Lecture and laboratory experiences to develop clinical skills in assessment and management of general medical situations common to athletic training.
Prerequisite: Admission to MSAT degree program or permission of instructor, Coreq. 720.

KIN 725 - Management and Professional Issues in Athletic Training (3)

The administration and organization of athletic training health care programs and facilities. Current issues in athletic training professional conduct and practice will also be discussed.

Prerequisite: Admission to MSAT degree program or permission of instructor.
KIN 730 - Neural Aspects of Motor Control (3)

## (3:3)

Multi-disciplinary seminar exploring theories and mechanisms of neuromuscular control of human movement.

Prerequisite: Undergraduate survey course in motor learning/control or permission of instructor.

KIN 733 - Practicum in Supervision of Physical Education (1-3)
(1-3)
Individually directed experiences in the organization and evaluation of field experiences in teacher education.

Prerequisite: KIN 663 or permission of instructor.

## KIN 734 - Measurement Theory Applied to Pedagogical Kinesiology (3)

Measurement theory necessary to the planning, construction, and use of tests in physical education and athletics.

Prerequisite: KIN 610 or equivalent or permission of instructor.

## KIN 743 - Psychological Aspects of Sport Injury (3)

## (3:3)

Psychological factors and intervention strategies as they relate to the risk, experience, and treatment of athletic injuries from a biopsychosocial perspective.

Prerequisite: KIN 644 or permission of instructor.
KIN 744 - Applied Sport Psychology (3)
(3:2:2)
Current research in applied sport psychology; sportspecific individual differences, motivational approaches, and interventions.
Prerequisite: KIN 644.
KIN 745 - Seminar: Social Psychology and Physical Activity (3)

Current theories, research methodologies and findings related to the social psychological aspects of sport and exercise behavior.
Prerequisite: KIN 644.
KIN 746 - Practicum in Applied Sport and Exercise Psychology (1-3)
(1-3)
Skill development and application of theory to practice in applied sport psychology through supervised work in a laboratory and/or field setting.
Prerequisite: KIN 744 or equivalent and permission of instructor.

## KIN 748 - Advanced Topics in Sport Exercise and Psychology (3)

(3:3)
Advanced study in special topics within a field of sport and exercise psychology.

Prerequisite: KIN 644 or equivalent and permission of instructor.

## KIN 749 - PE Learning and Motivation Advanced Seminar (3)

(3:3)
Comprehensive analysis and critical examination of learning and achievement motivation theories and constructs, instructional strategies, and curriculum designs in physical education and other physical activity settings.

## KIN 750 - Seminar in Kinesiology (3)

## (3:3)

Integrative seminar focusing on major issues confronting the field of kinesiology, and applying concepts to professional practice and higher education.

KIN 751 - Advanced Research Seminar in Kinesiology (3)

## (3:3)

Integrative seminar focusing on development, refinement, and presentation of research.

Prerequisite: KIN 611 or permission of instructor.
KIN 754 - Applied Sport Psychology Issues and Practice (3)
(3:3)
Theories and research underlying applied sport psychology. Consideration of issues in educational sport psychology practice.
Prerequisite: KIN 644, KIN 744.
KIN 785 - Curriculum Theory in PE Advanced Seminar (3)

In-depth examination and critical analysis of the evolution of physical education curriculum theory discourses in the United States from 1900 to the present.

Prerequisite: KIN 652, KIN 654, or permission of instructor. May be repeated when topic varies.

KIN 795 - Independent Doctoral Research (1-6)
(1-6)
In-depth study of a problem in exercise and sport science. May include a synthesis/review of literature, scientific investigation, or design, implementation, or evaluation of project.

Prerequisite: Prior approval of graduate faculty member who will supervise and evaluate the project.
KIN 798 - Doctoral Seminar in Grant Writing (3) (3:3)
The grant writing process, including the procedures and technical strategies for developing and submitting a grant proposal for funding.

Prerequisite: Minimum second year doctoral candidate in HHP or permission of instructor. Coreq. KIN 695 with faculty advisor or course instructor for individualized mentoring of the grant writing project.
KIN 799 - Dissertation (1-12)
(1-12)
KIN 801 - Thesis Extension (1-3)
(1-3)
KIN 802 - Dissertation Extension (1-3)
(1-3)
KIN 803 - Research Extension (1-3)
(1-3)

## LAT - Latin

LAT 501 - Independent Study (1-3)
(1-3)
Directed program of readings, research, and individual instruction in Latin language.
Prerequisite: Permission of instructor.
LAT 531 - Latin Grammar and Composition (3)
(3:3)
Intensive study of Latin grammar, syntax, and prose style; includes reading of Latin texts and translation into Latin from English. Required for initial licensure in Latin.

Prerequisite: LAT 204, or permission of instructor.

## LAT 550 - Topics in Latin Studies (3)

## (3:3)

Studies in selected topics in Latin literature or languages, e.g., the development of a genre, the nature of a period in literary history, or the treatment of a particular theme.

## LAT 552 - Teaching Secondary-Level Latin: Current Trends (3)

## (3:3)

Trends and issues in teaching Latin at the secondary level. Topics include: review of textbooks, use of technology, research on second language acquisition, reaching diverse learners, and other current issues.
Prerequisite: Admission to the Standard Professional I License or M.Ed. in Latin program, or permission of instructor.

## LAT 571 - Medieval and Renaissance Latin (3)

(3:3)
Selections from Medieval and Renaissance prose and poetry.
Prerequisite: Permission of the instructor.

## LAT 589 - Experimental Course

This number reserved for experimental courses. Refer to the Course Schedule for current offerings.

## LAT 600 - Vergil (3)

In-depth survey of Vergil's work with special attention paid to the literary, political, and philosophical context in which Vergil wrote.

## LAT 601 - Lyric Poetry (3)

Selected readings from Catullus, the Odes of Horace, and Martial.

## LAT 602-Ovid (3)

(3:3)
Selected readings from the Metamorphoses, Ars
Amatoria, and Tristia.

## LAT 611 - Roman Historians (3)

(3:3)
Study of the works of Caesar, Livy, Sallust, and Tacitus.
LAT 612 - Cicero (3)
(3:3)
Study of the orations, letters, and essays of Cicero.

## LAT 623 - Roman Comedy (3)

(3:3)
Reading of selected plays of Plautus and Terence in their historical and cultural context.

## LAT 624 - Roman Biography (3)

(3:3)
Exploration of the Roman biographical tradition. Attention given to issues of genre, literary history, ancient scholarship as well as close readings of selected texts.

LAT 625 - Poetry in the Age of Augustus (3) (3:3)
Study of the poetic genres and major poets in Latin from 40 B.C. to 14 A.D.; selections from Vergil, Horace, Ovid, and the elegists.

## LAT 626 - Silver Age Survey (3)

A survey of the major authors of the first and early second centuries with special emphasis on Petronius, Juvenal, Martial, and Pliny the Younger.

## LIS - Library and Information Studies

## LIS 505 - Introduction to Archival Management (3)

## (3:3)

Principles of archival management, featuring both classroom instruction in archival theory and practical experience in manuscript repositories and public and private archives.

Prerequisite: Permission of instructor. Crosslisted as: Same as HIS 505.

## LIS 589 - Experimental Course

This number reserved for experimental courses. Refer to the course schedule for current offerings.

## LIS 600 - Foundations of Library and Information Studies

 (3)(3:3)
Survey of access issues in library and information studies; professional operations and potential roles in society.
LIS 604 - The History of Libraries and Librarianship (3) (3:3)
Examines the history of libraries in the western world with particular emphasis on the United States.

LIS 610 - Collection Management (3)

Principles, processes, and problems in selection, evaluation, and acquisition of resources for libraries and information centers.

## LIS 614 - Public Documents Information Sources (3)

## (3:3)

Federal, state, and United Nations agency documents: selection, organization, and use. For students in library studies, business and economics, history and political science.

Prerequisite: LIS 600, LIS 620, or permission of instructor.

## LIS 617 - Materials for Children (3)

## (3:3)

Survey of resources for early childhood through elementary school levels, study of selection aids and criteria, use of materials and investigation of reading, listening, viewing interests.

LIS 618 - Materials for Adolescents (3)

## (3:3)

Survey of resources and services appropriate for adolescents, study of selection aids and criteria, use of resources, and investigation of reading, listening, viewing interests.

## LIS 620 - Information Sources and Services (3)

## (3:3)

The origins and characteristics of information sources and related access issues such as identification of information needs, negotiation of information requests, and the connection of requests with the appropriate sources.
LIS 622 - Seminar in Advanced Information Sources and Services (3)

## (3:3)

Application of sophisticated tools and techniques to the solution of information problems. Emphasis on academic and large public libraries, and special collections.

Prerequisite: LIS 620.
LIS 623 - Principles of Database Information Retrieval (3)
(3:3)
Principles of bibliographic database structure, evaluation, and utilization for effective search strategy formulation, critical evaluation of retrieved information, and presentation of results.

Prerequisite: LIS 620.
LIS 625 - Electronic Resources for Youth (3)

## (3:3)

How today's youth use technology to access information with an emphasis on the effective use of technology to enhance learning.

## LIS 626 - Social Sciences Information Sources (3)

## (3:3)

Major bibliographic and information sources and services in the social and behavioral sciences.

Prerequisite: LIS 600, LIS 620, or permission of instructor.
LIS 627 - Humanities Information Sources (3)
(3:3)
Major bibliographic and information sources and services in the humanities.

Prerequisite: LIS 600, LIS 620, or permission of instructor.
LIS 628 - Science and Technology Information Sources (3)

## (3:3)

Major bibliographic and information sources and services in the sciences and technology.

Prerequisite: LIS 600, LIS 620, or permission of instructor.
LIS 629 - Business Information Sources and Services (3)

## (3:3)

Business reference work in the library setting; types of business topics, reference materials, and methods of research.

Prerequisite: LIS 620 or permission of instructor.
LIS 630 - Computer-Related Technologies for Information Management (3)
(3:3)
Essential computer-related technologies in a library/school/information agency environment.

Prerequisite: LIS 600 or permission of instructor.
LIS 631 - Emerging Technological Trends in Information Access (3)

Emerging technologies in libraries including local, regional, national, and international communication systems for information transfer as these trends impact delivery of information to library and information center users.

LIS 632 - Managing School/Library Computer Laboratories (3)
(3:3)
Design, development, maintenance and management of computer labs in libraries and schools. Other topics include: performance support for school and library users, budgeting and planning.

LIS 633 - Telecommunications and the Internet (2)

Examines components of and modes of access to the Internet, Internet telecommunications technologies, Internet use and finding aids, evaluation of Internet resources, and ethical and social issues and the Internet.
LIS 635 - Media Production Services for Library Programs (3)
(3:3)
Media and technology applications in libraries and information agencies. Develops competencies in designing, developing and producing, and presenting media and technology.
LIS 636 - Website Production and Usability for Librarians (3)
(3:3)
Introduction to Website production and usability issues that are particularly relevant to librarians. Emphasis on seeking to understand and enhance users' experiences.

LIS 640 - Information Organization and Access (3)

Introduction to the theory, principles, concepts, standards, and methods of the organization of and access to information.
LIS 641 - Cataloging and Classification (3)
(3:3)
Cataloging and classification of materials using current cataloging codes and appropriate techniques of subject analysis and classification.

Prerequisite: LIS 640.
LIS 642 - Seminar in Indexing and Abstracting (3)
(3:3)
Critical study of print and computer-assisted indexes and indexing with creation of thesaurus, indexes, and concordances. Study of database management program indexing and indexing of internet resources.

Prerequisite: LIS 600, LIS 640, or permission of instructor.
LIS 643 - Metadata (3)
(3:3)
Introduces conceptual and practical metadata knowledge. Identifies commonalities among metadata schemas and reviews design and profiling processes related to needs of various application domains and environments.

Prerequisite: LIS 640 or permission of instructor.
644 - Digital Libraries (3)
(3:3)

Survey of library, archival, and museum collections served by digital information sources, including an introduction to digitization, managing electronic resources, and maintenance of electronic collections.

Prerequisite: LIS 640.
LIS 650 - Library Administration and Management (3) (3:3)
Emphasizes management functions, resource management, and application of concepts to management situations in libraries and information centers.

LIS 652 - Library Administration and Management Seminar (3)

## (3:3)

Topical approach examines current management issues in an in-depth manner.

Prerequisite: LIS 650 or permission of instructor.

## LIS 653 - The School Library (3)

The role and function of the school library media center; planning, evaluation, and program development.

Prerequisite: LIS 600, LIS 615, LIS 620, LIS 640, LIS 650 or permission of instructor.

## LIS 654 - School Library Media Specialist and the Curriculum (3)

Relationship of the library media program to the school curriculum; library/media and computer skills K-12 instructional program. Observation and practice in school settings.
Prerequisite: LIS 650 and LIS 653 or permission of instructor.

## LIS 655 - The Public Library (3)

The public library in the governmental structure, the librarian as a public administrator, financial and cooperative planning, library services, community analysis.
Prerequisite: LIS 600, LIS 650, or permission of instructor.

LIS 656 - The Academic Library (3)

Major trends, issues, and problems in the organization and provision of services in college and university libraries.

Prerequisite: LIS 600, LIS 650, or permission of instructor.
LIS 657 - The Special Library (3)
(3:3)
Major trends, issues, and problems in the provision of services in profit and not-for-profit special libraries.
Prerequisite: LIS 600, LIS 650, or permission of instructor.
LIS 661 - Library and Information Science Research (3) (3:3)

Problems of concern to libraries and information center personnel, including application of interdisciplinary concepts and research methods.

Prerequisite: LIS 600, LIS 615, LIS 620, LIS 640, LIS 650, or permission of instructor.
LIS 662 - Information Services to Diverse Client Groups (3)
(3:3)
Changing demographic patterns affecting library and information services in all types of libraries. Services, collections and staffing to reflect a variety of cultural/ethnic experiences/needs.
LIS 663 - Library Services for Young People (3)

## (3:3)

Planning, evaluation, and administration of programs and services designed to meet the needs of individuals and groups of children and adolescents; current issues in public libraries.

Prerequisite: LIS 617 or LIS 618 or permission of instructor.
LIS 664 - Reading, Literacy, and the Library (3)

Introduction to the development of reading and literacy skills, the needs of readers (early childhood to adult), and strategies for librarians to support this development.

## LIS 666 - Information Ethics and Policy (3)

## (3:3)

Examination of legal and ethical aspects of information ethics and policies in libraries/information centers. Covers traditional concerns of access to print, government information, and issues of technology access, privacy concerns.

Prerequisite: LIS 600, LIS 615, or permission of instructor.

## LIS 667 - Information Services for Adults (3)

## (3:3)

Design, planning, evaluation, and administration of information services designed to meet lifelong learning goals and needs of individuals and groups of adults in information organizations. Primary emphasis on public libraries.

Prerequisite: LIS 615, LIS 620, and LIS 650 or permission of instructor.

## LIS 672 - Instructional Design (3)

Components of the systems approach to instructional design.

Crosslisted as: TED 672.
LIS 673 - Methods of Teaching Computer Literacy and Computer Programming (3)
(3:3:3)
Content and method for teaching for computer literacy and computer programming and strategies for teaching these subjects. Designed for computer specialists, computer teachers, and regular classroom teachers.
Prerequisite: LIS 672, TED 669; or permission of the instructor. Crosslisted as: TED 609.

LIS 674 - Seminar: Issues and the Virtual Community (3)

Major social and ethical issues emerging in the virtual community including those embraced by access, privacy, intellectual property, freedom of speech, institutional/social control, and evolving formats.
Prerequisite: Permission of instructor. Crosslisted as: TED 674.

## LIS 688 - Seminar in Selected Topics I (1-4)

(1-4)
Contemporary issues and current trends in librarianship, educational technology, and information science. Topics to be identified for a particular seminar.

## LIS 690 - Independent Study (1-4)

(1-4)
Guided readings, research, and individual project work under direction of faculty.

Prerequisite: LIS 600, LIS 620, LIS 640, LIS 650, and permission of instructor.

LIS 691 - Practicum (3-6)
(3-6)
Supervised field experience in library/media center settings, with seminars. Credit required will vary with individual needs.

Prerequisite: LIS 600 and permission of instructor.
LIS 692 - Field Experience in School Library Media (3) (3:0:3)
Supervised field experiences in a school library media center with seminars, observation, and exploration into the school setting and media coordinator roles, for students with no teaching license.
LIS 693 - Practicum in School Library Media (3)
(3:0:3)
Supervised field experiences in a school library media center with seminars.

Prerequisite: LIS 600, LIS 615, LIS 617 or LIS 618, LIS 620, LIS 635, LIS 640, LIS 650, LIS 653, and LIS 654; and LIS 692 for students who do not have a teaching licensure.
LIS 694 - Supervision: School System Library Media Programs (3)

Principles and problems in administration and supervision of the district level library/media program of the school system.

Prerequisite: Permission of instructor.
LIS 698 - Capstone Experience in Library and Information Studies (1)

Developing a professional portfolio or master's project. Faculty supervised, department chair approved.

Prerequisite: Completion of all other degree requirements and permission of instructor.

## LIS 711 - Experimental Course

This number reserved for experimental courses. Refer to the Course Schedule for current offerings.

LIS 803 - Research Extension (1-3)
(1-3)

## MAT - Mathematics

MAT 503 - Problem Solving in Mathematics (3)
(3:3)
Investigates the nature of problem solving, covers procedures involved in problem solving, develops individual problem solving skills, and collects a set of appropriate problems. Required for middle grades mathematics concentration. This course cannot be

Prerequisite: Grade of at least C in MAT 191 and MAT 303 or permission of instructor.

## MAT 504 - Foundations of Geometry for Teachers (3)

## (3:3)

Primarily for students seeking teacher certification. Includes logic and axiom systems, history, plane and solid Euclidean geometry, proof strategies, introduction to nonEuclidean geometries, and transformational geometry. This course cannot be applied $t$

Prerequisite: Grade of at least C in MAT 292 or permission of instructor. Offered: (Fall).

## MAT 505 - Foundations of Mathematics for Teachers (3)

## (3:3)

Primarily for students seeking teacher certification. Includes properties and algebra of real numbers; analytic geometry; polynomial, rational, exponential, logarithmic, and trigonometric functions; complex numbers; concept of limits of functions. This co

Prerequisite: Grade of at least C in MAT 292 or MAT 303 or permission of instructor. Offered: (Spring).

## MAT 513 - Historical Development of Mathematics (3)

## (3:3)

Study of the historical development of mathematics, not a history of persons involved in development. This course cannot be applied toward the requirements for the M.A. degree in Mathematics.

Prerequisite: Grade of at least C in MAT 292. Offered: (Fall).

## MAT 514 - Theory of Numbers (3)

## (3:3)

An introductory course to both multiplicative and additive number theory. Divisibility, prime numbers, congruencies, linear and nonlinear Diophantine equations (including Pell's equation), quadratic residues, number-theoretic functions, and other topics.
Prerequisite: Grade of at least C in MAT 311.
MAT 515 - Mathematical Logic (3)
(3:3)
Formal languages, recursion, compactness, and effectiveness. First-order languages, truth, and models. Soundness and completeness theorems. Models of theories.
Prerequisite: Grade of at least C in MAT 311 or MAT 353.

## MAT 516 - Intermediate Abstract Algebra (3)

## (3:3)

Rings, integral domains, fields, division algorithm, factorization theorems, zeros of polynomials, greatest common divisor, formal derivatives, prime polynomials, Euclidean domains, the fundamental theorem of algebra.

Prerequisite: Grade of at least C in MAT 311.

## MAT 517 - Theory of Groups (3)

## (3:3)

Elementary properties of groups and homomorphisms, quotients and products of groups, the Sylow theorems, structure theory for finitely generated Abelian groups.

Prerequisite: Grade of at least C in MAT 311.
MAT 518 - Set Theory and Transfinite Arithmetic (3)
(3:3)
The axioms of set theory, operations on sets, relations and function, ordinal and cardinal numbers.
Prerequisite: Grade of at least C in MAT 311 or MAT 395.

## MAT 519 - Intuitive Concepts in Topology (3)

## (3:3)

Basic concepts, vector fields, the Jordan curve theorem, surfaces, homology of complexes, continuity.

Prerequisite: Grade of at least C in MAT 311 or MAT 395.
MAT 520 - Non-Euclidean Geometry (3)

Fifth postulate, hyperbolic geometries, elliptic geometries, consistency of non-Euclidean geometries, models for geometries, elements of inversion.

Prerequisite: Grade of at least C in MAT 311 or MAT 395.

## MAT 521 - Projective Geometry (3)

## (3:3)

Transformation groups and projective, affine and metric geometries of the line, plane, and space. Homogeneous coordinates, principles of duality, involutions, cross-ratio, collineations, fixed points, conics, ideal and imaginary elements, models, and Eucl

Prerequisite: Permission of instructor.
MAT 522 - Introductory Functional Analysis (3)

Basic concepts in Banach spaces, Hilbert spaces, linear operators, and their applications.

Prerequisite: Grade of at least C in MAT 395.
MAT 525 - Intermediate Mathematical Analysis (3) (3:3)

Integration, infintie series, sequences and series of functions.

Prerequisite: Grade of at least C in MAT 395.
MAT 531 - Combinatorial Analysis (3)
(3:3)
The pigeon-hole principle, permutations, combinations, generating functions, principle of inclusion and exclusion, distributions, partitions, recurrence relations.

Prerequisite: Grade of at least C in MAT 253 or MAT 295 or MAT 311 or MAT 395, or permission of instructor.

## MAT 532 - Introductory Graph Theory (3)

Basic concepts, graph coloring, trees, planar graphs, networks.

Prerequisite: Grade of at least C in MAT 310 and any one of the courses MAT 253, MAT 295, MAT 311, MAT 395, MAT 531.
MAT 540 - Introductory Complex Analysis (3)

## (3:3)

The complex number system, holomorphic functions, power series, complex integration, representation theorems, the calculus of residues.

Prerequisite: Grade of at least C in MAT 394; grade of at least C in MAT 395 for Mathematics majors.

## MAT 541 - Stochastic Processes (3)

## (3:3)

Markov processes, Markov reward processes, queuing, decision making, graphs, and networks. Applications to performance, reliability, and availability modeling.

Prerequisite: Grade of at least C in MAT 394 and either MAT 353 or STA 351, or equivalents.
MAT 542 - Stochastic Processes (3)
(3:3)
Markov processes, Markov reward processes, queuing, decision making, graphs, and networks. Applications to performance, reliability, and availability modeling.

Prerequisite: Grade of at least C in MAT 394 and either MAT 353 or STA 351, or equivalents.

MAT 545 - Differential Equations and Orthogonal Systems (3)

An introduction to Fourier series and orthogonal sets of functions, with applications to boundary value problems.

Prerequisite: Grade of at least C in MAT 293 and MAT 390 or permission of instructor.

## MAT 546 - Partial Differential Equations with Applications (3)

## (3:3)

Fourier integrals, Bessel functions, Legendre polynomials and their applications. Existence and uniqueness of solutions to boundary value problems.

Prerequisite: Grade of at least C in MAT 545.
MAT 549 - Topics in Applied Mathematics (3)
(3:3)
Selected topics of current interest in applied mathematics.
Prerequisite: Grade of at least C in MAT 293 and MAT 390 or permission of instructor.

## MAT 556 - Topics in Discrete Mathematics (3)

(3:3)
Selected topics of current interest in discrete mathematics.

Prerequisite: Grade of at least C in MAT 353.

## MAT 589 - Experimental Course

This number reserved for experimental courses. Refer to the Course Schedule for current offerings.

## MAT 591 - Advanced Abstract Algebra (3)

## (3:3)

Groups: homomorphisms, quotient groups, products of groups, Sylow theorems, finitely generated abelian groups. Rings: homomorphisms, ideals, quotient rings, integral domains, Euclidean domains, factorization. Fields: algebraic extensions of fields, Galois

Prerequisite: Grade of at least C in MAT 516.
MAT 592 - Advanced Abstract Algebra (3)
(3:3)
Groups: homomorphisms, quotient groups, products of groups, Sylow theorems, finitely generated abelian groups. Rings: homomorphisms, ideals, quotient rings, integral domains, Euclidean domains, factorization. Fields: algebraic extensions of fields, Galois
Prerequisite: Grade of at least C in MAT 516.
MAT 593 - Directed Study in Mathematics (1-3)
(1-3)
Offered: (Fall \& Spring).
MAT 594 - Directed Study in Mathematics (1-3)
(1-3)
Offered: (Fall \& Spring).
MAT 595 - Mathematical Analysis (3)

Real number axioms, metric spaces, sequences, series, continuity, differentiation, the Reimann-Stieltjes integral.
Prerequisite: MAT 395 or permission of instructor.

## MAT 596 - Mathematical Analysis (3)

(3:3)
Real number axioms, metric spaces, sequences, series, continuity, differentiation, the Reimann-Stieltjes integral.

Prerequisite: MAT 395 or permission of instructor.
MAT 601 - Seminar in the Teaching of Mathematics I (1)
(1:1)
Seminar on practices and principles of undergraduate teaching in mathematics and statistics.

## MAT 602 - Seminar on Mathematical Software (3)

## (3:3)

Variety of issues in the design of mathematical software, i.e., type systems, user interfaces, and memory management. Each student investigates one computer algebra system more closely.

Prerequisite: Knowledge of a programming language.

MAT 606 - Calculus for Middle Grade Teachers (3)

## (3:3)

History, developments, major concepts, and applications of differential and integral calculus covering functions of several variables.

Prerequisite: MAT 505 or permission of instructor.

## MAT 607 - Abstract Algebra for Middle Grade Teachers

 (3)
## (3:3)

Development and major concepts of abstract algebraic structures including groups, rings, fields, vector spaces, and matrix algebra.

Prerequisite: MAT 303 and MAT 505; or permission of instructor.

## MAT 623 - Numerical Mathematics (3)

Functional analytic treatment of computation, approximation, optimization, interpolation, smoothing equations, linear systems, differential equations. Emphasis on the mathematical development and analysis of numerical techniques.

Prerequisite: MAT 390, MAT 595, MAT 596, or equivalents.

## MAT 624 - Numerical Mathematics (3)

(3:3)
Functional analytic treatment of computation, approximation, optimization, interpolation, smoothing equations, linear systems, differential equations. Emphasis on the mathematical development and analysis of numerical techniques.
Prerequisite: MAT 390, MAT 595, MAT 596, or equivalents.

## MAT 631 - Combinatorics (3)

Topics include selections, arrangements, theory of generating functions, inclusion-exclusion principle, recurrences, Polya's theory, block designs, stirling numbers, coding theory.

Prerequisite: MAT 311 or permission of instructor.

## MAT 632 - Graph Theory (3)

## (3:3)

Topics include graphs, paths, trees, directed trees, networks, cycles and circuits, planarity, matching theory, independence, chromatic polynomials, Ramsey theory, extremal theory, the vector spaces associated with a graph.

Prerequisite: MAT 631 or permission of instructor.

## MAT 645 - Approximation Theory (3)

Normed linear spaces. Convexity. Existence and unicity of best approximations. Tchebycheff approximation by polynomials and other linear families. Least-squares approximation and related topics. Rational approximation. The characterization of best approxi

Prerequisite: MAT 390, MAT 595, MAT 596.

## MAT 646 - Approximation Theory (3)

## (3:3)

Normed linear spaces. Convexity. Existence and unicity of best approximations. Tchebycheff approximation by polynomials and other linear families. Least-squares approximation and related topics. Rational approximation. The characterization of best approxi

Prerequisite: MAT 390, MAT 595, MAT 596.
MAT 647 - Linear Algebra and Matrix Theory (3)
(3:3)
Vector spaces. Linear operators and similarity. The eigenvalue problem and a special decomposition theorem. Normal forms: Smith form for matrices, rational and Jordan forms. Spectral resolution of matrix functions. Special topics.

Prerequisite: MAT 310, MAT 311 or permission of instructor.

## MAT 648 - Linear Algebra and Matrix Theory (3)

## (3:3)

Vector spaces. Linear operators and similarity. The eigenvalue problem and a special decomposition theorem. Normal forms: Smith form for matrices, rational and Jordan forms. Spectral resolution of matrix functions. Special topics.

Prerequisite: MAT 310, MAT 311 or permission of instructor.

## MAT 649 - Topics in Operations Research (3)

## (3:3)

Advanced linear programming. Integer programming, nonlinear programming, inventory models and queueing models. Application of these optimization techniques in the general area of administration are demonstrated through examples via the digital computer.

Prerequisite: Permission of instructor.

## MAT 650 - Management Decision-Making Under Uncertainty (3)

## (3:3)

Models and techniques to be used in making decisions under uncertainty. Markov Chains, Linear Programming Under Uncertainty, and Chance-Constrained programming.
Prerequisite: Permission of instructor.

## MAT 659 - Advanced Topics in Mathematics (3)

Topics vary according to interest and demand, and include algebra, applied mathematics, combinatorics, dynamics, mathematical logic, topology, and other topics.

Prerequisite: Permission of instructor.

## MAT 671 - Computational Algebra (3)

## (3:3)

Variety of basic subjects in computational algebra: fast arithmetic, algorithms for finite fields, matrix normal forms over rings, polynomial factorization, and Groebner bases.

Prerequisite: MAT 591, MAT 592, and knowledge of a programming language. or permission of instructor.

MAT 688 - Mathematical Logic and Axiomatic Set Theory (3)

Quantification theory, completeness theorems, prenex normal forms, categoricity. The characterization problem, consistency, the theory of models, isomorphisms and substructures, cardinality of models, joint consistency. Incompleteness and undecidability,

Prerequisite: MAT 311, MAT 394, or equivalents.

## MAT 689 - Mathematical Logic and Axiomatic Set Theory

 (3)
## (3:3)

Quantification theory, completeness theorems, prenex normal forms, categoricity. The characterization problem, consistency, the theory of models, isomorphisms and substructures, cardinality of models, joint consistency. Incompleteness and undecidability,

Prerequisite: MAT 311, MAT 394, or equivalents.
MAT 690 - Mathematics Seminar (2)
(2:2)
Topics in mathematics suitable for development into a master's thesis. Current mathematical literature.

Prerequisite: Admission to candidacy for master's degree.

## MAT 691 - Modern Abstract Algebra (3)

## (3:3)

Real and complex number fields; rings, integral domains and fields; polynomial rings; extensions of rings and fields; elementary factorization theory; ideals; topics in linear algebra.

Prerequisite: Bachelor's degree with a major in mathematics. Credits equivalent to credits for mathematics MAT 310, MAT 311, MAT 595, and MAT 596, or permission of instructor and department head.

## MAT 692 - Modern Abstract Algebra (3)

Real and complex number fields; rings, integral domains and fields; polynomial rings; extensions of rings and fields; elementary factorization theory; ideals; topics in linear algebra.
Prerequisite: Bachelor's degree with a major in mathematics. Credits equivalent to credits for mathematics MAT 310, MAT 311, MAT 595, and MAT 596, or permission of instructor and department head.

## MAT 693 - Complex Analysis (3)

The complex number system, holomorphic functions, power series, complex integration, representation theorems, the calculus of residues.

Prerequisite: Bachelor's degree with a major in mathematics. Credits equivalent to credits for mathematics MAT 310, MAT 311, MAT 595, and MAT 596, or permission of instructor and department head.

## MAT 694 - Complex Analysis (3)

## (3:3)

The complex number system, holomorphic functions, power series, complex integration, representation theorems, the calculus of residues.

Prerequisite: Bachelor's degree with a major in mathematics. Credits equivalent to credits for mathematics MAT 310, MAT 311, MAT 595, and MAT 596, or permission of instructor and department head.

## MAT 695 - Real Analysis (3)

Lebesque measure; the Lebesque integral; differentiation and integration, the classical Banach spaces; metric spaces, topological spaces, compact spaces; Banach spaces, measure and integration, measure and outer measure; the Daniell integral; mappings of
Prerequisite: Bachelor's degree with a major in mathematics. Credits equivalent to credits for mathematics MAT 310, MAT 311, MAT 595, and MAT 596, or permission of instructor and department head.

## MAT 696 - Real Analysis (3)

Lebesque measure; the Lebesque integral; differentiation and integration, the classical Banach spaces; metric spaces, topological spaces, compact spaces; Banach spaces, measure and integration, measure and outer measure; the Daniell integral; mappings of
Prerequisite: Bachelor's degree with a major in mathematics. Credits equivalent to credits for mathematics MAT 310, MAT 311, MAT 595, and MAT 596, or permission of instructor and department head.

## MAT 697 - General Topology (3)

Topological spaces, point set topology, product and quotient spaces, embedding and metrization, uniform spaces, function spaces, homotopy theory, simplicial complexes and homology, more algebraic topology, general homology theories.
Prerequisite: Bachelor's degree with a major in mathematics. Credits equivalent to credits for mathematics MAT 310, MAT 311, MAT 595, and MAT 596, or permission of instructor and department head.

## MAT 698 - General Topology (3)

(3:3)
Topological spaces, point set topology, product and quotient spaces, embedding and metrization, uniform spaces, function spaces, homotopy theory, simplicial complexes and homology, more algebraic topology, general homology theories.

Prerequisite: Bachelor's degree with a major in mathematics. Credits equivalent to credits for mathematics MAT 310, MAT 311, MAT 595, and MAT 596, or permission of instructor and department head.

## MAT 699-Thesis (1-6)

(1-6)
MAT 701 - Graduate Seminar in Computational Mathematics (3)

## (3:3)

Readings from the literature of computational mathematics.

Prerequisite: MAT 671 or permission of instructor.
MAT 709 - Topics in Computational Mathematics (3)

Advanced study in special topics in computational mathematics.

Prerequisite: MAT 671 or permission of instructor.

## MAT 711 - Experimental Course

This number reserved for experimental courses. Refer to the Course Schedule for current offerings.

MAT 721 - Mathematical Cryptography (3)

Mathematics of cryptography with emphasis on public key systems. Applications of elliptic and hyperelliptic curves and lattice theory in attacking and evaluating the security of cryptographic systems.
Prerequisite: MAT 671 or permission of instructor.
MAT 742 - Computational Number Theory (3)

Main algorithms used to compute basic information about algebraic number fields, including integral bases, ideal factorization, system of fundamental units, and class group structure.
Prerequisite: MAT 671 or permission of instructor.

## MAT 747 - Computational Topology (3)

(3:3)
Triangulations and WRAP. Computing homology algorithmically. Morse theory and persistent homology. Computations on knots, braids, and links.

Prerequisite: MAT 671 or permission of instructor.
MAT 790 - Directed Doctoral Research (1-6)
(1-6:1-6)
Individual work on a dissertation research problem, which could also include original research or a review of current literature leading to a dissertation proposal.
Prerequisite: Permission of Director of Graduate Study.
MAT 799 - Dissertation (1-12)
(1-12)
MAT 801 - Thesis Extension (1-3)
(1-3)
MAT 803 - Research Extension (1-3)
(1-3)

## MBA - Master of Business Administration

MBA 595 - Selected Topics in Business Administration (1.5-3)
(1.5-3)

Opportunity for advanced students of Business Administration to study in depth a topic or issue of special interest.

Prerequisite: Permission of instructor. Offered: (All).
MBA 701 - Quantitative Analysis for Decision Making (3)

Quantitative methods and spreadsheet skills to support management practice and decision making. Topics include statistical hypothesis testing, confidence intervals, regression analysis, optimization modeling, decision analysis and risk analysis.
Prerequisite: MBA 715; Pre-MBA workshop in statistics and spreadsheet skills or a spreadsheet-based undergraduate course in probability and statistics. Corequisite: MBA 715.

MBA 702 - Financial and Managerial Accounting (3)
(3:3)
Introduction to financial and managerial accounting. Topics include financial statements, financial analysis of those statements, cost accounting, and accounting's role in managerial decision-making.

Prerequisite: MBA 715. Corequisite: MBA 715.

## MBA 703 - Economic Policies and Impact on Global Outcomes (3)

## (3:3)

Economic analysis of markets, and government intervention that addresses the sustainability of fiscal, monetary and exchange rate policy and their short-run and long-run impact on the global environment.
Prerequisite: MBA 715.

## MBA 704 - Leadership Assessment and Career Enhancement (3)

## (3:3)

Through assessment and feedback, leadership strengths and developmental needs are identified to enhance career strategies and competencies.

MBA 705 - Processes, Information Systems and Business Value (3)

Examine the role of information systems to improve processes and business performance. Analyze the interaction of business strategies, work processes, competitive markets, technology and people for effective IT management.
Prerequisite: MBA 701 and MBA 702; Coreq or Prereq MBA 703. Corequisite: Coreq or Prereq MBA 703.

MBA 706 - Marketing Management (3)

Issues related to the marketing process, major trends and forces that are changing the marketing landscape, marketing information, building and managing brands, marketing strategy and roles of ethics in marketing.
Prerequisite: MBA 701.
MBA 707 - Financial Management (3)
(3:3)
Financial decision-making; time value of money, risk and return, valuation of securities, financial options, cost of capital, capital budgeting, working capital policy, financing decisions.
Prerequisite: MBA 701, MBA 702.

MBA 708-Operations for Competitive Advantage (3)
(3:3)
Examines design, operation, and control of organizations for gaining and maintaining competitive advantage in the market place. Strategic and tactical issues integrated with a systems approach.

Prerequisite: MBA 701.

## MBA 709 - Human Capital in Organizations (3)

## (3:3)

Integrated overview of Organizational Behavior and Human Resource Management. Joins the topics of organization behavior with human resource tools used to manage human capital.

Prerequisite: MBA 701.

## MBA 710 - Ethical Leadership and Sustainable Business (3)

Principles of effective leadership and models of ethics are integrated to better understand the complementary and competing pressures, for and against, the creation and maintenance of a sustainable business model.

## MBA 711 - Experimental Course

This number reserved for experimental courses. Refer to Course Schedule for current offerings.

MBA 712 - Strategic Management (3)

Examines the tools and techniques of strategic analysis, the formulation and implementation of competitive and corporate strategy for creating and sustaining competitive advantage.

Prerequisite: Pr. or Coreq. MBA 707, MBA 708, and MBA 709. Corequisite: Pr. or Coreq. MBA 707, MBA 708, and MBA 709.

MBA 715 - Integrative Business (3)

Introduction tothe values, concepts and functions of businesses and organizations. Focus on developing at integrative approach to understanding organizations and the role of businesses in society.

MBA 716 - Leadership and Sustainable Business (3)

## (3:3)

Introduction to the values associated with ethics and sustainability relative to leadership, from idea formulation through communication within various constituencies across organizational contexts and communication media.

Prerequisite: MBA 715. Corequisite: MBA 715.

## MBA 717-Technology and Innovation (3)

## (3:3)

The role of technology (including informational technology, business intelligence, and data analytics) in innovation. Students will develop a technology-based actionable plan for an organization.

Prerequisite: MBA 715.

## MBA 718 - Global Business in Practice (3)

## (3:3)

Principles and practices of conducting business in a global environment.

Prerequisite: MBA 703, MBA 706, MBA 707, MBA 708, MBA 716, and MBA 717. Corequisite: MBA 703.

MBA 719 - Strategic Management in Action (3) (3:3)
Integration of tools and techniques of strategic analysis, formulation and implementation of competitive and corporate strategy. Students engage in professional consulting and/or experiential projects with local organizations.

Prerequisite: MBA 703, MBA 706, MBA 707, MBA 708, MBA 716, and MBA 717. Corequisite: MBA 703.
MBA 720 - Investments (3)

## (3:3)

Explores theories and applications related to portfolio theory, asset allocation, return predictability, and anomalies. Risk management including the use of derivatives also covered.

MBA 721 - Financial Statement Analysis and Valuation (3) (3:3)
Value with emphasis on equity analysis and valuation for public and private firms. Other types and purposes of valuation also covered.

Prerequisite: MBA 707.

MBA 723 - Corporate Governance (3)
(3:3)
Current issues in and theories of corporate governance. Topics includes examination of internal and external corporate controls, stakeholder theories and international governance comparisons.

MBA 724 - Financial Institutions (3)

## (3:3)

Survey course intended for those interested in financial services careers and in general finance. Topics include financial institutions, investment funds, trading markets, and financial market regulation.

MBA 730 - Marketing Research (3) (3:3)
Defining the purpose of marketing research, selecting a data gathering method, writing a survey/questionnaire, and sampling methods. Using statistics and interpreting the results to make marketing decisions.
Prerequisite: MBA 706.

## MBA 731 - Brand Management (3)

## (3:3)

Examines brand management strategies, tools and decisions faced by organizations in planning, building and measuring brand equity for long term profitability.

Prerequisite: Permission of MBA Director.

## MBA 732 - Consumer Behavior (3)

## (3:3)

Applying behavioral theories to understand consumer consumption behaviors and the effect of environmental and psychological influences on the consumer decision making process.

Prerequisite: Permission of MBA Director.

## MBA 733 - International Marketing Management (3)

Activities that direct the flow of products to markets in a transnational, transcultural context; transcultural consumer behavior; channel strategy, physical distribution, promotion, and pricing.

Prerequisite: MBA 706.

MBA 741 - Creating and Sustaining Competitive Advantage (3)

## (3:3)

Student teams will serve as consultants to area organizations and provide their managers with comprehensive solutions to strategic challenges.

Prerequisite: MBA 707, MBA 708, and MBA 709.
MBA 742 - Organizational Internship (1.5-3)

## (1.5-3)

Academic and required work components allow students to gain organizational experience in an area of business. Course supervised by a designated graduate faculty member and an appropriate manager of the approved organization.

Prerequisite: MBA 706, MBA 707, MBA 708, MBA 717, or Permission of MBA Program Director.

MBA 743 - Directed Studies (1.5-3)
(1.5-3)

Independent study of a business administration topic, not currently covered by courses in the MBA program, under the supervision of a faculty member(s).

Prerequisite: Completion of 12 hours or equivalent in the MBA program and permission of MBA Program Director.
MBA 744 - Special Topics in Business Administration (1.5-3)
(1.5-3)

Specific course title identified each semester by the topical extension to the basic title: e.g., Special Topics in Business Law; Organizational Theory.
MBA 745 - Experience Business Abroad (1.5-3)

## (1.5-3

Practices and principles involved in conducting business in a specified country. Lectures and seminars by local academicians and site visitations and lectures by foreign business people.

Prerequisite: Permission of MBA Director.
MBA 803 - Research Extension (1-3)
(1-3)

## MGT - Management

MGT 589 - Experimental Course: Business Strategies for Building a Healthy Environment: Competitive Advantage, Sustainability, and Beyond (3)
(3:3)
Business leaders must consider social/environmental context of practices they employ. Principles of sustainable development will include how human and materials resources are needed for managing a business in today's world.

Offered: (Offered spring '11).
MGT 613 - Directed Studies (3)
(3)

Individual study of problems in the field of management. Regular conferences with instructor required.

Prerequisite: 12 semester hours of MBA course work and permission of Director of MBA program and instructor who will supervise study.

MGT 670 - Entrepreneurial Management (3) (3:3)
How entrepreneurial managers discover and take advantage of innovative opportunities. The entrepreneurial process, starting new ventures, and developing entrepreneurship in large corporations.
Prerequisite: MBA 604, MBA 620.

## MLS - Master of Arts in Liberal Studies

## MLS 589 - Experimental Course

This number reserved for experimental courses. Refer to the Course Schedule for current offerings.

## MLS 610 - Culture and Ideas (3)

## (3:3)

Artistic, literary, philosophical, or religious traditions, works of particular thinkers, and historical discourse on intellectual issues.

Prerequisite: Admission to the MALS program.
MLS 620 - Human Nature and Society (3)
(3:3)
Issues concerning human nature, society, or political life through works or problems from the various social sciences.

Prerequisite: Admission to the MALS program.

## MLS 630 - Scientific Reasoning (3)

(3:3)
Reflections on scientific reasoning and/or investigations of particular problems to illustrate scientific reasoning.
Prerequisite: Admission to the MALS program.
MLS 650 - Independent Study (1-3)
(1-3)
Guided readings, research and individual project work on an interdisciplinary topic under direction of a faculty member.

MLS 699-Thesis (1-6)
(1-6)
MLS 711 - Experimental Course
This number reserved for experimental courses. Refer to the Course Schedule for current offerings.

MLS 801 - Thesis Extension (1-3)
(1-3)
MLS 803 - Research Extension (1-3)
(1-3)

## MST - Media Studies

## MST 515 - Film Theory (3)

(3:3)
Study of the principal theories of film through the writings of critics, theorists, and directors.

Prerequisite: Junior, senior, or graduate standing, or permission of instructor.
MST 520 - History of Film to 1938 (3)

## (3:2:3)

Advanced study of world cinema from its prehistory in the late 19th century to the beginning of World War II in Europe, emphasizing significant movements, genres, and filmmakers.

Prerequisite: Junior, senior, or graduate standing, or permission of instructor. Offered: (Fall).
MST 521 - History of Film since 1938 (3)

## (3:2:3)

Advanced study of world cinema from the beginning of World War II in Europe through the present, emphasizing significant movements, genres, and filmmakers.

Prerequisite: Junior, senior, or graduate standing, or permission of instructor. Offered: (Spring).

## MST 524 - Media Financing and Distribution (3)

## (3:3)

The processes of raising and budgeting funds and distributing film and videos for theatrical release, direct DVD/video release, or television broadcast.

Prerequisite: Junior, senior, or graduate standing, or permission of instructor.

## MST 525 - Media Organization and Management (3)

## (3:3)

Principles and practices of the organization and management of electronic media and motion pictures.
Prerequisite: Junior, senior, or graduate standing, or permission of instructor.

MST 528 - Topics in Media (3)

## (3:2:3)

Study of selected topics in fictive or nonfictive media, including genres, works of an individual director, or other emphasis.

## MST 550 - Feature Film Script Analysis (3)

## (3:3)

Analysis of the key structural and thematic elements of feature screenplays.
Prerequisite: Junior, senior, or graduate standing, or permission of instructor.

MST 551 - Writing the Feature Film I (3)
(3:3)
Advanced study of screenwriting with emphasis on the creation of a step outline for a feature length screenplay.

Prerequisite: MST 350, or graduate standing, or permission of instructor. Offered: (Fall).
MST 552 - Writing the Feature Film II (3)
(3:3)
A writing workshop in which students complete the first draft and a polish of a feature-length screenplay, based on the outline from MST 551.

Prerequisite: MST 551. Offered: (Spring).

## MST 553 - Advanced Media Writing (3)

## (3:3)

Practice in television script writing with emphasis given to development of concepts and proposals for episodic television. Practice in analyzing and writing for existing television series and/or development of new programs.

Prerequisite: Junior, senior, or graduate standing, or permission of instructor.

## MST 559 - Doing Visual History (3)

(3:3)
Explores the interstices of history, documentary production, and personal narratives.
Crosslisted as: Same as HIS559. Offered: (Alt Fall).
MST 580 - Directing for Television (3)
(3:2:3)
Fundamental principles of directing for television. Laboratory directing experience.

Prerequisite: Graduate standing, or permission of instructor.

## MST 581 - Dance on Video (3)

Introduction to working with dance and video, including composing for the camera, recording dancers in action, and editing footage to create original work.

Prerequisite: MST 271 and MST 272, or graduate standing, or permission of instructor. Crosslisted as: Same as DCE 581. Offered: (Fall or Spring).

MST 585 - Advanced Media Production (3)

## (3:2:3)

Advanced application of principles and techniques of media production.

Prerequisite: Junior, senior, or graduate standing, or permission of instructor.

## MST 587 - Animation Production (3)

## (3:3)

Study and practice of techniques of animation.
Prerequisite: MST 271 and MST 272, or graduate standing, or permission of instructor.

MST 588 - Documentary Production (3)
(3:2:3)
Documentary construction, research, planning, and production techniques. Further development of video production skills in supervised laboratory project.

Prerequisite: MST 271 and MST 272, or graduate standing, or permission of instructor.

## MST 589 - Experimental Course

This number reserved for experimental courses. Refer to the Schedule of Courses for current offerings.

## MST 610 - Introduction to Graduate Study (3)

## (3:3)

Development of research and writing skills, introduction to grant writing, and professional presentations. Consideration of issues in teaching. Required of MFA degree candidates.

Prerequisite: Admission to appropriate degree program.

## MST 611 - Image and Sound Acquisition for Media (3)

## (3:3)

Theory and practice of single camera and audio production for media.
Prerequisite: Admission to appropriate degree program or permission of instructor.

MST 612 - Advanced Media Editing (3)

Study of techniques and aesthetics of media editing.
Prerequisite: Admission to appropriate degree program or permission of instructor.

## MST 613 - Advanced Media Lighting (3)

Physical properties of light, lighting theories, aesthetics of lighting, and advanced practical experience in lighting for media.

Prerequisite: Admission to appropriate degree program or permission of instructor.

## MST 614 - Advanced Media Sound Production (3)

## (3:2:3)

Exploration of equipment and technique of sound design for media.

Prerequisite: Admission to appropriate degree program or permission of instructor.

MST 616 - Directing for the Camera (3)

Development of skills required for directing media.
Prerequisite: Admission to appropriate degree program or permission of instructor.

## MST 617 - Creating Visual Narratives (3)

## (3:3)

Students are guided through a series of step-by-step innovative methodologies that result in visually dynamic scripts that prepare them to take MST 618, Writing Short Scripts.

Prerequisite: Admission to appropriate degree program or permission of instructor.

## MST 618 - Writing Short Scripts (3)

## (3:3)

Theory and practice of writing short scripts for media production.

Prerequisite: Admission to appropriate degree program or permission of instructor.

MST 619 - Production Law and Responsibility (3)

## (3:3)

Legal, ethical, and civic responsibilities of media producers with emphasis on creation of independent works in media.

Prerequisite: Admission to appropriate degree program or permission of instructor.

## MST 620 - Seminar in Media Analysis (3)

Analysis of media works using existing principles and theories.
Prerequisite: Admission to appropriate degree program or permission of instructor.

## MST 625 - Seminar in Media (3)

(3:3)
Subject matter varies.
Prerequisite: Admission to appropriate degree program or permission of instructor.

## MST 684 - Advanced Media Production (3)

## (3:3)

Advanced theory and practice of image and sound production for media.
Prerequisite: Admission to appropriate degree program or permission of instructor.

MST 690 - Independent Study (1-3)
(1-3)
Prerequisite: Admission to appropriate degree program, permission of instructor and Director of Graduate Study.

## MST 691 - Advanced Experimentation (3)

(3:1:4)
Practical experimentation in the creative processes of media. Analysis, documentation, and critical evaluation of the specific experience.

Prerequisite: Admission to appropriate degree program and permission of instructor and Director of Graduate Study.
MST 695 - Client Based Media (3)
(3:0:6)
Complete production of a client sponsored program. Emphasis on client collaboration, application of technical skills and aesthetic abilities in an environment in which students may not have complete creative control.

Prerequisite: Admission to appropriate degree program and permission of instructor and Director of Graduate Study.

MST 696 - Graduate Internship (3)
(3)

Field experience in film or video production companies, postproduction houses, or television stations. Academic supervision provided by faculty and directed activity in the field provided by site supervisor.
Prerequisite: Second or third year standing in the graduate program.

## MST 698 - Graduate Practicum in Media (3)

## (3:0:9)

Guided practice in carrying out major responsibilities in sponsored or independent media productions.

Prerequisite: Admission to appropriate degree program and permission of instructor and Director of Graduate Study.

MST 699a - Master Production in Media I (3)
(3)

Research, development, and execution of a major media work.

Prerequisite: Second year in MFA film/video degree concentration.

## MST 699A - Master Production in Media I (3)

MST 699b - Master Production in Media II (3)

## (3)

Research, development, and execution of a major media work.

Prerequisite: Second year in MFA film/video degree concentration.

## MST 699B - Master Production in Media II (3)

MST 711 - Experimental Course
This number reserved for experimental courses. Refer to the Course Schedule for current offerings.

MST 803 - Research Extension (1-3)
(1-3)

## MTD - Music, Theatre and Dance

MTD 555 - The Alexander Technique for Performers (3)

## (3:3)

An active and scholarly exploration of the Alexander Technique to unlock creativity, discover freedom and ease in performance, reduce stress and tension throughout the body, and prevent performance-related injuries.

Prerequisite: Junior, senior, or graduate standing.

## MTD 589 - Experimental Course

This number reserved for experimental courses. Refer to the Course Schedule for current offerings.

MTD 638 - Exploring Musical Cultures (1-3)
(1-3)
Music study trips. Offered only in conjunction with a specific trip.

Prerequisite: Consult Director of Graduate Study for specific prerequisites for each trip.
MTD 654 - Computers in Music Research (3)

Use of computer systems for music research.
Prerequisite: MUE 601 or MUS 602. Offered: Spring.

## MTD 667 - BioMusic Grounding and Practice (3)

Exploration of the origins of music-making in animals, including humans. Examination of music and natural sounds in contexts of biodiversity, cultural diversity, and complex communication systems.
MTD 697 - Directed Study in Performing Arts (1-6)

Supervised advanced research in the performing arts.
Prerequisite: Permission of supervising professor; Director of Graduate Study, and Dean.

## MTD 711 - Experimental Course

This number reserved for experimental courses. Refer to the Course Schedule for current offerings.

MTD 801 - Thesis Extension (1-3)
(1-3)
MTD 802 - Dissertation Extension (1-3)
(1-3)
MTD 803 - Research Extension (1-3)
(1-3)

## MUE - Music Education

## MUE 589 - Experimental Course

This number reserved for experimental courses. Refer to the Course Schedule for current offerings.

## MUE 601 - Research Methods in Music (3)

## (3:3)

Writing skills, materials, and procedures utilized in music research; measurement, experimental design, theories/procedures for evaluation, statistics, computer applications, and initiation of scholarly research.
Offered: Fall and Summer.

## MUE 605 - The Measurement of Musical Behavior (3)

(3:3)
Review of standardized music tests and an examination of methods for developing tests related to the measurement of musical behavior.

Offered: Spring, Summer.
MUE 618 - Psychology of Music (3)

## (3:3)

The physical and psychological aspects of music involving human behavior.

Offered: Fall and Summer.
MUE 619 - Acoustics of Music (3)
(3:3)
Designed to develop an understanding of the production, transmission, and reception of musical sounds.

Offered: Even Spring.
MUE 627 - Issues in Multicultural Music Education (3)

Overview of historical, philosophical, cultural, and pedagogical issues in multicultural music education. Emphasis on the development of knowledge that will inform and enhance instructional practice.

Offered: Even Spring and Summer.

## MUE 632 - Methods and Materials of Music Reading Instruction (3)

## (3:2:2)

Overview of methods and materials for music reading instruction. Emphasis on connections between language and music reading. Involves weekly online sessions, individual projects, and two related workshops.
Offered: Online Spring.
MUE 633 - Music for Exceptional Children (3)

## (3:3)

Review of the learning styles of exceptional children and the implications for providing realistic musical activities in the classroom. Emphasis will be placed on developing musical skills with special learners.

Offered: Even Fall and Summer.
MUE 634 - Contemporary Trends in Music Education (3)

## (3:3)

Current philosophies and concepts influencing contemporary music education practices, methods, and material. Investigation into social psychology of music as applied to existing music instruction in public schools.

Offered: Odd Fall.

## MUE 639 - Advanced Conducting (3)

Advanced conducting skills including baton technique, score reading, rehearsal techniques, score analysis, repertoire, programming, and interpretation.

Prerequisite: Graduate standing in any Music Degree Program.
MUE 645 - Teaching Elementary Music: Theory and Practice (3)

## (3:3)

Emphasis on strategies and materials for developing children's musicianship and problem-solving skills. Consideration of current child development and learning theories to teaching elementary general music.
Prerequisite: Music teaching experience in elementary school or the equivalent of MUE 465 Student Teaching in Music. Offered: Odd Spring.

## MUE 646-Music Experiences: Birth through Kindergarten (3) <br> (3:3)

Comprehensive overview of music experiences for children from birth to seven years. Developmentally appropriate teaching materials, methods, approaches, and strategies for preschool caregivers, general educators, and music educators are emphasized.

Offered: Odd Summer.
MUE 650 - Seminar in Music Education (3)

## (3:3)

Salient philosophies, practices, and methods involving music education as considered in a social context; challenges in dealing with elementary and secondary students and opportunities for music education in the community. Individual research project required.

Offered: Fall and Summer.
MUE 653 - Music Supervision (3)

## (3:3)

Philosophical foundations of music education as related to the development of supervisory and administrative programs. Basic concepts of music education and means for evaluation of music education curricula.

Offered: Odd Spring and Summer.
MUE 656 - Advanced Choral and General Music Methods for the Adolescent (3)

## (3:3)

Examination of contemporary research and pedagogy with an emphasis on developing appropriate instructional strategies for use with adolescent students in choral and general music classrooms.

Offered: Even Fall.

## MUE 657 - Advanced Instrumental Methods (3)

## (3:3)

Overview of current practice in learning and teaching music with emphasis on the development of practical strategies for implementation within the instrumental music classroom.

Offered: Odd Fall.
MUE 658 - Topics in Music Technology for Educators (1)

Advanced study of music technology with an emphasis on integration into the music classroom.

Offered: Summer as needed.

## MUE 659 - Philosophy of Music (3)

(3:3)
Overview of historical and current philosophies of music. Specific applications will be made to various areas of expertise, including music composition, education, history, performance, and theory.

Prerequisite: Admission to master's or doctoral program in music. Offered: Spring.

## MUE 678 - Orff in the Music Classroom (3)

## (3:3)

Practical experiences in the Orff-Schulwerk process of music teaching. Recorder proficiency, Orff instrumental technique, and orchestration for Orff instrumentarium are emphasized.

Prerequisite: Graduate standing in music or permission of instructor. Offered: Summer as needed.

MUE 679 - Music Education Workshop (1-3)
(1-3)
Activities and study involving specific experiences related to music education.

MUE 692a - Portfolio Development in Music Education (1) (1)

Development of a portfolio that reflects the application of course work in music education to classroom teaching.

Prerequisite: Acceptance in MM in music education or permission of instructor. Offered: Fall and Spring online.
MUE 692b - Portfolio Development in Music Education (1) (1)

Development of a portfolio that reflects the application of course work in music education to classroom teaching.

Prerequisite: Acceptance in MM in music education or permission of instructor. Offered: Fall and Spring online.
MUE 697 - Directed Study in Music (1-12)
(1-12)
MUE 699 - Thesis (1-6)
(1-6)
Individual guidance in the development of a specific research problem.

Offered: Fall, Spring, and Summer.

## MUE 701 - Research Methods in Music II (3)

## (3:3)

Advanced research methodology and procedures in music education.

Prerequisite: MUE 601 or permission of instructor. Offered: Spring as needed.

MUE 703 - Music and the Brain (3)

## (3:3)

An exploration of how music is processed in the brain from infancy through older age.

## MUE 704 - Creative Thinking in Music (3)

## (3:3)

Introduction to the major literature in creative thinking in music as it relates to music teaching and learning. Projects include creative work in music, journal entries, short papers, teaching strategies.

MUE 705 - College and University Music Administration (3)

Provides basic information and skills for those who are in administrative assignments, who desire careers as music administrators, or who desire an understanding of the operations of a music unit.

## MUE 706-Choral Practice around the World (3)

## (3:3)

An introduction to the issues, materials, and pedagogy that inform teaching vocal music from diverse cultures to ensembles or classrooms of trained and untrained singers.

## MUE 711 - Experimental Course

This number reserved for experimental courses. Refer to the Course Schedule for current offerings.

## MUE 740 - Music Education in Society (3)

An exploration of music education with particular attention to societal influences on teaching and learning music in the classroom and/or the studio.

Prerequisite: Graduate standing in any Music Degree Program.

MUE 750 - Doctoral Seminar (3)
(3:1:4)
Develop an understanding of functional aspects of teaching in higher education. Assignments in specific areas of professionalism, college curriculum, and research will provide direct experiences.

Prerequisite: MUE 601, MUE 650. Offered: As Needed.

## MUE 797 - Directed Study in Music (1-12)

(1-12)
Supervised advanced research requiring a written document or composition.
Prerequisite: Permission of supervising professor; Director of Graduate Study, and Dean, School of Music.

MUE 799 - Dissertation (1-12)
(1-12)
MUE 801 - Thesis Extension (1-3)
(1-3)
MUE 802 - Dissertation Extension (1-3)
(1-3)
MUE 803 - Research Extension (1-3)
(1-3)

## MUP - Music Performance

MUP 589 - Experimental Course: Composition Workshop (3)

## (3:2:3)

Class participants will compose original music and perform music written by students in the class. For graduate students and advanced undergraduates.

Prerequisite: Permission of instructor. Offered: (Offered spring '12).
MUP 600-Recital (0-1)
(0-1)
Performance of a faculty approved repertoire selection of approximately 50 minutes of music.
Prerequisite: Permission of instructor. Offered: Fall, Spring, and Summer.

## MUP 601 - Repertoire Class

(0-1:0:1)
A workshop class where pedagogy of the performance medium is discussed and works of musical literature are performed, coached, and discussed.

Corequisite: Enrollment in Performance Studies Instruction.
MUP 604 - Composition Seminar
(0-1:0:1)
A workshop class where pedagogy of musical composition is discussed and recent works by student and professional composers are presented, performed, coached, and/or discussed.

Corequisite: Enrollment in Performance Studies Instruction.
MUP 605 - Principles of Jazz Theory (2)

Establishes a foundation of knowledge for the study of jazz improvisation and composition, stressing jazz nomenclature, chord/scale analysis, basic chord substitution.

Prerequisite: Undergraduate degree in music or admission to the PBC in Jazz Studies. Offered: Spring.
MUP 609 - Jazz Pedagogy (2)

Principles of jazz interpretation, improvisation, and arranging. Procedures for organizing and administering jazz programs. Survey of jazz materials.

Prerequisite: Graduate music major. Offered: Even Fall.

## MUP 610 - Lecture-Demonstration (2)

(2:1)
A research project leading to a public lecture recital.
Prerequisite: Permission of instructor. Offered: Fall and Spring.
MUP 611 - Composition Workshop (3)
(3:3)
Students will compose pieces and perform their compositions.

Prerequisite: Graduate music majors or permission of instructor.

## MUP 612 - Piano Pedagogy I (3)

## (3:3)

Survey of current piano teaching philosophies, methods, materials, and their application for private and group instruction. Supervised teaching of beginning piano students.

Offered: Fall.
MUP 613 - Piano Literature I (3)

## (3:3)

Survey of piano literature from ca. 1760-1825, with a preliminary investigation of music for the other keyboard instruments from the earliest extant sources.

Offered: Odd Fall.

## MUP 614 - Piano Literature II (3)

Survey of piano literature from ca. 1825 to the present.
Offered: Even Spring.

## MUP 617 - Piano Pedagogy II (3)

## (3:3)

Survey of intermediate and moderately advanced teaching literature with emphasis on basic pedagogical approaches to technique, style, and interpretation. Procedures for teaching functional skills. Supervised teaching experience.

## MUP 618 - Opera Chorus (1)

## (1:0:3)

Performance of literature from all eras, including contemporary works for this medium.

Prerequisite: By audition. Offered: (Fall \& Spring).

## MUP 619 - Touring Opera (1)

(1:0:3)
Performance of literature from all eras, including contemporary works for this medium.

Offered: (Fall).
MUP 620 - Seminar in Piano (3)

## (3:3)

Study of a particular composer or genre of piano literature emphasizing stylistic features, performance problems, pedagogy, and historical perspectives. Topic to be announced.

Prerequisite: Permission of instructor. Offered: Even Fall, Odd Spring.

## MUP 621 - Seminar in Vocal Literature (3)

## (3:3)

In-depth study of an area of vocal literature tracing the historical development and performance practice of that area. Topic to be announced.

Prerequisite: Permission of instructor.
MUP 622 - Seminar in Choral Literature (3)

## (3:3)

In-depth study of a limited area of choral literature, tracing its historical development and performance practice. Topic to be announced.

## MUP 623 - Jazz Arranging I (2)

Beginning study of language and techniques employed in arranging music for various jazz ensembles.

Prerequisite: Graduate standing in music or permission of instructor. Offered: Odd Fall.

MUP 624 - Jazz Arranging II (2)

## (2:2)

Advanced study of techniques and disciplines employed in arranging for jazz ensembles.

Prerequisite: MUP 623. Offered: Even Spring.

## MUP 625 - Cello Ensemble (1)

(1:0:3)
Performance of literature from all eras, including contemporary works for this medium.

## MUP 626 - Song Literature I (3)

## (3:3)

Survey of non-operatic solo vocal repertoire: Italian (Baroque and Classical), German, Nationalistic, Spanish. Brief historical study of major composers, poets, compositional style, and historical periods.
Offered: (Fall).

## MUP 627 - Principles of Vocal Pedagogy (3)

## (3:3)

Teaching process as applied to singing. Includes historical development and an examination and comparison of concepts and approaches past and present.

Prerequisite: Senior or graduate standing as a voice major or principal or permission of instructor. Offered: (Fall).

## MUP 629 - Choral Laboratory III (2)

## (2:1:2)

Supervised practice in conducting choral rehearsals; comparative study of rehearsal procedures and of choral objectives; continued study of choral repertory.
Prerequisite: Admission to graduate program in conducting, or permission of instructor. Offered: Fall.

MUP 630 - The Study and Pedagogy of Phonetics as Applied to Singing (3)

## (3:3)

The International Phonetic Alphabet as applied to the singing of English, Italian, German, and French. Emphasis on vocal interpretation of the symbolic language and functional skills of teaching.

Prerequisite: Singing experience in Italian, French, and German.

## MUP 631 - Percussion Ensemble (1)

(1:0:3)
Performance of literature from all eras, including contemporary works for this medium.
MUP 632 - Camerata (1)
(1:0:3)
Performance of literature from all eras, including contemporary works for this medium.

MUP 633 - Bass Ensemble (1)
(1:0:3)
Performance of literature from all eras, including contemporary works for this medium.

## MUP 634 - Song Literature II (3)

Survey of non-operatic solo vocal repertoire: Italian (Romantic and 20th Century), French, British, 20thCentury American. Brief historical study of major composers, poets, compositional style, and historical periods.

Offered: (Spring).
MUP 636 - Band Literature (3)
(3:3)
Band literature and the origins of the band emphasizing its important and expanded cultivation during the past century in the United States and Europe.
Offered: Odd Spring.

## MUP 637 - String and Keyboard Chamber Literature (3)

## (3:3)

Survey of string and piano chamber music literature from the seventeenth century to the present. Emphasis on historical perspectives, performance of representative works, and score analysis.

Offered: Odd Fall.
MUP 638-Organ Pedagogy (3)

A study and evaluation of procedures used in the teaching of organ. Emphasis on skills and techniques through exercises and literature.

Prerequisite: Junior, senior, or graduate keyboard major or principal. Offered: (Occ).
MUP 640 - Vocal Coaching (1)

## (1:1)

Facilitate the progressive development of voice students through advanced and comprehensive study of repertoire and performance techniques, focusing primarily on diction, style and interpretation.

Prerequisite: MUP 651 or higher standing in Performance Studies and permission of Vocal Area Coordinator. Coreq. MUP 651 or MUP 751. Offered: Fall and Spring.

MUP 642-Orchestral Reduction Repertory: Vocal Repertoire (1)
(1:0:2)
Study and performance of works within the vocal repertoire that have been transcribed from an orchestral, chamber orchestra, or instrumental ensemble to a piano arrangement.
Prerequisite: Accompanying or piano performance major.
MUP 643-Orchestral Reduction Repertory: Instrumental Repertoire (1)

## (1:0:2)

Study and performance of works within the instrumental repertoire that have been transcribed from an orchestral, chamber orchestra, or instrumental ensemble version to a piano arrangement.

Prerequisite: Accompanying or piano performance major.

## MUP 644 - Electronic Music I (3)

## (3:2:2)

Introductory course in electronic composition. Lecture and laboratory experience.
Crosslisted as: Same as MUP 350. Offered: (Fall).
MUP 645 - Electronic Music Composition II (3)
(3:3:3)
Further exploration of compositional concepts dealing with MIDI, sound synthesis, multitracking, and recording techniques. Emphasis on live, interactive electronic music resources including Max/MSP, C-Sound, Reaktor, and others.

Prerequisite: MUP 644 or permission of instructor.
Offered: Spring.
MUP 647 - Casella Sinfonietta (1)

## (1:0:1-2)

Chamber literature for winds, strings and percussion from all eras, including contemporary works for this medium.
Prerequisite: Permission of instructor. Coreq. MUP 691 or MUP 693.

MUP 648 - Chamber Music (1)
(1:0:1)
Group study and performance of selected chamber music literature/jazz combo literature (non-conducted) with emphasis on development of independent chamber music performance skills. Personnel and repertoire assigned by performance faculty.

Prerequisite: Permission of instructor.
MUP 651 - Performance Studies (1-6)
(1-6)
Performance studies instruction on principal instrument, voice, composition, or conducting.

Prerequisite: By audition.
MUP 653 - Performance Studies (1-2)

Performance studies instruction on secondary instrument, voice, composition, or conducting.
Prerequisite: By audition.
MUP 654 - Flute Ensemble (1)
(1:0:3)
Performance of literature from all eras, including contemporary works for this medium.

## MUP 655-Orchestration (3)

## (3:3)

Advanced techniques in instrumental scoring for large ensembles such as orchestra, wind ensemble, and jazz ensemble. Historical and stylistic analysis of the art of orchestration. Additional practical exercises in scoring and arranging for small and large ensembles.

Offered: Fall.

## MUP 656 - Oboe Ensemble (1)

(1:0:3)
Performance of literature from all eras, including contemporary works for this medium.

## MUP 657 - Clarinet Ensemble (1)

(1:0:3)
Performance of literature from all eras, including contemporary works for this medium.

MUP 658 - Bassoon Ensemble (1)
(1:0:3)
Performance of literature from all eras, including contemporary works for this medium.

MUP 659 - Saxophone Ensemble (1)

## (1:0:3)

Performance of literature from all eras, including contemporary works for this medium.

## MUP 660 - Violin Ensemble (1)

(1:0:3)
Performance of literature from all eras, including contemporary works for this medium.
MUP 661 - Entrepreneurial Career Development in Music (3)

Focus on the entrepreneurship knowledge, skills, and career development to enable students to become the architect of his/her future.

Crosslisted as: ENT 661.
MUP 662 - Viola Ensemble (1)

Performance of literature from all eras, including contemporary works for this medium.

## MUP 663 - History of Jazz (3)

(3:3)
Chronological survey of jazz music and jazz history. Introduction to standard reference works and investigation of socio-cultural aspects.

Offered: Even Spring.
MUP 664 - Jazz Improvisation I (2)

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(2: 2: 1)
$$

An introduction to jazz improvisation using modal forms, blues, and ii-V-I progressions.
Prerequisite: Undergraduate degree in music or admission to the PBC Jazz Studies.

## MUP 665 - Advanced Jazz Improvisation (2)

## (2:2:1)

Continuation of Jazz Improvisation I; focus on standards through contemporary jazz performers and composers.

Prerequisite: MUP 644 Jazz Improvisation I or permission of instructor.

## MUP 666 - Trumpet Ensemble (1)

(1:0:3)
Performance of literature from all eras, including contemporary works for this medium.

MUP 667 - Horn Ensemble (1)
(1:0:3)
Performance of literature from all eras, including contemporary works for this medium.

MUP 668-Organ Literature (3)

Survey of organ literature from sixteenth century to present.

MUP 669 - Tuba/Euphonium Ensemble (1)
(1:0:3)
Performance of literature from all eras, including contemporary works for this medium.

MUP 674 - Opera Role (1-2)
(1-2:0:3-6)
Performance of literature from all eras, including contemporary works for this medium.

Prerequisite: By audition.

## MUP 675-Opera Performance Techniques (2)

## (2:2:2)

Techniques for the singer-actor; study of the materials and nature of music theatre; development of skills required in opera/musical theatre.

Prerequisite: MUP 375 and/or permission of instructor. Offered: Fall.
MUP 676 - Period Music Ensembles (1)
(1:0:2)
Performance of conducted and non-conducted period literature for winds, string, percussion, and voice.
Prerequisite: Permission of instructor. Offered: Fall, Spring.

## MUP 677 - World Music Ensembles (1)

(1:0:2)
Performance of conducted and non-conducted world music literature.

Prerequisite: Permission of instructor. Offered: Fall, Spring.

## MUP 678 - Jazz Ensemble II (1)

(1:0:3)
Performance of literature encompassing all of the jazz idioms with emphasis on contemporary composition.

Prerequisite: Membership by audition. Offered: (Fall \& Spring).

## MUP 679 - Men's Glee Club (1)

(1:0:3)
Choral organization for graduate men's voices.
MUP 680 - Schola Cantorum (1)
(1:0:3)
Choral organization for mixed voices.
MUP 681 - Women's Glee Club (1)
(1:0:3)
Choral organization for women's voices.
MUP 682 - University Chorale (1)
(1:0:3)
Mixed choral organization of approximately 50 singers.

## MUP 683 - Instrumental Literature and Performance

 Practice (3)
## (3:3)

Survey of solo and chamber literature from the 17th century to the present. Emphasis on historical perspectives, development of instrumental genres, performance practices, listening, and general score analysis.

## MUP 684 - Performance of Art Song Repertoire (1)

(1:0:2)
Performance-based study of art song repertoire emphasizing stylistic elements. Concentrates on one language or composer each semester, including, but not limited to, German Lieder, French Melodie, American or British song.
Prerequisite: Permission of instructor.
MUP 685 - Trombone Ensemble (1)
(1:0:3)
Performance of literature from all eras, including contemporary works for this medium.

MUP 688 - Chamber Singers (1)
(1:0:3)
Select mixed vocal ensemble of graduate and advanced undergraduate singers.

MUP 689 - Pep Band (1)
(1:0:3)
The pep band performs music in a variety of styles, drives sports crowds to enthusiastic support of our Athletic teams, and provides in-game leadership in school spirit.
MUP 690-Sinfonia (1)

String orchestra, performance of important works from symphonic repertoire of eighteenth, nineteenth, and twentieth centuries.

## MUP 691 - University Orchestra (1)

(1:0:4)
Full symphony orchestra, performing works from the symphonic repertoire of the eighteenth, nineteenth, and twentieth centuries.
MUP 692 - University Band (1)
(1:0:3)
Performance of literature from all eras, including contemporary works for this medium.

## MUP 693 - University Wind Ensemble (1)

## (1:0:4)

Performance of selected works for wind ensemble including both original and transcribed literature.

## MUP 694 - Symphonic Band (1)

(1:0:4)
Performs literature from all eras, including contemporary works for this medium.

## MUP 694b - University Band (1)

(1:0:3)
Performs literature from all eras, including contemporary works for this medium.

MUP 695 - Jazz Ensemble (1)
(1:0:3)
MUP 697 - Directed Study in Music Performance (1-6)
(1-6)
Supervised advanced research requiring a written document or composition.

Prerequisite: Permission of supervising professor; Director of Graduate Study, and Dean.
MUP 699 - Thesis (1-6)

## (1-6)

Individual guidance in the development of a specific performance or composition project.

## MUP 711 - Experimental Course

This number reserved for experimental courses. Refer to the Course Schedule for current offerings.

## MUP 728 - Advanced Vocal Pedagogy (3)

## (3:3)

Practical application of proven pedagogical techniques in a supervised teaching situation.
Prerequisite: MUP 628. Offered: Spring.
MUP 748 - Practicum in Instrumental Pedagogy (3)

Provides advanced knowledge of and practical experience in instrumental pedagogy through an interdisciplinary approach in areas of anatomy, physiology, kinesiology, pathology, technology, psychology, and applied performance.
Prerequisite: MUP 651 or higher in performance studies or permission of instructor.

## MUP 749 - College Teaching: The Tenure Track (3)

(3:3)
Issues related to teaching performing arts in higher education. Topics include curriculum design, teaching methods, evaluation, promotion, school/departmental structure, job searching/resume preparation, copyright, publication, etc.

Prerequisite: Admission to a terminal degree program in the School of Music, Theatre, and Dance. Offered: Spring.

## MUP 751 - Performance Studies (1-6)

(1-6)
Performance studies instruction on principal instrument, voice, composition, or conducting.

Prerequisite: By audition.
MUP 797 - Directed Study in Music Performance (1-12) (1-12)

Supervised advanced research requiring a written document or composition.

Prerequisite: Permission of supervising professor; Director of Graduate Study, and Dean, School of Music.

MUP 799 - Dissertation (1-12)
(1-12)
MUP 801 - Thesis Extension (1-3)
(1-3)
MUP 802 - Dissertation Extension (1-3)
(1-3)
MUP 803 - Research Extension (1-3)
(1-3)

## MUS - Music

MUS 508 - Tonal Counterpoint (3)

Contrapuntal techniques and standard forms of the middle and late Baroque. Analysis of music by composers from Corelli to Bach, composition in representative forms, and aural training.

Prerequisite: MUS 202 and MUS 206 or permission of instructor. Offered: (Fall).

MUS 510 - Advanced Tonal Analysis (3)

Analysis of selected major compositions in the tonal repertoire. Reading and discussion of literature on theoretical concepts and on analysis and interpretation.

Offered: (Spring).
MUS 530 - Music from 1600 to 1800 (3)

## (3:3)

Examines musical traditions ca. 1600-1800 beyond the survey level. Topics include performance practice, nationalism, gender and sexuality, religion, orality/notation, organology, and iconography.

Prerequisite: MUS 332 or permission of instructor.
MUS 532-Music of the Nineteenth Century (3)

## (3:3)

Examines musical traditions ca. 1789-1914 beyond the survey level. Topics may include gender/sexuality, institutions, nationalism, nature, performance practice, and/or religion.

Prerequisite: MUS 333 or permission of instructor.
MUS 533 - Music of the Twentieth Century (3)

## (3:3)

Examines musical traditions from ca. 1880 to the present beyond the survey level. Topics may include music and the State, gender/sexuality, ethnicity and identity, cultural policy/politics, religion, and/or multimedia.
Prerequisite: MUS 333 or permission of instructor.

## MUS 538 - The Symphonic Tradition (3)

(3:3)
Advanced study of symphonic styles and techniques from Baroque era to present.

Prerequisite: MUS 332, MUS 333, or permission of instructor. Offered: (Even Spring).
MUS 550 - Electronic Music (3)
MUS 553 - Secondary Performance Studies (6)
MUS 589 - Experimental Course
This number reserved for experimental courses. Refer to the Course Schedule for current offerings.

## MUS 602 - Seminar in Music Research and Writing (3)

Musical bibliography encompassing a range of print and electronic sources and databases. Methods for researching and writing about music, including research papers, music criticism, and other genres.

Offered: Fall, Spring.

## MUS 606 - Seminar in Music History (3)

## (3:3)

Selected compositions, including contemporary writings about musical culture with reference to the composers.

Prerequisite: MUE 601 or MUS 602 or permission of instructor. Offered: Fall, Spring, and Summer.

MUS 611 - Seminar in Musical Analysis (3)
(3:3)
Analysis of selected compositions representative of one style period of Western music.

Prerequisite: Passing score on graduate theory diagnostic exam and permission of instructor. Offered: Fall, Spring, and Summer.

MUS 625 - Music and Culture of Sub-Saharan Africa (3) (3:3)
Traditional and popular musics in Africa in relationship to social and historical contexts; topics include regional styles, performers' roles, instruments, concepts and uses of music, and performance contexts.
MUS 631 - Selected Topics in Ethnomusicology (3)

Music traditions and current issues in the field of ethnomusicology. Topics may focus on geographical areas or theoretical/methodological issues.

Prerequisite: MUE 601 or MUS 602.

## MUS 644 - Pedagogy of Music Theory (3)

Survey of philosophies, curricula, course content, and teaching approaches for undergraduate courses in music theory and aural skills.
Prerequisite: Passing score on graduate theory diagnostic exam. Offered: Even Fall.

MUS 660 - Theory and Analysis of Rhythm (3)
(3:3)
Survey of theories and analytical approaches regarding the temporal organization of music.

Prerequisite: Passing score on graduate theory diagnostic exam. Offered: Odd Fall.

MUS 662 - Schenkerian Analysis (3)

## (3:3)

Theories and analytical methods of Heinrich Schenker as applied to masterworks of the tonal repertory. Selected readings from Schenkerian literature.
Prerequisite: Passing score on graduate theory diagnostic exam. Offered: Spring.

MUS 664 - Post-Tonal Theory (3)

## (3:3)

In-depth study of theoretical and analytical approaches to post-tonal music. Readings, analyses, papers, and presentations required.
Prerequisite: Passing score on graduate theory diagnostic exam. Offered: Even Fall.

## MUS 665 - History of Opera (3)

## (3:3)

Principal opera composers and styles from Monteverdi to the present; analytical study of selected major works.

## MUS 674 - Masterpieces of Musical Styles (3)

## (3:3)

In depth study of five masterpieces of music history selected from a variety of periods.

Prerequisite: Music education major, passing score on graduate history diagnostic exam.

MUS 683 - Music before 1600 (3)

Examines musical traditions before 1600 beyond the survey level. Topics may include gender/sexuality, geography, institutions, orality, performance practice, print/manuscript culture, and/or religion.
MUS 684 - Music from 1600 to 1800 (3:3)

Examines musical traditions ca. 1600-1800 beyond the survey level. Topics include performance practice, nationalism, gender and sexuality, religion, orality/notation, organology, and iconography.

## MUS 685 - Music of the Nineteenth Century (3:3)

Examines musical traditions ca. 1789-1914 beyond the survey level. Topics may include gender/sexuality, institutions, nationalism, nature, performance practice, and/or religion.

MUS 687 - Aural and Keyboard Skills for Music Theory (1) (1:5:3)

Instruction and practice leading to the development of aural and keyboard skills sufficient for instructors of music theory and ear training.
Prerequisite: Admission to the master's degree program in music theory or the certificate program for music theory pedagogy.

MUS 689 - Practicum in Teaching Music Theory and Musicology (1)

Supervised teaching of basic music theory and aural skills, music history, music appreciation, or world music.

Prerequisite: Admission to the certificate program in music theory pedagogy or in musicology.
MUS 690 - Readings in Music Theory (3)

Survey of the evolution and present state of the discipline of music theory.
Prerequisite: MUE 601 or MUS 602; passing score on graduate theory diagnostic exam. Offered: Fall and Spring.

MUS 697 - Directed Study in Music Studies (1-6) (1-6)
Supervised advanced research requiring a written document or composition.

Prerequisite: Permission of supervising professor; Director of Graduate Study, and Dean.
MUS 698 - Document in Music Theory (1)

Development of research topic in music theory to publication stage.
Offered: Fall and Spring.
MUS 699 - Thesis (1-6)
(1-6)
Individual guidance in the development of a specific research problem.

Offered: Fall, Spring, and Summer.

MUS 702 - Musicological Research for Performers (3)
(3:3)
Research problems and methodologies for doctoral-level performing musicians.
Prerequisite: MUS 602 or equivalent. Offered: Spring.

## MUS 711 - Experimental Course

This number reserved for experimental courses. Refer to the Course Schedule for current offerings.

MUS 797 - Directed Study in Music Studies (1-12)
(1-12)
Supervised advanced research requiring a written document or composition.

Prerequisite: Permission of supervising professor; Director of Graduate Study, and Dean.
MUS 799 - Dissertation (1-12)
(1-12)
MUS 801 - Thesis Extension (1-3)
(1-3)
MUS 802 - Dissertation Extension (1-3)
(1-3)
MUS 803 - Research Extension (1-3)
(1-3)

## NAN - Nanoscience

NAN 601 - Nanochemistry (3)
(3:3)
Review of materials chemistry, synthesis of nanoparticles such as carbon nanotubes and fullerens, chemical reactions and a survey of medicinal chemistry for pharmaceutical applications.
Prerequisite: Graduate student in nanoscience or permission of instructor.

NAN 602 - Nanobiology (3)

Emphasis on cellular and intracellular mechanisms including biological self-assembly, cytoskeletal interactions, protein folding, membrane dynamics, biological energetics, and cell-cell interactions as well as biomaterials.
Prerequisite: Graduate student in nanoscience or permission of instructor.

## NAN 603 - Nanophysics (3)

## (3:3)

Emphasis on the areas of physics critical to nanoscience including solid state physics, statistical mechanics, quantum concepts, biophysics, chemical physics, and nanodevices based on semiconductors.

Prerequisite: Graduate student in nanoscience or permission of instructor.
NAN 604 - Nanotechniques (3)

## (3:3)

Fundamental techniques used in nanotechology, including methods for nanofabrication, nanocharacterization, and nanomanipulation.

Prerequisite: Graduate student in nanoscience or permission of instructor.
NAN 605 - Mathematical Methods in Nanoscience and Nanoengineering (3:3)

An emphasis of this required course will be on the areas of mathematics critical to nanoscience and nanoengineering including application of differential equations to numerical and analytical modeling of nanostructures.
Prerequisite: Graduate student in Nanoscience or permission of instructor.

NAN 611 - Nanoscience Laboratory Rotation (1)

A 7-week laboratory rotation intended to develop skills with scientific equipment and provide initial experience with nanoscale research. Four distinct laboratory rotations are required for the PhD in nanoscience.
Prerequisite: Graduate student in nanoscience or permission of instructor.

NAN 621 - Professional Development Seminar I (1)

## (1:1)

Workplace issues including ethics, confidentiality, writing and presentation skills, innovation, entrepreneurship, and emerging issues in nanotechnology.
Prerequisite: Graduate student in nanoscience or permission of instructor.

## NAN 622 - Professional Development Seminar II (1)

## (1:1)

Workplace issues including business plans, globalization, emerging issues in nanotechnology, and further development of writing and presentation skills, innovation, and entrepreneurship.

Prerequisite: Graduate student in nanoscience or permission of instructor.

NAN 625 - Molecular Biology in Nanosciences (3)

A lecture and laboratory course introducing graduate level scienct students to the principles and practices of molecular biology with emphasis on its application and integration with nanoscience.

Prerequisite: Graduate students in nanoscience or other program with permission of instructor. Must have taken Basic Biology (Biology 111-112) and chemistry classes (Chem 111-115), or equivalent.

NAN 698 - Professional MS in Nanoscience Internship (6)
(6:0:24)
Prerequisite: Graduate student in nanoscience or permission of instructor.
NAN 711A - Experimental Course (3)
(3:3)
Prerequisite: Graduate student in nanoscience or permission of instructor.
NAN 711B - Experimental Course (3)

Prerequisite: Graduate student in nanoscience or permission of instructor.

NAN 735 - Nanomaterials and Reactions by Design (3:3)

Prerequisite: Graduate student in nanoscience or permission of instructor. Nanoscience graduate students must have completed JSNN's Fundamentals of Nanoscience Corses, i.e. NAN 601, 602, 603, 604 or NAN 701, or their equivalent. .

## NAN 740 - Nonlinear Waves in Biological Excitable Media

 (3)
## (3:3)

Dynamics of reaction-diffusion waves and implementation of theoretical methods to the analysis of these waves in cardiac muscle and nerves.

Prerequisite: Graduate student in nanoscience or permission of instructor.

NAN 745 - NanoImaging (3)
(3:3)
Use of nanoparticles for in vivo diagnostic medical imaging and therapy.

Prerequisite: Graduate student in nanoscience or permission of instructor.
NAN 750 - Nanomedicine (3)

## (3:3)

General underlying mechanisms leading to imflammation, infectious disease, cancer, and autoimmune disease and the potential nanotechnology has on diagnosing, preventing, and treating these diseases.

Prerequisite: Graduate student in nanoscience or permission of instructor. Basic biology.
NAN 771 - Computational Quantum Nanochemistry (3)

## (3:3)

Fundamentals of computational quantum mechanics and related computational methods applicable to nanoscience. Includes hands-on computer exercises.

Prerequisite: Graduate student in nanoscience or permission of instructor.
NAN 799 - Nanoscience Dissertation Research (1-12)
(1-12)
NAN 802 - Dissertation Extension (1-3)
(1-3)
NAN 803 - Research Extension (1-3)
(1-3)

## NTR - Nutrition

NTR 500 - Supervised Professional Experience (1-4)
(1-4:0:3-12)
Supervised professional experience in selected commercial or industrial organizations, public or private agencies in accordance with the major course of study of the student.

## NTR 531 - Nutrition and Human Metabolism (4)

## (4:4)

Structure, function, and metabolism of nutrients and related compounds; integration of nutrient metabolism at the cellular level with total body function; practical application of basic principles of nutrient metabolism.

Prerequisite: Grade of C or better in BIO 277, NTR 413, and CHE 103 or CHE 111, CHE 104 or CHE 114, CHE 110 or CHE 112, CHE 205 or CHE 351 and CHE 352, CHE 206 or CHE 354 or their equivalents as determined by the instructor. Offered: (Spring).

## NTR 534 - Nutrition and Human Metabolism Laboratory

 (2)Analytical procedures, their rationale and interpretations, applicable to the study of human metabolism.

Prerequisite: General chemistry and organic chemistry with labs; NTR 531 (may be taken concurrently).
NTR 543 - Maternal and Infant Nutrition (3)

Nutritional needs of pregnant and lactating women, and infants; methods of evaluating nutritional status of these groups; effects of nutrition on pregnancy outcome and infant development.

Prerequisite: Grade of C (2.0) or better in NTR 213 or equivalent, and BIO 277 or equivalent.
NTR 550 - Nutrition Assessment (3)

Assessment of nutritional status of healthy and ill persons before initiation of medical nutrition therapy.
Prerequisite: Grade of C (2.0) or better in BIO 277; NTR 213, NTR 313, NTR 413. Offered: (Fall).

NTR 553 - Child and Adolescent Nutrition (3)

## (3:3)

Nutritional needs of children and adolescents; methods of evaluating nutritional status of these groups; effects of nutrition on development.
Prerequisite: Grade of C (2.0) or better in NTR 213 or equivalent, and BIO 277 or equivalent.

## NTR 560 - Advanced Nutrition (4)

## (4:4)

Biochemical and physiological aspects of nutrient metabolism and utilization. Nutrient requirements for maintenance, growth, pregnancy, lactation, work, and aging.

Prerequisite: Grade of C or better in NTR 313, NTR 413, NTR 531, and BIO 277, or equivalents as determined by the instructor. Offered: (Fall).

## NTR 573 - Medical Nutrition Therapy (4)

## (4:3:2)

Clinical aspects of nutrition. Development and use of therapeutic diets to combat nutritional diseases and physiological disorders.

Prerequisite: Grade of C or better in NTR 313, NTR 413, NTR 531, NTR 550, NTR 560, and BIO 277. Offered: (Spring).

## NTR 576 - Nutrition and Physical Fitness (3)

## (3:3)

Metabolism during exercise, ergogenic aids, nutrients' effects on performance, and body composition alterations during training. Gender and age-specific needs and responses to exercise and dietary intake.
Prerequisite: Grade of C (2.0) or better in BIO 277, NTR 213, and NTR 413 or equivalent required. KIN 375 recommended. Crosslisted as: Same as KIN 576. Offered: (Fall).

## NTR 589 - Experimental Course

This number reserved for experimental courses. Refer to the Course Schedule for current offerings.
NTR 601 - Directed Study in Nutrition (1-6)
(1-6)
Prerequisite: Permission of graduate faculty member.
NTR 602 - Supervised Preparation for Professional and Community Engagement (3)
(3:2:2)
Preparation for clinical supervised practice experiences in dietetics; helping relationships skills, human resource management, marketing strategies for revenue generating services in dietetics, appropriate professional conduct in patient care.
Prerequisite: Admission into the DI program or NTR 573 and NTR 560. Offered: Fall.

## NTR 606a - Practicum in Clinical Dietetics (3-6)

## (3-6)

For Dietetic Internship students only. Practical experience in the professional areas of dietetics: management, clinical, and community.

Prerequisite: Grade of B or better in NTR 693.
NTR 606b - Practicum in Clinical Dietetics (3-6)

## (3-6)

For Dietetic Internship students only. Practical experience in the professional areas of dietetics: management, clinical, and community.
Prerequisite: Grade of B or better in NTR 693.

## NTR 606c - Practicum in Clinical Dietetics (3-6)

 (3-6)For Dietetic Internship students only. Practical experience in the professional areas of dietetics: management, clinical, and community.

Prerequisite: Grade of B or better in NTR 693.

## NTR 607 - Nutrition Education (3)

## (3:3)

Philosophy, principles, methods, and materials involved in nutrition education. Emphasis on development of nutrition education curriculum and programs in school and community.

Prerequisite: NTR 550 or equivalent or permission of instructor.

## NTR 609 - Seminar in Nutrition

NTR 609a - Seminar in Nutrition (1)
(1)

Review, analysis and presentation of recent research findings and issues in food and nutrition.

## NTR 609b - Seminar in Nutrition (2)

(2)

Review, analysis and presentation of recent research findings and issues in food and nutrition.

## NTR 619 - Nutrition Consultation Methods (3)

## (3:2:3)

Exploration of techniques and constraints for interviewing and eliciting change through nutritional consultation.
Prerequisite: NTR 573, NTR 560 or permission of instructor.

## NTR 623 - Current Trends in Nutrition (3)

## (3:3)

Emphasis on current trends in nutrition research/education from a molecular, cellular and/or human perspective.

Prerequisite: Senior or graduate level course in nutrition or permission of instructor.

## NTR 625 - Gene Expression and Protein Metabolism (2)

## (2:4)

Integration of cell biology and protein metabolism in relation to gene expression and regulation of enzyme activity in mammalian cells. Critical analysis of recent literature.

Prerequisite: Previous course in general nutrition, biochemistry and mammalian physiology and unconditional admission to the graduate program in Nutrition or other life sciences, or permission of instructor. Offered: Fall.

## NTR 626 - Energy, Carbohydrate, Lipid Metabolism (2)

## (2:4)

Analysis of energy intake and metabolism; carbohydrate and lipid absorption, transport, and tissue-specific utilization. Clinical applications. Critical analysis of recent literature.

Prerequisite: NTR 625, previous course in general nutrition, biochemistry and mammalian physiology, and unconditional admission to the graduate program in Nutrition or other life sciences; or permission of instructor.

## NTR 627 - Antioxidants and Bioactive Food Components

 (2)
## (2:4)

Metabolism and function of selected bioactive food components, such as flavonoids, stanols and sterols, anthocyanins, carotenoids, polyphenolics, indole-3carbinol. Clinical applications. Critical analysis of recent literature.

Prerequisite: NTR 625, previous course in general nutrition, biochemistry and mammalian physiology, and unconditional admission to the graduate program in Nutrition or other life sciences; or permission of instructor.

## NTR 628 - Vitamins and Minerals (2)

## (2:4)

Metabolism functions of selected vitamins. Regulation of selected trace metals emphasizing nutrient-gene interactions. Clinical applications. Critical analysis of recent literature.

Prerequisite: NTR 625, previous course in general nutrition, biochemistry and mammalian physiology, and unconditional admission to the graduate program in Nutrition or other life sciences; or permission of instructor.

## NTR 643 - Nutrition and Aging (3)

## (3:3)

Explore the nutritional issues associated with aging and the older adult (65 years+). Theories of aging; aging and chronic diseases; effects of aging on nutrient requirements; nutrition programs and services.

Prerequisite: NTR 213, BIO 277 or equivalent, or permission of instructor.

## NTR 645 - Teaching Practicum in Nutrition (3)

## (3:3)

Provides a supervised, structured learning experience in teaching for graduate students in the Department of Nutrition. Professors provide guidance for graduate students during the experience.

Prerequisite: Admission to the graduate program in nutrition or permission of instructor.

NTR 653 - Problems in Food and Nutrition (2-4)

## (2-4)

Individual student problems related to food and nutrition.
Prerequisite: Permission of instructor.

## NTR 670 - Research Skill Development (2-6)

(2-6)
NTR 673 - Nutrition Research Methodology (3)

Diverse research techniques used in cellular, small animal, and human experimental studies in nutritional sciences. Orientation to research methodologies, grant proposal writing, ethical use of human (IRB) and animal (IACUC) models, and policy in nutritio
Prerequisite: NTR 531 or equivalent as determined by the Department.

## NTR 676 - Nutrition and Physical Performance (3)

## (3:3)

Effects of nutrition on physical performance, alterations in nutrient metabolism from increased activity, interaction of diet and exercise on aging and disease processes, training and competition diets examined.

Prerequisite: Course work in biochemistry and physiology required, 531, 560 or equivalent courses, BIO 277.
NTR 693 - Supervised Preparation for Practicum in Clinical Dietetics (3)
(3:3)
Development of nutritional therapies for certain disease conditions. Evaluation of the physiological and biochemical bases for such therapies.
Prerequisite: Admission to DI program or NTR 573 and permission of instructor. Offered: Fall.

NTR 695 - Nutritional Genomics (3)

Comprehensive evaluation of principles and applicability of methodologies used to evaluate the regulation of gene expression in the field of nutrition science.

Prerequisite: Permission of instructor.
NTR 696 - Nutritional Proteomics (3)

## (3:3)

Comprehensive evaluation of principles and applicability of methodologies used to evaluate protein expression and function in the field of nutrition science.

Prerequisite: Permission of instructor.
NTR 699 - Thesis (1-6)
(1-6)

## NTR 711 - Experimental Course

This number reserved for experimental courses. Refer to the Course Schedule for current offerings.
NTR 790 - Doctoral Research (1-6)
(1-6)
Individual work on problems related to student's primary area(s) of specialization. Empirical research or critical reviews and integrations of literature.

Prerequisite: Approval of graduate faculty member.
NTR 799 - Dissertation Problem (1-12)
(1-12)
Prerequisite: Completion of oral and written comprehensive examinations.

NTR 801 - Thesis Extension (1-3)
(1-3)
NTR 802 - Dissertation Extension (1-3)
(1-3)
NTR 803 - Research Extension (1-3)
(1-3)

## NUR - Nursing

NUR 540 - Budget Development and Analysis of Nursing Services (3)
(3:3)
An introduction to the principles of fiscal management, health care agency accounting practices, and nurse manager's role in the budgeting process.

Offered: (Spring).
NUR 541 - Nursing Case Management: Coordinating Systems of Care (4)

## (4:2:6)

Theory and practice of nursing case management for diverse populations across the health care continuum.
Prerequisite: Licensure as a Registered Nurse. Offered: (Fall).

NUR 550 - Pathophysiology for Advanced Nursing (3)

## (3:3)

The physiological changes across the life span and common pathophysiological mechanisms.

Offered: (Fall \& Spring).
NUR 551 - Instructional Technologies in Nursing and Patient Education (3)
(3:3)
Selection, development, use, and evaluation of instructional media and technologies for diverse populations in nursing practice and education settings.

Offered: (Fall).

## NUR 581 - End-of-Life Care (3)

Critical aspects of interdisciplinary approaches to quality care at end-of-life. Includes palliative care, family, advocacy, culture, special populations, systems of care, financial issues, life threatening illnesses, and sudden death.

Offered: (Occ).

## NUR 589 - Experimental Course

This number reserved for experimental courses. Refer to the Course Schedule for current offerings.
NUR 601 - Critique and Utilization of Research in Nursing (3)
(3:3)
Development of knowledge and skill competencies basic to the critical interpretation and utilization of research findings in solutions. Application to nursing education, management, and practice problems.
Prerequisite: NUR 602, NUR 610 and first concentration specialty course.

## NUR 602 - Research Methods in Nursing (3)

Examines the basic concepts, strategies, and procedures used in conducting and evaluating nursing research. Emphasis will be on proposal development and quantitative and qualitative analysis of data.
Prerequisite: One course in statistics that included inferential statistics (preferred within past five years).

NUR 604 - Nurse Anesthesia Research Seminar (4) (4:4)
Analysis of professional issues and research affecting anesthesia nursing practice.

Corequisite: NUR 675.

## NUR 610 - Theoretical Foundations of Advanced Nursing Practice (3)

## (3:3)

Role of theory in nursing is evaluated using the organizing concepts of person, environment, health, and nursing.
NUR 614 - Information Technology in Nursing Service Administration (3)

Prepares the student to apply principles and techniques of communication and computer technology in health care management settings.
Prerequisite: Enrolled in administration concentration of MSN program or permission of instructor.

## NUR 615 - Theories, Design and Evaluation in Nursing Education (3)

## (3:3)

An exploration of nursing curriculum development within a broad context related to history, philosophy, and current trends.

Prerequisite: Pr. or Coreq. NUR 610. Corequisite: Pr. or Coreq. NUR 610.

NUR 616 - Pedagogical Strategies in Nursing Education (3)

Concepts of instructional design and educational strategies related to nursing education in a variety of settings.
Prerequisite: Pr. or Coreq. NUR 551. Corequisite: Pr. or Coreq. NUR 551.
NUR 620 - Law, Policy, and Economics of Healthcare (3) (3:3)
Law, health policy, and economics related to advanced nursing practice. Policy development, state and federal statutes, and economics affecting delivery of nursing and healthcare.
NUR 629 - Health Assessment for Nurse Anesthesia (3)

## (3:2:3)

Patient assessment in the perioperative period as it relates to nurse anesthesia practice. Methodologies of data gathering, data analysis, and theoretical integration are emphasized in lecture and laboratory content.
Prerequisite: Admission to the Nurse Anesthesia concentration and affiliated School of Nurse Anesthesia. Coreq. NUR 610.
NUR 630 - Neuropathophysiology for Nurse Anesthesia (2)

Advanced knowledge of pathophysiology and anesthesia nursing care related to persons with neurological dysfunction.
Prerequisite: Admission to the Nurse Anesthesia concentration and affiliated School of Nurse Anesthesia. Coreq. NUR 610.

## NUR 631 - Pharmacology of Nurse Anesthesia I (1)

(1:1)
Advanced knowledge of pharmacologic principles related to anesthetic medications.

Prerequisite: Admission to the Nurse Anesthesia concentration and affiliated School of Nurse Anesthesia. Coreq. NUR 610.
NUR 632 - Biochemistry for Nurse Anesthesia (1)

## (1:1)

Advanced knowledge of the biochemical basis and measurement of homeostasis and nursing interventions for fluid and electrolyte imbalance.

Prerequisite: Admission to the Nurse Anesthesia concentration and affiliated School of Nurse Anesthesia. Coreq. NUR 610.

## NUR 633 - Cardiovascular Pathophysiology for Nurse Anesthesia (2)

## (2:2)

Advanced knowledge of pathophysiology, pharmacology, and anesthesia nursing care related to persons with cardiovascular and cellular dysfunction.

Prerequisite: NUR 630, Coreq. NUR 602.
NUR 634 - Pharmacology of Nurse Anesthesia II (1)

Advanced knowledge of pharmacology of inhaled anesthetics.

Prerequisite: NUR 630, Coreq. NUR 602.
NUR 635 - Cell Pathophysiology for Nurse Anesthesia (1) (1:1)
Advanced knowledge of pathophysiology and anesthesia nursing care related to persons with cellular dysfunction.

Prerequisite: NUR 630, Coreq. NUR 602.

## NUR 636 - Respiratory Pathophysiology for Nurse Anesthesia (2)

Advanced knowledge of pathophysiology, pharmacology, and anesthesia nursing care related to persons with respiratory dysfunction.

Prerequisite: NUR 635, Coreq. NUR 620.

## NUR 637 - Pharmacology of Nurse Anesthesia III (2)

Advanced knowledge of pharmacology of intravenous anesthetics and adjuvant medications.

Prerequisite: NUR 633, Coreq. NUR 620.
NUR 638 - Pathophysiology of Abdominal Systems for Nurse Anesthesia (2)

## (2:2)

Advanced knowledge of pathophysiology and anesthesia nursing care related to persons with hepatic, renal and endocrine dysfunction.

Prerequisite: NUR 636.
NUR 639 - Pharmacology of Nurse Anesthesia IV (2) (2:2)
Advanced knowledge of pharmacology of adjunctive anesthetic medications.

Prerequisite: NUR 636.

## NUR 641 - Nursing Administration (4)

## (4:4)

Prerequisite: Pr. or Coreq. NUR 610, NUR 614. Corequisite: Pr. or Coreq. NUR 610, NUR 614.

## NUR 642 - Nursing Administration: Theoretical Applications (4)

(4:2:6)
Management functions of directing and controlling are studied within the framework of leadership in health care organizations.

Prerequisite: NUR 641, health assessment. Pr.Pr. or Coreq. NUR 540, NUR 602.
NUR 643 - Nursing Administration Practicum (4)

Application of leadership and administrative knowledge in a practice setting and completion of an administrative project while defining self in a professional leadership role.
Prerequisite: NUR 620, NUR 642. Pr.Pr. or Coreq. NUR 541.

NUR 651 - Advanced Application of Nursing Concepts in Client Care (4)

## (4:1:9)

Prerequisite: Pr. or Coreq. NUR 550, NUR 551. Corequisite: Pr. or Coreq. NUR 550, NUR 551.

NUR 652 - Advanced Application of Nursing Concepts in Professional Development (4)

## (4:1:9)

Competencies in preparation for professional development roles in nursing. Seminars, conferences, and practica emphasize staff and continuing education.

Prerequisite: NUR 651. Pr.Pr. or Coreq. NUR 615, NUR 616.

NUR 653 - Advanced Application of Nursing Concepts in Academic Education (4)
(4:1:9)
Development of competencies in preparation for academic educator roles. Seminars, conferences, and practica emphasize nursing education in academic settings.
Prerequisite: NUR 652.
NUR 671 - Clinical Practicum in Nurse Anesthesia I (4) (4:0:12)
Delivery of basic anesthesia nursing care to persons in a variety of settings.

Prerequisite: Admission to the MSN nurse anesthesia concentration. Pr.Pr.or Coreq. NUR 610.
NUR 672 - Clinical Practicum in Nurse Anesthesia II (4)
(4:0:12)
Delivery of basic anesthesia nursing care to persons in a variety of settings continued.
Prerequisite: NUR 671. Pr.Pr. or Coreq. NUR 602.
NUR 674 - Clinical Practicum in Nurse Anesthesia IV (5) (5:0:15)
Delivery of advanced anesthesia nursing care to persons in a variety of settings.

Prerequisite: NUR 672. Pr.Pr. or Coreq. NUR 620.
NUR 675 - Clinical Practicum in Nurse Anesthesia V (5)

## (5:0:15)

Delivery of complex anesthesia nursing care to persons in a variety of settings.
Prerequisite: NUR 674. Coreq. NUR 604.

## NUR 681 - Advanced Health Assessment (4)

## (4:3:3)

Builds upon prerequisite assessment skills and presents advanced principles of health assessment. Methodologies of data gathering, data analysis and theoretical integration emphasized in lecture and laboratory content.

Prerequisite: 3 credit hour baccalaureate level health assessment course, NUR 550, NUR 610. Coreq. NUR 682.

NUR 682 - Health Promotion/Disease Prevention for Healthy Aging (3)

## (3:2:3)

Theories of aging, growth and development, stress, coping, and motivation applied through advanced practice nursing in a primary care setting.
Prerequisite: NUR 550, NUR 610. Coreq. NUR 681. Pr.Pr. or Coreq. NUR 602.

NUR 683 - Adult/Gerontology Primary Care Management I (6)

The first in a series of clinical courses. Management of acute and chronic illness with emphasis on disease prevention and health promotion among young adults, adults, and older adults.

Prerequisite: NUR 681, NUR 682. Coreq. NUR 684.
NUR 684 - Pharmacotherapeutics for Nurse Practitioners (3)

Advanced principles of pharmacodynamics of major drug classes used in adults and older adults, including discussion of advanced nursing roles in prescription practices.

Corequisite: NUR 683.
NUR 685 - Advanced Practice Nursing: Role, Theory and Practice (3)

## (3:3)

Professional development of the advanced practice nursing role in the health care delivery system.
Prerequisite: Pr. or Coreq. NUR 620. Corequisite: Pr. or Coreq. NUR 620.

## NUR 686 - Adult/Gerontology Primary Care Management III (6)

## (6:3:9)

This is the third course in a series of clinical courses. Emphasis is on major health problems of adults and older adults residing within the continuum of longterm care.

Prerequisite: NUR 684.
NUR 687 - Adult/Gerontology Primary Care Management II (5)
(5:3:6)
The second in a series of clinical courses. Management of acute and chronic illness with emphasis on disease prevention and health promotion among young adults, adults, and older adults.

Prerequisite: NUR 683.

## NUR 688 - Advanced Concepts in the Management of the

 Older Adult (4)
## (4:0:12)

Implementation and evaluation of advanced practice strategies and leadership role of the gerontological nurse practitioner.
Prerequisite: NUR 686.

## NUR 689 - Primary Care of the Adult Practicum (4)

## (4:1:9)

Practicum for advanced nursing practice in primary health care for adults: Promotion of healthy lifestyles, evaluation and management of acute and chronic health problems.

Prerequisite: NUR 687.
NUR 692 - Independent Study (1-3)
(1-3)
Guided readings, research, and individual project work under the direction of the School of Nursing faculty.

## NUR 698 - Advanced Nursing Project (1-6) (1-6)

(1-6)
Scholarly inquiry project developed by the student with faculty guidance.

Prerequisite: NUR 602, NUR 610, one support course and one specialty course.

## NUR 699 - Thesis (1-6)

Individual guidance and direction in research to address a clinical or nonclinical problem.

Prerequisite: NUR 602, NUR 610, one support course and one specialty course.

NUR 701 - Statistical Applications for Nursing Research I (3)

Applied descriptive and inferential statistics for nursing and health care research. Principles of hypothesis testing, inference, estimation, correlation, regression, and analysis of variance. Emphasis on selection of analysis and interpretation of result

Prerequisite: Admission to PhD in nursing and completion of a course in inferential statistics, or permission of instructor.

## NUR 702 - Statistical Applications for Nursing Research II (3)

Advanced statistics for nursing and health care research, including general linear model, multifactoral ANOVA, multiple regression. Emphasis on selection and conduct of analysis and interpretation of results.

Prerequisite: NUR 701 or permission of instructor.

## NUR 703-Qualitative Methods for Nursing (3)

## (3:3)

Philosophy, theory, and methods of qualitative research with an emphasis on the application to nursing and health research.

Prerequisite: NUR 702 and NUR 712, or permission of instructor.

## NUR 704 - Quantitative Research in Nursing (3)

## (3:3)

Theoretical foundations, design, and techniques of quantitative research for nursing and health care.
Prerequisite: NUR 702 and NUR 712, or permission of instructor.

NUR 710 - Philosophy of Knowledge Development in Nursing (3)

Philosophy, inquiry, and the development of knowledge within the discipline.

Prerequisite: Admission to PhD in nursing.

## NUR 711 - Experimental Course

This number reserved for experimental courses. Refer to the Course Schedule for current offerings.

## NUR 712 - Theory Analysis in Nursing Science (3)

## (3:3)

Nature of theory and strategies for theory development within the discipline of nursing. Analysis and evaluation of theory related to phenomena of interest.

Prerequisite: NUR 710.
NUR 741 - Nurse Scientists in Academia and Industry I (3) (3:3)
Integration of the nurse scientist role into an academic and industry environment.

Prerequisite: Pr. or Coreq. NUR 703, NUR 782; Pr.NUR 704 and NUR 712. Corequisite: Pr. or Coreq. NUR 703, NUR 782.

NUR 742 - Nurse Scientists in Academia and Industry II (3)

Internship to apply the nurse scientist role in an academic or industry environment.
Prerequisite: NUR 741.

## NUR 780 - Special Topics in Nursing Science

In depth topics of special interest related to nursing and health sciences.

Prerequisite: Permission of instructor.
NUR 781 - Health Promotion Models and Interventions (3)

Current epidemiological, methodological, and theoretical approaches to health promotion across the lifespan. Intervention strategies are evaluated.
Prerequisite: NUR 702 and NUR 712, or permission of instructor.

## NUR 782 - Health Disparities and Outcomes (3)

## (3:3)

Critical analysis of health disparities and outcomes.
Differences in access, use, cost, and quality of health care services; causes of health disparities; and strategies to eliminate disparities.

Prerequisite: NUR 781 or permission of instructor. Coreq. NUR 704.

## NUR 783 - Advanced Health Policy and Ethics (3)

## (3:3)

Advanced analysis and evaluation of domestic and international regulation, financing, and delivery of health care; ethical issues and stakeholders that influence policy; evaluation of policies for selected populations.

Prerequisite: NUR 782 or permission of instructor.

## NUR 790 - Directed Research (3)

(3:3)
Directed research that culminates in a scholarly product.
Prerequisite: NUR 704 and prior approval of graduate faculty member who will supervise and evaluate the project.

NUR 792 - Independent Study (1-3)
(1-3)
Prerequisite: Permission of instructor, Director of Graduate Study and Dean of Graduate School.

NUR 799 - Dissertation (1-12)
(1-12)
Individual direction for the completion of doctoral dissertation research.
NUR 801 - Thesis Extension (1-3)
(1-3)
NUR 802 - Dissertation Extension (1-3)
(1-3)
NUR 803 - Research Extension (1-3)
(1-3)

## PHI - Philosophy

PHI 520 - Advanced Topics in Biomedical Ethics (3) (3:3)
Detailed examination of a particular issue in biomedical ethics, such as research ethics, assisted suicide and euthanasia, and the acquisition and allocation of organs for transplantation.
Prerequisite: PHI 220.

PHI 523 - Philosophy of Social and Behavioral Science (3)
(3:3)
Issues in philosophy of social and behavioral science from Hume to the present: explanation, theory construction, methodology of the social sciences, the status of the sociology of knowledge.

Prerequisite: Permission of instructor.
PHI 525 - Philosophy of Physical Science (3)

## (3:3)

Study of a major current issue in the philosophy of science such as scientific progress and change, scientific methods, experiment and theory, scientific explanation, rationality, scientific realism, relations between philosophy of science and history of

Prerequisite: PHI 325.

## PHI 527 - Philosophy of Biological Science (3)

Examination of concepts of law, theory, explanation, evidence, classification, and reduction using examples drawn from biology. Investigation of problems related to alternative conceptual systems and conceptual change in biology, the nature of the biological subject matter, and the place of biology among the natural sciences.

Prerequisite: PHI 325.
PHI 545 - Social Philosophy (3)

## (3:3)

Topics from social, political, and legal philosophy, such as property, justice, punishment, liberalism, conservatism, and a study of such major figures as Hobbes, Rousseau, Locke, Mill, and Rawls.

Prerequisite: PHI 321 or PHI 331 or PHI 335.
PHI 555 - Epistemology (3)

## (3:3)

Skepticism, the analysis of knowledge, confirmation and induction, apriori knowledge, naturalized epistemology.

Prerequisite: PHI 319 or permission of instructor.

## PHI 559 - Philosophy of Mind (3)

The mind-body problem, identity theories, functionalism, reductive and eliminative materialism, behavioral and causal theories of mind.

Prerequisite: PHI 111 or PHI 251 or PHI 252.

## PHI 565 - Philosophy of Language (3)

(3:3)
Theories of truth, meaning, and reference. Origin and nature of human language and its relations to animal and machine language.

Prerequisite: PHI 111 or PHI 251 or PHI 252.
PHI 575 - Advanced Logic (3)
(3:3)
Axiomatic first order quantification theory with completeness theorems. Numbers and sets. Paradoxes and type theory. Introduction to modal logic.
Prerequisite: PHI 311 or permission of instructor.

## PHI 589 - Experimental Course

This number reserved for experimental courses. Refer to the Course Schedule for current offerings.

## PHI 590 - Aesthetics (3)

## (3:3)

Readings in the major philosophies of art, analysis of evaluative judgment and argument, the nature of aesthetic concepts, artistic truth, the art object, and the aesthetic experience.
Prerequisite: PHI 322 or permission of instructor.
PHI 601 - Advanced Topics in Philosophy (3)

Topics may include relativism, legal ethics, and artificial intelligence.

Prerequisite: Permission of instructor.
PHI 602 - Ethics and Genetics (3)
PHI 620 - Ethics and Genetics (3)

## (3:3)

Ethical issues in the acquisition and application of knowledge about the human genome. Topics include genetic testing and abortion, predictive testing, testing for minors, confidentiality, gene therapy, and human cloning.

Prerequisite: Matriculation to third semester of MS genetic counseling program or permission of instructor.

## PHI 711 - Experimental Course

This number reserved for experimental courses. Refer to the Course Schedule for current offerings

## PHY - Physics

PHY 501 - Conceptual Physics for Teachers (3)
(3:3)
The basic laws of physics are introduced by extensive use of demonstrations. Concepts are emphasized and mathematical manipulation is minimal. Teaching materials and strategies are developed.

PHY 502 - Conceptual Physics for Teachers (3) (3:3)
The basic laws of physics are introduced by extensive use of demonstrations. Concepts are emphasized and mathematical manipulation is minimal. Teaching materials and strategies are developed.
PHY 543 - Biophysics (3)

Introduction to cellular biophysics, with emphasis on the physical properties of membranes, including membrane transport mechanisms and electrical properties of membranes.

Prerequisite: PHY 211/PHY 212 or PHY 291/PHY 292; MAT 191; BIO 355; CHE 111/CHE 114; or permission of instructor. Crosslisted as: Same as BIO 543. Offered: (Alt Fall).

## PHY 589 - Experimental Course: Physical Science for

 Teachers (3)
## (3:3)

Physical science content knowledge, and methods that can be used to present this content in the classroom; for high school and middle school teachers. (Offered summer '07)

Prerequisite: One year of physics, one year of chemistry, one year of teaching experience.
PHY 601 - Teaching Concepts in Physics and Astronomy (3)
(3:3)
Research in physics education, implications for instruction.
Prerequisite: Permission of instructor.
PHY 603 - General Physics for Teachers (3)
(3:3)
Concepts and theories, with some performance of demonstration and laboratory experiments. Develop basic knowledge of mechanics, properties of matter, heat, waves, electromagnetic fields, atomic structure and spectra, particle and wave theories.

Prerequisite: One year of college physics, one year of college mathematics, or permission of instructor.

## PHY 604 - General Physics for Teachers (3)

## (3:3)

Concepts and theories, with some performance of demonstration and laboratory experiments. Develop basic knowledge of mechanics, properties of matter, heat, waves, electromagnetic fields, atomic structure and spectra, particle and wave theories.
Prerequisite: One year of college physics, one year of college mathematics, or permission of instructor.

PHY 605 - Advanced-Placement Physics for Teachers (3) (3:3)
Concepts of mechanics, heat and wave motion presented in terms of the calculus.

Prerequisite: Permission of the instructor.
PHY 606 - Advanced-Placement Physics for Teachers (3)
(3:3)
Concepts of electricity and magnetism, optics and modern physics presented in terms of the calculus.
Prerequisite: Permission of the instructor.
PHY 607 - Modern Physics for Teachers (3)
(3:3)
Recent developments in physics.
Prerequisite: Permission of instructor.
PHY 608 - Modern Physics for Teachers (3)
(3:3)
Recent developments in physics.
Prerequisite: Permission of instructor.
PHY 612 - Experimental Physics for Teachers (1-3)
(1-3)
Laboratory study of basic experiments. Principles of experimentation, laboratory techniques, laboratory safety, and techniques of data analysis.
Prerequisite: One year college physics, one year college mathematics, and permission of instructor.

## PHY 711 - Experimental Course

This number reserved for experimental courses. Refer to the Course Schedule for current offerings.

## PSC - Political Science

PSC 501 - Selected Topics in Political Science (1-3)
Opportunity for advanced students to study in depth a topic of special interest.

Prerequisite: Major in political science or permission of instructor.

## PSC 503 - Survey Methods for Policy Research (3)

## (3:3)

Theoretical and practical issues involved in designing and using sample surveys for political and policy research. Emphasis on survey methods used by the government and others in public sector.
PSC 504 - Public Management Information Systems (3)

## (3:3)

Overview of management information systems in public and nonprofit organizations, covering broad questions of design, management, training, utilization, and impact on decision making.

## PSC 505 - Problems in Politics (3)

## (3:3)

Seminar in research and study in political science. Attention also on problems of methodology and alternative conceptions of field of political science as a scholarly discipline.

## PSC 510 - Topics in Public Policy (1-3)

Intensive analysis of a major area of public policy. Examination of sources of policymaking, the policymaking process, and the impact of policy. 510A-Politics of Education; 510B—Criminal Justice; 510C—Labor Relations; 510D-Foreign
PSC 511 - Topics in Public Affairs (1)
(1)

Intensive examination of important current problems related to the management of public institutions. Regularly offered courses include: 511A-Oral Communication; 511B-Marketing for Public and Nonprofit Agencies; 511C-Information Technology and Management; 511D-Strategic Planning; 511E-Lobbing and Advocacy; 511G-Grantwriting; 511J-Legal Issues in Public Administration; 511M-Meida Relations; 511N-Nonprofit Law; 511P-Group Facilitation; 511R-Diversity and Culture; 511S-Social Entrepreneurship; 511V-Voulnteer Management.

PSC 512 - Federalism and Intergovernmental Relations (3)
(3:3)
Focuses on changing relationships of local-state-federal agencies, expanding role of regional cooperation, and recent developments in sub-national governments.

Prerequisite: Graduate Standing or permission of instructor.

PSC 516 - Administrative Law (3)
(3:3)
The law, practice, and procedure in federal administrative agencies: agency rulemaking; administrative adjudication; judicial review; informal process and administrative discretion.

## PSC 520 - Urban Political System (3)

(3:3)
Examination of major topics in the study of urban government and policy. Systems approach to provide an analytic framework for interrelating specific topics such as citizen participation, interest groups, parties, types of elections, forms of government, community power, and racial politics.
PSC 530 - Administrative and Elected Leadership (3)

Recruitment, selection, and roles of executives and legislators; organization and activities of the offices; relationships among executive offices, administrative offices, and legislative bodies.

## PSC 535 - Citizen Participation in Policy-Making (3)

Political participation and citizen involvement in governmental policy-making. Both citizen initiated and government sponsored efforts to increase popular input analyzed. Assessment of impact of citizen participation on policy-making in specific areas of policy and on the performance of government in general.
PSC 540 - Nonprofit Management and Leadership (3) (3:3)

Overview of major concepts and concerns of nonprofit organizations, including tax-exempt status, incorporation, nonprofit-government relations, board-director-staff relations, volunteers, services and program planning, implementation, resource development.

Prerequisite: Senior or graduate standing.

## PSC 560 - Special Topics in Public Administration (1-3)

(1-3)
Students may repeat three-semester-hour courses when topics vary, but one-semester-hour courses when topics vary only for a maximum of three semester hours. Specific topic identified by extension to basic title, e.g., Special Topics in Public Administration.

Prerequisite: Permission of M.P.A. Program Director or instructor.

## PSC 589 - Experimental Course

This number reserved for experimental courses. Refer to the Course Schedule for current offerings.

PSC 600 - Public Administration and Management (3) (3:3)
Political environment, structure and process of public bureaucracies; organizational theory; professional ethics; and administrative functions including management, budgeting, and personnel.
Prerequisite: Admission to the MPA program or permission of instructor.

PSC 601 - Politics of Public Policy (3)

Public policy process from agenda-setting to policy formation, legitimation, and implementation.

Prerequisite: Admission to the MPA program or permission of instructor.
PSC 602 - Quantitative Analysis and Program Evaluation (3)

Basic principles of research design, measurement, data analysis, and computer usage for research in politics and public policy.

Prerequisite: Admission to the MPA program or permission of instructor.

PSC 603 - Budgeting and Fiscal Administration (3) (3:3)
Purposes of budgets. The political and economic environment that surrounds the budgetary process in government. Budget preparation, enactment, execution, and decision making at the federal, state, and local levels.
Prerequisite: Admission to the MPA program or permission of instructor. Corequisite: PSC 603 and SC 603 L .

PSC 603L - Budget Analysis Laboratory (1)
(1:1)
Problems and exercises designed to assist students in understanding public budgeting. Emphasis on analyzing and communicating budget data.

Prerequisite: Admission to the MPA program or permission of instructor. . Corequisite: PSC 603 and SC 603L.

PSC 604 - Public Personnel Management (3)
(3:3)
Employment practices as applied in the public sector; merit and merit systems, position management, equal employment opportunity and affirmative action, unionization, employee rights, and representative bureaucracy.
Prerequisite: PSC 600 or permission of instructor.

## PSC 610 - Public Policy Analysis (3)

(3:3)
Approaches to analyzing public policy; cost-benefit analysis, decision-analysis, and other analytical methods used in policy development and evaluation.
Prerequisite: PSC 602.

## PSC 611 - Program and Policy Evaluation (3)

## (3:3)

Structure of program evaluation; identification and measurement of program outcomes; use of experiments and quasi-experiments in evaluation; development of performance measures; analysis of program evaluation data.

Prerequisite: PSC 602 or permission of instructor.
PSC 612 - Organizational Behavior and Leadership (3)

Behavior of public and nonprofit organizations. Problems of leadership, group dynamics, conflict resolution, and organizational change.

Prerequisite: PSC 600 or permission of instructor.

## PSC 613 - Local Government Administration (3)

Administrative process, management, personnel, budget and finance, and intergovernmental relations in local government.
Prerequisite: Graduate standing or permission of MPA program director.

## PSC 615 - Human Resource Development and Performance Management (3)

## (3:3)

Public and nonprofit employee performance evaluation and development: theories of motivation, workforce trends, training techniques and trends, career development, employee performance and evaluation techniques. Workshop format with group exercises.

## PSC 620 - Urban Development Policy (3)

## (3:3)

Examines nature and evolution of U.S. urban development policy, including urban renewal, the war on poverty, and empowerment zones.

PSC 630 - Community and Economic Development Theory and Practice (3)

Critical analysis of community and economic development theory and practice and its historical and theoretical roots, methods, strategies, and tactics.

Prerequisite: Permission of MPA program director or graduate standing.

## PSC 645 - Nonprofit Financial Management and Budgeting

 (3)
## (3:3)

Nonprofit financial management and budgeting concepts, techniques and practices, including management control, budgeting, cost accounting, long-term financing, nonprofit accounting and financial reporting, financial analysis, cash management, and accountability and control.
Prerequisite: Graduate standing or permission of instructor.

PSC 650 - Philanthropy and Resource Development (3)

Major concepts, strategies, issues, and approaches to resource development and philanthropy in nonprofit and educational organizations.
Prerequisite: PSC 540 or permission of instructor.
PSC 690 - Public Affairs Seminar (3)

Role of the public official in organizations and policy making. Analysis of position and responsibilities in the context of literature on organizations, administration, management, and policy making. Open to advanced students in public affairs who have ha

## PSC 695 - Public Affairs Internship (3-6)

## (3-6)

A full-time work and learning experience in a public or nonprofit agency of approximately three months duration designed to provide the graduate student with practical experience in the ongoing operations of an agency of government or an organization enga
Prerequisite: PSC 600, PSC 601, PSC 602, at least three other graduate level courses in political science, and permission of instructor.

## PSC 696 - Directed Field Research (3-6)

Field research on selected problems and issues in public policy, including research design, data collection, data analysis, and interpretation of results. Open to advanced graduate students in the Master of Public Affairs program.

Prerequisite: PSC 600, PSC 601, PSC 602, three other graduate level courses, and permission of instructor.
PSC 697 - Special Problems in Political Science (1-3)
(1-3)
Independent study or research in political science. Prior consent of faculty member with whom student wishes to work.

PSC 698 - Special Problems in Political Science (1-3)
(1-3)
Independent study or research in political science. Prior consent of faculty member with whom student wishes to work.

## PSC 699 - Thesis (1-6)

(1-6)
PSC 711 - Experimental Course
This number reserved for experimental courses. Refer to the Course Schedule for current offerings.
PSC 801 - Thesis Extension (1-3)
(1-3)
PSC 803 - Research Extension (1-3)
(1-3)

## PSY - Psychology

PSY 515 - History and Systems of Psychology ((3:3)) (3:3)

Discussion of prescientific thinking on psychological problems, origin of systems of psychology, and ways systems are reflected in contemporary psychology.
Prerequisite: Graduate standing in UNCG Psychology programs, or permission of instructor.

PSY 519 - Special Topics in Psychology ((3:3))

Intensive examination of current theories and research in a specific area of biopsychology, learning, development, cognition, social psychology or clinical psychology. Check with department for offerings.

Prerequisite: Graduate standing in UNCG Psychology programs, or permission of instructor.

## PSY 589 - Experimental Course

This number reserved for experimental courses. Refer to the Course Schedule for current offerings.
PSY 601 - Graduate Problems in Psychology (1-3)
(1-3)
Work individually or in small groups in psychological problems of special interest. Work may represent either a survey of a given field or an intensive investigation of a particular problem.
PSY 602 - Seminar in Systematic Issues (3)
(3:3)
Contemporary state of knowledge with regard to the logic and language of psychology.
Prerequisite: PSY 515 or equivalent, graduate standing in UNCG psychology programs, or permission of instructor.
PSY 604 - Behavior of Individuals in Work Organizations (3)
(3:3)
Factors determining the behavior of individuals in work organizations including personal attributes such as motivation, attitude, personality, interest, skills, and knowledge; and organizational attributes such as formal structure, technology and work flo
Prerequisite: Graduate standing in UNCG psychology programs, or permission of instructor.

## PSY 608 - Personality and Social Development (3)

## (3:3)

Integrates theory and research focusing on dimensions of typical personal-social growth across the lifespan. Importance of peer and family relations in the development of personality, social and emotional competence, prosocial behaviors, and moral reasoning.
Prerequisite: HDF 651 and HDF 652, graduate standing in UNCG psychology programs, or permission of instructor. Crosslisted as: HDF 665.

PSY 609 - Statistical Methods in Psychology I (4)

## (4:3:1)

Summarizing and comparing distributions. Thorough review of statistical estimation and hypothesis testing for linear models, e.g., t-test, one-way ANOVA, multiple comparisons.
Prerequisite: Graduate standing in UNCG psychology programs, or permission of instructor.

## PSY 610 - Statistical Methods in Psychology II (4)

## (4:3:1)

Statistical estimation and hypothesis testing for linear models, e.g., ANOVA for crossed, nested, incomplete, and repeated measures designs, ANCOVA; multiple regression and correlation; general linear model.

Prerequisite: PSY 609, graduate standing in UNCG psychology programs, or permission of instructor.

## PSY 611 - Experimental Design in the Behavioral Sciences (3)

(3:3)
Development of strategy, from generation of hypotheses through data analysis and interpretation. Consideration of choice of designs and statistical procedures, including covariance and multivariate analysis.
Prerequisite: Graduate standing in UNCG psychology programs, or permission of instructor.

PSY 612 - Psychological Perspectives on Language (3) (3:3)
Traditional psychological perspectives as they relate to language phenomena. Empirical questions and findings in comprehension and memory for language. Relationship between language and thought.
Prerequisite: PSY 481 or PSY 483, graduate standing in UNCG psychology programs, or permission of instructor.

## PSY 613 - Matrix Algebra Useful for Statistics (1)

(1:1)
Matrix manipulation and understanding the language of matrix algebra rather than formal mathematics.

Prerequisite: One basic graduate statistics course.

## PSY 614 - Child Language: The Psychological Perspective

 (3)In-depth analyses of children's language acquisition and its role in development of cognitive functioning. Methodologies, findings, and issues as they relate to more general psychological questions.

Prerequisite: Undergraduate course in cognitive development or psycholinguistics, graduate standing in UNCG psychology programs, or permission of instructor.

## PSY 617 - Behavior Theory (3)

## (3:3)

Theories of behavior and learning, from 1900 to present.
Prerequisite: PSY 515, graduate standing in UNCG psychology programs, or permission of instructor.

PSY 622 - Theory and Methods of Psychotherapy (3)

## (3:3)

Psychotherapy concepts and research from interpersonal, behavioral, humanistic, and cognitive perspectives. Supervised introductory practicum experience in therapeutic methods.
Prerequisite: Pr. or Coreq. PSY 661, PSY 662, and graduate standing in UNCG psychology programs or permission of instructor. Corequisite: Pr. or Coreq. PSY 661, PSY 662, and graduate standing in UNCG psychology programs or permission of instructor.

PSY 623 - Theory and Methods of Personality Assessment (3)

Construction, evaluation, and interpretation of objective and projective measures of personality as used with normal and clinical groups. Laboratory practice in personality assessment and in diagnosis.

Prerequisite: Pr. or Coreq. PSY 622, malpractice insurance, and graduate standing in UNCG psychology programs or permission of instructor. Corequisite: Pr. or Coreq. PSY 622, malpractice insurance, and graduate standing in UNCG psychology programs or permission of instructor.

## PSY 624 - Research Methods in Psychology (3)

## (3:3)

Broad-based philosophical and methodological perspectives on conducting and interpreting psychological research; considers basic, applied, and translational research, laboratory-and field-based research, and experimental, quasi-experimental, correlational
Prerequisite: Pr. or Coreq.PSY 609, PSY 610, and graduate standing in UNCG psychology programs or permission of instructor. Corequisite: Pr. or Coreq.PSY 609, PSY 610, and graduate standing in UNCG psychology programs or permission of instructor.

## PSY 625 - Advanced Animal Behavior (3)

## (3:3)

Current research and theories including development and evolution of behavior, sociobiology, behavioral genetics, behavioral ecology, and the use of comparative method.

Prerequisite: PSY 435 or PSY 436 or PSY 438, graduate standing in UNCG psychology programs, or permission of instructor. Crosslisted as: BIO 625.

PSY 626 - Theory and Methods of Behavioral Assessment and Therapy (3)

## (3:3)

Evaluation of research and theory underlying behavioral assessment and behavior therapy. Supervised introductory experiences in the use of behavioral assessment and therapy techniques.

Prerequisite: PSY 622 and graduate standing in UNCG psychology programs or permission of instructor.

PSY 640 - Theory and Methods of Intellectual Assessment (3)

Research and theory underlying intellectual assessment. Supervised introductory experience in the use of standardized intelligence tests, including evaluation and communication of test results.

Prerequisite: PSY 661, PSY 662, malpractice insurance, and graduate standing in UNCG psychology programs or permission of instructor,.
PSY 642 - Practicum in Clinical Intervention (1-6)
(1-6)
Supervised application of psychological principles to the assessment and therapeutic change of individual or group behavior, generally with clients in the UNCG Psychology Clinic.
Prerequisite: PSY 622, PSY 661, PSY 662, and malpractice insurance.

## PSY 643 - Developmental Psychology (3)

## (3:3)

Systematic survey of theories and content of developmental psychology. Developmental issues and research examined in areas including attention, memory, language, socialization, sex roles, and aggression.

Prerequisite: PSY 455 or PSY 456 or PSY 457 or graduate standing in UNCG psychology programs, or permission of instructor.

## PSY 644 - Human Behavioral Development (3)

## (3:3)

Theory and research on the biological-behavioral analysis of pre- and postnatal development; learning and perception, including biological factors in infancy through childhood.

Prerequisite: PSY 326 or PSY 342, graduate standing in UNCG psychology programs, or permission of instructor.
PSY 645 - Cognitive Development (3)

Theory and research in relation to attention, memory, problem solving and language. Emphases on Piagetian and information-processing approaches.
Prerequisite: PSY 455 or PSY 456 or PSY 457 or graduate standing in UNCG psychology programs, or permission of instructor.

## PSY 646 - Social Bases of Personality (3)

## (3:3)

Major personality theories; social bases of individual differences. Research methodologies and specific areas of research.

## PSY 647 - Advanced Social Psychology (3)

Theoretical concepts, research methodologies, and empirical findings; aggression, attitude change, attribution, and exchange theory.

Prerequisite: PSY 460 or PSY 461 or PSY 462, graduate standing in UNCG psychology programs, or permission of instructor.

PSY 650 - Physiology of Sensory and Behavioral Processes (3)

## (3:3)

Neural substrates of motivation, emotion, sleep, motor acts and coordination, learning, language, complex processes, and psychopathology.

Prerequisite: PSY 435, PSY 436, PSY 438, graduate standing in UNCG psychology programs, or permission of instructor.

PSY 650L - Physiological Psychology Laboratory (1)
(1:0:3)
Fundamental neuroanatomy with guided dissections, experiments, demonstrations, and training in surgical and other techniques useful in understanding and executing research in physiological psychology.
Prerequisite: Enrollment in or completion of PSY 650.
PSY 651 - Experimental Analysis of Operant Behavior (3)

Research methods used in the study of operant behavior; current status of research and theory relevant to basic processes in operant behavior.
Prerequisite: PSY 442 or PSY 444, graduate standing in UNCG psychology programs, or permission of instructor.

## PSY 652 - Cognitive Processes (3)

## (3:3)

Human intellectual functioning including pattern recognition, attention, memory, comprehension, reasoning, and problem solving.

Prerequisite: PSY 481 or PSY 483, graduate standing in UNCG psychology programs, or permission of instructor.

## PSY 655 - Sensation and Perception (3)

## (3:3)

Sensory/perceptual processes emphasizing visual and auditory systems from stimulus transduction to higher order information processing.

Prerequisite: PSY 435 or PSY 436 or PSY 438, graduate standing in UNCG psychology programs, or permission of instructor.

## PSY 661 - Psychological Disorders in Children (3)

(3:3)
Empirical approach to etiology, assessment, and treatment of psychological problems of children, emphasis on development factors. Not intended for students without a strong background in abnormal psychology, child development, and developmental theory.
Prerequisite: Graduate standing in UNCG psychology programs, or permission of instructor.

## PSY 662 - Psychological Disorders in Adults (3)

An empirical approach to the etiology, assessment and treatment of psychological problems of adults.

Prerequisite: Graduate standing in UNCG psychology programs, or permission of instructor.

PSY 681 - Family-Centered Interdisciplinary Practice: System of Care (3)

System of Care has core values/principles, infuses service planning/delivery. Students develop competencies: 1) family-centered; 2) client partnerships; 3) community services; 4) cultural competency; 5) interagency collaboration. Participatory research wi

Prerequisite: Exposure to System of Care through departmental courses before enrollment, basic research methods and basic statistics course, graduate standing in UNCG psychology programs, or permission of instructor. Crosslisted as: SWK 681.

PSY 691 - Advanced Clinical Topics in Couple and Family Counseling/Therapy (3)

Advanced seminar in the scientific foundations for practice of couple and family counseling/therapy.
Prerequisite: PSY 622.
PSY 699 - Thesis (1-6)
(1-6)

## PSY 711 - Experimental Course

This number reserved for experimental courses. Refer to the Course Schedule for current offerings.

## PSY 721 - Teaching of Psychology (3)

## (3:3)

Introduction to pedagogical theories, research, styles, and strategies related to the college teaching of psychology. Considers the presentation of course material, learning assessment tools, test construction, and grading.

Prerequisite: Admission to the graduate program in psychology, or graduate standing in UNCG psychology programs, or permission of instructor.

PSY 724 - Ethical Responsibilities of Clinical Psychologists (3)

## (3:3)

In-depth coverage of professional ethics as they pertain to the many different settings in which clinical psychologists often work, including clinical practice, research, teaching, consultation, and other professional activities.

Prerequisite: Admission to graduate program in clinical psychology, graduate standing in UNCG psychology programs, or permission of instructor.
PSY 735 - Contemporary Problems (3)

Specific course title identified each semester by subscript, e.g., Contemporary Problems: Advanced Research Methods in Developmental Psychology.
Prerequisite: 600-level course in appropriate content areas.

## PSY 745 - Multicultural Issues in Clinical Psychology (3)

## (3:3)

Examination of psychological research, theory, and clinical practice using a multicultural perspective so as to increase awareness, knowledge, and skills involved in the development of cultural competence.

Prerequisite: Admission to graduate program in clinical psychology, graduate standing in UNCG psychology programs, or permission of instructor.

PSY 751 - Independent Doctoral Research (1-6)
(1-6)
Individual work on psychological problems of special interest culminating in an intensive, critical review of literature in a given field or scientific investigation of problem.

PSY 762 - Advanced Practicum in Clinical Psychology (112)
(1-12)
Supervised application of psychological principles to the assessment and therapeutic change of individual and group behavior, generally with clients in the UNCG Psychology Clinic.
Prerequisite: PSY 642, malpractice insurance.
PSY 763 - Internship in Clinical Psychology (1-12) (1-12)

Application of psychological principles to the assessment and therapeutic change of individual or group behavior in an APA-accredited off-campus setting. Students are individually supervised by appropriate agency staff.
Prerequisite: PSY 642, PSY 762, malpractice insurance.
PSY 799 - Doctoral Dissertation Research (1-24)
(1-24)
PSY 801 - Thesis Extension (1-3)
(1-3)
PSY 802 - Dissertation Extension (1-3)
(1-3)
PSY 803 - Research Extension (1-3)
(1-3)

## RCS - Retailing and Consumer Studies

## RCS 560 - Advanced Retail Buying and Planning (3)

 (3:3)An intensive analysis of marketing principles applied to the textile products industry.

Prerequisite: Grade of C (2.0) or better in RCS 261, RCS 361, RCS 362, or graduate standing.
RCS 584 - Retail Strategy (3)
(3:3)
Investigation of retailing from a strategic perspective. Concepts are analyzed and integrated into applied problem-solving scenarios focused on consumer needs.

Prerequisite: RCS 464 for undergraduates.
RCS 662 - Behavior of Soft Lines Consumers (3)

Study of environmental, individual, and psychological influences on behavior of consumers in the soft lines consumption process.

## REL - Religious Studies

REL 503 - Topics in Religious Studies (3)

Study of role, nature, and function of selected social forms of religious life through cross-cultural comparison or intensive study of one religious tradition.

## REL 589 - Experimental Course

This number reserved for experimental courses. Refer to the Course Schedule for current offerings.
REL 695 - Independent Study (1-3)
(1-3)
Directed program of reading, research, and individual instruction.

Prerequisite: Permission of department head and instructor.

## REL 711 - Experimental Course

This number reserved for experimental courses. Refer to the Course Schedule for current offerings.

## ROM - Romance Languages

ROM 512 - Teaching Second Languages in K-12 (3)

Study of second language teaching approaches applicable to the K-12 school classroom. Students learn to develop and evaluate materials applicable to effective second language programs in the $\mathrm{K}-12$ schools.
Prerequisite: TED 445 or TED 545.
ROM 519 - Second Language Acquisition (3)
(3:3)
Introduction to scientific research of the various processes of how people learn a second or foreign language.

Prerequisite: FRE 415 or SPA 408 or SPA 415 or SPA 416 or permission of department.

ROM 600 - Methods of Teaching Romance Languages (3)

Methods and techniques for teaching Romance languages at the college level.

Prerequisite: Departmental appointment as a TA or any graduate student with an interest in applied linguistics.

## ROM 601 - Research Methods and Critical Analysis (3)

(3:3)
Research and analysis in literary and cultural criticism, emphasizing applications to Hispanic and/or French/Francophone literatures and cultures. Designed especially for entering MA students.

Prerequisite: Admission to MA in Romance languages or departmental permission.
ROM 665 - Clinical Practice/Seminar in Teaching Foreign Languages (3-6)
(3-6:1:2-5)
Clinical practicum in teaching foreign language. Observation, participation, and appropriate classroom teaching experience in a full-time teaching assignment with a weekly seminar.
Prerequisite: Completion of 15 hours of pedagogical coursework in the MEd program and permission of department.

## RUS - Russian

RUS 511 - The Russian Novel in Translation (3)

Survey of the Russian novel from the nineteenth (Pushkin, Gogol, Turgenev, Goncharov, Dostoevsky, Tolstoy), to the twentieth century (Belyj, Sologub, Pasternak, and Solzhenitsyn). Analysis of artistic structure and ideas within the context of Russian lite

## RUS 589 - Experimental Course

This number reserved for experimental courses. Refer to the Course Schedule for current offerings.

## RUS 711 - Experimental Course

This number reserved for experimental courses. Refer to the CourseSchedule for current offerings.

## SCM - Supply Chain Management

SCM 650 - Supply Chain Management Concepts and Principles (3)

Presentation of core knowledge related to supply chain management. Provides insight into the complex, crossfunctional elements of demand and supply planning and execution in a global environment.
Prerequisite: Admission to the graduate certificate program or MBA, MSA, MSITM, or ISOM certificate programs or permission of instructor.

SCM 651 - Transportation.Logistics and Distribution in Supply Chain Management (3)
(3:3:0)
Focus on contemporary management practices, sustainability metrics and technology applications within transportation, logistics and distribution center operations as part of the global supply chain.
Prerequisite: Admission to the graduate certificate program or MBA, MSA, MSITM, or ISSCM certificate programs or permission of instructor.

SCM 652 - Strategic Cost, Design, Procurement and Contracts (3)

## (3:3)

Overview of strategic cost management and procurement in the supply chain; tactics in effective management of the procurement process and total cost of ownership; management of total supply chain costs.

Prerequisite: Admission to the graduate certificate program or MBA, MSA, MSITM, or ISSCM certificate programs or permission of instructor.
SCM 655 - Global Supply Operations Strategy (3)

Presentation of strategies, resources and information system requirements to plan, procure, create and deliver products globally. Emphasis on the complex interactions and need for collaboration between inter-film processes.
Prerequisite: Admission to the graduate certificate program or MBA, MSA, MSITM, or ISSCM certificate programs or permission of instructor.

## SCM 678 - Project Management (3)

(3:3)
Modern methods of defining, planning and executing large scale projects. Computer software and network modeling are used to support the efficient scheduling of interdependent activities.

Prerequisite: Admission to the graduate certificate program or MBA, MSA, MSITM, or ISSCM certificate programs or permission of instructor.

## SCM 680 - Independent Study in Supply Chain Management (3)

(3:3)
Explore in-depth contemporary issues of relevance and interest to the student under the guidance of a faculty member.
Prerequisite: Admission to the graduate certificate in Supply Chain, Logistics and Transportation Management (SCLTM).

## SCM 681 - Supply Chain Management (3)

## (3:0:3-9)

Elective course designed to provide students the opportunity to apply skills learned in the classroom in real-world environments. Course will be supervised by faculty and manager of the approved organization.

Prerequisite: Admission to the graduate certificate in Supply Chain, Logistics and Transportation Management (SCLTM).

SCM 682 - Executive Mentorship in Supply Chain Management (3)
(3:0:3-9)
Students in the experimental learning course interact with instructor and mentor to gain in-depth knowledge related to supply chains, logistics and transportation. The mentor is an executive within the industry.

Prerequisite: Admission to the graduate certificate in Supply Chain, Logistics and Transportation Management (SCLTM).

## SES - Specialized Education Services

SES 508 - International Service-Learning in Special Education (6)
(6:6)
A cross-cultural experience to learn about special education and early childhood practices through a servicelearning project, program visits, and professional exchanges. Historical context and cultural practices emphasized.
Offered: (Summer).
SES 540 - Introduction to Exceptional Individuals (3) (3:3)
Introductory course designed to survey the field of exceptional children. Major attention focused on characteristics of the exceptional child.

Offered: (Fall \& Spring \& Summer).
SES 543 - Inclusion of Individuals with Special Needs (3)

## (3:3)

Explores critical issues, service delivery alternatives, and promising practices that promote responsible inclusion of individuals with special needs in integrated learning environments.

Prerequisite: Permission of instructor. Offered: (Fall).
SES 577 - Auditory-Oral Communication Practices with Deaf Students (3)

Strategies for developing and maintaining spoken language and using residual hearing and speechreading in school-age children with hearing loss.

Prerequisite: SES 240 or equivalent and CSD 334. Offered: (Fall).

SES 578 - Language Teaching Methods with Deaf Students (3)

Principles and strategies for developing English language proficiency in deaf and hard of hearing students. Emphasis on integration of English instruction with academic content.

Prerequisite: 2.75 overall GPA; SES 240 and admission to Teacher Education, or SES 240 and permission of instructor. Offered: (Fall \& Spring).

## SES 589 - Experimental Course

This number reserved for experimental courses. Refer to the Course Schedule for current offerings.
SES 601 - Introduction to Inclusive Birth-Kindergarten Services (3)

## (3:3)

Introduction to issues and policies in inclusive birth through kindergarten programs. Legislation, service delivery models, policy issues, family roles, and research outcomes discussed.

SES 602 - Inclusive Family-Centered Practices in Early Childhood (3)

## (3:3)

Analysis of theoretical perspectives, intervention strategies, and research outcomes for young children with disabilities in inclusive settings and their families. Familycentered practices emphasized.

Prerequisite: SES 601.
SES 603 - Screening/Assessment in Inclusive Early Childhood Services (3)

## (3:3)

Conceptual knowledge and practical application of screening and assessment techniques and procedures for infants, toddlers, preschoolers, and kindergartners. Report writing, IFSPs, IEPs, family assessments, and program evaluation included.
Prerequisite: SES 601, ERM 604, SES 406/HDF 606 or permission of instructor.

SES 604 - Internship in Inclusive Early Childhood (6)
(6:1:15)

An in-depth exploration of the principles of early childhood care and education and learning strategies for young children with and without disabilities. Field placements in BK setting are required.
Prerequisite: HDF 636, admission to BKISED program, or permission of instructor.

## SES 605 - Diversity and Inclusive Early Care and Education (3)

## (3:3)

In-depth analysis of issues, recommended practices, and experiences to prepare students for meeting the needs of young children from diverse populations in inclusive early care and education settings.

Prerequisite: Admission to Leadership in Early Care and Education certificate, MEd BKISED, or permission of instructor.

## SES 606-Preschool-Kindergarten Learning in Inclusive Settings (4)

## (4:3:3)

In-depth exploration of the principles of early childhood care and education and learning strategies for preschool/kindergarten children with and without disabilities. Field placements in BK setting are required.
Prerequisite: Admission to BKISED degree program and 601. Crosslisted as: HDF 606.

SES 607 - Infant-Toddler Learning in Inclusive Settings (4)

## (4:3:3)

An examination of development in infancy and toddlerhood and strategies for facilitating very young children's growth and learning in early childhood care and education settings. Field placement required.

Prerequisite: HDF or SES major or permission of instructor. Crosslisted as: HDF 607.

## SES 608 - Seminar in Early Childhood Education (3)

For students preparing to teach in the area of early childhood education, or currently involved in early childhood education in the areas of teaching, curriculum, or supervision.

Prerequisite: Permission of instructor.

SES 610 - Characterististics of the Population: Severe Disabilities (3:3)

## (3:3)

This course will enable the participant to identify psychological, physical, educational, medical, behavioral and learning characteristics and needs of individuals with intellectual disabilities, including autism and multiple disabilities.

Prerequisite: Admission to the SES MEd program in special education or permission of instructor. .

## SES 611 - Instructional Strategies: Adpated Curriculum

 (3:3)Content includes strategies for developing and teaching students with low-incidence disabilities, including autism, adaptations to the general curriculum, including ways to link to Common Core standards in core content areas.

Prerequisite: Admission to the SES MEd program in special education, completion of SES 610, or permission of instructor. .

SES 612 - Transition and Family Centered Planning for Low-Incidence Disability (3:3)

## (3:3)

Course content focuses on implementing transition programs from school to career and daily living for individuals with disabilities, including vocational/career assessment and individualized programs integrating family, agencies, and business.

Prerequisite: Admission to the SES MEd program in special education, completion of SES 610, completion or simultaneous enrollment of SES 611, or permission of instructor. .

## SES 613 - Education of the Multihandicapped Deaf Child

 (3)Characteristics of severely handicapping conditions existing with deafness. Effects on educational, psychosocial, and vocational achievement.

SES 615 - Seminar on Deafness (3)
(3:3)
Studies dealing with specialized areas of deafness of professional concern. Topic to be announced each semester course is offered.

Prerequisite: Courses in appropriate content area and admission to appropriate degree program, or permission of instructor.

## SES 616 - Preschool Hearing-Impaired Children (3)

## (3:3)

Characteristics and management of hearing-impaired children, educational techniques.

Prerequisite: CSD 307 and a course in early childhood development, admission to appropriate degree program, or permission of instructor.

## SES 617 - Teaching Reading to Hearing-Impaired Individuals (3)

## (3:3)

Research on the reading abilities of deaf individuals. Techniques of writing and rewriting materials, and methods of teaching deaf individuals to read.

Prerequisite: SES 578 and TED 517 or equivalent preparation, admission to appropriate degree program, or permission of instructor.

SES 633 - Advanced Curriculum in Early Childhood Education (3)
SES 640 - Policies and Procedures in Special Education (3)
(3:3)
Detailed study of federal and North Carolina policies and procedures that ensure that students with disabilities receive a free appropriate public education in the least restrictive environment.
SES 641 - Assessment of Individuals with Special Needs (3)
(3:3)
Provides a knowledge base, guided practice, and practical application of assessment practices for making eligibility and instructional planning decisions for individuals with special needs, with emphasis on authentic assessment practices.
SES 642 - Mild Disabilities: Reading Instruction (3)

Emphasizes systematic, explicit practices for teaching essential skills in phonemic awareness, the alphabetic principle, fluency, vocabulary, and reading comprehension to students with disabilities.

## SES 643 - Issues in Educating Individuals with Special

 Needs (3)Explores critical issues and strategies in developing, implementing, evaluating, and financing programs and services for individuals with special needs.

SES 645 - Advanced Seminar in Exceptional Individuals (3)

Research and current issues in the psychology and education of exceptional children.

Prerequisite: SES 540 and permission of instructor.
SES 647 - Collaboration and Consultation in Education (3)

## (3:3)

Provides a knowledge base, guided practice, and practical application of consultation skills and consultation-based services needed for implementing effective instructional programs for individuals with special needs.

SES 648 - Secondary Programming: Students with Mild Disabilities (3)

## (3:3)

Provides for special education professionals and others detailed information on the development and design of secondary and transition programs for adolescents and young adults with mild disabilities.

SES 649 - Practicum in Special Education (High-Incidence focus) (3)
SES 649c - Practicum in Special Education (3)
(3:3)
Supervised experience in clinic or school settings in special education designed to offer opportunities for practice of skills and professional development within program goals.

Prerequisite: Core courses and permission of program coordinator.

## SES 649d - Practicum in Special Education (3-6)

Supervised experience in clinic or school settings in special education designed to offer opportunities for practice of skills and professional development within program goals.

Prerequisite: SES 649c, core courses, and permission of program coordinator.
SES 650 - Independent Study (1-3)
(1-3)
Topic to be determined by faculty advisor and student.
Prerequisite: Admission to appropriate degree program or permission of instructor and major advisor.
SES 652 - Mild Disabilities: Math/Written Language Instruction (3)

Emphasizes systematic, explicit practices for teaching essential math and written language skills to students with disabilities.

## SES 655 - Introduction to Learning Disabilities (3)

## (3:3)

Addresses the history of LD, characteristics of learners with LD across the lifespan, legislative and legal issues for the LD field, and services and interventions for these individuals.

SES 656 - Methods for Teaching Students with Learning Disabilities (3)

## (3:3)

Addresses broad array of instructional strategies for working with students with learning disabilities using a clinical teaching model. Academic and social skills addressed as are learning strategies.
Prerequisite: Pr. or Coreq. SES 655. Corequisite: Pr. or Coreq. SES 655.

## SES 657 - Characteristics of Students with High-Incidence Disabilities (3)

Addresses history, characteristics, legal and legislative issues, and services and interventions relevant to meeting the learning and behavioral needs of students with high incidence disabilities.

SES 658 - Methods for Teaching Students with Behavior/Emotional Disabilities (3)

Addresses broad array of instructional strategies for working with students with behavior/emotional disabilities using contemporary educational and therapeutic practices to address instructional as well as social/emotional needs.
Prerequisite: Pr. or Coreq. SES 657. Corequisite: Pr. or Coreq. SES 657.

## SES 659 - Behavior Management (3)

Concepts, skills, and practices for understanding and using principles of behaviorism in the education of students with behavior/emotional disabilities as well as other needs.

## SES 660 - Families, Schools, and Students with Exceptionalities (3)

## (3:3)

Relationships among school personnel, parents/families, students, and agency personnel for educating students with special needs. Skills for proactively involving parents/families in their children's education and resolving conflicts in school-family interactions.

## SES 661 - Teaching Students with Disabilities (3-6)

 (3-6)Supervised experience in a variety of classroom or other public school settings and related seminar emphasizing the design and delivery of best-practices services and instruction to students with disabilities.

Prerequisite: Admission to PAIL program; permission of instructor.

SES 662 - Assistive Technology for Inclusive Education (3) (3:3)
Overview of assistive technology in meeting the educational goals of individuals with disabilities. Includes experiences with devices and services associated with assistive technology and instructional technology.
SES 688 - Contemporary Problems Seminar (1-3)

## (1-3)

Specific course title identified each semester by subscript (e.g., Contemporary Problems Seminar: Issues in Professional Negotiations).

Prerequisite: Advanced master's or doctoral standing or permission of instructor.

## SES 711 - Experimental Course

This number reserved for experimental courses. Refer to the Course Schedule for current offerings.
SES 747 - Seminar in Special Education (3)

Current trends and issues in the field of special education.
Prerequisite: SES 540 or permission of instructor.

## SES 749 - Internship in Specialized Education (3)

(3:0:10)
Directed internship in an advanced leadership position related to the chosen area of specialization in which the knowledge base is integrated with the profession.
Prerequisite: Admission to PhD in special education and permission of instructor.

## SES 750 - Introduction: Doctoral Studies in Special Education (3)

## (3:3)

Issues and trends in specialized education leadership personnel; critical analysis of professional literature and grant proposals; writing for publication; ethics for research and practice; dissertation and research requirements.

Prerequisite: Admission to PhD in special education or permission of instructor.

SES 752 - Interpersonal and Inter-organizational Collaboration (3)

Advanced knowledge and skills for understanding, implementing, and evaluating collaboration in intraorganizational and inter-organizational situations encountered in providing services to individuals with disabilities or other special needs.

Prerequisite: Admission to PhD in special education or permission of instructor.

SES 754 - Special Education Policy and Law (3)

## (3:3)

The philosophy and theoretical perspectives relating to the study of leadership, policy development, and specialized education law and their integration into diverse organizational settings.
Prerequisite: Admission to PhD in special education or permission of instructor.

## SES 756 - Seminar: Accountability in Specialized

 Education Services (3)
## (3:3)

Examine the influence of legislation, governmental agencies and professional associations in shaping preschool, K-12, university, and agency programs, and actions needed to meet these accountability standards.

Prerequisite: Admission to PhD in special education or permission of instructor.
SES 758 - History and Future of Specialized Education (3)

## (3:3)

Overview of the history of special education with implications for facilitation of more effective practice in the field.

Prerequisite: Admission to PhD in special education or permission of instructor.

SES 760 - Advanced Seminar: Single Subject Research Design (3)

## (3:3)

Understanding the rationale, purpose, design, analysis and implementation of single subject research. Implementation within classroom settings will be discussed.

Prerequisite: Admission to PhD in special education or permission of instructor.

## SES 762 - Supervision of Student Teaching: Specialized

 Education (3)(3:0:10)
Directed experience in supervising student teachers in public school and other appropriate settings. Supervision provided by SES graduate faculty members.

Prerequisite: Admission to PhD in special education and permission of instructor.

## SES 764 - College Teaching Practicum (3)

## (3:0:10)

Supervised experience in teaching college level course(s).
Prerequisite: Admission to PhD in special education and permission of instructor.

## SES 770 - Community Engaged Research and Practice

An in-depth exploration of the history, theory, ethics, research methods, and reporting of community-engaged research with an emphasis on positionality and reflexivity. Research practices in community settings are required.

Prerequisite: TED 730, ELC 664, ELC 665, ERM 750 or permission of instructor.

## SES 775 - Directed Doctoral Research (3)

(3:3)
Individual work on dissertation or research problems, including literature analysis, critical review, data analysis, and integration; or completion of a pilot study in preparation for the dissertation.
Prerequisite: Admission to PhD in special education and permission of instructor.

## SES 790 - Independent Doctoral Study (1-3)

(1-3)
Advanced guided readings, research, and individual project work under the direction of a graduate faculty member.

Prerequisite: Admission to PhD in special education and permission of instructor.

## SES 799 - Dissertation (1-12)

(1-12)
Individual direction in the development and execution of the doctoral dissertation.

Prerequisite: Admission to candidacy for the PhD in special education and permission of instructor.

SES 802 - Dissertation Extension (1-3)
(1-3)
SES 803 - Research Extension (1-3)
(1-3)

## SOC - Sociology

SOC 501 - Selected Topics in Sociology (3)

Opportunity for advanced student to study in-depth topic or issue of special interest.

Prerequisite: Permission of instructor.
SOC 502 - Selected Topics in Sociology (3)
(3:3)
Opportunity for advanced student to study in-depth topic or issue of special interest.

Prerequisite: Permission of instructor.
SOC 522 - Seminar in Population and Urban Studies (3)

Advanced study of population processes and urban concepts from an interdisciplinary viewpoint. Emphasis on accessing and interpreting data from the U.S. census and other sources.

Prerequisite: Permission of instructor.
SOC 526 - Comparative Minority Relations (3)

Comparative study of ethnic, class, and cultural conflict in developing and developed societies. Attention is given to the impact of ethnicity and class conflict upon societal development and change in the international setting.
Prerequisite: 6 hours in sociology or permission of instructor.

## SOC 533 -Political Sociology (3)

(3:3)
Influence of social values and social forces upon government policy and of government policy upon society. Examination of conflicting political sociological theories.

Prerequisite: One course in field of large-scale organization or permission of instructor.

SOC 552 - Sociology of Science and Technology (3)
(3:3)
Nature and origins of modern science; relations of science and technology; science in democratic and authoritarian societies; images of scientists; origins and recruitment of scientists; career patterns; the organizational setting.

Prerequisite: 6 s.h. of sociology at 300 level or above or permission of instructor.

SOC 553 - Sociology of Occupations and Professions (3) (3:3)
Nature and significance of work; culture perspectives on work; occupational choice; socialization into work endeavors; career patterns; control of occupations and professions; labor and leisure; relationships to community and society.

Prerequisite: 3 s.h. of sociology or permission of instructor.

## SOC 555 - Sociology of the Family (3)

(3:3)
Critical examination of various ways of studying family, with consideration given to methodology, statistical treatment of data, and substantive findings.
Prerequisite: SOC 301, SOC 302, SOC 335, or permission of instructor.

## SOC 562 - Sociology of Education (3)

Education as a dynamic and changing social system. Internal processes and structure of educational institutions and their interdependent relations with the environing society.

Prerequisite: 6 s.h. of sociology at 300 level or above or permission of instructor.

## SOC 571 - Advanced Topics in Social Psychology (3)

## (3:3)

Social impact, exchange, equity, and attribution theories intensively examined as basic in understanding specific substantive problems of reciprocal influences of groups and individuals in socio-cultural context.

Prerequisite: 3 s.h. in sociology and 3 hours in psychology, or permission of instructor.

## SOC 589 - Experimental Course: Ethnography (3)

## (3:3)

Ethnography, the art of "going in the field," has become a common practice in sociology. This course provides students with the epistemological and practical tools necessary for good ethnographic practice.
Prerequisite: Permission of instructor. Offered: (Offered spring '10).

SOC 589A - Experimental Course: Applied Sociology (3) (3:3)
Overview of the application of sociology to problem solving and social change. Sociological practice will be examined in different settings and with a variety of approaches/techniques.
Offered: (Offered spring '12).
SOC 593 - Thesis Seminar (3)

Overview of sociological theory, epistemological issues, and research design; leads to a written thesis proposal.

Prerequisite: Graduate standing, senior in disciplinary honors, or permission of instructor.
SOC 601 - Seminar in Sociological or Criminological Analysis (3)

## (3:3)

Intensive work at an advanced level on a selected topic in sociology or criminology.
Prerequisite: SOC 618 or permission of instructor.
SOC 605 - Sociology of Organizations (3)
(3:3)
Organization theory and structure. Construction of organizational models.

Prerequisite: Permission of instructor.

## SOC 614 - Contemporary Sociological Theory (3)

(3:3)
Selected major theoretical perspectives: functionalism, conflict, and alternative models.
Prerequisite: SOC 490 or permission of the instructor.
SOC 615 - The Logic of Social Inquiry (3)

Logical bases of conceptualization and theory formulation. Both sociological theory and methods of research will be considered from the perspectives of philosophies of sciences.

## SOC 616 - Advanced Research Methods (3)

The function of theory in research, concept formation, study design, data collection and analysis.
SOC 618 - Advanced Data Analysis (3)

Application of advanced statistical concepts and procedures in multivariate analyses of discrete and continuous data.

Prerequisite: SOC 302 or permission of instructor.

## SOC 619 - Practicum in Evaluative Research (3)

Organizations and social action programs. Students prepare, organize, and carry out evaluative research of their own interest under the guidance of the instructor.
Prerequisite: Permission of the instructor and one course in statistics and research methods.
SOC 620 - Seminar in Sociology (3)
(3:3)
Fundamental theory in three substantive areas with application to specific research problems.
Prerequisite: 12 hours of sociology at the undergraduate level.

SOC 621 - Advanced Topics in Juvenile Delinquency (3) (3:3)
Social dimensions of juvenile delinquency; causation, prevalence, current trends. Legal processing of delinquents by police, courts, and correctional agencies, including diversion from the courts and alternatives to incarceration.

## SOC 628 - Social Movements (3)

(3:3)
Sociological approaches to social movements and social conflict emphasizing their genesis, structure, resources, and consequences for simple and complex societies.

Prerequisite: One course in large-scale organization or permission of instructor.
SOC 632 - Advanced Study of Gender, Crime, and Deviance (3)
(3:3)
Explore key questions in scholarly literature on gender, crime, and deviance. Primarily concerned with how gender socialization, gender roles, and institutions affect males' and females' offending, deviant behavior and victimization.

## SOC 636 - Seminar in Social Inequalities: Theory and Research (3)

(3:3)
Basic systems of social inequality, including social class, race, and gender. Trends in theory and research.

Prerequisite: Six hours of sociology at the undergraduate or graduate level.

## SOC 640 - Cultural Sociology (3)

## (3:3)

Graduate seminar in cultural sociology; an exploration of cultural products and practices, the relationship between culture and society, theories of culture, and issues pertaining to meaning, interpretation, and representation.

## SOC 643 - Urban Sociology (3)

## (3:3)

Contemporary theory and research on urban social structure, conflict, and change.
Prerequisite: Graduate standing and background in sociology or other social or behavior science.

SOC 644 - Sociology of Globalization (3)

Sociological perspectives on globalization and its effects. Trends in theory and research.

SOC 646 - Teaching and Learning Sociological Concepts (3)
(3:3)
Goals, methods, and evaluation in teaching and learning sociology at the college level. Students prepare course objectives and outlines, select instructional materials, and present demonstration lectures and discussions.
Prerequisite: Admission to graduate program in sociology.
SOC 651 - Criminology (3)
(3:3)
Critical examination of central sociological formulations of criminal behavior and victimization, and societal responses to each; integration of theories of criminal behavior with appropriate research strategies for theory advancement.

Prerequisite: Six hours of sociology at 300-level or permission of instructor.
SOC 653 - Deviance and Social Control (3)

Comparative examination of societal responses to deviance. Theoretical and empirical analysis of conceptions of deviance and institutions of social control in different types of societies. Globalization and social control.

Prerequisite: Six hours of sociology at 300-level or permission of instructor.

## SOC 655 - The Sociology of Law (3)

## (3:3)

Social influences on the legal system are analyzed. Attention given to: social organization of law; legal and extra-legal considerations; and law as a means of social control and change.

## SOC 661 - Sociology of Health (3)

American Health Care System. Organization, utilization, effectiveness, cost; roles of providers, consumers; the context of care and the place of government.
Prerequisite: SOC 101 or permission of instructor.
SOC 686 - Social Aspects of Aging (3)
(3:3)
Structural and social psychological theories of aging. Substantive topics determined by students. Focus on critical review of current research.

Prerequisite: 3 hours in sociology or permission of instructor.

## SOC 695 - Internship (3-6)

## (3-6)

Directed practical experience in a professional setting in the student's area of interest. Includes written paper(s) applying sociological theories and methodologies to analysis of the setting.

Prerequisite: 21 hours in sociology at 500-level or above.

## SOC 697 - Special Problems in Sociology (3)

## (3:3)

Independent study or research.
Prerequisite: Permission of faculty member with whom students wish to work.

SOC 698 - Special Problems in Sociology (3)
(3:3)
Independent study or research.
Prerequisite: Permission of faculty member with whom students wish to work.

SOC 699 - Thesis (1-6)
(1-6)

## SOC 711 - Experimental Course

This number reserved for experimental courses. Refer to the Course Schedule for current offerings.
SOC 801 - Thesis Extension (1-3)
(1-3)
SOC 803 - Research Extension (1-3)
(1-3)

## SPA - Spanish

## SPA 502 - Topics in Spanish Literature (3)

(3:3)
In-depth studies, through a variety of critical and historical approaches, based on themes, geographical areas, outstanding figures, genres, or periods.

Prerequisite: One 400-level course in Hispanic literature or departmental permission.
SPA 504 - Topics in Spanish American Literature (3)
(3:3)
In-depth studies, through a variety of critical and historical approaches, based on geographical areas, outstanding figures, genres, or periods.

Prerequisite: One400-level course in Hispanic literature or departmental permission.

SPA 516 - Introduction to Spanish Syntax (3)
(3:3)
Introduction to Spanish syntax. Analysis of Spanish grammar; syntactic categories and phrase structure.
Prerequisite: SPA 415 or departmental permission.

## SPA 532 - Spanish Culture and Civilization (3)

Development of Spanish culture. Historical and geographical background for study of contemporary Spain. Special emphasis on customs, national traits, arts, and institutions.

Prerequisite: One 400-level course in Hispanic literature or departmental permission.
SPA 534 - Spanish-American Culture and Civilization (3)

## (3:3)

Development of Spanish-American culture.
Prerequisite: One 400-level course in Hispanic literature or departmental permission.

## SPA 535 - U.S. Latino/Latina Cultural Studies (3)

(3:3)
An examination of issues relating to U.S. Latino/Latina ethnic identity as defined in literature, performance, art, music, and film. Special emphasis given to the dialogue with the English-speaking community.

Prerequisite: One 400-level Hispanic literature course or departmental permission. Offered: (Alt).

## SPA 561 - The Auteur Director (3)

## (3:3:2)

Works of an individual film director. Subject differs from offering to offering.

Prerequisite: Permission of department. Crosslisted as: Same as FRE 561, ITA 517.
SPA 562 - Studies in Film Genre (3)
(3:3:2)
Technical, dramatic, social, and rhetorical dimensions of a film genre or genres. Subject differs from offering to offering.
Prerequisite: Permission of department. Crosslisted as: Same as FRE 562, ITA 518.

SPA 589 - Experimental Course: Spanish as a Language of Contact (3)

## (3:3)

Focuses on language-contact scenarios involving Spanish from the perspective of the model described in Sarah Thomason's Language Contact.

Prerequisite: SPA 415 or departmental permission. Offered: (Offered summer '08).

SPA 589C - Experimental Course: Issues in Bilingualism (3)

## (3:3)

Bilingualism and diglossia; theories on bilingual development; biliteracy; language maintenance and loss; language attitudes and ideologies; language power; language and identity; language policy, and heritage language education.

Offered: (Offered fall '11).

## SPA 603 - Seminar in Spanish Literature (3)

(3:3)
Advanced study and investigation of current scholarship on a topic of Spanish literature.
Prerequisite: ROM 601 or permission of department.
SPA 604 - Seminar in Spanish American Literature (3)
(3:3)
Advanced study and investigation of current scholarship on a topic of Spanish American literature.

Prerequisite: ROM 601 or permission of department.
SPA 605 - Seminar in Hispanic Linguistics (3)
(3:3)
Advanced study and investigation of current scholarship on a topic of Hispanic linguistics.

Prerequisite: Permission of department.
SPA 610 - History of the Spanish Language (3)

## (3:3)

Phonological and morphological development of Spanish, with readings in the external history of the language.
SPA 693 - Special Topics in Spanish Language and/or Literature (3)

Study of Hispanic language and literature.
Prerequisite: Permission of instructor and Director of Spanish Graduate Study.

## SPA 695 - Directed Study (3)

Directed program of reading or research in an area of special interest in Hispanic studies. Regular conferences with the instructor will be scheduled.

Prerequisite: Permission of instructor and Director of Spanish Graduate Study.

## SPA 697 - Internship in Spanish (3:1:9)

Field experience at public or nonprofit agencies or other professional settings that require interaction with native speakers. Academic instruction and supervision by faculty coordinator; field direction by site supervisor(s).
Distribution: SVL. Prerequisite: Admission to MA or postbaccalaureate certificate in Spanish; minimum of 6
semester hours completed and minimum 3.0 GPA; must be planned and requested one semester prior to placement; permission of instructor.
SPA 699 - Thesis (1-6)
(1-6)

## SPA 711 - Experimental Course

This number reserved for experimental courses. Refer to the Course Schedule for current offerings.

SPA 801 - Thesis Extension (1-3)
(1-3)
SPA 803 - Research Extension (1-3)
(1-3)

## STA - Statistics

## STA 551 - Introduction to Probability (3)

## (3:3)

Events and probabilities (sample spaces), dependent and independent events, random variables and probability distribution, expectation, moment generating functions, multivariate normal distribution, sampling distributions.

Prerequisite: Grade of at least C in STA 290 and MAT 293 or permission of instructor. Offered: (Fall).

## STA 552 - Introduction to Mathematical Statistics (3)

(3:3)
Point estimation, hypothesis testing, confidence intervals, correlation and regression, small sample distributions.
Prerequisite: Grade of at least C in STA 551 or permission of instructor. Offered: (Spring).

## STA 562 - Statistical Computing (3)

## (3:3)

Statistical methods requiring significant computing or specialized software. Simulation, randomization, bootstrap, Monte Carlo techniques; numerical optimization. Extensive computer programming involved. This course does not cover the use of statistical s
Prerequisite: STA 291 or STA 580 and knowledge of a scientific programming language. Offered: (Alt Fall).

## STA 565 - Analysis of Survival Data (3)

Methods for comparing time-to-event data, including parametric and nonparametric procedures for censored or truncated data, regression model diagnostics, group comparisons, and the use of relevant statistical computing packages.

Prerequisite: STA 291 or STA 352 or permission of instructor. Offered: (Alt).

## STA 571 - Statistical Methods for Research I (3)

## (3:3)

Introduction to statistical concepts. Basic probability, random variables, the binomial, normal and Student's t distributions, hypothesis tests, confidence intervals, chisquare tests, introduction to regression, and analysis of variance.

Corequisite: 571L. Offered: (Fall).
STA 571L - Statistical Methods Laboratory I (1)

Using statistical software packages for data analysis. Problems parallel assignments in 571.

Corequisite: STA 571. Offered: (Fall).

## STA 572 - Statistical Methods for Research II (3)

Statistical methodology in research and use of statistical software. Regression, confidence intervals, hypothesis testing, design and analysis of experiments, one- and twofactor analysis of variance, multiple comparisons, hypothesis tests.

Prerequisite: STA 571 and 571L or permission of instructor. Corequisite: 572L. Offered: (Spring).

## STA 572L - Statistical Methods Laboratory II (1)

(1:0:2)
Using statistical software packages for data analysis. Problems parallel assignments in 572.

Prerequisite: STA 571 and 571L or permission of instructor. Corequisite: STA 572. Offered: (Spring).

## STA 573 - Theory of Linear Regression (3)

## (3:3)

Linear regression, least squares, inference, hypothesis testing, matrix approach to multiple regression. Estimation, Gauss-Markov Theorem, confidence bounds, model testing, analysis of residuals, polynomial regression, indicator variables.

Prerequisite: Grade of at least C in STA 352 and MAT 310, or MAT 662, or permission of instructor. Offered: (Fall).

## STA 574 - Theory of the Analysis of Variance (3)

## (3:3)

Multivariate normal distribution, one-way analysis of variance, balanced and unbalanced two-way analysis of variance, empty cells, multiple comparisons, special designs, selected topics from random effects models.

Prerequisite: Grade of at least C in STA 573 or permission of instructor. Offered: (Spring).

## STA 575 - Nonparametric Statistics (3)

## (3:3)

Introduction to nonparametric statistical methods for the analysis of qualitative and rank data. Binomial test, sign test, tests based on ranks, nonparametric analysis of variance, nonparametric correlation and measures of association.

Prerequisite: Grade of at least C in STA 352 or STA 572 or STA 662, or permission of instructor. Offered: (Fall).

STA 580 - Biostatistical Methods (3)

Statistical methods for biological research including: descriptive statistics; probability distributions; parametric and nonparametric tests; ANOVA; regression; correlation; contingency table analysis.
Prerequisite: Grade of at least C in STA 271 or STA 290 or permission of instructor. Offered: (Fall).

## STA 581 - SAS System for Statistical Analysis (1)

(1:1)
Creating, importing, and working with SAS data sets. Using SAS procedures for elementary statistical analysis, graphical displays, and report generation.

Prerequisite: STA 271, STA 290, or similar introductory statistics course. Offered: (Fall \& Spring).

## STA 589 - Experimental Course

This number reserved for experimental courses. Refer to the Course Schedule for current offerings.

STA 593 - Directed Study in Statistics (1-3)
(1-3)
Offered: (Fall \& Spring).
STA 594 - Directed Study in Statistics (1-3)
(1-3)
Offered: (Fall \& Spring).
STA 651 - Mathematical Statistics

## (3:3)

Requisite mathematics; distribution and integration with respect to a distribution. Theory of random variable and probability distributions. Sampling distributions, statistical estimation, and tests of significance. Random processes. Numerical examples.

Prerequisite: STA 352 and either MAT 394 or MAT 395 or MAT 595.

## STA 652 - Mathematical Statistics

## (3:3)

Requisite mathematics; distribution and integration with respect to a distribution. Theory of random variable and probability distributions. Sampling distributions, statistical estimation, and tests of significance. Random processes. Numerical examples.
Prerequisite: STA 352 and either MAT 394 or MAT 395 or MAT 595.

## STA 661 - Advanced Statistics in the Behavioral and Biological Sciences I (3)

## (3:3)

Statistical techniques and design considerations for controlled experiments and observational studies. Exploratory data analysis, elementary probability theory, principles of statistical inference, contingency tables, oneway ANOVA, bivariate regression a

Prerequisite: STA 271 or an equivalent introductory statistics course.

## STA 662 - Advanced Statistics in the Behavioral and Biological Sciences II (3)

## (3:3)

Continuation of STA 661. Multiple regression and correlation, analysis of covariance, factorial ANOVAs, randomized block designs, multiple comparisons, splitplot designs, repeated measures.
Prerequisite: STA 661 or permission of instructor.
STA 667 - Statistical Consulting (1)
(1:1)
Statistical consultation on doctoral or master's research. Access to the Statistical Consulting Center. Students are required to attend the initial class meeting during the beginning of the semester.

Prerequisite: Permission of instructor.

## STA 668 - Consulting Experience (1)

Development of consulting skills through reading and discussion of literature on statistical consulting and participation in statistical consulting sessions.

Prerequisite: STA 662 or permission of instructor.

## STA 670 - Categorical Data Analysis (3)

## (3:3)

Methods for analyzing dichotomous, multinomial and ordinal responses. Measures of association; inference for proportions and contingency tables; generalized linear models including logistic regression and loglinear models.

Prerequisite: STA 662 or permission of instructor.

## STA 671 - Multivariate Analysis (3)

## (3:3)

Multivariate normal distribution. Cluster analysis, discriminant analysis, canonical correlation, principal component analysis, factor analysis, multivariate analysis of variance. Use and interpretation of relevant statistical software.

Prerequisite: STA 573 or STA 662 or permission of instructor.

## STA 672 - Applied Statistical Computing (3)

## (3:3)

Limitations and advantages of statistical packages (SAS, SPSSX, BMDP, Minitab). Evaluation in terms of statistical methods, utility, availability, sophistication, data base manipulation, and programming capabilities. Applications from various disciplines.
Prerequisite: STA 572 or STA 662.

## STA 673 - Statistical Linear Models I (3)

## (3:3)

Abstract vector spaces, inner product spaces, projections, the Spectral Theorem, least squares, multiple regression, ANOVA, multiple comparisons, data analysis.

Prerequisite: STA 352 and MAT 310 or permission of instructor.

## STA 674 - Statistical Linear Models II (3)

## (3:3)

Abstract vector spaces, inner product spaces, projections, the Spectral Theorem, least squares, multiple regression, ANOVA, multiple comparisons, data analysis.

Prerequisite: STA 352 and MAT 310 or permission of instructor.

## STA 675 - Advanced Experimental Design (3)

## (3:3)

Topics include factorials and fractional factorials, incomplete block designs, split-plot and repeated measures, random and mixed effects models, crossover designs, response surface designs, power analysis.

Prerequisite: STA 662 or permission of instructor.

## STA 676 - Sample Survey Methods (3)

## (3:3)

Survey methods for students from any discipline. Random, stratified, cluster, multi-stage and other sampling schemes. Estimation of population means, variances, and proportions. Questionnaire design and analysis.

Prerequisite: STA 352 or STA 572 or STA 662 or permission of instructor.

STA 677 - Advanced Topics in Data Analysis and Quantitative Methods (3)

Topics vary according to interest and demand. Quantitative methods not normally covered in detail in other statistics courses. Topics may be selected from psychometrics, econometrics, biometrics, sociometrics, quantitative epidemiology.
Prerequisite: STA 662.
STA 690 - Graduate Seminar (1)
(1:0:1)
Development of presentation skills though reading, discussions, and presentation of current research topics in applied statistics.

Prerequisite: STA 662 or permission of instructor.

## STA 698 - Project in Statistics (3)

(3)

Directed research project in statistics.
Prerequisite: Permission of instructor.
STA 699 - Thesis (1-6)
(1-6)

## STA 711 - Experimental Course

This number reserved for experimental courses. Refer to the Course Schedule for current offerings.

STA 801 - Thesis Extension (1-3)
(1-3)
STA 803 - Research Extension (1-3)
(1-3)

## SWK - Social Work

SWK 510 - Selected Topics in Social Work (3)

Opportunity for students to study in depth topic of special interest.

Prerequisite: Permission of instructor.
SWK 520 - Methods and Practice of Family and Marital Therapy (3)

Systems/communications approach to marital and family therapy. Students develop ability to apply concepts to understand and intervene in family systems. Related therapeutic concepts and techniques also discussed.

Prerequisite: Permission of instructor.
SWK 522 - Comparative Study of Cross-cultural Social Work Practice (3)

Compares social work, social service programs, and social policies of the U.S. with those of selected other countries throughout the world, emphasizing services for families, children, and vulnerable populations.
Distribution: GE Marker: GL. Prerequisite: For undergraduates: SWK 215, SWK 310, SWK 311, SWK 315, SWK 325, SWK 351. Offered: (Summer).

SWK 527 - Human Services for Immigrants and Refugees (3)
(3:3)
A perspective on the history of immigration, its role in the U.S.A., immigrants in North Carolina, their process of integration, cross-cultural competency, and the challenges in services delivery to immigrants.
Offered: (Fall).

## SWK 530 - Social Agency Program Development (3)

## (3:3)

Organization of new agencies or those initiating additional services. Needs assessment, resource development, grant writing, agency operations, and relationships with funding agencies.
SWK 540 - Social Entrepreneurship: Justice and a Green
Environment (3)

Interdisciplinary engagement of social entrepreneurship as model for change on an issue of environmental sustainability. Exploration of models that respond to social, economic, environmental, and justice issues.

Prerequisite: Upper-division undergraduate or graduate student status. Crosslisted as: Same as BUS 540, CPS 540, CST 540, ENT 540, WGS 540.

## SWK 550 - Social Services in Health Care (3)

## (3:3)

Examination of social services in health care settings. Emphasis on organizational context, interdisciplinary cooperation, and skill required for work in primary care setting.
SWK 551 - Special Problems in Social Work (1-3)
(1-3)
Intensive, independent study of specialized topics.
Prerequisite: Requires written plan, permission of sponsoring instructor, and approval of department head.

## SWK 554 - Mental Health Social Work (3)

## (3:3)

This course will provide knowledge and skills necessary for practicing effective social work with people who have mental illness and their families.
SWK 555 - Substance Abuse and Social Work Practice (3)

## (3:3)

Introduction to the issues of substance abuse and addiction and their impact on clients and their families.

Social work assessment and intervention methods will be taught.

## SWK 570 - Social Services for the Aging (3)

(3:3)
Systematic study of social work approaches to providing services to the aging. Focus on current policies, services, and models of practice.
SWK 582 - School Social Work (3)
(3)

Examination and understanding of school social work services with emphasis on professional standards, cultural sensitivity, accountability, and program planning.

SWK 584 - Social Services for Children (3)
(3:3)
Designed for practitioners and students to provide knowledge for working with children and to teach strategies, techniques, and skills for effective treatment.

## SWK 585 - Social Work with Families in Crisis (3)

## (3:3)

Social work practice with families in crisis, with a focus on problems currently faced by families and strategies to help them.

## SWK 589 - Experimental Course

This number reserved for experimental courses. Refer to the Course Schedule for current offerings.

## SWK 620 - Human Behavior and Social Functioning I (3)

## (3:3)

Theories of human behavior and intervention with people in a variety of systems viewed from biological, sociological, and psychological perspectives.

Prerequisite: Admission to the MSW program.
SWK 621 - Social Welfare Policy and Analysis I (3)

Explores the history and development of social welfare institutions and social work. Examines the relationships between social problems, social policies, and social work practice from historical and contemporary perspectives.
Prerequisite: Admission to the MSW program.
SWK 622 - Social Work Practice with Individuals and Families (3)
(3:3)
Defines and describes direct social work practice;
knowledge, skills and values necessary to provide a wide
scope of developmental, preventive and therapeutic services to individuals and families.

Prerequisite: Admission to the MSW program.

## SWK 623 - Social Work with Groups (3)

## (3:3)

Advanced course designed to teach group process and strategies, techniques, and skills for working with groups such as support groups and task groups in human services settings.

Prerequisite: Admission to the MSW program.
SWK 624 - Social Work Practice and Human Diversity (3)

## (3:3)

Examines cultural and social diversity; addresses theoretical and practical dimensions of social work practice with oppressed people of color, women, the aged, the sexually diverse, and the physically disabled.

Prerequisite: Admission to the MSW program.
SWK 625 - Human Behavior and Social Functioning II (3)

## (3:3)

Provides students with concepts and knowledge necessary to understand family development, functioning, stress and diversity. Emphasizes the bio-psycho-spiritual nature of people in their family environment.

Prerequisite: SWK 620.
SWK 626 - Social Work Research Methods (3)
(3:3)
Research methodology as it relates to the professional practice of social work. Examines quantitative and qualitative methods as means for solving social problems.

Prerequisite: Admission to the MSW program.
SWK 627 - Social Work Practice with Communities and Organizations (3)
(3:3)
Practice in macro social work with broad scale social systems. Students acquire knowledge, analytical skills and professional behavior appropriate for work with groups, communities and organizations.
Prerequisite: SWK 620.

## SWK 628 - Field Instruction I (4)

(4:0:16)
Application of theories and concepts to the role of a professional social work practitioner within a field agency. Taken concurrently with SWK 629 Field Seminar I. (Graded on S-U basis)

Prerequisite: Admission to the MSW program.
Corequisite: SWK 620, SWK 621, SWK 622, SWK 623, and SWK 629.

## SWK 629 - Field Seminar I (1)

## (1:1)

Field seminar to be taken cocurrently with SWK 628 Field Instrution I; assists students to integrate theory and classroom knowledge into their agency field practice.

Prerequisite: Admission to the MSW program. Corequisite: SWK 620, SWK 621, SWK 622, SWK 623, and SWK 628.
SWK 631 - Social Work with Individuals and Families: Theory and Practice (3)
(3:3)
Emphasis on the practice of social work in assessment and intervention using personality theory, family theory and the family life cycle, and social work theory.

Prerequisite: Admission to the Advanced Standing program option.
SWK 632 - Social Work with Groups, Communities, and Organizations (3)
(3:3)
Emphasis on the practice of social work with groups and within communities and organizations through the examination and application of an advanced generalist framework.

Prerequisite: Admission to the Advanced Standing program option.

SWK 633 - Social Welfare Policy and Analysis II (3)
(3:3)
Reviews outcomes of social work practice in legislation, administrative and judicial directives, rulings and interpretations in the area of government; accountability of the delivery systems to their clients.
Prerequisite: SWK 624.
SWK 634 - Research Designs and Data Analysis for Social Work Practice (3)

## (3:3)

Advanced skills in (a) conceptualizing research problems, (b) completing research in the social work domains: needs assessment, program evaluation, and single subject research, and (c) using inferential skills for data analysis.

Prerequisite: SWK 624.
SWK 635 - Field Instruction II (5)
(5:0:24)

Application of theories and concepts to the role of a professional social work practitioner within a field agency.

Corequisite: SWK 636 and either SWK 637 or SWK 638.

## SWK 636 - Field Seminar II (1)

## (1:1)

Field seminar assists student to integrate theory and classroom knowledge into their agency field practice.

Corequisite: SWK 634, SWK 635, and either SWK 637 or SWK 638.

## SWK 637 - Social Work with Families I (3)

## (3:3)

Advanced generalist social work practice with families, theory and intervention strategies, the influence of culture and gender upon family functioning, and use of self as a professional practitioner.
SWK 638 - Social Work in Health and Mental Health I (3)

## (3:3)

Advanced generalist social work practice in health and mental health, theory and intervention strategies, current policy initiatives, and social work roles.

SWK 639 - Social Work in Administration (3)
(3:3)
Advanced generalist social work practice in social work administration, theory and practice strategies, the influence of culture and gender upon managerial practice, and the use of self as a professional practitioner.
SWK 640 - Field Instruction III (5)
(5:0:24)
Application of theories and concepts to the role of a professional social work practitioner within a field agency. Taken concurrently with SWK 641 Field Seminar III. (Graded on S-U basis)

Prerequisite: SWK 645 and SWK 646. Corequisite: SWK 633, SWK 634, SWK 637 or SWK 638, SWK 641.

## SWK 641 - Field Seminar III (1)

## (1:1)

Field seminar to be taken cocurrently with SWK 640 Field Instruction III; assists student to integrate theory and classroom knowledge into their agency field practice. Includes capstone project.

Prerequisite: SWK 645 and SWK 646. Corequisite: SWK 633, SWK 634, SWK 637 or SWK 638, SWK 640.

## SWK 642 - Social Work with Families II (3)

(3:3)

Expansion of knowledge, skill and understanding of the major conceptual frameworks and interventive strategies in the family field.
Prerequisite: SWK 637.

## SWK 643 - Social Work in Health and Mental Health II (3)

## (3:3)

Second of two courses; assessment and treatment of knowledge, values, and skills for interventions with client physical or psychiatric problems.

Prerequisite: SWK 638.

## SWK 645 - Field Instruction II for Foundation (4)

(4:0:16)
Application of theories and concepts to the role of a professional social work practitioner within a field agency. Taken concurrently with SWK 646 Field Seminar II for Foundation. (Graded on S-U basis)

Prerequisite: SWK 628 and SWK 629. Corequisite: SWK 624, SWK 625, SWK 626, SWK 627, and SWK 646.

## SWK 646 - Field Seminar II for Foundation (1)

## (1:1)

Field seminar to be taken cocurrently with SWK 645, Field Instruction II for Foundation; assists students to integrate theory and classroom knowledge into their agency field practice.

Prerequisite: SWK 628 and SWK 629. Corequisite: SWK 624, SWK 625, SWK 626, SWK 627, AND SWK 645.

## SWK 647 - Field Instruction IV (5)

(5:0:24)
Application of theories and concepts to the role of a professional social work practitioner within a field agency. Taken concurrently with SWK 648 Field Seminar IV. (Graded on S-U basis)

Prerequisite: SWK 640 and SWK 641. Corequisite: SWK 639, SWK 642 or SWK 643, and SWK 648.

## SWK 648 - Field Seminar IV (1)

## (1:1)

Field seminar to be taken cocurrently with SWK 647 Field Instruction IV; assists students to integrate theory and classroom knowledge into their agency field practice. Includes capstone project.

Prerequisite: SWK 640 and SWK 641. Corequisite: SWK 639, SWK 642 or SWK 643, and SWK 647.

SWK 650 - Clinical Assessment in Social Work (3)
(3:3)

Skill-building for competency-based assessment and diagnosis using a biopsychosocial social work framework to assess client strengths and disorders.

## SWK 651 - Advanced School Social Work (3)

## (3:3)

Skill-building for social work practice in the schools with emphasis on culturally sensitive student assessment and intervention, and professional standards and accountability.

Prerequisite: SWK 624 and SWK 626 or permission of instructor. Corequisite: SWK 640 or SWK 647 or permission of instructor.
SWK 681 - Family-Centered Interdisciplinary Practice: System of Care (3)

System of Care has core values/principles, infuses service planning/delivery. Students develop competencies: 1) family-centered; 2) client partnerships; 3) community services; 4) cultural competency; 5) interagency collaboration. Participatory research wi

Prerequisite: Exposure to System of Care through departmental courses before enrollment, basic research methods and basic statistics course, or permission of instructor. Crosslisted as: PSY 681.

## SWK 711 - Experimental Course

This number reserved for experimental courses. Refer to the Course Schedule for current offerings.
SWK 803 - Research Extension (1-3)
(1-3)

## TED - Teacher Education

TED 506 - Institutes in Education (1-3)
(1-3)
Practicum or workshop experiences to focus on issues, problems, or approaches in the profession. Students may apply no more than 3 hours of this course to any degree program. (Graded on S-U basis)
TED 516 - Emergent Literacy and Literature (3)
(3:3)
Explores emergent literacy development from birth to age 5 and investigates the role that texts play in young children's development.

Offered: (Spring \& Summer).

TED 517 - Literacy I: Reading and Writing in the Primary Elementary Grades (3)

## (3:3)

Course focuses on how children learn to read and write and what classroom teachers can do to facilitate their growth as readers and writers in the primary grades.

Prerequisite: Admission to the MAT in Elementary Education, or permission of instructor.

TED 518 - Mathematics in the Elementary Schools (3) (3:3)

Current mathematics program, including emphasis on meaning theory and on instructional materials, methods, and procedures in teaching fundamental operations.

Offered: (Fall \& Spring).
TED 519 - Science in the Elementary School (3) (3:3)

Designing and developing science learning experiences for children in the biological, physical, earth, and space sciences. The nature of elementary school science and children's interests are considered.

Offered: (Summer).
TED 520 - Social Studies in the Elementary School (3)

Designed to help educators gain more complete understanding of elementary school social studies. Special emphasis given to evaluation of the field beginning with the separate subjects approach to correlation, to broad fields, to integration, and separate

Offered: (Summer \& Fall).
TED 521 - Literacy II: Reading and Writing in the Intermediate Elementary Grades (3)

Integrated reading and language arts course designed to prepare students to teach reading and writing in the elementary grades.

Prerequisite: Admission to the MAT in Elementary Education and TED 517, or permission of instructor.
TED 523 - Legal, Historical, and Cultural Issues in ESL (3) (3:3)

Exploration of legal and historical bases of English as a Second Language. Analysis of differences among home and school cultures, especially related to language.

Offered: (Spring).

TED 527-Teaching Second Languages: Elementary/Middle Schools (3)

## (3:3)

Study of second language teaching approaches applicable to the elementary/middle school pupil. Materials development and evaluation. Organizing effective second language programs in the elementary and middle schools.
Prerequisite: TED 545 and admission to teacher education program or permission of instructor. Offered: (Fall).

TED 530 - Middle Grades Language Arts (3)
(3:3)
Course develops competencies in middle grades language arts instruction as related to adolescent learners. Emphases include practical and theoretical attention to best-practices, curriculum, assessment, and standards of practice.

Prerequisite: Admission to middle grades education major. Offered: (Fall).
TED 535 - Literacy in the Content Area (3)

## (3:3)

Designed to prepare middle grades, secondary, and special subject or content area teachers to work with students who exhibit a variety of reading and writing levels.

Prerequisite: Admission to teacher education or M.Ed. program. Offered: (Fall \& Spring \& Summer).
TED 545 - Diverse Learners (3)

## (3:3:2)

Provides students with a broad base of knowledge and skills that will facilitate their effectiveness in meeting the needs of diverse learners through appropriate instructional, curricular, and behavioral strategies.

Prerequisite: Admission to teacher education, or permission of instructor. Offered: (Fall \& Spring).
TED 551 - Teaching Practices and Curriculum in English (3)

Designed to acquaint prospective teachers with modern concepts and practices of English instruction in secondary schools; emphasis on teaching four fundamental language arts: speaking, writing, reading, and listening.
Prerequisite: TED 445, admission to teacher education, and an overall minimum GPA of 2.75 , or permission of instructor. Offered: (Fall).

## TED 552 - Teaching Practices and Curriculum in Foreign Languages (3)

## (3:3:2)

Designed to acquaint second-language teachers with modern methods and techniques of instruction in secondary schools. Emphasis on proficiency in listening, speaking, reading and writing and on teaching materials.
Prerequisite: TED 545 and admission to teacher education or permission of instructor. Offered: (Fall).

TED 553 - Teaching Practices and Curriculum in Social Studies (3)

## (3:3:2)

Organization of social studies in secondary schools; classroom methods, techniques, and activities; teaching materials; testing and evaluation.
Prerequisite: TED 545, admission to teacher education, and an overall minimum GPA of 2.75 , or permission of instructor. Offered: (Fall).
TED 554 - Middle Grades Social Studies Education (3)

## (3:3)

Examination of candidate competencies in middle grades social studies instruction. Emphases include practical and theoretical attention to curriculum development, planning, resources, standards, instructional strategies, and assessment.

Prerequisite: Admission to Middle Grades Education major.

## TED 555 - Multicultural Education (3)

(3:3)
Philosophical and sociocultural perspectives on pluralism and diversity. Emphases include interdependent individual, cultural, and institutional behaviors related to race, religion, class, cultural/ethnic heritage, and gender.
Offered: (Spring).

## TED 557 - Teaching Practices and Curriculum in Mathematics (3)

Special teaching problems in secondary mathematics. Teaching procedures for important topics discussed in relation to their foundations in mathematics and logic.
Prerequisite: TED 450, TED 545, and admission to teacher education. Coreq. or Pr.TED 470, or permission of instructor. Offered: (Fall).

## TED 558 - Middle Grades Mathematics Education (3)

## (3:3)

Development of middle grades mathematics instruction as related to adolescent learners. Emphases include practical and theoretical attention to best practices, curriculum, assessment, and standards of practice.

Prerequisite: Admission to Middle Grades Education major at the undergraduate or graduate level [classroom practice track (CPT) only-CPTs are students who have a bachelor's degree in a discipline other than education and want to pursue an education degree]; and lat. Corequisite: Undergradate and CPT stdents: TED 375 or eqivalent. Offered: (Spring).

TED 559 - Teaching Practices and Curriculum in Science (3)

Development of philosophy of science teaching and of attitudes and values relative to science teaching in secondary school. Emphasis on recent curriculum studies in biology, chemistry, physics, and earth-science and the changing approaches to teaching the

Prerequisite: TED 545 and admission to teacher education or permission of instructor. Offered: (Fall).
TED 560 - Middle Grades Science Education (3)

## (3:3:5)

Develops candidate competencies in middle grades science instruction as related to adolescent learners. Emphases include practical and theoretical attention to best practices, curriculum, assessment, and standards of practice.

Prerequisite: Admission to Middle Grades Education major. Offered: (Alt).

## TED 589 - Experimental Course: Economics for Educators

 (3)This course will provide students with an understanding of economics that is applicable to teaching social studies. Content will be linked to the North Carolina Essential Standards for social studies.

Offered: (Offered fall '12).
TED 600 - The Community College (3)
(3:3)
Development of the community college on the national and state levels, including objectives, organization, curricula, instruction, and services.

## TED 601 - Foundations of College Student Personnel Administration (3)

## (3:3)

Historical, philosophical, ethical, cultural, and research foundations of higher education that inform student affairs practice. Learners articulate the inherent values of the profession as guided by key professional documents.

Prerequisite: Admission to The Graduate School.
TED 602 - Theoretical Foundations of Higher Learning (3) (3:3)

Learning as a comprehensive, holistic, and transformative experience integrating academic learning and student development. Overview of campus programs and services. Review of research on the impact of college on undergraduates.

Prerequisite: Admission to The Graduate School.
TED 603 - Literacy Instruction for English Language Learners (3)

## (3:3)

Basic knowledge of theory and research in second language acquisition and literacy development and strategies and techniques for effective literacy instruction for English language learners.

Distribution: SVL.

## TED 604 - Applied Linguistics for ESL Teachers (3)

Linguistics theories on phonology, morphology, syntax, psycholinguistics and sociolinguistics; basic theories of second language acquisition; and application of the theories and models of applied linguistics in ESL classroom teaching.

## TED 605 - Developmental Psycholinguistics (3)

Processes involved in the acquisition and development of a first language in the human species. Interrelations between psycholinguistics and cognition. Field work will include observations in a natural setting and in language testing situations.

Prerequisite: One course in human development or child development, one course focusing on human learning, or permission of instructor. A course in linguistics is recommended.

## TED 606 - Administration of Higher Education (3)

## (3:3)

Basic skills and theory of administrative behavior, organizational structure, governance and management of higher education; processes and factors influencing institutional decision making and higher education planning.

Prerequisite: Permission of instructor.
TED 609 - Methods of Teaching Computer Literacy and Computer Programming (3)
(3:3:3)
Content and method for teaching for computer literacy and computer programming and strategies for teaching these subjects. Designed for computer specialists, computer teachers, and regular classroom teachers.

Crosslisted as: LIS 673.

## TED 610 - Integrating Technology into Subject Matter Instruction (3)

## (3:3:3)

Study of ways to integrate a variety of computer-based technologies for teaching and learning content in the K-12 curriculum. Designed for classroom teachers, computer teachers, and computer specialists.

## TED 611 - Survey of Adult Education (3)

## (3:3)

Survey of concepts and history of the professional field of adult education and affiliated fields. Examination of the role of the influencer or teacher of adults within today's context of accelerating cultural change.

TED 612 - Current Issues in Higher Education (3)

## (3:3)

Identification and analysis of current issues with discussion of proposals for resolution.

TED 613 - Linguistics for ESL Teachers (3)

Designed for teachers pursuing advanced licensure in English as a Second Language. Focuses on understanding general linguistic concepts and their application to ESL pedagogy.

## TED 614 - Word Study (3)

Designed to familiarize educators with underlying developmental theories and teaching strategies for word recognition, spelling, and vocabulary development. Special attention given to issues surrounding phonics.

TED 615 - Literacy in the Early Years (3)
(3:3)
Course explores how children learn to read and how to facilitate readers' growth in the primary grades. Emphasis on at-risk readers.

## TED 616 - Literacy Development and Instruction Across

 the Grades (3)
## (3:3)

Designed to give teachers a deeper understanding of the theories and research behind effective reading instruction for students beyond the primary grades. Emphasis on reading comprehension and content area reading.

TED 617a - Diagnosis and Correction of Reading Problems (3)
(3)

Causes of reading disabilities, diagnostic instruments, standard and informal assessments, report writing, and materials and methods of struggling readers. Work with individual students or small groups identified as struggling readers.

Prerequisite: TED 614, TED 615 and TED 616 or permission of instructor.

TED 617b - Advanced Strategies in Diagnosis and Correction (3)
(3)

Further examination of struggling readers in a supervised, clinical context. Evaluation of formal and informal assessments, the generation of educational prescriptions, and the directions of assessment procedures.

Prerequisite: TED 617A or permission of instructor.
TED 618 - Teaching English as a Second Language (3)

## (3:3)

Specific instructional methods and strategies to facilitate content area instruction and English language development for students who speak languages other than English.

Distribution: SVL.
TED 619 - Research and Programs in Reading Education (3)
(3:3)
Examines contemporary issues in Reading Education. Special attention to the changing contexts of reading curricula and instruction.

Prerequisite: Minimum of 9 hours in reading education and TED 604 or 605 ; or permission of instructor.

TED 620 - Theories of Reading and Writing Processes (3)

## (3:3)

Current cognitive and social theories of reading processes and writing processes. Implications of applying those theories to the elementary and middle school curriculum.

TED 621 - Diagnosing Learning Difficulties in Elementary and Junior High School (3)
(3:3)
Procedures and techniques in diagnosing learning problems, especially in the language arts area. Emphasis placed on assessment and treatment procedures related to learning processes. Practical application stressed through contact with school-age children.

TED 622 - Differentiated Instruction (3)

Methods appropriate for assessing individual learning needs in a performance-based curriculum, and constructing, implementing, and evaluating a long-term instruction plan in specific content area(s).

Prerequisite: Admission to MEd in curriculum and instruction; TED 545, TED 669, ERM 605, and a minimum of 15 hours in the pedagogical expertise area, or permission of instructor.
TED 623 - Environmental Education (3)

## (3:3)

Teachers will design, conduct, and evaluate environmental education activities. Course activities partially fulfill requirements for North Carolina environmental education certification.

Prerequisite: TED 545, TED 669, ERM 605, or permission of the instructor.

TED 624 - Elementary School Curriculum and Instruction (3)

## (3:3)

Curricular and instructional principles, processes, and designs applicable to children from early childhood to early adolescence. Current and emerging elements of the modern elementary school curriculum.

Prerequisite: 500-level course in elementary education.
TED 625 - Mathematics in the Elementary School II (3)

TED 626 - Middle Grades Curriculum and Instruction (3) (3:3)

Curricular and instructional principles, processes, and designs applicable to students in the middle grades. Particular emphasis is given to exemplary middle school programs.

Prerequisite: Permission of instructor.
TED 627 - Enrollment Management (3)
(3:3)
"'Enrollment influences' including the institution's integrated efforts in marketing, recruitment, admission, and retention."

Prerequisite: CED 579 or permission of instructor.
TED 628 - Trends and Issues in Curriculum and Instruction (3)

Examination of selected current trends and issues in curriculum and instruction, focusing on causes, intentions, and effects of policies at the local, state, and national levels. May be repeated for credit when topic varies.

TED 630 - Trends in Teaching Practices and Curriculum in Secondary School Mathematics (3)
(3:3)
Will familiarize teachers of grades 7-12 with the changes in content and methods of teaching secondary mathematics.
TED 631 - Trends in Teaching Practices and Curriculum in Secondary School Social Studies (3)

Historical development and objectives of social studies curriculum in schools; structure of individual disciplines in social studies, trends and new directions in curriculum, and implications of significant research in social studies curriculum and method

Prerequisite: Permission of instructor.
TED 632 - Science Education: Teaching Practices and Curriculum (3)

## (3:3)

Application of reform efforts in the sciences with attention given to eco and social justice perspectives.
Prerequisite: Permission of instructor.

TED 633 - Trends in Teaching Practices and Curriculum in Foreign Languages (3)

## (3:3)

Research in first and second language acquisition as it relates to second language teaching. Developments in foreign language curriculum and methodology.

Prerequisite: Permission of instructor.
TED 634 - Seminar in Middle Grades Education (3)

## (3:3)

Will focus on the unique needs of students and teachers in middle level schools.

Prerequisite: Completion of a course in middle grades curriculum and instruction.

TED 635 - Reading in the Secondary School and Content Areas (3)
(3:3)
Reading development; problems and procedures of teaching basic and mature reading skills to pupils in junior and senior high schools; explore implications of research for teaching, and identify problem areas.

Prerequisite: TED 664 or permission of instructor.
TED 636 - Educational Psychology and Differentiated Instruction (3)
(3:3)
Understanding and applying current theory and research addressing education psychology (child/adolescent development, learning theory and motivation) and differentiated instruction.

Prerequisite: TED 517, TED 518, TED 519, TED 520, TED 545, and ERM 605 Coreq. TED 521 and TED 625.

TED 637 - Trends in Teaching Practices and Curriculum in Secondary School English (3)

Developments in the teaching of English and analysis of current practices. Changes in curriculum and materials.

Prerequisite: Permission of instructor.
TED 638 - Seminar in Secondary Education (3)
TED 638a - Seminar in Secondary Education (3)

Group analysis of selected problems. Individual student presentations of research done on topics related to that person's professional situation.

## TED 638b - Seminar in Secondary Education (3)

## (3:3)

Group analysis of selected problems. Individual student presentations of research done on topics related to that person's professional situation

TED 639 - Global Education in the Curriculum (3)
(3:3)
Develop awareness of need for global education and skills and processes necessary for implementation in the curriculum.

TED 640 - Writing Instruction in the Elementary and Middle Grades (3)
(3:3)
Interrelates knowledge, research and practice in teaching writing as a process in elementary and middle grades. Special attention to implementing the writing process across the curriculum.
TED 644 - Supervised Practicum in Curriculum and Teaching (3)

Directed studies of curricular and instructional issues in a field setting.
Prerequisite: Permission of instructor.
TED 645 - Critical Perspectives on English Language Arts (3)

Examines theoretical, political, and practical elements of the English language arts. Engages students in critical reflection about their teaching and analysis of perspectives on the purposes of English language arts instruction.

TED 646 - Introduction to Equity Education (3)

Designed to introduce concept of equity education (culture, race, ethnicity, socioeconomic status, language, gender, and exceptionality). Students acquire knowledge, skills, and dispositions necessary to create equitable environments in K -12 educational s

TED 650 - The Interaction of Classroom Management and Instruction (3)
(3:3)
Competencies in motivating and increasing student learning through the development of positive interpersonal relationships in the classroom, effective classroom organization and instruction, and altering unproductive student behavior.

## Prerequisite: Permission of instructor.

TED 654 - Teaching Models and the Analysis of Instruction (3)

## (3:3)

Alternative models of instruction in elementary, secondary and non-school contexts: curriculum foundations, analysis and implications, observation systems, evaluation of teaching and teachers, and critical instructional issues.

TED 655 - Supervision of Instruction (3)
(3)

Supervision as curriculum and instructional leadership, focusing on the analysis and evaluation of instruction, generation of curriculum alternatives, interpersonal relationships between supervisor and supervisee, and strategies for the supervisory confer

TED 657 - Nature of Science, Technology, and Society (3) (3:3)
Study of nature of science, encompassing literature from history, philosophy, and sociology of science. Applications of this literature on school science instruction.

Prerequisite: TED 559 or equivalent science methods course.

## TED 658 - Number Systems and Operations: K-5 Mathematical Tasks (3)

(3:3)
Analysis and construction of effective mathematical tasks in teaching number systems and operations at the K-5 level; attention also given to expansion of content knowledge.
Prerequisite: Teacher licensure.
TED 659 - Rational Numbers and Operations: K-5 Learning Trajectories (3)

## (3:3)

Focus on rational number concepts through learning trajectories at the K-5 level; attention also given to problem solving and content knowledge.
Prerequisite: TED 658.
TED 660 - Data Analysis and Measurement: K-5 Classroom Interactions (3)

Focus on statistical literacy of elementary teachers and the teaching of data analysis and measurement to K-5 students; attention also given to learning methods that facilitate appropriate classroom interactions.

Prerequisite: TED 658.

TED 661 - Algebraic Reasoning: K-5 Discourse and Questioning (3)

TED 662 - Geometry and Spatial Visualization: K-5 Assessment (3)

TED 663 - Mathematical Modeling: K-5 Leadership (3)
TED 664 - Teaching Problem Solving (3)
(3:3)
Survey of methods and materials for teaching problem solving and evaluating problem solving performance of students. Development of instructional programs on problem solving and assessment of their effects.

Prerequisite: Admission to a graduate program, or permission of instructor.
TED 665 - Diagnosis and Corrective Teaching in Mathematics (3)
(3:3)
Techniques for diagnosing learning difficulties in mathematics in grades K-8. Design of instructional strategies to help students overcome difficulties. Attention to evaluation of remedial instruction.
TED 667 - Technology in Mathematics Education (3)

Technologies used to learn mathematics and ways of incorporating those technologies into mathematics instruction.

TED 668 - Seminar in Mathematics Pedagogy (3)

Analysis of alternative pedagogy for specific mathematics content, with design of instruction and assessment based on that analysis.

TED 669 - Educational Implications of Learning and Developmental Theory (3)

## (3:3)

How learning and developmental theories define the teacher's role as instructional leader, how curricular materials might be designed and used, and student learning and motivation.

TED 670 - Research in Mathematics Education (3) (3:3)
Research in mathematics instruction and learning; attention to synthesizing and identifying educational implications of research.

## TED 672 - Instructional Design (3)

(3:3)
Components of the systems approach to instructional design.

Crosslisted as: LIS 672.
TED 674 - Seminar: Issues and the Virtual Community (3) (3:3)
Major social and ethical issues emerging in the virtual community including those embraced by access, privacy, intellectual property, freedom of speech, institutional/social control, and evolving formats.

Prerequisite: Permission of instructor. Crosslisted as: LIS 674.

TED 675 - Teacher as Researcher (3)
TED 676 - Teacher as Researcher and Leader I (3)

## (3:3)

Leadership skills for teachers working with school, district, state and/or national initiatives and issues. Course focuses on inquiry, developing an action research proposal, and practical application of findings.

Prerequisite: ERM 605 and 24 hours of MEd course work, or permission of instructor.
TED 677 - Teacher as Researcher and Leader II (3)

## (3:3:3)

Conducting and interpreting a teacher action project investigating curriculum, instruction, teaching, and learning. Course focuses on systematic inquiry, conducting research, practical application of findings, and sharing research in professional settings
Prerequisite: TED 676.
TED 680a - Clinical Experience in Teaching (3-6)
(3-6)
Supervised in-school clinical experience. Required fulltime teaching.

Prerequisite: Admission to MEd, Classroom Practice Track program, or permission of department.
TED 680b - Clinical Experience in Teaching Seminar (3)
(3)

Seminar focused on the ways students learn within the classroom and community context.
Prerequisite: Admission to MEd, Classroom Practice Track program, or permission of department.

TED 685 - Supervision: Theory and Concepts (3)

Theories and practices in educational supervision; curriculum development and coordination, staff development and assessment, and organizational alternatives designed to improve both student and teaching functioning in schools.

TED 688 - Contemporary Problems Seminar (1-3) (1-3)

Specific course title identified each semester by subscript (e.g., Contemporary Problems Seminar; Issues in Professional Negotiations).

Prerequisite: Advanced master's or doctoral standing, or permission of instructor.
TED 690 - Internship in Higher Education (3)
(3)

Provides experiential learning opportunities in six functional areas of higher education. Learners engage in professional work activities and explore career interests within business, student, and academic affairs, among others.

Prerequisite: Must have completed 18 semester hours in the Plan of Study and permission of instructor.

TED 692 - Independent Study (1-4)
(1-4)
Guided readings, research, and individual project work under direction of a staff member.

Prerequisite: Permission of instructor.
TED 695 - Youth Literacies: Advanced Topics in Education (3)
(3:3)
Examining theory and practice in youth literacies. Pedagogy designed to equip secondary language arts teachers to teach 21st century literacies. Emphasis on media literacies and out-of-school literacies.

## TED 698 - Human Development (3)

## (3:3)

Selected works in social and biological sciences to determine basic psychological foundations of learning and human behavior and their application to the helping professions.
TED 699 - Thesis (1-6)
(1-6)
Individual guidance and direction in the development of a research problem in the master's degree thesis.

TED 710 - Human Development and Education (3)
(3:3)

Major conceptual approaches to human development, current developmental research topics and their application to education.
Prerequisite: TED 698 or permission of instructor.

## TED 711 - Experimental Course

This number reserved for experimental courses. Refer to the Course Schedule for current offerings.
TED 726-Seminar in Curriculum Development in Middle Grades Education (3)
(3:3)
Current research in young adolescent development and curriculum development as it relates to improving middle grades education.

Prerequisite: Master's degree in middle grades education; 644, 654, 655 or permission of instructor.
TED 728 - Topics in Curriculum and Instruction
Advanced study of special topics in curriculum and teaching.
Prerequisite: Permission of instructor.
TED 730 - Qualitative Research Design in Education (3)

Qualitative research design in education, including its history, philosophy and nature. Includes discussion of types of qualitative research, assessment issues, and critical reading of qualitative research.
Prerequisite: TED 750 or permission of instructor.
TED 738 - Mixed Methods Research Design in Education (3)

Overview of mixed methods research including its history, current literature, and typology. Topics include research design, data collection, data analysis, validity, and proposed writing for a mixed methods study.

## TED 744 - Higher Education: Finance and Political Economy (3)

Research and scholarship on political economy of higher education, budget models, strategic planning, impact on students, and policy augmentation. Production of an indepth literature review on a related topic.
Prerequisite: TED 601, TED 606, and TED 661.

TED 745 - Higher Education: Equity, Inclusion, and Learning (3)
(3:3)
Review of theory and research on inclusion and equity in postsecondary education. Addresses skills, knowledge, and dispositions necessary for establishing culturally responsive learning environments.
TED 746 - Seminar: Research on Teaching (3)
TED 747 - Doctoral Seminar in Learning and Cognition (3)
TED 749 - Disciplined Inquiry in Teacher Education (3) TED 753 - Accountability in Higher Education (3)

Overview of accountability issues related to assessment, accreditation, institutional effectiveness, and self-study processes for graduate students and faculty interested in teaching or administrative positions in postsecondary education.

Prerequisite: TED 661 or permission of instructor.
TED 754 - Internship in Curriculum and Instructional Leadership (3)
(3:0:10)
Directed internship in an appropriate curriculum and instructional leadership setting. Supervision provided by departmental faculty in collaboration with field-based mentors.
Prerequisite: Minimum of 24 semester hours from courses included in the doctoral student's program of study including the following or their equivalent: TED 654, TED 655 , TED 685; written verification by the student's doctoral committee that student is ready for in.

TED 756 - Public Policy in Higher Education (3) (3:3)
Overview of the roles of principal forces and actors in formulating federal and state policies related to access, affordability, and accountability in postsecondary education.
Prerequisite: TED 661 or permission of instructor.
TED 759 - College Teaching Practicum (3)
(3:3)
Supervised experiences in teaching college level course(s).
Prerequisite: Advanced standing in the curriculum and teaching doctoral track and permission of instructor.

## TED 765 - Research in Equity Education (3)

TED 770 - Community Engaged Research \& Practice

## (3:3)

An in-depth exploration of the history, theory, ethics, research methods, and reporting of community-engaged research with an emphasis on positionality and reflexivity. Research practices in community settings are required.
Prerequisite: An introductory methods course including either TED 730, ELC 664, ELC 665, ERM 750 or permission of instructor.

## TED 775 - Directed Doctoral Research (3)

TED 785 - Research on Teacher Education (3)

In-depth study of current trends and issues in research on teaching.

TED 790 - Practicum: Applied Research in Higher Education (3)
(3)

Complete an applied research project that addresses specific information needs of the cooperating institution. Learn to uphold the standards of the selected research methods.

Prerequisite: Must have completed 36 semester hours in the Doctoral Plan of Study (including one methods course in qualitative research and one methods course in quantitative research) and permission of instructor.
TED 799 - Dissertation (1-12)
(1-12)
Individual direction in the development and execution of a doctoral dissertation.

TED 801 - Thesis Extension (1-3)
(1-3)
TED 802 - Dissertation Extension (1-3)
(1-3)
TED 803 - Research Extension (1-3)
(1-3)

## THR - Theatre

THR 500 - Theatre History I (3)

Specific conditions under which the great plays of the world have been produced. I: Origins to Renaissance; II: Early Modern to Realism; III: Modernism to Postmodernism.

## THR 501 - Theatre History II (3)

## (3:3)

Specific conditions under which the great plays of the world have been produced. I: Origins to Renaissance; II: Early Modern to Realism; III: Modernism to Postmodernism.

THR 502 - Theatre History III (3)

## (3:3)

Specific conditions under which the great plays of the world have been produced. I: Origins to Renaissance; II: Early Modern to Realism; III: Modernism to Postmodernism.

THR 503 - Period Styles in Performance Design I (3) (3:3)
Study of period style and how it is used in performance design. First semester: architecture, decor, and fashion from antiquity to Renaissance. Second semester: architecture, decor, and fashion from Renaissance to present.
Prerequisite: Admission to B.F.A./MFA design program; or permission of instructor.

THR 504 - Period Styles in Performance Design II (3)

## (3:3)

Study of period style and how it is used in performance design. First semester: architecture, decor, and fashion from antiquity to Renaissance. Second semester: architecture, decor, and fashion from Renaissance to present.

Prerequisite: Admission to B.F.A./MFA design program; or permission of instructor.
THR 505 - American Theatre History (3)

## (3:2:3)

Development of Theatre in America from its beginnings to the present. Includes consideration of theatre artists and companies, audiences, performance spaces, production and business practices, plays, and playwrights.

Prerequisite: Junior standing, or permission of instructor. Offered: (Fall or Spring or Summer).
THR 506 - Non-Western Theatre and/or Film (3)

Dramatic literature, theatre, and/or film in India, China, Japan, and Africa. Subject varies with instructor.
Distribution: GE Marker: GN. Offered: (Fall or Spring or Summer).

## THR 507 - Feminist Theatre (3)

(3:3)
Survey of twentieth and twenty-first century British and American feminist theatre, focusing on performance texts that address salient concerns of first, second, and third wave feminisms.

Offered: (Fall or Spring).
THR 510 - Directing II (3)

## (3:3)

An intermediate directing course that involves the student in the theory and practice of contemporary plays.
Prerequisite: Two theatre courses and THR 201 and THR 410; or permission of instructor. Offered: (Spring).

THR 515 - Drama in Education (3)

## (3:2:2)

Research and literature of drama strategies and techniques for children, ages 5 through 14. Practice in leading groups of children in drama in educational settings.

Current Professional Liability Insurance is required.
Prerequisite: Admission to appropriate degree program, or permission of instructor.
THR 516 - Puppetry (3)

## (3:2:2)

Scope and development of puppetry throughout the world. Practical experience in the design, making, and performing of puppets.
Prerequisite: Admission to appropriate degree program, or permission of instructor.

## THR 517 - Theatre in Education (3)

## (3:2:2)

Research and literature of theatre-in-education pedagogy and methodology. Practice in facilitating theatre in education in the community.

Prerequisite: Admission to appropriate degree program, or permission of instructor.

THR 531 - Acting V (3)

## (3:1:4)

Study and practice of the stylistic demands of the comedy of manners from the English Restoration through Noel Coward.

Prerequisite: THR 331 and THR 332, and admission to appropriate degree program; or permission of instructor.

## THR 532 - Period Acting I (3)

(3:1:4)
Study and practice of Shakespearean acting styles. Performance emphasizing manners, movement, and vocal delivery of the Elizabethan period.

Prerequisite: THR 331, THR 332, and admission to appropriate degree program; or permission of instructor.
THR 534 - Acting for the Camera (2)

## (2:1:3)

An introductory examination and exploration of the technique of acting for the camera. Students will refine and adjust the way they work, but the core technique remains the same.

Prerequisite: Admission to appropriate degree program, or permission of instructor. Offered: (All).
THR 535 - Advanced Acting for the Camera (2)

## (2:1:3)

An advanced study of performance for the camera. Camera scene study will continue with added emphasis on clarity of intention and accuracy of repetition.

Prerequisite: THR 534. Offered: (Alt).
THR 539 - Professional Theatre Audition Techniques (3)

## (3:3)

Audition theory, techniques, and practice for theatre, television, and films.
Prerequisite: THR 231, THR 232, and admission to appropriate degree program; or permission of instructor.

## THR 540 - Advanced Stagecrafts (3)

(3:2:3)
Study of advanced scenic construction, property construction, and rigging techniques for the stage. Supervised laboratory work in wood, plastics, metal, and other materials.

Prerequisite: THR 140 and admission to appropriate degree program; or permission of instructor.

THR 541 - Technical Direction (3)
(3:3)
Theatrical technical direction with emphasis on organizational, managerial, and problem-solving duties and responsibilities. Lecture combined with practical projects.
Prerequisite: THR 140 and THR 351 or THR 370; and junior, senior, or graduate standing; and admission to appropriate degree program; or permission of instructor.

## THR 542 - Scene Painting I (3)

(3:1:4)
Tools, materials, and techniques of scene painting.
Prerequisite: THR 140 and THR 351, and admission to appropriate degree program; or permission of instructor.

THR 543 - Scene Painting II (3)
(3:1:4)
Advanced problems in scene painting.
Prerequisite: THR 140, THR 351, THR 542, and admission to appropriate degree program; or permission of instructor.

THR 544 - Computer Assisted Drafting (3)
(3:1:6)
Fundamental principles and application of 3-D design utilizing a DOS based drafting and design program.

Prerequisite: THR 545, or IAR 111 and IAR 112; or ART 222; or equivalent technical drawing aptitude and admission to appropriate degree program.
THR 545 - Scene Drafting and Construction (3)

Advanced problems in scene construction combined with the development of scene drafting skills and techniques.
Prerequisite: THR 351 and admission to appropriate degree program; or permission of instructor. Offered: (Alt Years).
THR 548 - Stage Millinery and Accessories (3)

## (3:1:4)

Historical millinery and accessories in relation to stage adaptation; design and construction techniques.
Prerequisite: Admission to appropriate degree program; or permission of instructor.

THR 549 - Historical Costume Pattern Drafting and Draping (3)

Historical pattern-making techniques for stage costumes; theory and practice in costume construction.
Prerequisite: Admission to appropriate degree program; or permission of instructor.

THR 552 - Multi-Set Design Techniques (3)
(3:1:6)
Advanced problems in scene design for multi-set productions in performance.

Prerequisite: THR 351 and admission to appropriate degree program; or permission of instructor.

THR 575 - Theatrical Sound Design and Technology (3) (3:3)
An introduction to the theory, aesthetics, and technology of theatrical sound design.

Prerequisite: THR 140 and admission to appropriate degree program; or permission of instructor.
THR 581 - Advanced Oral Interpretation (3)
(3:3)
Audiences, materials, and procedures of readers theatre. Practice in advanced principles of oral interpretation of literature.

Prerequisite: THR 381 or graduate standing.
THR 584 - Theatre Management (3)
(3:3)
Theatre organization and operation. Practical problems of financing, promoting, and staffing various theatre programs.

Prerequisite: Drama major, and admission to appropriate degree program; or permission of instructor.
THR 586 - Stage Management (1-2)
(1-2)
The role of the stage manager. Supervised participation as a stage manager in the theatre production program.
Prerequisite: THR 140; or permission of instructor.
THR 587 - Theatre Field Studies (1-3)
(1-3:3)
Guided off-campus study in the Theatre disciplines. Travel required. Site and topic will vary from semester to semester.

## THR 589 - Experimental Course

This number reserved for experimental courses. Refer to the Course Schedule for current offerings.

THR 589B - Experimental Course: Collaboration (3) (3:3)
Focus on the intricacies of the close collaboration of the creative forces of a theatre production, emphasizing the relationship between the director and the designer(s).

Offered: (Offered spring '11).

## THR 595 - Directing Practicum (1)

(1:0:3)
Practice in directing the play; preparations of a 25-minute play or excerpt, and presentation in the Workshop Theatre.

Prerequisite: THR 410 and admission to appropriate degree program; or permission of instructor.
THR 596 - Applied Theatre II (1-4)
(1-4:0:3-12)
Intensive experience in one or more areas of theatre production.

Prerequisite: Admission to appropriate degree program, or permission of instructor.

THR 600 - Introduction to Graduate Study (3)
(3:3)
Development of research and writing skills, introduction to grant writing, and professional presentations. Consideration of issues in teaching.
Prerequisite: Admission to appropriate degree program or permission of instructor.

THR 601 - Drama Theory and Criticism (1-3)
(1-3)
Major concepts representative of Aristotelian drama and the chief artistic and philosophical trends underlying much of contemporary or non-Aristotelian drama.

Prerequisite: Admission to appropriate degree program or permission of instructor.

THR 602 - Seminar in Drama and Theatre History (3)

Investigation of special topics in drama and theatre history. Topics vary each semester.

Prerequisite: Admission to appropriate degree program or permission of instructor.
THR 603 - Acting Seminar (3)

Historical and theoretical perspectives related to acting. Topics vary each semester.

Prerequisite: Admission to appropriate degree program or permission of instructor.

## THR 610 - Applied Play Directing (3)

(3:1:4)
Guided study and practice in developing directorial approaches and techniques through scene work and the production of a complete play.

Prerequisite: Admission to appropriate degree program or permission of instructor.
THR 611 - Advanced Play Directing (3)

## (3:3)

Problems of play directing emphasizing the use of modified proscenium, arena, thrust, and experimental forms of stages.

Prerequisite: Admission to appropriate degree program or permission of instructor.

THR 612 - Directing Period Plays (3)

Theories of directing and their application in the direction of period plays.
Prerequisite: THR 610 or THR 611 and admission to appropriate degree program or permission of instructor.

THR 613 - Directing Seminar (3)

## (3:3)

Investigation in the art of directing. Topics vary each semester.

Prerequisite: THR 610 or THR 611 and admission to appropriate degree program or permission of instructor.
THR 614 - Collaboration in Theatrical Production (3)

## (3:3)

An examination of the creative working relationship between the director and designers in theatre production. Students learn to effectively articulate, experiment with, synthesize, and integrate best practices in theatrical collaboration.

Prerequisite: Admission to appropriate graduate degree program or permission of instructor.

THR 615 - Advanced Drama in Education (3)

Current trends in advanced philosophies in drama in education and aesthetic education. Practical experience arranged with classes in local schools.
Prerequisite: THR 515 and admission to appropriate degree program or permission of instructor.

## THR 617 - Trends in Theatre for Young Audiences (3)

Focus on analysis of nationally successful Theatre for Youth companies. Exploration of seasons, budgets, and outreach components of various companies.

Prerequisite: THR 517, THR 584, THR 615.
THR 620 - Stage Dialects (3)

Stage dialects most frequently used by the actor: Standard British, Cockney, Irish, Scots, French, German, Italian, Russian, Japanese, Brooklynese, American Southern.

Prerequisite: Admission to appropriate degree program or permission of instructor.

THR 621 - Advanced Dynamics: Movement (2)

## (2:2:3)

Movement laboratory for the advanced actor.
Prerequisite: Admission to appropriate degree program: MFA in Drama: Concentration in Acting.
THR 622 - Advanced Dynamics: Voice (2)

## (2:2:3)

Voice and speech training to develop skills necessary for performance.
Prerequisite: Admission to MFA Program in Acting.
THR 623 - Advanced Physical Violence for the Stage (2)
Advanced study and practice in the mechanics of stage violence. Designed for graduate actors, this course will focus on safe performance techniques for violence in period and contemporary texts.

Prerequisite: Pr. admission to MFA Program in Acting. Offered: Alt.

## THR 631 - Studies in Acting (3)

(3:3)
Special studies and practices in acting techniques. Emphasis on contemporary drama.

Prerequisite: Admission to appropriate degree program or permission of instructor.
THR 632 - Contemporary Acting II (3)

## (3:1:4)

Contemporary ensemble acting techniques and their application to ensemble style and playing.
Prerequisite: Admission to appropriate degree program or permission of instructor.

## THR 633 - Period Acting II (3)

## (3:1:4)

Study and practice of acting styles from the periods of Classical Greek, Roman, Medieval, Restoration/Georgian, Victorian/Edwardian drama.

Prerequisite: Admission to appropriate degree program or permission of instructor.

## THR 651 - Scene Design Seminar (2:2)

Topics in scene design. Topics may include drawing and rendering techniques, model building and furniture construction, generation of computer graphics.

Prerequisite: Admission to appropriate degree program.
THR 655 - Scene Design Styles (3)
THR 656 - Scene Design Application (2)

## (2:2)

Creative topics in scene design emphasizing collaborative approaches to produced work for public performance.

Prerequisite: THR 655 and admission to MFA in Drama (design concentration), or permission of instructor.

THR 660 - Costume Design Seminar (2)

## (2:2)

Topics in costume design. Topics may include chiaroscuro drawing of figures and fabrics and studies in multi-media and computer techniques for rendering character studies.

Prerequisite: Admission to appropriate degree program or permission of instructor.
THR 665 - Costume Design Styles (3)
THR 666 - Costume Design Application (2)

## (2:2)

Creative topics in costume design approach emphasizing collaborative approaches to produced work for public performance.
Prerequisite: THR 665 and admission to the MFA in Drama (design concentration), or permission of instructor.

## THR 670 - Production Design for Film (3)

(3:2:3)
History, theory and practice of production design in film from 1895 to the present.

## THR 671 - Lighting Design Seminar (2)

(2:2)
Topics in lighting design. Topics may include technology of moving fixtures, techniques of image and effect projection, and techniques of lighting for film.

Prerequisite: Admission to appropriate degree program.

## THR 675 - Lighting Design Styles

Advanced problems of lighting design for theatrical productions in performance. Studies can include studio design exploration in the different genres of plays, musicals, and opera.

Prerequisite: Admission to MFA in Drama (design concentration) or permission of instructor.

THR 676 - Lighting Design Application
Creative topics in lighting design emphasizing collaborative approaches to produced work for public performance.

Prerequisite: THR 675 and admission to MFA in Drama (design concentration) or permission of instructor.
THR 680 - Seminar in Playwriting (3)
(3:3)
Theory and practice of writing plays for stage production.
Prerequisite: Permission of instructor.
THR 682 - Seminar in Teaching Methods for Theatre Education (3)

Explores current pedagogical practices, issues, and trends in the K-12 theatre arts classroom.

Prerequisite: Must hold Standard I ("A" level) licensure; permission of instructor.

THR 685 - Seminar in Scenography (3)
(3:2:3)
Scenographic theory and practice for performance design.
THR 690 - Graduate Practicum in Theatre (3)
(3:0:9)
Guided practice under rigorous artistic standards in carrying out major responsibilities in UNCG Theatre or Theatre for Young People major productions.

Prerequisite: Admission to appropriate degree program and permission of instructor.

THR 691 - Graduate Practicum in Costume Design (2)
(2:0:2)
Guided practice under rigorous artistic standards in carrying out major costume design responsibilities in the Department of Theatre's production season or other faculty approved venues.

Prerequisite: Admission to appropriate degree program.
THR 692 - Graduate Practicum in Lighting Design (2)

Guided practice under rigorous artistic standards in carrying out major lighting design responsibilities in the Department of Theatre's production season or other faculty approved venues.

Prerequisite: Admission to appropriate degree program.
THR 693 - Graduate Practicum in Scene Design (2)
(2:0:2)
Guided practice under rigorous artistic standards in carrying out major scene design responsibilities in the Department of Theatre's production season or other faculty approved venues.

Prerequisite: Admission to appropriate degree program.

## THR 694 - Theatre Education Cumulative Portfolio (1)

## (1:0:3)

Faculty supervised facilitation of preparation and presentation of a cumulative portfolio, containing artifacts demonstrating achievement of core competencies for a master teacher.

Prerequisite: Completed or within three semester hours of completion of all other degree course work ( 36 semester hours).
THR 695 - Independent Study (1-3)
(1-3)
Prerequisite: Admission to appropriate degree program or permission of instructor, major advisor and Department Head.

## THR 696 - Advanced Experimentation (3)

(3:1:4)
Preparation for the evaluation of experiences in the creative processes of theatre, broadcasting, or film. Analysis, documentation, and critical evaluation of the specific experience.
Prerequisite: Admission to appropriate degree program or permission of instructor.

## THR 698 - Graduate Internship (3)

(3)

Field experience in local production companies, postproduction houses, television stations or professional theatre companies. Academic supervision provided by faculty and directed activity in the field provided by site supervisor.

Prerequisite: Second or third year standing in the graduate program.

THR 699 - Master Production in Theatre (3)
(3:0:9)
Research, development, and execution in acting, directing, or design of a major theatrical production.

Prerequisite: Admission to appropriate degree program or permission of instructor.
THR 711 - Experimental Course
This number reserved for experimental courses. Refer to the Course Schedule for current offerings.
THR 803 - Research Extension (1-3)
(1-3)

## WGS - Women's and Gender Studies

WGS 530 - Critical Sexuality Studies and Queer Theory (3) (3:3)
Examines sexuality as an identity and an object of knowledge in connection to race, class, and gender. Includes exploration of the history of, and new developments in, queer theory.

Prerequisite: WGS 350 or permission of instructor.
WGS 540 - Social Entrepreneurship: Justice and a Green Environment (3)
(3:3)
Interdisciplinary engagement of social entrepreneurship as model for change on an issue of environmental sustainability. Exploration of models that respond to social, economic, environmental, and justice issues.
Prerequisite: Upper-division undergraduate or graduate student status. Crosslisted as: Same as BUS 540, CPS 540, CST 540, ENT 540, SWK 540.
WGS 589 - Experimental Course (3)

## (3:3)

This number is reserved for experimental courses. Refer to the Course Schedule for current offerings.

## WGS 600 - Independent Study (3-6)

(3-6)
A research or creative project related to women's and gender studies supervised by a WGS faculty member.
Prerequisite: At least 9 hours with a B(3.0) average or better.

WGS 601 - Women's and Gender Studies Internship (3) (3:3)
Supervised experience related to women's and gender studies; may include teaching internship, service learning opportunity, applied research experience, or internship in organizations and agencies that work on women's concerns or serving women in the comm

Prerequisite: For master's students, at least 15 semester hours of graduate level course work including WGS 650 and WGS 651.

## WGS 602 - Internship Seminar (3)

## (3:3)

Prerequisite: At least 15 semester hours of graduate level course work including WGS 650 and WGS 651.
Corequisite: WGS 601.
WGS 650 - Feminist Theory: Intersections of Gender, Race and Class (3)

## (3:3)

Core class introduces feminist social movements across historical and global contexts. Relies on interdisciplinary lenses and epistemologies, particularly as contested identity politics intersect with other systems of power and relationships.

## WGS 651 - Feminist Research Analysis (3)

## (3:3)

Feminist approaches to philosophical and practical inquiries: data collection, analysis, and presentation. Prepares students to critically read research to understand the place of gender in lived experiences and institutional spaces.

Prerequisite: WGS 650.
WGS 699 - Thesis (1-6)
(1-6)
WGS 711 - Experimental Course (3)

## (3:3)

This number reserved for experimental courses. Refer to the Course Schedule for current offerings.

WGS 803 - Research Extension (1-3)
(1-3)

## RESEARCH CENTERS AND INSTITUTES

## Center for Biotechnology, Genomics and Health Research

3701 MHRA Building
(336) 334-4775
www.uncg.edu/bgh
The mission of the Center for Biotechnology, Genomics and Health Research is to increase knowledge, build capacity, and disseminate information in the health, biomedical, and biotechnological sciences to the Triad community. The Genomedical Connection, a partnership with Duke University's Institute for Genome Sciences and Policy and the Moses Cone Health System, is a comprehensive program designed to utilize family history and patient information and, if appropriate, genetic testing, for assessing disease risk, offering personalized interventions and treatments, and maintaining good health. The project has developed operations, software, educational programs, counseling practices, and technology with significant potential for enhancing health care and fostering the growth of new health care industries in the Triad region. (www.genomicmedicine.org)

CBGHR also offers technical support for DNA work and genotyping that enables Center researchers and collaborators to investigate possible genetic predispositions for a variety of life-limiting conditions. Presently, research activities with UNCG faculty are investigating potential predispositions for schizophrenia, knee injury, type 2 diabetes, and noise-induced hearing loss. The orientation of this program is consistent with the universal health maintenance goals articulated in NIH's Healthy People 2010 initiative and its Roadmap 2010.

Future plans are directed toward developing diagnostic tools and technologies which facilitate real-time monitoring and early detection of symptoms that indicate disease onset, especially among genetically predisposed individuals.

## Center for Business and Economic Research

489 Bryan Building
(336) 334-4867
cber.uncg.edu
CBER performs high-quality applied research in economic policy and business practice, drawing on the expertise of the faculty of the Bryan School of Business and Economics. CBER's goal is to use sound and objective research to serve the Triad community, and to assist in the economic development of our region.

CBER's work includes economic-impact analyses, industry studies, regional economic profiles, feasibility studies, opinion surveys, program assessments, and updates of current economic conditions. CBER produces the Triad Business Index, a monthly report on the regional economy, available at www.triadbusinessindex.com. In addition, CBER researchers write frequent articles in newspapers and magazines and give numerous speeches in the community.

## Center for Creative Writing in the Arts

2336 MHRA Building
(336) 334-4433
www.uncg.edu/aas/ccwa/
The Center for Creative Writing in the Arts aspires to foster the efforts of those who believe in the power of the crafted word to transform and to improve our lives as individuals and as a society. Building on the University's widely recognized tradition of strength in the field of creative writing, on the legacy of poets and novelists like Randall Jarrell, Peter Taylor, Robert Watson, North Carolina laureates Fred Chappell and Kathryn Stripling Byer, and the many nationally and internationally known authors who have been associated with the University's MFA program in creative writing, the Center offers a forum for collaboration through its commitment to writers and to writing in all its various creative manifestations. With its sponsorship of readings, lectures, workshops, interdisciplinary events and literary publications, the Center promotes a vital writers' network in the Greensboro area, one committed to providing programs of appeal to a variety of audiences. The beginning wordsmith and the established word master, the student and the professional alike will find in the Center a place from which to draw strength, encouragement, and support in producing their work and in finding the opportunity to share it with others.

## Center for Natural Products and Drug Discovery

400 Science Building
(336) 334-4257
drugdesign.uncg.edu
The Center for Drug Discovery, a division within the Department of Chemistry and Biochemistry, has the mission to create new knowledge regarding drug discovery, as well as computer-based methods used in drug design, and to disseminate this information to students, scientists, and the public through education, training, and research. New and existing methodologies
are applied to design and prepare potential drug candidates. The Center serves as a resource for local pharmaceutical and biotechnology industries, helping to foster and maintain strong university-industry relationships and collaborations.

## Center for Educational Research and Evaluation

235 School of Education Building
(336) 256-0154
www.uncg.edu/erm/ermCERE.html
The Center for Educational Research and Evaluation (CERE) offers educational research, development, and evaluation services to public and private agencies, including school systems, state education agencies, testing organizations, private foundations, and corporations. CERE is capable of delivering a broad range of technical, analytic, and consultative research services and can offer expertise in psychometrics; educational testing; survey research methodology; student, teacher, and administrator assessment; planning, program development, and assessment in higher education, school psychology, special education, and social services; school curriculum development; and evaluation of inter-group relations in organizational settings.

## Center for Geographic Information Science

112A Graham Building
(336) 334-5422
cgis.uncg.edu/
The Center for Geographic Information Science provides a unique research environment for understanding spatial problems through the utilization of concepts and applications in Geographic Information Science (GIScience) while giving students an arena for active learning and discovery. An exemplary research environment is strongly promoted, creating an atmosphere where students have opportunities to acquire valuable, unique and marketable skills.

## Center for the Health of Vulnerable Populations

233 Mclver Building
(336) 334-3701
nursing.uncg.edu/Research/CHVP/index.php
The mission of the Center for the Health of Vulnerable Populations (CHVP) is to improve the knowledge of health disparities and vulnerable populations through research, collaboration and education. This includes initiatives to alleviate those disparities, thus improving the health, access, quality of care and quality of life of vulnerable
populations. Strategies are designed to address the NIH Roadmap, Healthy People 2010, and Healthy Carolinians 2010 through partnerships with community stakeholders.

To fulfill the mission, the Center 1) promotes and enhances research on aging, culture, disease processes, ethnicity, health care delivery, disparities, health education, health policy and health risks and behaviors; 2) fosters collaborative research within the School, across the University and state, and involving community and international partners; 3) disseminates research information to teachers, researchers, business leaders, health care providers, policy makers, the public and the international community; and 4) develops new knowledge that contributes to better health, fewer health disparities and improved health care for vulnerable populations.

The CHVP activities include research training, research studies, grantsmanship, and community partnerships.

## Center for Innovation in Interior Architecture

102 Gatewood Studio Arts Building (336) 334-5320

The Center for Innovation in Interior Architecture provides a nexus for a diverse group of people, ideas, and disciplines for the purpose of developing and applying new products, processes, technologies, and materials to interior environments.

CIIA provides a mechanism of support for Department of Interior Architecture faculty research by cultivating partnerships with design industry and practice in North Carolina and beyond, and by fostering an atmosphere of innovation and collaboration among faculty, students, and industry partners. Interior architecture students have opportunities to work on research and development projects with faculty and industry partners, as well as participate in internships.

## Center for New North Carolinians

413 S. Edgeworth Street
(336) 334-5411
cnnc.uncg.edu/
The Center for New North Carolinians is authorized by the UNC Board of Governors to be a resource to the state university system through outreach education, research, training, and interpretation related to the immigrant populations of North Carolina. CNNC seeks to build bridges among immigrant populations and existing communities by providing outreach and educational programming, research and evaluation, information services, technical support, and immigrant and refugee leadership development. Under the School of Human Environmental Sciences, the Center offers AmeriCorps

ACCESS to help refugee and immigrant communities gain better access to human services, build bridges of understanding with neighbors and become economically self-sufficient. Under this umbrella, Interpreter ACCESS Project (IAP) trains interpreters and operates a fee-forservices interpretation service, Immigrant Health ACCESS Project (IHAP) bridges the gap between healthcare providers and immigrant communities by working as lay health advisors, and Thriving at Three provides parenting education and referral services to Latino families with children ages 0-3. The CNNC is a United Way agency.

## Center for Women's Health and Wellness

Mail: 401 HHP Building
Room: 126 HHP Building
(336) 334-4736
www.uncg.edu/hhs/cwhw
The mission of the Center for Women's Health and Wellness is to advance the health and wellness of all women and girls through collaborative research and educational programs. The Center places strong emphasis on the promotion of positive health, quality of life, and sense of well-being for girls and women of all ages and from all backgrounds and communities. To fulfill the mission, the Center seeks to (1) create an interdisciplinary collaborative research and scholarship program around women's health and wellness by building synergy around women's health and wellness, providing research support to faculty, and securing public, private, and corporate funds to support women's health research and scholarship, and (2) connect research to practice by promoting communication among practitioners, consumers, and researchers around women's health and wellness, building research collaborations among researchers, practitioners, and consumers, and disseminating research to scientific, practice, and consumer audiences.

## Center for Youth, Family, and Community Partnerships

330 S. Greene St., Suite 200
(336) 217-9730
www.uncg.edu/csr/
The Center for Youth, Family, and Community Partnerships (CYFCP) is dedicated to building the capacity of families, service providers, researchers, teachers, and communities to promote the social, emotional, and cognitive well-being of children. In partnership with colleagues from across the University and the community, the Center:

- carries out basic, applied, and action research;
- translates research into effective programs and practice;
- infuses community perspectives into university research and teaching;
- facilitates strategic problem-solving processes; and
- promotes programs, practices, and policies that are likely to yield positive outcomes for children and their families.

With funding from federal, state, local, and foundation grants, the Center's current initiatives focus on familycentered, system of care approaches to mental health service delivery and training of service providers, youth violence prevention and intervention, community health, early childhood mental health and readiness, and community-based evaluation.

## Family Research Center

536 Highland Ave.
(336) 334-3601
www.uncg.edu/frc/
The Family Research Center was founded to contribute to the understanding of positive family relationships and the role of families in children's development. The goals of the Center are to foster collaborative research on families and children and to create a supportive atmosphere for interdisciplinary programs of research on families. The Center also works to communicate the results of research to the wider community to enhance families' lives and inform the decisions of policy makers.

The Center is housed in its own building and contains equipment to support faculty and graduate student research. Space is provided for observational research with families, meeting and planning, computer facilities, and data analysis, and the Center provides administrative support for collaborative research proposals and projects. The Center also helps to organize conferences and workshops for faculty and students involved in research on children and families.

## Music Research Institute

(336) 256-2581
performingarts.uncg.edu/music-research-institute
The mission of the Music Research Institute within the School of Music, Theatre, and Dance is to conduct research that advances the understanding of music and to share new knowledge for the good of society.

Toward that end, more than 40 research projects have been initiated in six areas: biomusic, neuroimaging, musicrelated hearing loss, music education, music performance, and ethnomusicology-ecocriticism. This cluster of topics, integrated into an overarching institute, provides for a
rich array of multi- and interdisciplinary research involving many scholars from within the School of Music, Theatre, and Dance across the university, and from local, regional, national, and international research communities.

## North Carolina Entrepreneurship Center

1718 MHRA Building
(336) 256-8649
entrepreneur.uncg.edu
The North Carolina Entrepreneurship Center (NCEC) is a campus-wide, cross-disciplinary center that has community engagement as its primary mission, with instruction and research as secondary missions.
Our mission is to help entrepreneurs start and grow their businesses, and to serve as a catalyst for the creation of sustainable and globally competitive enterprises in the Piedmont Triad, North Carolina, and beyond.

NCEC offers a range of outreach, instructional, and research opportunities including development grants to faculty wishing to create new courses; support for student and faculty research on entrepreneurship; and entrepreneurship education for students and faculty. NCEC also offers extra-curricular entrepreneurial opportunities including student internships; course projects and incubator start-up experiences; public forums to educate the campus and community about entrepreneurship; lectures by visiting experts in various types of entrepreneurship; and workshops, symposia, and panels.

## The SERVE Center at UNCG

## Dixon Building

Gateway University Research Park
5900 Summit Avenue
Brown Summit, NC
(336) 315-7400 or (800) 755-3277
www.serve.org
The SERVE Center's mission is to foster empowered, information-rich pre-kindergarten to grade 12 educational systems by finding and translating the best current knowledge, generating new knowledge, and partnering with stakeholders to identify and apply best evidence to practice. It generates theory-grounded research, provides cutting-edge technical assistance, and disseminates highquality information relevant to educational stakeholders' needs. Its activities are national in scope but tailor-made to the needs of local and regional clients. States and districts regularly turn to SERVE for assistance in finding research to: guide decision making, use data more
effectively, and conduct evaluations of programs. SERVE also provides customized evaluation and technical assistance services through contracts with states, districts, schools, and other clients. The center has provided services in migrant education, smaller learning communities, high school redesign, teacher growth and assessment, professional learning teams, reading and literacy, program and project evaluation, 21st Century Learning Communities, and technology applications in education.

Initiatives that have operated at the SERVE Center include the US Department of Education-funded Regional Educational Laboratories, the current operation of the National Center for Homeless Education (NCHE), providing the research, resources, and information that enable communities to address the educational needs of children experiencing homelessness, the North Carolina Homeless Education Program, and the evaluation of NC's Race to the Top Grant.

The SERVE Center's approach to its work is both rigorous and flexible, deploying a combination of both tried-andtrue and innovative tools to rapidly assess needs and meet them efficiently. Its toolkit includes experimental, correlational, and other methodological designs and an ever-expanding repertoire of interventions and processes that support policymakers and practitioners in raising student achievement.

## Center for Translational Biomedical Research

6500 Laureate Way, Suite 4226
Kannapolis, NC 28081
(704)250-5810
www.uncg.edu/nutrition/ncrc
Scientists at the Center for Translational Biomedical Research are conducting studies to identify and evaluate bioactive components from food, plants, and traditional Chinese medicines for the prevention and treatment of metabolic disorders such as diabetes, obesity, and cancer. This research entails chemical and metabolic profiling of bioactive components from a whole biological systems (metabolomics) approach. Other research examines cellular and molecular mechanisms of bioactive components, in order to address fundamental research questions that enhance our basic understanding of the contribution of bioactive components to human health and wellness, healthy aging, and disease prevention. The UNCG Center is housed in the UNC Nutrition Research Building at the North Carolina Research Campus (NCRC) in Kannapolis, NC, about 70 miles southwest of Greensboro.

## Center for Social, Community and Health Research and Evaluation

3710 MHRA Building
(336) 334-4777
www.uncg.edu/rsh/cschre.html
The mission of the Center for Social, Community and Health Research and Evaluation is to stimulate, develop, participate in, and conduct public health practice, health prevention and promotion, global health, genetics and genomics education, evaluation and research in the context of tertiary care, community, and other settings within five areas: 1) health education and promotion service delivery; 2) consultation and technical assistance; 3) education, training and dissemination; 4) populationbased assessment, monitoring and evaluative research; and 5) health disparities in persons at risk for or with genetic and other disorders.

## TUITION AND FEES

The tuition and academic fees paid by UNCG students only partially cover the cost of the education they receive. The remaining costs are met by funds from the State of North Carolina, from the UNCG Excellence Fund, and from alumni, friends, corporations, foundations, and the federal government. The figures listed below are proposed graduate tuition and fees per credit hour for the 2013-2014 academic year. Tuition and fees are due in full upon registration each semester. All students are responsible for payment of tuition appropriate to residence status. Payment of fees is a prerequisite to completion of registration. UNCG reserves the right to make changes in these charges without advance notice.

Graduate Tuition and Fees for 2013-2014 academic year
*Subject to approval and/or change by the North Carolina General Assembly.

| CREDIT HOURS | IN- <br> STATE <br> TUITION | BASE <br> TUI. O/S | O/S TUI <br> SRCHRG | ASG FEE | ATH FEE | ACT FEE | FAC FEE | E\&T FEE | TRANS FEE | HEALTH SERV FEE | REGIST. FEE | TOTAL INSTATE | TOTAL OUT-OFSTATE |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $1 \mathrm{Hr} .$ <br> Thesis** | 222.60 | 222.60 | 659.26 | 0.04 | 25.92 | 16.75 | 29.46 | 16.08 | 2.21 |  | 6.00 | 319.06 | 978.32 |
| $2 \mathrm{Hr} .$ <br> Thesis** | 445.20 | 445.20 | 1318.53 | 0.08 | 51.83 | 33.50 | 58.92 | 32.17 | 4.42 |  | 6.00 | 632.12 | 1950.65 |
| $3 \mathrm{Hr} .$ <br> Thesis** | 1135.25 | 1135.25 | 3362.25 | 0.13 | 77.75 | 50.25 | 88.38 | 48.25 | 6.63 |  | 6.00 | 1412.64 | 4774.89 |
| 0 | 567.63 | 567.63 | 1681.12 | 0.04 | 25.92 | 16.75 | 29.46 | 16.08 | 2.21 |  | 6.00 | 664.09 | 2345.21 |
| 1 | 567.63 | 567.63 | 1681.12 | 0.04 | 25.92 | 16.75 | 29.46 | 16.08 | 2.21 |  | 6.00 | 664.09 | 2345.21 |
| 2 | 567.63 | 567.63 | 1681.12 | 0.08 | 51.83 | 33.50 | 58.92 | 32.17 | 4.42 |  | 6.00 | 754.55 | 2435.67 |
| 3 | 1135.25 | 1135.25 | 3362.25 | 0.13 | 77.75 | 50.25 | 88.38 | 48.25 | 6.63 |  | 6.00 | 1412.64 | 4774.89 |
| 4 | 1135.25 | 1135.25 | 3362.25 | 0.17 | 103.67 | 67.00 | 117.83 | 64.33 | 8.83 |  | 6.00 | 1503.08 | 4865.33 |
| 5 | 1135.25 | 1135.25 | 3362.25 | 0.21 | 129.58 | 83.75 | 147.29 | 80.42 | 11.04 |  | 6.00 | 1593.54 | 4955.79 |
| 6 | 1702.88 | 1702.88 | 5043.37 | 0.25 | 155.50 | 100.50 | 176.75 | 96.50 | 13.25 |  | 6.00 | 2251.63 | 7295.00 |
| 7 | 1702.88 | 1702.88 | 5043.37 | 0.29 | 181.42 | 117.25 | 206.21 | 112.58 | 15.46 |  | 6.00 | 2342.09 | 7385.46 |
| 8 | 1702.88 | 1702.88 | 5043.37 | 0.33 | 207.33 | 134.00 | 235.67 | 128.67 | 17.67 |  | 6.00 | 2432.55 | 7475.92 |
| 9 | 2270.50 | 2270.50 | 6724.50 | 0.38 | 233.25 | 150.75 | 265.13 | 144.75 | 19.88 | 136.50 | 6.00 | 3227.14 | 9951.64 |
| 10 | 2270.50 | 2270.50 | 6724.50 | 0.42 | 259.17 | 167.50 | 294.58 | 160.83 | 22.08 | 136.50 | 6.00 | 3317.58 | 10042.08 |


| 11 | 2270.50 | 2270.50 | 6724.50 | 0.46 | 285.08 | 184.25 | 324.04 | 176.92 | 24.29 | 136.50 | 6.00 | 3408.04 |
| :--- | :--- | :--- | :--- | :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |

*Tuition differentials are charged for specified courses/programs: all MBA courses and MSA courses and for 600 level ISM courses (both are part of the MSITM program). ( $\mathbf{\$ 2 0 0}$ per cr. hr.) MA Applied Economics (\$60 per cr. hr.) MA Communication Sciences and Disorders ( $\$ 82$ per cr. hr.) MS Athletic Training ( $\$ 200$ per cr. hr.) and MS Consumer Apparel \& Retail Studies. (\$120 per cr. hr.). Charges apply to on-campus and distance courses.

## **Registration for 801 Thesis Extension, 802 Dissertation Extension, and 803 Research Extension only.

## Miscellaneous Fees <br> (as applicable)

Registration Fee (per semester)

$$
\$ 6.00
$$

Late Pre Registration Fee (per semester) \$30.00
Late Registration Fee (per semester) \$45.00
Student Health Insurance Fee (per semester) \$709.00
Graduation Fee - Master's
$\$ 60.00$

Graduation Fee - MS/EdS \$75.00

Graduation Fee - Doctoral $\$ 60.00$

A health fee is optional for those registered for fewer than nine hours and mandatory for those who register for 9 or more hours.
See the Student Handbook for additional information regarding other fees and activities.

## Student Credit Policy

Tuition and fees for all University students are due and payable before or on registration day. North Carolina law requires the University to charge and collect from each student at the beginning of each academic term tuition, fees, and an amount sufficient to pay all other direct expenses such as room and board incurred for the term. Payments may be made in person by cash, money order, or check and online by check, MasterCard, Discover, and American Express. A 2.75\% convenience fee is assessed when using the credit card options.
As an exception to the above policy, students may be granted deferments (credit) only if they meet one of the following criteria:

1. Students who receive awards through the UNCG Financial Aid Office from one or more of the following programs must pay the amount of their bill less the amount awarded for the financial aid. Any liability resulting from a reduction of financial aid becomes the student's responsibility payable upon notification of the adjustment of the award. Financial aid awards for purposes of the credit policy are as follows:

- Pell Grants
- Stafford Loans
- Institutional Loans
- SEOG
- Perkins Loan
- Federal PLUS Loan
- Federal Graduate PLUS Loan
- Veterans Scholarships
- Vocational Rehabilitation
- University Scholarships
- Fellowships
- Assistantships
- Grants
- Federal Work Study

2. Students wishing to utilize Veterans' benefits under the credit policy must demonstrate financial need in compliance with normal financial aid need standards.

Final approval is contingent upon the student's demonstration of need and a good credit history with the University.
3. Recipients of scholarships awarded by organizations outside the University in which direct payment is made to UNCG and notification is on file with the Financial Aid Office may qualify under the credit policy. Students should provide notification of such awards as soon as possible to the Financial Aid Office or the Cashiers and Student Accounts Office.
4. Other resources that may be deferrable as credit to the student bill:

- Americorps
- International Sponsor
- Prepaid College Programs
- Teach Scholarships
- Services for the Blind
- All Branches of the Military
- Employers
- JTPA/JobLink/WIA
- Trust Funds


## Refund Policy for Student Fees and Charges

## PART I: Policy for Students Who Completely Withdraw from UNCG

## Official Notice of Intent to Completely Withdraw from UNCG

Students who must withdraw from the University can do so by dropping all courses on-line via UNCGenie. Students who drop all courses are considered to be withdrawn from the University and must seek reactivation or readmission through The Graduate School to return to school in subsequent terms.
In case of a major disaster, including a pandemic flu occurrence, UNCG will follow UNC General Administration refunding guidelines and in the absence of such guidelines, UNCG Executive Staff decisions.
Students who wish to discuss the academic consequence of a change in enrollment status at the University may contact The Graduate School.

There will be a $\$ 50.00$ non-refundable processing fee charged to all students who completely withdraw from the University.

## Complete Withdrawal from UNCG for Students Activated for Military Duty including the Armed Services Reserve and the National Guard

If a student is involuntarily called for active duty during a currently enrolled semester, the following refund guidelines apply:

- The return of funds calculation will be completed under the normal terms and conditions as applicable.
- The student will be expected to provide correspondence supporting the call to active military duty.

Students who serve in the Armed Services Reserve or the National Guard are often alerted that they may be called to active duty for various reasons. If any student is voluntarily or involuntarily called for active duty during a term in which he or she is enrolled, the eligible student may elect one of the following options:

## Complete Withdrawal Option (Without Academic Penalty)

1. Tuition and general fees will be fully refundable.
2. Health fees generally will be fully refundable except for students who have used the University's health services. These students would be billed at the fee for service rate to a maximum charge equivalent to the health fee. Students who have enrolled in the Student Health Insurance program should contact the Agent for information on a prorated refund of premium.
3. Room and board will be refunded based on the number of weeks the room was occupied and the meals consumed.
4. The student will be responsible for any miscellaneous charges such as library fines, parking tickets, parking permits, health service charges, etc.
5. In order to be eligible for a refund under these guidelines, the student must contact the University Registrar's Office and provide the following:

- A copy of his or her call-up papers; these "orders" will serve as documentation for the refund of tuition and fees.
- A mailing address to which the student would like the refund to be sent.

The University Registrar's Office will notify appropriate offices of the student's withdrawal including Undergraduate Studies, The Graduate School, Financial Aid Office, Housing and Residence Life, and the Cashiers and Student Accounts Office.
6. In order to receive a refund from Housing and Residence Life, the student must complete the usual residence hall check-out procedure. The student can then withdraw either in person or via UNCGenie.
7. If a student is receiving financial aid during the term in which he or she is called to active duty, financial aid must be repaid according to federal and state guidelines before a refund will be issued by the University.

## Early Exam Option

Eligible students who are required to report for military duty not earlier than four calendar weeks prior to the date a semester ends as stated in the official catalog of the University, or after completion of at least $75 \%$ of the enrollment period in a nonstandard semester, may, when authorized by the instructor, take the final exam early and be given full credit for all courses for which they have an average of $C$ or better. Students are not eligible for refunds for courses when they receive credit.

## Incomplete Grade Option

Students called to active duty may take an incomplete in a course and complete it upon release from active duty. Course completion may be accomplished by independent study or by retaking the course without payment of tuition and fees. Under federal financial aid policies, a course that is retaken this way may not be counted toward a student's enrollment load. Eligible students who receive an incomplete for any course for which they are enrolled shall not be entitled to any refund of tuition and fees paid.

## Returning to the University

1. If a student is called for active duty and subsequently released in a manner that would allow them to reenroll during the semester in which they withdraw, the University will make every effort to accommodate the request. Individual contacts with faculty involved will determine the appropriateness of returning to a course.
2. Students who are called to active duty during a semester, and who withdraw from the University, are technically ineligible to early register for the term in which they wish to re-enroll. However, UNCG will make every effort to give these students special dispensation and to allow them to preregister for that term.

## Summer Session

Students who completely withdraw from their summer courses will be handled with the same refund policy that applies to the regular academic year.

## Return of Federal Title IV Funds

The federally mandated Return of Funds Policy governs the return of Title IV funds disbursed to students who
complete the official withdrawal process as defined by the University. The term refund should be understood to mean the repayment of money received by the University for tuition and fees or for a reduction of charges if tuition and fees have not yet been paid. Title IV funds include Federal Unsubsidized and Subsidized Stafford Loans, Federal Perkins Loans, Federal Graduate PLUS Loans, Federal PLUS Loans, Federal Pell Grants, Federal Supplemental Educational Opportunity Grants (SEOG), and NCSIG. Federal Work Study is excluded from this procedure.
Unearned Title IV funds must be returned to the Title IV programs. Unearned aid is the amount of disbursed Title IV aid that exceeds the amount of earned Title IV aid. During the first 60\% of the enrollment period (semester or term), a student earns funds in direct proportion to the length of time he or she remains enrolled. The period of time during which a student is enrolled is the percentage of aid earned by the student. A student who remains enrolled beyond the 60\% point earns all Title IV aid for the term.

The percentage of the period that a student remains enrolled is determined by dividing the number of days the student attended by the number of days in the term. Calendar days are used in the determination of percentages. Breaks of five (5) days or longer are excluded in the calculations. The percentage may be found by using the following formula:
= 100\% - (number of days the student attended / number of days in the semester) number of days in the semester

## Example of Total Withdrawal Refund Calculation

| Day | Refund | Day | Refund | Day | Refund | Day | Refund |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 1 | $100 \%$ | 19 | $82 \%$ | 37 | $65 \%$ | 55 | $49 \%$ |
| 2 | $98 \%$ | 20 | $81 \%$ | 38 | $64 \%$ | 56 | $48 \%$ |
| 3 | $97 \%$ | 21 | $80 \%$ | 39 | $64 \%$ | 57 | $47 \%$ |
| 4 | $96 \%$ | 22 | $79 \%$ | 40 | $63 \%$ | 58 | $46 \%$ |
| 5 | $95 \%$ | 23 | $79 \%$ | 41 | $62 \%$ | 59 | $45 \%$ |
| 6 | $94 \%$ | 24 | $78 \%$ | 42 | $61 \%$ | 60 | $44 \%$ |
| 7 | $93 \%$ | 25 | $77 \%$ | 43 | $60 \%$ | 61 | $43 \%$ |
| 8 | $93 \%$ | 26 | $76 \%$ | 44 | $59 \%$ | 62 | $42 \%$ |


| 10 | 91\% | 28 | 74\% | 46 | 57\% | 64 | 40\% |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 11 | 90\% | 29 | 73\% | 47 | 56\% | 65 | 40\% |
| 12 | 89\% | 30 | 72\% | 48 | 55\% | 66-107 | 0\% |
| 13 | 88\% | 31 | 71\% | 49 | 54\% |  |  |
| 14 | 87\% | 32 | 70\% | 50 | 53\% |  |  |
| 15 | 86\% | 33 | 69\% | 51 | 52\% |  |  |
| 16 | 85\% | 34 | 68\% | 52 | 51\% |  |  |
| 17 | 84\% | 35 | 67\% | 53 | 50\% |  |  |
| 18 | 83\% | 36 | 66\% | 54 | 50\% |  |  |

If the amount of the Title IV funds disbursed is greater than the amount of Title IV funds earned by a student, a return of Title IV funds is necessary. Both the University and the student are responsible for returning a percentage of the unearned aid.
The University will return federal funds to the appropriate federal program up to the total net amount disbursed from each source as required by law. The prescribed order of return in:

- Federal Unsubsidized Stafford Loan
- Federal Subsidized Stafford Loan
- Federal Perkins Loan
- Federal Graduate PLUS Loan
- Federal PLUS Loan (parent)
- Federal Pell Grant
- FSEOG
- Other Title IV Programs


## Return of Non-Federal Funds

UNCG will return Non-Federal funds received and applied to a student's account requested by the source from which the funds were disbursed. Any outstanding financial obligation to UNCG will be deducted from the amount of Non-Federal funds to be returned. Funds will be returned to the student unless they are requested by the source from which the funds were disbursed. When a student completes the withdrawal process, the Cashiers and Student Accounts Office will initiate a refund and
either mail it to the student's current address or deposit it into their specified bank account.

If a student still has an outstanding financial obligation as a result of this process, the University will bill the student for payment.

## PART II: Policy for Students Who Drop Course Hours

## Regular Term Courses

The refund policy applies to complete withdrawals from UNCG. If a student simply reduces their course load after the Late Registration and Schedule Adjustment period (refer to the University Academic Calendar (p. 3)), NO refund or reduction of charges whatsoever will be credited to the student's account. However, if the drop in hours occurs before the end of the Late Registration and Schedule Adjustment period, the student is entitled to a full refund for the hours dropped. If this change results in the creation of a student account credit balance, a check will be generated and mailed to the student's campus box or local mailing address or if the student has chosen the option, direct deposited.

## Part of Term Courses

For courses that begin after the semester starting date (refer to the University Part of Term Calendar) a full refund will be issued for a course dropped by the third calendar day from the class start date (class start date being day one) if the class meets a minimum of 30 sessions. For classes meeting less than 30 sessions, the date for full refund will be calculated as completion of $10 \%$ of the sessions. For example, the drop date for full refund would be the second day of class for a class that only meets 20 sessions. If this change results in the creation of a student account credit balance, a check will be generated and mailed to the student's campus box or local mailing address or if student has chosen the option, direct deposited. This applies to a drop in hours only and not complete withdrawal.

## Summer Session Courses

If students reduce the amounts of their credit hours during a summer session, they should then refer to the last day for tuition refund for a drop in credit hours chart listed in the Summer Session Calendar published on Summer Session website.

## University Refund Appeals Committee

The University Refund Appeals Committee considers appeals from any student who wishes to submit an appeal in writing. Cases are referred to the committee when a student feels that the University's refund policies do not address particular circumstances.

Questions? Contact the Cashiers and Student Accounts Office, 151 Mossman Building, 336-334-5831.

This policy was updated on 04/11/12.

## Special Fees

## Athletic, Activity, and Facilities Fees

Payment of these fees gives students access to athletic events, campus organizations, Elliott University Center (student union), and many other student programs.

## Auditing Fees

## Current UNCG Students

A UNCG student who is registered for 12 hours or more may audit one course per semester without charge. A UNCG student who is registered for less than 12 hours may audit no more than two courses per semester and is charged a fee of $\$ 15$ per course.

## Visiting Auditors

Visiting auditors are classified as non-UNCG students who wish to take a course(s) without receiving a record of enrollment. Such individuals must apply to register through the Division of Continual Learning. A visiting auditor will not receive a record of enrollment and is charged a $\$ 50$ fee for lecture courses. Visiting auditors are admitted to lecture courses when space is available with the approval of the department head in consultation with the instructor teaching the course requested.
Registered auditors (persons not officially enrolled at UNCG) who do require a record of enrollment as an auditor should file a VISIONS form with The Graduate School and follow regular registration and payment procedures. A fee equal to in-state or out-of-state tuition rates is charged for each course audited. Fees are payable in full at the time of registration.
To audit a 600- or 700-level course, a student must hold a bachelor's degree.

## Graduation Fee

The graduation fee of $\$ 60$ for master's and Specialist in Education candidates, $\$ 75$ for the combined MS/EdS candidates, and $\$ 60$ for doctoral candidates is payable in the Cashier's and Student Accounts Office. Students who do not graduate in the term for which they originally applied must file a new application. Check with The Graduate School regarding your status.

## Health Service Fee

The health service fee supports part of the services provided in the Student Health Services, including medical and mental health services and health education programs. Routine office visits are prepaid in the health fee. Examples of costs not covered by the health fee include pharmacy purchases, orthopedic aids, $x$-rays, and laboratory tests.

## Nurse Anesthesia Program

Tuition for the nonacademic clinical residency at Wake Forest Baptist Health School of Nurse Anesthesia is $\$ 3500$ per year. The clinical residency fee, payable to Wake Forest Baptist Health, is due at the beginning of each year. All tuition and fees are due on or before the day of registration.

An administrative services fee of $\$ 300$ is charged by Wake Forest Baptist Health School of Nurse Anesthesia for the large number of handouts issued to the student. Additionally, a $\$ 30$ activity fee and $\$ 200$ Medatrax fee will be charged.
The clinical residency fee for the Raleigh School of Nurse Anesthesia is $\$ 4500$. A single printing fee of $\$ 75$ is charged for handouts issued to the student as well as a $\$ 20$ activity fee and $\$ 190$ Medatrax fee.

## Use of the University Libraries

Students must be registered for credit and have a valid UNCG ID to check out materials from the University Libraries. Graduate students may check out items for one semester. If the Libraries are to be used for one month or less, such as to finish courses with grades of Incomplete or for special assignments, students may obtain a letter from The Graduate School or their professor and present it to the Access Services Department in Jackson Library. During the summer months, students who preregistered for Fall may check books out of the University Libraries without being registered for credit or securing special approval.

## Residence Status for Tuition Purposes

The tuition charge for persons who qualify as North Carolina residents for tuition purposes is substantially less than that for nonresidents. An explanation of the North Carolina law [General Statute 116-143.1] governing residence classification for tuition purposes is set forth in Appendix G. A more complete explanation of the statute and the procedures under the statute is contained in $A$ Manual to Assist the Public Higher Education Institutions in North Carolina in the Matter of Student Residence Classification for Tuition Purposes. The Manual is the controlling administrative statement of policy on this subject. The Manual is available at:
http://www.uncg.edu/pvt/residency/pdf/residency_manu al.pdf.

## Initial Classification

Every applicant for admission is required to make a statement as to the length of his/her legal residence in North Carolina. Every applicant is classified as a resident or nonresident for tuition purposes prior to actual matriculation, by the admitting office making the initial classification. Those not claiming to be residents for tuition purposes are, of course, classified as out-of-state students (nonresidents) for tuition purposes. If there is insufficient information to support an applicant's claim to be a resident for tuition purposes, the admitting office will initially classify that applicant as a nonresident.

## Reclassification

A residency classification once assigned (and confirmed pursuant to any appeal properly taken) may be changed thereafter (with corresponding change in billing rates) only at intervals corresponding with the established primary divisions of the academic year.

A student who, due to subsequent events, becomes eligible for a change in classification, whether from out-ofstate to in-state or the reverse, has the responsibility of applying for a reclassification.

## Reclassification Determination

A student may request a review of his or her residence classification assigned by the admitting office by submitting a completed "Residency Reclassification Application." The completed application must be submitted before the 10th day of classes of the academic term for which the student wishes to be considered for reclassification. (Application forms may be obtained online at www.uncg.edu/pvt/residency/.)
It is the responsibility of the student to pay tuition at the rate charged and billed while an appeal is pending. In effect, the student who is classified as a nonresident at the time of registration pays the nonresident rate. Conversely, if a student is classified as a resident at the time of billing, he/she pays the resident rate. Any necessary adjustments in the rate paid will be made at the conclusion of the appeal.
Students or prospective students who believe that they are entitled to be classified as residents for tuition purposes should be aware that the process of requests and appeals can take a considerable amount of time and that applications for classification should not be delayed until registration.

Students who wish to receive a timely review of their residence status should submit their completed "Residency Reclassification Application" approximately

60-90 days in advance of the term for which they are seeking a review of their residence status. Residency applications are reviewed in the order in which they are received; failure to submit an application with proper documentation in a timely manner may delay the review process. The deadline to submit the Residency Reclassification Application is the 10th day of classes for the term in which the in-state classification is sought.
The determination of residence classification may be appealed to the Campus Residence Appeals Committee, and decisions of the Campus Residence Appeals Committee may be appealed to the State Residence Committee. A written statement of the appeals procedures is provided to every applicant or student receiving an out-of-state classification.

## Non-US Citizens

Aliens lawfully admitted to the United States for permanent residence are subject to the same considerations as citizens in the determination of residentiary status for tuition purposes. Certain classes of both resident and nonresident aliens are subject to these same considerations, but certain classes are not. More complete information on the residence classification of aliens may be obtained from the Manual.

## Married Persons

If you have established your domicile in North Carolina and you are married to a resident of North Carolina but have not been a legal resident for 12 months, the 12month requirement may be satisfied if your spouse has been a legal resident of North Carolina for at least 12 months, and vice versa. However, the two spouses cannot add the time they have lived in North Carolina in order to get a total of 12 months. In other words, at least one spouse must have been a legal resident for at least 12 months.

## UNC Employees

A person who is a permanent full-time employee of the University of North Carolina, or is the spouse or dependent child of a full-time employee of the University of North Carolina, and who is a legal resident of North Carolina qualifies as a resident for tuition purposes without having maintained that legal residence for at least 12 months immediately prior to his or her classification as a resident for tuition purposes.

## Military Personnel and the Dependent Relatives Thereof

North Carolina law affords tuition rate benefits to certain military personnel and their dependents. Specifically, the law provides that members of the Armed Services, while serving on active duty and living concurrently in North

Carolina, may be charged the in-state tuition rate. The dependents of certain members of the Armed Services who are stationed on active duty in North Carolina may qualify for the in-state tuition rate while sharing a home with the active duty service member.

Qualifying active duty military members and the dependent relatives thereof are extended a "military grace period" if the military member is reassigned outside of North Carolina or retires while the member or dependent is enrolled in an institution of higher education. During this grace period, the military member or dependent relative thereof is eligible for the in-state tuition rate as long as he or she is continuously enrolled in the degree or other program in which he or she was enrolled at the time of the reassignment. Qualifying members and dependents also remain eligible to pay the in-state rate if the active duty member receives an Honorable Discharge so long as the member or dependent establishes legal residence in North Carolina within thirty days and is continuously enrolled in the degree or other program in which he or she was enrolled at the time of the Honorable Discharge.

Additionally, any nonresident North Carolina Guard Members in reserve or active status are eligible for the instate rate and all applicable mandatory fees.
Application for this benefit must be made prior to the beginning of the first enrolled term of each academic year for which the benefit is sought. The person applying for this benefit has the burden of proving entitlement to it.
Also, for North Carolina residents serving in the armed forces, the law provides that, "no person shall lose his or her residence status for tuition purposes solely by reason of serving in the armed forces outside of this State."

## Faculty/Staff Tuition Waivers

The purpose of the Tuition Waiver Program is to provide an opportunity for eligible employees to have tuition and fees waived for a course taken at any of the 17 campuses of the University of North Carolina. Participation in the program is voluntary, and courses may be taken for either career development or personal interest. The Tuition Waiver Program is administered through the Cashiers and Student Accounts Office located at 151 Mossman Building on campus, and forms are available in this office or on the Cashier's Office webpage.
In order to be eligible for participation in the Tuition Waiver Program, an employee must be a permanent employee working thirty (30) or more hours per week for nine (9) or more months per calendar year. The employee must be participating in the NC Teacher's and State Employee's Retirement System or the UNC Optional Retirement Program. Each employee must apply for and be admitted through the appropriate admissions office within its specific deadlines. Courses must be registered
for in accordance with the instructions of the program in which the student is admitted, and space must be available in the course. Employees must attend class outside his or her established work schedule, though departments are encouraged to offer flexible scheduling options to accommodate employee participation. During the term in which an employee enrolls in a course, that employee must continue to meet his or her normal employment obligations.

The employee must maintain employee status during the duration of the course. Otherwise, the employee shall be responsible for payment of applicable tuition and fees. However, this payment requirement shall not apply to an employee who is eligible under this policy at the time of enrollment in a course and is later reduced in force (SPA) or separated for budgetary reasons (EPA) prior to completion of the course. This exception does not apply to the end of a time limited position.

Tuition and fee charges will be waived for a maximum of two (2) courses per academic year with no limitation as to the number of courses that can be taken each term. Courses may be taken in any term: Fall, Spring, or Summer, so long as the limit of two (2) courses per academic year is not exceeded. The Tuition Waiver Program does not cover non-credit courses, such as those offered through CallDCL. The employee is responsible for any and all additional tuition and fees charged to their student account during the term. Furthermore, it is the employee's responsibility to notify the Financial Aid Office if they have been approved for aid and are using the Faculty and Staff Tuition Waiver Program.

An Application for Tuition Waiver form must be completed for each term a course is taken. Different forms may be required to take courses at campuses other than UNCG. Employees may obtain an application through the Cashier's Office webpage, or in person at the Cashiers and Student Accounts Office. The application procedure is as follows:

1. Apply for and be admitted through the appropriate admissions office within it's specified deadlines.
2. Complete the Application for Faculty and Staff Tuition Waiver form.
3. Obtain advance signature approval of your supervisor, and your department head (for employees of institutions other than UNCG: follow your institution's guidelines regarding approval signatures).
4. SPA staff members should deliver their completed form to the Cashiers and Student Accounts Office upon obtaining the necessary departmental signatures. EPA faculty and EPA non-faculty are required to obtain a final approval signature from the Office of the Provost prior to submitting their completed form to the Cashiers and Student Accounts

Office. Both offices are located in the Mossman Administration Building at 1202 Spring Garden St.

The Provost and the Cashiers Office will verify the eligibility of the employee, and the form must then be submitted to the Cashiers Office for processing. Adjustments to your student account will occur at the end of the first 5 days of each term in order to account for schedule changes. Employees may receive billing statements regarding charges on their student accounts. Questions regarding this policy may be directed to the Cashiers and Student Accounts Office at (336) 334-5831 or toll free at 1-877-286-8250, or in person at 151 Mossman Building, 1202 Spring Garden St., Greensboro, NC 27412.

## FINANCIAL SUPPORT

## UNCG Fellowships and Assistantships

Students receiving financial support from the University through a non service fellowship or a service appointment are required to maintain enrollment in a minimum of six semester hours in a graduate degree program for the duration of the assistantship (excluding summer). They must have been admitted to the University unconditionally and have maintained a B (3.0) average. Service hours may not exceed 20 hours per week in total.
Assistantships are available through The Graduate School upon recommendation of the department. Prospective students who wish to be considered for an award should indicate such an interest on the admission application. If already enrolled, students should notify the Director of Graduate Study of their major department and make application by letter addressed to the department.

Stipends vary by program, level of degree, assigned responsibility, and workload. Stipends are paid as scheduled by employers. Students are reminded to make financial arrangements accordingly.

Greensboro Graduate Scholars, nominated by their departments and selected by The Graduate School, receive, in addition to the normal assistantships, a stipend of $\$ 2,000$ for master's students and $\$ 3,000$ for doctoral students. These awards will be renewed once for master's students and twice for doctoral students, assuming satisfactory progress in the program.

A small number of non service fellowships are available in some departments. Outstanding students may be nominated by their departments for these highly competitive awards. For a complete listing of fellowships awarded annually by UNCG, please refer to the UNCG Financial Aid Directory.

## University of North Carolina Campus Scholarships

UNC General Administration funds the UNC Campus Scholarships, which are intended to encourage greater diversity on the campus. Full-time doctoral students at UNCG who are residents of North Carolina and have demonstrated financial need are eligible for these awards. A portion of the UNC Campus Scholarship fund is earmarked for Native American students who meet eligibility requirements.

## Nationally Competitive Scholarships and Fellowships

For a listing of nationally competitive scholarships and fellowships, please refer to the Lloyd International Honors College web site
http://honorscollege.uncg.edu/current/scholarships/.

## Student Loans and Campus Jobs

Information on student loan applications and procedures is available on request to the Financial Aid Office. Financial Aid Transcripts and the Free Application for Federal Student Aid are required. All financial aid awarded to UNCG graduate students is coordinated through the Financial Aid Office, which handles disbursements to students in conjunction with the Cashiers and Student Accounts Office. Financial aid budgets for federal loans are based on the cost of attendance, which includes actual tuition and fee charges.

Full-time graduate students may not be employed for more than 20 hours per week inclusive of assistantship hours. Normally, a student who has a fellowship or service appointment will not work outside the University. Under extraordinary circumstances, with the recommendation of the department and approval of the Dean of The Graduate School, a student who has a fellowship or service appointment may be granted special permission to work outside the University.

## UNIVERSITY HISTORY AND OFFICERS

In North Carolina, all the public educational institutions that grant baccalaureate degrees are part of the University of North Carolina. The University of North Carolina at Greensboro is one of the 16 constituent institutions of the multi-campus state university.

The University of North Carolina, chartered by the N.C. General Assembly in 1789, was the first public university in the United States to open its doors and the only one to graduate students in the eighteenth century. The first class was admitted in Chapel Hill in 1795. For the next 136 years, the only campus of the University of North Carolina was at Chapel Hill.

In 1877, the N.C. General Assembly began sponsoring additional institutions of higher education. Five were historically black institutions, and another was founded to educate American Indians. Several were created to prepare teachers for the public school. Others had a technological emphasis. One is a training school for performing artists.
In 1931, the N.C. General Assembly redefined the University of North Carolina to include three statesupported institutions-the campus at Chapel Hill (now the University of North Carolina at Chapel Hill), North Carolina State College (now North Carolina State University at Raleigh), and Woman's College (now the University of North Carolina at Greensboro). The new multi-campus University operated with one board of trustees and one president. By 1969, three additional campuses had joined the University through legislative action: the University of North Carolina at Charlotte, the University of North Carolina at Asheville, and the University of North Carolina at Wilmington.
In 1971, the General Assembly passed legislation bringing into the University of North Carolina the state's 10 remaining public senior institutions, each of which had until then been legally separate: Appalachian State University, East Carolina University, Elizabeth City State University, Fayetteville State University, North Carolina Agricultural and Technical State University, North Carolina Central University, the North Carolina School of the Arts, Pembroke State University, Western Carolina University, and Winston-Salem State University. This action created the current 16-campus University. In 1985, the North Carolina School of Science and Mathematics, a residential high school for gifted students, was declared an affiliated school of the University; in 1996, Pembroke State University was renamed the University of North Carolina at Pembroke through legislative action; and in 2008, the North Carolina School of the Arts was renamed The University of North Carolina School of the Arts.

The UNC Board of Governors is the policy-making body legally charged with "the general determination, control, supervision, management, and governance of all affairs of the constituent institutions." It elects the president, who administers the University. The 32 voting members of the Board of Governors are elected by the General Assembly for four-year terms. Former board chairmen and board members who are former governors of North Carolina may continue to serve for limited periods as non-voting members emeriti. The president of the UNC Association of Student Governments, or that student's designee, is also a non-voting member.

Each of the 16 constituent institutions is headed by a chancellor, who is chosen by the Board of Governors on the president's nomination and is responsible to the president. Each institution has a board of trustees, consisting of eight members elected by the Board of Governors, four appointed by the governor, and the president of the student body who serves ex-officio. (The UNC School of the Arts has two additional ex-officio members.) Each board of trustees holds extensive powers over academic and other operations of its institution on delegation from the Board of Governors.
In 2011, Thomas W. Ross became the president of The University of North Carolina system. UNC campuses enroll more than 202,000 students and support a broad array of liberal-arts programs, two medical schools and one teaching hospital, two law schools, a veterinary school, one school of pharmacy with another planned for UNCG, 12 nursing programs, 15 schools of education, three schools of engineering, and a specialized school for performing artists. Also under the University umbrella is the UNC Center for Public Television with its 11 -station statewide broadcast network, and the NC School of Science and Mathematics, the nation's first public residential high school for gifted students.

## General Administration Council of The University of North Carolina

President—Thomas W. Ross<br>Senior Vice President for Academic Affairs— Suzanne Ortega

Secretary of the University-L.B. "Bart" Corgnati, Jr.
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## History of The University of North Carolina at Greensboro

The first state-supported school for the higher education of women in North Carolina was chartered in 1891 as the State Normal and Industrial School. It opened on October 5,1892 to 223 students, a 15-member faculty, and classes in business, domestic science, and teaching. In 1896 its name was changed to the State Normal and Industrial College. Charles Duncan Mclver, who crusaded for women's education, was the first president, serving from 1892 until his death in 1906.

In 1919, the school was renamed North Carolina College for Women, as it continued to educate women in the liberal arts with particular emphasis in the fields of teaching, home economics, music, and physical education.

The first graduate degree, the Master of Arts, was awarded in 1922.

The General Assembly of 1931 combined the North Carolina College for Women, The University of North Carolina (at Chapel Hill) and the North Carolina State College of Agriculture and Engineering (at Raleigh) into a single Consolidated University. The campus at Greensboro thus became The Woman's College of the University of North Carolina.

The first doctoral degree was awarded in June 1963.
"W.C." became coeducational in July 1963 when laws were amended to authorize admission of both men and women at all levels of instruction on all University campuses. At this time, the Greensboro campus was again renamed as The University of North Carolina at Greensboro.

In October 1971 the General Assembly adopted legislation which combined all 16 of the state-supported institutions of higher education into a single University of North Carolina, governed by a board of governors and administered by a president. Each constituent institution has a separate board of trustees and is administered by a chancellor.

In 1995, Dr. Patricia A. Sullivan became the ninth chancellor and the first woman chancellor of the University.

In August 2008, Dr. Linda P. Brady succeeded the retiring Dr. Sullivan and became the tenth chancellor of UNCG.

UNCG offers more than 100 undergraduate areas of study, master's degrees in a wide variety of concentrations, and 25 doctoral programs. The campus on Spring Garden Street, its original location, has grown to 204 acres and 81 buildings. The Gateway University Research Park extends the campus to 357 acres.

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## ACADEMIC PROGRAM INVENTORY AND CIP CODES

The following is a reference list of currently active UNCG graduate degree programs, as approved by UNC General Administration and Board of Governors. For information about the complete UNC program inventory and CIP codes, visit the UNC General Administration Web site at: http://www.northcarolina.edu.

| Discipline Division | CIP Code | Degree Abbreviation | Degree Program Title |
| :---: | :---: | :---: | :---: |
| 040501 Interior Architecture | 040501 | MFA | Interior Architecture |
| 050201 AfricanAmerican/Black Studies | 050201 | PB | African American Studies |
| 050207 Women's Studies | 050207 | MA | Womens and Gender Studies |
|  | 050207 | PB | Womens Gender Studies |
| 090101 Speech Communication and Rhetoric | 090101 | MA | Communication Studies |
| 110701 Computer Science | 110701 | MS | Computer Science |
| 110901 Computer Systems <br> Networking and Telecommunications | 110901 | MS | Information Technology and Management |
|  | 110901 | PB | Information Technology |
|  | 110901 | PM | Information Technology |
| 111003 Computer and Information Systems Security/Information Assuranc | 111003 | PB | Information Assurance, Security, and Privacy |
| 130301 Curriculum and Instruction | 130301 | MEd | Teacher Education |


|  | 130301 | PB | Teaching English to Speakers <br> of Other Languages |
| :--- | :--- | :--- | :--- |
|  | 130301 | PB | Special Endorsement in <br> Computer Education |
| 130401 Educational <br> Leadership and <br> Administration, General | 130401 | MSA | EdS |


|  | 131001 | PB | Post-Baccalaureate <br> Alternative Initial Licensure |
| :--- | :--- | :--- | :--- |
| 131101 Counselor <br> Education/School <br> Counseling and Guidance <br> Services | 131101 | MS | School Counseling |
|  | 131101 | EdS | EdD |


| 131299 Teacher Education <br> and Professional <br> Development, Specific Level | 131299 | MAT | Master of Arts in Teaching |
| :---: | :---: | :---: | :---: |
| 131312 Music Teacher <br> Education | 131312 | MM | Music Education |
|  | 131312 | PhD | Music Education |
| 131324 Drama and Dance Teacher Education | 131324 | MA | Dance Education |
|  | 131324 | MEd | Drama |
| 131399 Teacher Education <br> and Professional <br> Development, Specific Subje | 131399 | MEd | Latin |
| 160905 Spanish Language and Literature | 160905 | PB | Advanced Spanish Language and Hispanic Cultural St |
| 160999 Romance Languages, Literatures, and Linguistics, Other | 160999 | MA | Romance Languages and Literatures, French Education |
|  | 160999 | MA | Romance Languages and Literatures, Spanish Education |
|  | 160999 | MA | Romance Languages and Literatures, French |
|  | 160999 | MA | Romance Languages and Literatures, Spanish |
| 190701 Human <br> Development and Family <br> Studies, General | 190701 | MS | Human Development and Family Studies |
|  | 190701 | PhD | Human Development and Family Studies |


| 190708 Child Care and Support Services Management | 190708 | PB | Leadership in Early Care and Education |
| :---: | :---: | :---: | :---: |
| 190901 Apparel and Textiles, General | 190901 | MS | Consumer, Apparel, and Retail Studies |
|  | 190901 | PhD | Consumer, Apparel, and Retail Studies |
| 230101 English Language and Literature, General | 230101 | MA | English |
|  | 230101 | PhD | English |
| 231302 Creative Writing | 231302 | MFA | Creative Writing |
| 240101 Liberal Arts and Sciences/Liberal Studies | 240101 | MA | Liberal Studies |
| 250101 Library and Information Science | 250101 | MLIS | Library and Information Studies |
| 260101 Biology/Biological Sciences, General | 260101 | MS | Biology |
| 260202 Biochemistry | 260202 | MS | Biochemistry |
| 260299 Biochemistry, <br> Biophysics and Molecular <br> Biology, Other | 260299 | PhD | Medicinal Biochemistry |
| 260806 Human/Medical Genetics | 260806 | MS | Genetic Counseling |
| 269999 Biological and <br> Biomedical Sciences, Other | 269999 | PhD | Environmental Health Science |
| 270101 Mathematics, General | 270101 | MA | Mathematics |
|  | 270101 | PB | Statistics |


| 270303 Computational <br> Mathematics | 270303 | PhD | Computational Mathematics |
| :---: | :---: | :---: | :---: |
| 301101 Gerontology | 301101 | MS | Gerontology |
|  | 301101 | PB | Gerontology |
| 301701 Behavioral Sciences | 301701 | PB | BioMusic Post-Baccalaureate Certification Program |
| 301901 Nutrition Sciences | 301901 | MS | Nutrition and Foodservice Systems |
|  | 301901 | PhD | Nutrition |
|  | 301901 | PB | Post-Bacc Certificate: <br> Dietetic Internship |
|  | 301901 | PB | Didactic Program in Nutrition and Dietetics |
| 310301 Parks, Recreation and Leisure Facilities Management, General | 310301 | MS | Parks and Recreation Management |
| 310505 Kinesiology and Exercise Science | 310505 | MS | Kinesiology |
|  | 310505 | EdD | Kinesiology |
|  | 310505 | PhD | Kinesiology |
| 400501 Chemistry, General | 400501 | MS | Chemistry |
| 409999 Physical Sciences, Other | 409999 | MS | Nanoscience |
|  | 409999 | PhD | Nanoscience |
| 420101 Psychology, General | 420101 | MA | Psychology |


|  | 420101 | PhD | Psychology |
| :---: | :---: | :---: | :---: |
| 440201 Community Organization and Advocacy | 440201 | MA | Conflict and Peace Studies |
|  | 440201 | PB | Conflict and Peace Studies |
| 440401 Public Administration | 440401 | MPA | Public Affairs |
|  | 440401 | PB | Nonprofit Management |
| 440701 Social Work | 440701 | MSW | Social Work (Jt with NCA\&TSU) |
| 450701 Geography | 450701 | MA | Applied Geography |
|  | 450701 | PhD | Geography |
|  | 450701 | PB | Global and Regional Studies Geography |
| 451001 Political Science and Government, General | 451001 | MA | Political Science |
|  | 451001 | PB | Urban and Economic Development |
| 451101 Sociology | 451101 | MA | Sociology |
| 500301 Dance, General | 500301 | MA | Dance |
|  | 500301 | MFA | Dance |
| 500408 Interior Design | 500408 | MS | Interior Architecture |
| 500501 Drama and Dramatics/Theatre Arts, General | 500501 | MFA | Drama |
| 500702 Fine/Studio Arts, | 500702 | MFA | Studio Arts |


| General |  |  |  |
| :---: | :---: | :---: | :---: |
| 500901 Music, General | 500901 | PB | Post-Baccalaureate Certificate in Music Education |
| 500903 Music Performance, General | 500903 | MM | Performance |
|  | 500903 | DMA | Performance |
|  | 500903 | PB | Music Composition |
|  | 500903 | PB | Post-Baccalaureate <br> Certificate in Jazz Studies |
| 500904 Music Theory and Composition | 500904 | MM | Composition |
|  | 500904 | MM | Theory |
|  | 500904 | PB | Post-Baccalaureate <br> Certificate in Music Theory |
|  | 500904 | PM | Music Theory Pedagogy |
| 500905 Musicology and Ethnomusicology | 500905 | PB | Certificate in Ethnomusicology |
|  | 500905 | PB | Post-Baccalaureate Certificate in Musicology |
| 510201 Communication Sciences and Disorders, General | 510201 | PhD | Communication Sciences and Disorders |
| $510204$ <br> Audiology/Audiologist and Speech-Language Pathology/Pathologis | 510204 | MA | Speech-Language Pathology |
| 510701 Health/Health Care | 510701 | MSN/MBA | Health Management |


| Administration/Managemen t |  |  |  |
| :---: | :---: | :---: | :---: |
| 510913 Athletic <br> Training/Trainer | 510913 | MSAT | Athletic Training |
| 512207 Public Health <br> Education and Promotion | 512207 | MPH | Public Health |
|  | 512207 | DrPH | Community Health |
| 513801 Registered <br> Nursing/Registered Nurse | 513801 | PB | Gerontological Nursing |
| 513808 Nursing Science | 513808 | MSN | Nursing |
|  | 513808 | C | Post-Master's Certificate in Nursing |
|  | 513808 | PhD | Nursing |
|  | 513808 | PB | Nursing Administration |
|  | 513808 | PB | Nursing Case Management |
|  | 513808 | PB | Nursing Education |
|  | 513808 | PM | Nurse Anesthesia |
|  | 513808 | PM | Adult/Gerontological Nurse Practitioner-Primary Care |
| 513818 Nursing Practice | 513818 | DNP | Doctor of Nursing Practice |
| 520201 Business <br> Administration and Management, General | 520201 | MBA | Business Administration |
|  | 520201 | PB | Business Foundations |
| 520203 Logistics, Materials, and Supply Chain | 520203 | PB | Supply Chain, Logistics and |


| Management |  |  | Transportation Management |
| :--- | :--- | :--- | :--- |
| 520301 Accounting | 520301 | MS | Accounting |
| 520601 Business/Managerial <br> Economics | 520601 | MA | Applied Economics |
| 521201 Management <br> Information Systems, <br> General | 521201 | PhD | Economics |
| 540101 History, General | 540101 | MA | Information Systems |
|  | 540101 | PhD | History |
| UNC-OP |  |  |  |
| SDA/CIP.PR002/20MAY13 | 540101 | PB | History |

## APPENDICES

## Appendix A

## Academic Integrity Policy

The Academic Integrity Policy was created by faculty based on the core values and ideals of practice as recommended by the Center for Academic Integrity. The UNCG Faculty Senate reviewed and approved the Academic Integrity Policy. Students are responsible for becoming familiar with the Academic Integrity Policy in all its aspects and for indicating their knowledge and acceptance of the Policy by signing the Academic Integrity pledge for all major work submitted. Specific information on the Academic Integrity Policy and obligations of faculty and students may be found on the UNCG web site at academicintegrity.uncg.edu or by calling the Office of the Dean of Students at (336) 334-5514.

## Appendix B

## Guidelines for Good Practice in Graduate Education

## It is essential that graduate students:

- Conduct themselves in a mature, professional, and civil manner in all interactions with faculty and staff.
- Recognize that the faculty advisor provides the intellectual and instructional environment in which the student conducts research, and may, through access to teaching and research funds, also provide the student with financial support.
- Recognize that faculty have broad discretion to allocate their own time and other resources in ways which are academically productive.
- Recognize that the faculty advisor is responsible for monitoring the accuracy, validity, and integrity of the student's research. Careful, well-conceived research reflects favorably on the student, the faculty advisor, and the University.
- Exercise the highest integrity in taking examinations and in collecting, analyzing, and presenting research data.
- Acknowledge the contributions of the faculty advisor and other members of the research team to the student's work in all publications and conference presentations.
- Maintain the confidentiality of the faculty advisor's professional activities and research prior to presentation or publication, in accordance with existing practices and policies of the discipline.
- Take primary responsibility to inform themselves of regulations and policies governing their graduate studies.


## It is also imperative that faculty:

- Interact with students in a professional and civil manner in accordance with University policies governing nondiscrimination and sexual harassment.
- Impartially evaluate student performance regardless of religion, race, gender, sexual orientation, nationality, or other criteria that are not germane to academic evaluation.
- Serve on graduate student committees without regard to the race, gender, sexual orientation, or national origin of the graduate student candidate.
- Prevent personal rivalries with colleagues from interfering with their duties as graduate advisors, committee members, or colleagues.
- Excuse themselves from serving on graduate committees when there is an amorous, familial, or other relationship between the faculty member and the student that could result in a conflict of interest.
- Acknowledge student contributions to research presented at conferences, in professional publications, or in applications for copyrights and patents.
- Not impede a graduate student's progress toward the degree in order to benefit from the student's proficiency as a teaching or research assistant.
- Create in the classroom, lab, or studio supervisory relations with students that stimulate and encourage students to learn creatively and independently.
- Have a clear understanding with graduate students about their specific research responsibilities, including time lines for completion of research and the thesis or dissertation.
- Provide verbal or written comments and evaluation of students' work in a timely manner.
- Discuss laboratory, studio, or departmental authorship policy with graduate students in advance of entering into collaborative projects.
- Refrain from requesting students to do personal work (mowing lawns, baby-sitting, typing papers, etc.) without appropriate compensation.
- Familiarize themselves with policies that affect their graduate students.

Graduate education is structured around the transmission of knowledge at the highest level. In many cases, graduate students depend on faculty advisors to assist them in identifying and gaining access to financial and/or intellectual resources which support their graduate programs.

In some academic units, the student's specific advisor may change during the course of the student's program. The role of advising may also change and become a mentoring relationship. The reward of finding a faculty mentor implies that the student has achieved a level of excellence and sophistication in the field, or exhibits sufficient promise to merit the more intensive interest, instruction, and counsel of faculty.

## To this end, it is important that graduate students:

- Devote an appropriate amount of time and energy toward achieving academic excellence and earning the advanced degree.
- Be aware of time constraints and other demands imposed on faculty members and program staff.
- Take the initiative in asking questions that promote understanding of the academic subjects and advance the field.
- Communicate regularly with faculty advisors, especially in matters related to research and progress within the graduate programs.


## Faculty advisors, on the other hand, should:

- Provide clear maps of the requirements each student must meet, including course work, languages, research tools, examinations, and thesis or dissertation, and delineating the amount of time expected to complete each step.
- Evaluate student progress and performance in regular and informative ways consistent with the practice of the field.
- Help students develop artistic, interpretive, writing, verbal, and quantitative skills, when appropriate, in accordance with the expectations of the discipline.
- Assist graduate students to develop grant-writing skills, where appropriate.
- Take reasonable measures to ensure that each graduate student initiates thesis or dissertation research in a timely fashion.
- When appropriate, encourage graduate students to participate in professional meetings or perform or display their work in public settings.
- Stimulate in each graduate student an appreciation of teaching.
- Create an ethos of collegiality so that learning takes place within a community of scholars.
- Prepare students to be competitive for employment that includes portraying a realistic view of the field and the market at any given time and making use of professional contacts for the benefit of their students, as appropriate.

In academic units, faculty advisors support the academic promise of graduate students in their program. In some cases, academic advisors are assigned to entering graduate students to assist them in academic advising and other matters. In other cases, students select faculty advisors in accordance with disciplinary interest or research expertise. Advising is manifold in its scope and breadth and may be accomplished in many ways.

A student's academic performance and a faculty member's scholarly interests may coincide during the course of instruction and research. As the faculty-graduate student relationship matures and intensifies, direct collaborations may evolve which entail the sharing of authorship or rights to intellectual property developed in research or other creative or artistic activity. Such collaborations are encouraged and are a desired outcome of the mentoring process.

## Appendix C

## UNCG's Vision for Teaching and Learning

UNCG embraces student learning as its highest priority and provides exemplary learning environments. The University establishes a diverse community of learning in which individual differences are valued and interactions are encouraged in an atmosphere of mutual respect.

The faculty are committed to introducing students to the most important knowledge and research in their disciplines, fostering intellectual depth and breadth, and opening students to new possibilities for understanding themselves and the world. The faculty employ the growing body of knowledge about learning and work continually to evaluate and improve their teaching methods and materials. UNCG views learning as a shared responsibility, and accordingly,

- maintains clear, high and consistent learning goals,
- provides a variety of opportunities which foster intellectual growth,
- empowers individuals to take responsibility for their own learning,
- recognizes and supports diverse learning styles and levels of development,
- incorporates appropriate informational and instructional technologies,
- encourages the integration of knowledge across disciplines, and
- utilizes assessment, evaluation and feedback to improve teaching and learning.

UNCG expects all students to communicate clearly and to make effective use of technology appropriate to their studies. Students are encouraged to be actively engaged in their education. UNCG graduates should be ready to continue as lifelong learners and to face the challenges that will confront them as responsible citizens of the state, the nation and the world.

## Appendix D

## Guidelines for Graduate Distance Learning Courses

In this era of rapid technological advances and the changing needs of traditional and nontraditional students, we recognize the need (and desirability) of taking courses and programs to our constituency more often and in different forms. Many distance learning courses and programs will be delivered in traditional fashion, but at distant sites; other courses will rely on Web and video technologies for most or all of their delivery. Further, it is impossible to know what additional, desirable technologies will emerge in the future. Regardless of how learning takes place, the quality of courses must be assured to students. In this light, the following assurances are warranted:

## Departmental/Unit Responsibility:

1. Academic departments will be responsible for maintaining the same high standards for all courses, regardless of the mode of delivery.
2. Academic departments/units are responsible for assuring that distance learning delivery of graduate courses, including electronically delivered instruction, is comparable in quality and content to the corresponding traditional campus instruction.
3. Essential student services and course-related materials (books, journals, computer facilities, laboratories and other resource material) are accessible at all sites.
4. Fair and appropriate staffing policies are adopted by the delivering unit as it relates to distance and electronic instruction.
5. Departments/units using distance or electronically delivered instruction will describe a process for how and when courses and programs will be evaluated. In general, courses and programs will be evaluated on schedules that are the same or similar to those used with traditionally taught courses/programs.
6. Courses and programs will be assessed regularly, based on standards determined by departmental units. Delivery methods and content (as well as those aspects of courses evaluated in traditional courses) will be assessed regularly.

## Administrative Responsibility:

1. Although distance and electronically delivered courses must be identified in the UNCG database of courses, they will not be so distinguished on students' transcripts from courses delivered in more traditional ways.
2. Degree programs that require students to complete more than one-third of its hours through distance learning will consult with the Graduate Studies Committee in advance.
3. Resources will be made available to assist faculty who wish to place courses/programs on the Web. In this manner, students and faculty can be assured that technologies are being used most appropriately.
4. Faculty will receive the same courseload credit for courses taught through various distance delivery media as for those taught traditionally.

## Faculty/Student Responsibility:

1. Course/program prerequisites clearly describe any technical/technological skills necessary for course participation. Any hardware or software requirements are included in this description. This information should be included in a course syllabus or other appropriate document.
2. Any required (or desirable) supplemental materials (e.g., library requirements, laboratory space/specifications, etc.) will be clearly described.
3. Courses/programs employ explicit strategies that promote interaction between faculty and students and among students. Student-faculty interactions include faculty availability ("office hours") via face-to-face, e-mail, or telephone meetings.
4. Student assessment will consider any limitations of the delivery method, like security, graphics resolution, audio difficulties, etc. Assessment strategies should be tailored to the specific needs of students, site and delivery mode, and should be examined during the normal course of evaluation (e.g., should not be separate from typical course evaluation procedures).

## Appendix E

## Policy on Discriminatory Conduct

The University of North Carolina at Greensboro is committed to the principle that educational and employment decisions should be based on an individual's abilities and qualifications and should not be based on personal characteristics or beliefs that have no relevance to academic ability or to job performance. Accordingly, UNCG supports policies, curricula and co-curricular activities that encourage understanding of and appreciation for all members of its community. UNCG will not tolerate any harassment of, discrimination against, or disrespect for persons. UNCG is committed to equal opportunity in education and employment for all persons regardless of race, color, creed, religion, gender, age, national origin, disability, military veteran status, political affiliation or sexual orientation

This policy applies internally as well as to the University's relationships with outside organizations, except to the extent that those organizations, including the federal and State government, the military, ROTC, or private employers who do not yet recognize sexual orientation as protected.

The University's educational and employment practices are consistent with Section 103 of The Code of The University of North Carolina. In addition, the University complies with North Carolina General Statutes 126-16 and

126-17, Title VII of the Civil Rights Act of 1964, as amended, the Civil Rights Restoration Act of 1988, Title IX of the Education Amendments of 1972, the Rehabilitation Act of 1973, the Americans with Disabilities Act of 1990, the Vietnam Era Veteran's Readjustment Assistance Act of 1974, and other Federal and State laws relating to discrimination in educational programs and employment. In accord with Executive Order 11246, the University has in place an Affirmative Action Plan which states the University's commitment to the concept and practice of equal employment opportunity for all persons regardless of race, color, creed, religion, gender, age, national origin, disability, military veteran status, political affiliation or sexual orientation.

Any employee who believes he or she has been treated unfairly based on any of the above characteristics should contact his or her immediate supervisor, or the next level supervisor if the immediate supervisor is the subject of the allegation. Students should contact the Office of Student Affairs.

Retaliatory action of any kind will not be tolerated against any person for making a good faith report of discrimination or on the basis of that person's participation in any allegation, investigation or proceeding related to the report of discriminatory conduct. Every UNCG employee and student is charged with the responsibility to be aware of and abide by this policy. Failure to abide by this policy may subject the violator to disciplinary action up to and including dismissal.

The UNC Greensboro discriminatory conduct policy includes protection for transgendered individuals, and actual or perceived gender identity or expression, within its prohibited discriminatory conduct.

## Appendix $F$

## Drug Policy and Operational Procedures

## I. Policy on Illegal Drugs

The University of North Carolina at Greensboro seeks to maintain an environment that supports the pursuit and dissemination of knowledge. All members of the academic community, including students, faculty, and staff mem7bers, share responsibility for protecting the academic environment by exemplifying high standards of professional and personal conduct. Use of illegal drugs by any member of the community interferes with the activities through which the goals of the University can be realized. Therefore, such practices will not be tolerated. The University will take all actions necessary, consistent with law and University policy, to eliminate the use of illegal drugs from the University community.
This policy has been developed in accord with "The University of North Carolina Policy on Illegal Drugs," adopted by the Board of Governors January 15, 1988 and is available online through the UNC Policy Manual at http://www.northcarolina.edu/content.php/legal/policymanual/uncpolicymanual_1300_1.htm. The Policy establishes the framework for programs designed to educate the campus community on the harmful effects of illegal substances and to assist afflicted persons in their efforts to become rehabilitated. It also provides guidance for punishing violators.

## II. Applicability

This policy is applicable to the following: students, faculty, senior administrative officers, non-faculty EPA employees (non-faculty personnel whose employment is exempt from the State Personnel Act), and SPA employees (staff personnel whose employment is subject to the State Personnel Act).

## III. Notice

Article 5 of Chapter 90 of the North Carolina General Statutes makes it a crime to possess, manufacture, sell, or deliver or possess with intent to sell or deliver a controlled substance. N.C.G.S. 90-95. As citizens, all members of the University community are expected to know and comply with these laws. The North Carolina General Statutes are readily available in the Library or online at http://www.ncga.state.nc.us/gascripts/Statutes/Statutes.asp.
This Policy shall be publicized in catalogs and other materials prepared for all enrolled and prospective students and in appropriate materials distributed to faculty members, senior administrative officers, non-faculty EPA employees, and SPA employees.

## IV. Educational and Rehabilitation Programs

The University shall establish and maintain a program of education designed to help all members of the University community avoid involvement with illegal drugs.

This program shall emphasize these subjects:

- The incompatibility of the use or sale of illegal drugs with the goals of the University;
- The legal consequences of involvement with illegal drugs;
- The medical implications of the use of illegal drugs; and
- The ways in which illegal drugs jeopardize an individual's present accomplishments and future opportunities.

The University shall provide information about drug counseling and rehabilitative services available to University students and employees either through campus-based programs or through community-based organizations.

Persons who voluntarily avail themselves of these University services or programs are assured that applicable professional standards of confidentiality will be observed.

## V. Disciplinary Proceedings and Sanctions

## A. Preliminary Determinations

The University will initiate a disciplinary proceeding against a student, faculty member, senior administrative officer, EPA non-faculty employee, or SPA employee whenever both of these requirements are met:

- There is a reasonable basis for believing that the person has violated this policy or North Carolina law pertaining to controlled substances; and
- The alleged conduct is deemed to harm the interests of the University.

The first requirement above, can be satisfied by either of the following:

- A conviction or a guilty plea resulting from criminal prosecution; or
- Independent evidence obtained by University officials including police officers. (See also section VIA.)

It should be noted that though an offense may be the subject of legal action by the civil authorities, University officials are nonetheless free to initiate disciplinary action that may result in additional penalties.

When the above requirements are met, the University will initiate disciplinary action against the alleged violator according to established procedures that safeguard the rights and interests of students and employees. Procedures will vary, depending on classification of the person facing disciplinary action:

Students. Student Code of Conduct for The University of North Carolina at Greensboro, approved by the Chancellor.

Faculty Members. The University of North Carolina at Greensboro's Regulations on Academic Freedom, Tenure, and Due Process, Section 7. Discharge or Imposition of Serious Sanction, adopted by the Board of Trustees.

Senior Administrative Officers. Policies Concerning Senior Administrative Officers of The University of North Carolina, adopted by the Board of Governors.

Non-Faculty EPA Employees. Personnel Policies for Designated Employment Exempt from the State Personnel Act, adopted by the Board of Trustees.

SPA Employees. Relevant regulations of the Office of State Personnel.
Decisions reached by these processes are reviewable according to normal appeal mechanisms.
B. Penalties for Students, Faculty, Senior Administrative Officers, and Non-Faculty EPA Employees

For these persons, the penalties to be imposed may range from written warnings with probationary status to expulsions from enrollment and discharges from employment. The following minimum penalties shall be imposed for the particular offenses described:

1. Manufacturing, Sale, or Delivery of Illegal Drugs

The term "trafficking" is used in its generic sense, not in its specific application to selling, manufacturing, delivering, transporting, or possessing controlled substances in specified amounts that is the subject of North Carolina General Statute 90-95(h).
For the illegal manufacture, sale, or delivery, or possession with intent to manufacture, sell or deliver, of any controlled substance identified in Schedule I, N.C. General Statutes 90-89, or Schedule II, N.C. General Statutes 9090 (including, but not limited to, heroin, mescaline, lysergic acid diethylamide, opium, cocaine, amphetamine, methaqualone), any student shall be expelled and any faculty member, senior administrative officer, or non-faculty EPA employee shall be discharged.
For a first offense involving the illegal manufacture, sale or delivery, or possession with intent to manufacture, sale or delivery, of any controlled substance identified in Schedules III through VI, N.C. General Statutes 90-91 through 90-94, (including, but not limited to, marijuana, pentobarbital, codeine) the minimum penalty shall be suspension from enrollment or from employment for a period of at least one semester or its equivalent.
For a second offense, any student shall be expelled and any faculty member, senior administrative officer, or nonfaculty EPA employee shall be discharged.
2. Illegal Possession of Drugs

For a first offense involving the illegal possession of any controlled substance identified in Schedule I, N.C. General Statute 90-89, or Schedule II, N.C. General Statutes 90-90, the minimum penalty shall be suspension from enrollment or from employment for a period of at least one semester or its equivalent.
For a first offense involving the illegal possession of any controlled substance identified in Schedules III through VI, N.C. General Statutes 90-91 through 90-94, the minimum penalty shall be probation, for a period to be determined on a case-by-case basis. A person on probation must agree to participate in a drug education and counseling program, consent to regular drug testing at his/her own expense, and accept such other conditions and restrictions, including a program of community service, as the Chancellor or the Chancellor's designee deems appropriate. Refusal or failure to abide by the terms of probation shall result in suspension from enrollment or from employment for any unexpired balance of the prescribed period of probation.
For second or other subsequent offenses involving the illegal possession of controlled substances, progressively more severe penalties shall be imposed, including expulsion of students and discharge of faculty members, senior administrative officers, or EPA non-faculty employees.

## 3. Suspension Pending Final Disposition

When a student, faculty member, senior administrative officer, or non-faculty EPA employee has been charged by the University with a violation of policies concerning illegal drugs, he/she may be suspended from enrollment or employment before initiation or completion of regular disciplinary proceedings if, assuming the truth of the charges, the Chancellor or, the Chancellor's designee, concludes that the person's continued presence within the University community would constitute a clear and immediate danger to the health or welfare of other members of the University community; provided, that if such a suspension is imposed, an appropriate hearing of the charges against the suspended person shall be held as promptly as possible thereafter.

## 4. Penalties for SPA Employees

Discipline for SPA employees is prescribed in regulations published by the State Personnel Commission. Violations of this Policy and of North Carolina state law on controlled substances shall deem "personal misconduct" actionable under these rules. Penalties for offenses described herein will be in accordance with state policy.

## VI. Operational Procedures

Under the University's Policy on Illegal Drugs (hereafter referred to as "the Policy"), disciplinary proceedings against a student will be initiated when two requirements are met:

- There is a reasonable basis for believing that the person has violated this Policy or North Carolina law pertaining to controlled substances; and
- The alleged conduct is deemed to harm the interests of the University.

The first requirement, above, can be satisfied by either of the following:

- A conviction or a guilty plea resulting from criminal prosecution, or
- Independent evidence obtained by University officials, including police officers.

This statement establishes certain procedures and guidelines for determining when the second requirement is met.

## A. Conduct Occurring Beyond Campus Boundaries

Alleged conduct involving the illegal use of drugs occurring beyond the boundaries of the campus may be considered harmful to the University. The Administrative Hearing Officer in the Division of Student Affairs will initiate disciplinary action when these minimal conditions are present:

- Such alleged conduct occurs during a period in which the student is actively enrolled as a student at the University; and
- Such alleged conduct has resulted in charges of possession/trafficking made by a civil authority.

Other conduct occurring beyond the campus may also be actionable under the Policy on Illegal Drugs, depending on the circumstances.

## B. Conduct Occurring Within Campus Boundaries

The officer will report the incident to the appropriate University office, as follows, for consideration of whether conduct action under the Policy should be taken:

- All University Police and personnel encountering instances of conduct involving illegal drugs will make reports to the Associate Dean of Students for disciplinary action.
- The report of drug-related behavior to the Associate Dean of Students may be accompanied by an explanation of mitigating factors. Such mitigating factors may include, but are not limited to, the isolated or singular character of the incident as evidenced by a student's unusual conduct in comparison with what is known to be his/her normal behavior, and the absence of prior reports of similar acts by such student.

Charges will be made and hearings will be held in accord with the Student Code of Conduct published by the Division of Student Affairs and contained in the UNCG Calendar/Student Handbook and on the University's Web site (http://studentconduct.uncg.edu/).

## Appendix G

## Residence Status for Tuition Purposes

The tuition charge for persons who qualify as North Carolina residents for tuition purposes is substantially less than that for nonresidents. An interpretation of the North Carolina law (General Statute 116-143.1) governing residence classification for tuition purposes follows. A more complete explanation of the statute and the procedures under the statute is contained in A Manual to Assist the Public Higher Education Institutions of North Carolina in the Matter of Student Residence Classification for Tuition Purposes. The Manual is the controlling administrative statement of policy on this subject. Copies of the Manual are available for inspection in the Office of the Provost, the Library, and online (http://www.uncg.edu/pvt/residency/pdf/residency_manual.pdf).

The basis for determining the appropriate tuition charge rests upon whether a student is a resident or a nonresident for tuition purposes. Each student must make a statement as to the length of his or her residence in North Carolina, with assessment by the institution of that statement to be conditioned by the following.

## A. Residence

To qualify as a resident for tuition purposes, a person must become a legal resident and remain a legal resident for at least twelve months immediately prior to classification. Thus, there is a distinction between legal residence and residence for tuition purposes. Furthermore, twelve months legal residence means more than simple abode in North Carolina. In particular it means maintaining a domicile (permanent home of indefinite duration) as opposed to "maintaining a mere temporary residence or abode incident to enrollment in an institution of higher education." The burden of establishing facts which justify classification of a student as a resident entitled to instate tuition rates is on the applicant for such classification, who must show his or her entitlement by the preponderance (the greater part) of the residentiary information.

## B. Initiative

Being classified a resident for tuition purposes is contingent on the student's seeking such status and providing all information that the institution may require in making the determination. Failure to provide such information results in an out-of-state classification.

## C. Parents' Domicile

If an individual, irrespective of age, has living parent(s) or court-appointed guardian of the person, the domicile of such parent(s) or guardian is, prima facie, the domicile of the individual; but this prima facie evidence of the individual's domicile may or may not be sustained by other information. Further, nondomiciliary status of parents is not deemed prima facie evidence of the applicant child's status if the applicant has lived (though not necessarily legally resided) in North Carolina for the five years preceding enrollment or re-registration.

## D. Effect of Marriage

Marriage alone does not prevent a person from becoming or continuing to be a resident for tuition purposes, nor does marriage in any circumstance insure that a person will become or continue to be a resident for tuition purposes. Marriage and the legal residence of one's spouse are, however, relevant information in determining residentiary intent. Furthermore, if both a husband and wife are legal residents of North Carolina and if one of them has been a legal resident longer than the other, then the longer duration may be claimed by either spouse in meeting the twelve-month requirement for in-state tuition status.

## E. Military Personnel

A North Carolinian who serves outside the State in the armed forces does not lose North Carolina domicile simply by reason of such service. North Carolina residents who serve outside the State may prove retention or establishment of residence by reference, as in other cases, to residentiary acts accompanied by residentiary intent.

In addition, a separate North Carolina statute (G.S. 116-143.3) affords tuition rate benefits to certain military personnel and their dependents, even though not qualifying for the in-state tuition rate by reason of twelve months legal residence in North Carolina. Members of the armed services, while stationed on active duty and concurrently living in North Carolina, may be charged the in-state tuition rate. A dependent relative of a service member stationed in North Carolina is also eligible to be charged the in-state tuition rate while the dependent relative is living in North Carolina with the service member and if the dependent relative has met any requirement of the Selective Service System applicable to the dependent relative.

Qualifying active duty military members and the dependent relatives thereof are extended a "military grace period" if the military member is reassigned outside of North Carolina or retires while the member or dependent is enrolled in an institution of higher education. During this grace period, the military member or dependent relative thereof is eligible for the in-state tuition rate as long as he or she is continuously enrolled in the degree or other program in which he or she was enrolled at the time of the reassignment or retirement. Qualifying members and dependants also remain eligible to pay the in-state rate if the active duty member receives Honorable Discharge so long as the member or dependent establishes legal residence in North Carolina within thirty (30) days and is continuously enrolled in the degree program in which he or she was enrolled at the time of the Honorable Discharge.

Additionally, any nonresident North Carolina Guard Members in reserve or active status are eligible for the in-state rate and all applicable mandatory fees.
These tuition benefits may be enjoyed only if the applicable requirements for admission have been met; these benefits alone do not provide the basis for receiving those derivative benefits under the provisions of the residence classification statute reviewed elsewhere in this summary. Application for this benefit must be made prior to the beginning of the first enrolled term for which the benefit is sought.

## F. Grace Period

If a person (1) has been a bona fide legal resident of the required duration, (2) has consequently been classified a resident for tuition purposes, and (3) has subsequently lost North Carolina legal residence while enrolled at a public institution of higher education, that person may continue to enjoy the in-state tuition rate for a grace period of twelve months measured from the date on which North Carolina legal residence was lost, provided the loss of in-state residence status is not a result of institutional error. If the twelve months ends during an academic term
for which the person is enrolled at a State institution of higher education, the grace period extends, in addition, to the end of that term. The fact of marriage to one who continues domiciled outside North Carolina does not by itself cause loss of legal residence marking the beginning of the grace period.

## G. Minors

Minors (persons under 18 years of age) usually have the domicile of their parents, but certain special cases are recognized by the residence classification statute in determining residence for tuition purposes.
(a) If a minor's parents live apart, the minor's domicile is deemed to be North Carolina for the time period(s) that either parent, as a North Carolina legal resident, may claim and does claim the minor as a tax dependent, even if other law or judicial act assigns the minor's domicile outside North Carolina. A minor thus deemed to be a legal resident will not, upon achieving majority before enrolling at an institution of higher education, lose North Carolina legal residence if that person (1) upon becoming a legal adult "acts, to the extent that the person's degree of actual emancipation permits, in a manner consistent with bona fide legal residence in North Carolina" and (2) "begins enrollment at an institution of higher education not later than the fall academic term following completion of education prerequisite to admission at such institution."
(b) If a minor has lived for five or more consecutive years with relatives (other than parents) who are domiciled in North Carolina and if the relatives have functioned during this time as if they were personal guardians, the minor will be deemed a resident for tuition purposes for an enrolled term commencing immediately after at least five years in which these circumstances have existed. If under this consideration a minor is deemed to be a resident for tuition purposes immediately prior to his or her eighteenth birthday, that person on achieving majority will be deemed a legal resident of North Carolina of at least twelve months duration. This provision acts to confer in-state tuition status even in the face of other provisions of law to the contrary; however, a person deemed a resident of twelve months duration pursuant to this provision continues to be a legal resident of the State only so long as he or she does not abandon North Carolina domicile.

## H. Lost but Regained Domicile

If a student ceases enrollment at or graduates from an institution of higher education while classified a resident for tuition purposes and then both abandons and reacquires North Carolina domicile within a twelve-month period, that person, if he or she continues to maintain the reacquired domicile into re-enrollment at an institution of higher education, may re-enroll at the in-state tuition rate without having to meet the usual twelve-month durational requirement. However, any one person may receive the benefit of the provision only once.

## I. Change of Status

A student admitted to initial enrollment in an institution (or permitted to re-enroll following an absence from the institutional program which involved a formal withdrawal from enrollment) must be classified by the admitting institution either as a resident or as a nonresident for tuition purposes prior to actual enrollment. A residence status classification once assigned (and finalized pursuant to any appeal properly taken) may be changed thereafter (with corresponding change in billing rates) only at intervals corresponding with the established primary divisions of the academic year.

## J. Transfer Students

When a student transfers from one North Carolina public institution of higher education to another, he or she is treated as a new student by the institution to which he or she is transferring and must be assigned an initial residence status classification for tuition purposes.

## K. Aliens

Aliens lawfully admitted into the United States for permanent residence are subject to the same considerations as citizens in the determination of residentiary status for tuition purposes. Certain classes of both resident and nonresident aliens are subject to these same considerations, but certain classes are not. More complete information on the residence classification of aliens may be obtained from the Manual or from the Office of the Provost.

## L. North Carolina Public School Teachers

Under separate statute (G.S. 116-143.5), certain North Carolina public school teachers (or other personnel paid on the teacher salary schedule) are eligible to be charged the in-state tuition rate for courses relevant to teacher certification or professional development, irrespective of their length of legal residence. To qualify, the applicant must be a legal resident of North Carolina and employed full-time by a North Carolina public school. Application for this benefit must be made prior to the first day of classes of each academic term for which the benefit is sought.

## M. Tuition Waivers

A separate North Carolina statute (G.S. 115B) provides tuition waivers for the following persons: 1) legal North Carolina residents who are at least age $65 ; 2$ ) certain family members of deceased or totally and permanently disabled emergency workers of North Carolina; and 3) certain persons who are or were wards of the State of North Carolina. More complete information on this statute may be obtained from the Cashier's Office.

## N. Tuition Benefit for UNC Employees

A person who is a full-time employee of the University of North Carolina, or is the spouse or dependent child of a full-time employee of the University of North Carolina, and who is a legal resident of North Carolina, qualifies as a resident for tuition purposes without having maintained that legal residence for at least 12 months, immediately prior to his or her classifications as a resident for tuition purposes.

## O. Academic Common Market

The Academic Common Market is an agreement between participating institutions of the Southern Regional Education Board (SREB). The agreement enables students to pursue unique graduate majors offered at public institutions in the other SREB states while paying in-state tuition. If the public institutions in your home state do not offer graduate degree programs in your field of study, it may be possible to arrange a waiver of out-of-state tuition to attend a cooperating public institution of higher education in another participating state.

Each participating SREB state has a coordinator for the Academic Common Market. The state coordinator's name and address can be obtained by visiting the SREB Web site at https://register.rti.org/acm/ or by calling the SREB in Atlanta at (404) 875-9211 or by email at acm@northcarolina.edu.

Any student interested in participating in the Academic Common Market should contact the state coordinator in his or her home state. Additional information can also be found online at the Graduate School.

## P. Full Scholarship Students

Any undergraduate student who receives full scholarship to UNCG from entities recognized by the institution under G.S. 116-143.6 may be considered residents of North Carolina for all purposes by UNCG.
"Full scholarship" is defined as funding at least equivalent to the sum of: room (on-campus, double room), board (meal plan option that offers complete meal coverage), tuition (in-state, estimated in March prior to the fall semester), and fees (required class related fees).

The full scholarship rate will be determined by the Director of Financial Aid each March prior to the effective academic year. Please contact the Financial Aid Office for additional information

## Initial Classification

Every applicant for admission is required to make a statement as to the length of his or her legal residence in North Carolina. Every applicant is classified as a resident or nonresident for tuition purposes prior to actual matriculation by the admitting office making the initial classification. Those not claiming to be residents for tuition purposes are, of course, classified as out-of-state students (nonresidents) for tuition purposes. If there is insufficient information to support an applicant's claim to be a resident for tuition purposes, the admitting office will initially classify that applicant as a nonresident.
Subsequent Classification
A residency classification once assigned (and confirmed pursuant to any appeal properly taken) may be changed thereafter (with corresponding change in billing rates) only at intervals corresponding with the established primary
divisions of the academic year. A student who, due to subsequent events, becomes eligible for a change in classification, whether from out-of-state to in-state or the reverse, has the responsibility of applying for a reclassification in the Office of the Provost.

## Appeals

A student may appeal a residence classification assigned by the admitting office by submitting to the Office of the Provost a completed "Residence-and-Tuition Status Application" before the end of the term for which they wish to be considered. (Application forms may be obtained from the Office of the Provost or from any of the admitting offices.)

It is the responsibility of the student to pay tuition at the rate charged and billed while an appeal is pending. In effect, the student who is classified as a nonresident at the time of registration pays the nonresident rate. Conversely, if a student is classified as a resident at the time of billing, he or she pays the resident rate. Any necessary adjustments in the rate paid will be made at the conclusion of the appeal.

Students or prospective students who believe that they are entitled to be classified as residents for tuition purposes should be aware that the process of requests and appeals can take a considerable amount of time and that applications for classification should not be delayed until registration. Students who wish to receive a timely review of their residence status should submit their completed "Residence-and-Tuition Status Application" approximately 60-90 days in advance of the term for which they are seeking a review of their residence status. Applications are reviewed in the order in which they are received; failure to submit an application in a timely manner may delay the review process.

The Office of the Provost's determination of residence classification may be appealed to the Campus Residence Appeals Committee, and decisions of the Campus Residence Appeals Committee may be appealed to the State Residence Committee. A written statement of the appeals procedure is provided to every applicant or student receiving an adverse decision from the Office of the Provost.

