



## **BULLETIN**

### **2004-2005 GRADUATE CATALOG**

EAST CAROLINA UNIVERSITY BULLETIN (USPS 017-195)

Vol. 88 July 2004 No. 2

## PLEASE BRING THIS CATALOG WHEN YOU REGISTER

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East Carolina University 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, East Carolina University is open to people of all races and actively seeks to promote racial integration by recruiting and enrolling a larger number of black students. East Carolina University is an equal opportunity/affirmative action employer.

### UNIVERSITY TELEPHONE NUMBERS

University Operator: 252-328-6131  
Graduate Admissions: 252-328-6012  
Brody School of Medicine Admissions: 252-816-2202

This catalog is effective with the beginning of the academic year.

Courses normally meet one hour per week for each semester hour credit. The numbers in parentheses following the title for each course listed under the various programs, departments, and schools of the university indicate the semester hours credit. Exceptions to the rule, such as labs, are printed under course titles.

Prerequisites and corequisites for courses in section 7 of this catalog are indicated as follows: P if prerequisite; C if corequisite; P/C if prerequisite or corequisite. When P, C, or P/C is preceded by R, it is recommended but not required.

All provisions, regulations, degree programs, and course listings in effect when this catalog went to press are subject to revision by the appropriate governing bodies of East Carolina University. Students pursuing degree programs when such changes are instituted are expected to comply with the revisions that relate to their programs.

**COVER PHOTO:** In 2003, the university completed construction of the Science and Technology Building, which comprises 270,000 gross square feet of classrooms and labs to accommodate various disciplines including biology, chemistry, industrial technology and engineering.

**MAILING LISTS:** House Bill 13 of the General Assembly of North Carolina has made mandatory the following requirement concerning mailing lists: "The reviewed, updated, and corrected mailing lists shall be comprised only of those persons and organizations who, within the previous twelve months, have either requested that they be included in such a mailing list or have renewed a request that they be so included." Therefore, institutions, organizations, counselors, libraries, etc., desiring a copy of the catalog or bulletin must make a specific request each year. Address the request to the Graduate School, Ragsdale Hall, East Carolina University, Greenville, NC 27858-4353.

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## UNIVERSITY BULLETINS AND OTHER PUBLICATIONS

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The East Carolina University Bulletin is published by East Carolina University, Greenville, North Carolina 27858-4353. Periodicals postage is paid at Greenville, North Carolina 27858-4353. Postmaster: Send address changes to Office of Admissions, 106 Whichard Building, East Carolina University, Greenville, NC 27858-4353.

Bulletins may be obtained from the offices noted:

The View Book – Director of Admissions

Undergraduate Catalog – Student Stores

Graduate Catalog – Dean of the Graduate School

Graduate School Program Information – Dean of the Graduate School

Bulletins of the Division of Continuing Studies – Director of Continuing Studies

Distance Education Course Announcements

Noncredit Courses

The schedule of courses is available on-line at [www.onestop.ecu.edu](http://www.onestop.ecu.edu). Questions about course availability should be addressed to the Office of the Registrar.

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## UNIVERSITY CALENDARS 2004-2005\*

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Official university calendars, which incorporate any modifications to the printed calendars below, are maintained by the East Carolina University Faculty Senate office and may be accessed at <http://www.ecu.edu/fsonline>

### SUMMER SESSION 2004 FIRST TERM

(Actual class days: 4 Mondays, 6 Tuesdays, 5 Wednesdays, 5 Thursdays, 5 Fridays, 1 day for registration, 1 day for final examinations.)

<b>March 15, Monday</b>	Last day to apply for admission to Graduate School for first summer term.
<b>May 14, Friday</b>	Schedules canceled for all who have not paid fees by 4:00 p.m.
<b>May 17, Monday</b>	New student registration; schedule changes.
<b>May 18, Tuesday</b>	Classes begin; late registration; schedule changes.
<b>May 19, Wednesday</b>	Last day for late registration and schedule changes (drop and add) for first term.
<b>May 20, Thursday</b>	Last day for schedule changes (add only).
<b>May 31, Monday</b>	Holiday (no classes).
<b>June 1, Tuesday</b>	Last day for undergraduate students to drop term-length courses or withdraw from school without grades. Block courses may be dropped only during the first 40 percent of regularly scheduled class meetings.
<b>June 16, Wednesday</b>	Last day for graduate students to drop courses without grades.
<b>June 22, Tuesday</b>	Classes end. Last day for submission of grade replacement requests.
<b>June 23, Wednesday</b>	Final examinations.

### 11-WEEK SUMMER SESSION 2004

(Actual class days: 8 Mondays, 11 Tuesdays, 10 Wednesdays, 11 Thursdays, 10 Fridays, 1 day for final examinations.)

<b>March 15, Monday</b>	Last day to apply for admission to Graduate School for summer term.
<b>May 14, Friday</b>	Schedules canceled for all who have not paid fees by 4:00 p.m.
<b>May 17, Monday</b>	Registration; schedule changes.
<b>May 18, Tuesday</b>	Classes begin; late registration; schedule changes.
<b>May 19, Wednesday</b>	Last day for late registration and schedule changes (drop and add).
<b>May 20, Thursday</b>	Last day for schedule changes (add only).
<b>May 31, Monday</b>	Holiday (no classes).
<b>June 15, Tuesday</b>	Last day for undergraduate students to drop term-length courses or withdraw from school without grades. Block courses may be dropped only during the first 40 percent of regularly scheduled class meetings.
<b>June 23, Wednesday</b>	Midsummer Break (no classes).
<b>July 5, Monday</b>	Holiday (no classes).
<b>July 19, Monday</b>	Last day to submit thesis to Graduate School for completion of degree in the summer session.
<b>July 23, Friday</b>	Last day for graduate students to drop courses without grades.

<b>July 29, Thursday</b>	Classes end. Last day for submission of grade replacement requests.
<b>July 30, Friday</b>	Final examinations; last day to submit appeals for readmission for fall semester.

## **SECOND TERM**

(Actual class days: 4 Mondays, 5 Tuesdays, 5 Wednesdays, 6 Thursdays, 5 Fridays, 1 day for new student registration, 1 day for final examinations.)

<b>May 3, Monday</b>	Last day to apply for admission to Graduate School for second summer term.
<b>June 21, Monday</b>	Schedules canceled for all who have not paid fees by 4:00 p.m.
<b>June 23, Wednesday</b>	New student registration; schedule changes.
<b>June 24, Thursday</b>	Classes begin; late registration; schedule changes.
<b>June 25, Friday</b>	Last day for late registration and schedule changes (drop and add) for second term.
<b>June 28, Monday</b>	Last day for schedule changes (add only).
<b>July 5, Monday</b>	State holiday (no classes).
<b>July 8, Thursday</b>	Last day for undergraduate students to drop term-length courses or withdraw from school without grades. Block courses may be dropped only during the first 40 percent of regularly scheduled class meetings.
<b>July 19, Monday</b>	Last day to submit thesis to Graduate School for completion of degree in summer session.
<b>July 23, Friday</b>	Last day for graduate students to drop courses without grades.
<b>July 29, Thursday</b>	Classes end. Last day for submission of grade replacement requests.
<b>July 30, Friday</b>	Final examinations; last day to submit appeals for readmission for fall semester.



## FALL SEMESTER 2004

(Actual class days: 13 Mondays, 14 Tuesdays, 15 Wednesdays, 14 Thursdays, 14 Fridays, 13 Saturdays.  
Effective class days: 14 Mondays, 14 Tuesdays, 14 Wednesdays, 14 Thursdays, 14 Fridays, 13 Saturdays.)

<b>June 1, Monday</b>	Last day to apply for admission to Graduate School for the fall semester.
<b>July 30, Friday</b>	Last day to submit appeals for readmission for fall semester.
<b>August 13, Friday</b>	Fall semester fees accepted with late processing fee.
<b>August 16, Monday</b>	Schedules canceled for all who have not paid fees by 4:00 p.m.
<b>August 23, Monday</b>	Faculty meetings.
<b>August 24, Tuesday</b>	Advising, registration, and schedule adjustments.
<b>August 25, Wednesday</b>	Classes begin; late registration; schedule changes.
<b>August 31, Tuesday</b>	Last day for late registration and schedule changes (drop and add).
<b>September 1, Wednesday</b>	Last day for schedule changes (add only).
<b>September 6, Monday</b>	Labor Day holiday (no classes).
<b>September 8, Wednesday</b>	Last day to apply for graduation in December.
<b>October 1, Friday</b>	Last day for undergraduate students to drop term-length courses or withdraw from school without grades. Block courses may be dropped only during the first 40 percent of regularly scheduled class meetings.
<b>October 16-19 Saturday-Tuesday</b>	Fall Break.
<b>October 20, Wednesday</b>	8:00 a.m. Classes resume. State holiday makeup day (classes which would have met on Monday, September 6, will meet on this day so there will effectively be the same number of Mondays and Wednesdays as every other weekday during the semester; Wednesday classes will <u>not</u> meet.)
<b>October 25, Monday</b>	Advising for spring semester 2005 begins.
<b>November 1, Monday</b>	Registration for spring semester 2005 begins.
<b>November 17, Wednesday</b>	Last day to remove incompletes given during spring and/or summer session 2004.
<b>November 24-28 Wednesday-Sunday</b>	Thanksgiving break.
<b>November 29, Monday</b>	8:00 a.m. classes resume. Last day for graduate students to drop courses without grades.
<b>November 30, Tuesday</b>	Last day to submit thesis to the Graduate School for completion of degree in this term.
<b>December 8, Wednesday</b>	Classes end. Last day for submission of grade replacement requests.
<b>December 9, Thursday</b>	Final examinations begin.
<b>December 11, Saturday</b>	Commencement.
<b>December 16, Thursday</b>	10:00 p.m. Exams for fall semester close; last day to submit appeals for readmission for spring semester.

## EXAMINATION SCHEDULE

### FALL SEMESTER 2004

There will be no departure from the printed schedule, except as noted below: All examinations for one credit hour classes will be held during the last regular meeting of the class. Classes meeting more than three times a week will follow the examination schedule for MWF classes.

Examinations in classes meeting one night a week will be held at 7:30-10:00 p.m. on the first night of their usual meeting during the examination period (December 9-December 16). Examinations in classes meeting two or more nights a week and beginning before 8:00 p.m. will be held at 7:30-10:00 p.m. on the first night of their usual meeting during the examination period (December 9-December 16). Examinations in classes meeting two or more nights a week and beginning at or after 8:00 p.m. will be held at 7:30-10:00 p.m. on the second night of their usual meeting during the examination period (December 9-December 16). Classes meeting on Saturday morning will have the final examination on Saturday, December 11, at the usual hour at which the class meets.

Those classes beginning between hours or meeting more than one hour will have the final examination at the time scheduled of the hour during which the class begins (e.g., a 9:30-11:00 a.m. TTh class will meet the examination schedule of the 9:00 a.m. TTh class; an 8:00-10:00 a.m. MWF class will meet the examination schedule of the 8:00 a.m. MWF class)

Common examinations will be held according to the following schedule:

CHEM 1121, 1131, 1151, 1161, 2753, 2763 .....	5:00-7:30 Thursday, December 9
CHEM 0150, 1120, 1130, 1150, 1160 .....	5:00-7:30 Friday, December 10
FREN 1001, 1003; GERM 1001; SPAN 1001, 1004 .....	5:00-7:30 Monday, December 13
MATH 1065 .....	5:00-7:30 Tuesday, December 14
FREN 1002; GERM 1002; SPAN 1002, 1003 .....	5:00-7:30 Wednesday, December 15
CHEM 2753, 2763 .....	5:00-7:30 Thursday, December 16

#### Times class regularly meets

#### Time and day of examination

8:00 MWF	8:00 - 10:30 Monday, December 13
8:00 TTh	8:00 - 10:30 Tuesday, December 14
9:00 MWF	8:00 - 10:30 Wednesday, December 15
9:00 TTh (9:30)	8:00 - 10:30 Thursday, December 16
10:00 MWF	8:00 - 10:30 Friday, December 10
10:00 TTh	8:00 - 10:30 Thursday, December 9
11:00 MWF	11:00 - 1:30 Monday, December 13
11:00 TTh	11:00 - 1:30 Tuesday, December 14
12:00 MWF	11:00 - 1:30 Wednesday, December 15
12:00 TTh (12:30)	11:00 - 1:30 Thursday, December 16
1:00 MWF	11:00 - 1:30 Friday, December 10
1:00 TTh	11:00 - 1:30 Thursday, December 9
2:00 MWF	2:00 - 4:30 Monday, December 13
2:00 TTh	2:00 - 4:30 Tuesday, December 14
3:00 MWF (3:30)	2:00 - 4:30 Wednesday, December 15
3:00 TTh (3:30)	2:00 - 4:30 Thursday, December 16
4:00 MWF	2:00 - 4:30 Friday, December 10
4:00 TTh	2:00 - 4:30 Thursday, December 9
5:00 MWF	5:00 - 7:30 Monday, December 13
5:00 TTh	5:00 - 7:30 Tuesday, December 14

## SPRING SEMESTER 2005

(Actual class days: 14 Mondays, 14 Tuesdays, 14 Wednesdays, 14 Thursdays, 14 Fridays, 14 Saturdays.  
Effective class days: 14 Mondays, 14 Tuesdays, 14 Wednesdays, 14 Thursdays, 14 Fridays, 14 Saturdays.)

<b>October 15, Friday</b>	Last day to apply for admission to Graduate School for the spring semester.
<b>December 16, Thursday</b>	Last day to submit appeals for readmission for spring semester.
<b>December 30, Thursday</b>	Spring semester fees accepted with late processing fee.
<b>January 3, Monday</b>	Class schedules canceled for all who have not paid fees by 4:00 p.m.
<b>January 6, Thursday</b>	Advising and schedule adjustments.
<b>January 7, Friday</b>	Classes begin; late registration; schedule changes.
<b>January 13, Thursday</b>	Last day for late registration and schedule changes (drop and add).
<b>January 14, Friday</b>	Last day for schedule changes (add only).
<b>January 17, Monday</b>	State holiday (no classes).
<b>January 21, Friday</b>	Last day to apply for graduation in May.
<b>February 16, Wednesday</b>	Last day for undergraduate students to drop term-length courses or withdraw from school without grades. Block courses may be dropped only during the first 40 percent of regularly scheduled class meetings.
<b>March 13-20 Sunday - Sunday</b>	Spring Break.
<b>March 21, Monday</b>	8:00 a.m. Classes resume; advising for summer session and fall semester 2005 begins.
<b>March 25-26 Friday-Saturday</b>	State holiday (no classes).
<b>March 28, Monday</b>	Registration for summer session and fall semester 2005 begins.
<b>April 4, Monday</b>	Last day to remove incompletes given during fall semester 2004.
<b>April 13, Wednesday</b>	Last day for graduate students to drop courses without grades.
<b>April 14, Thursday</b>	Last day to submit thesis to the Graduate School for completion of degree in this term.
<b>April 25, Monday</b>	Classes end. Last day for submission of grade replacement requests.
<b>April 26, Tuesday</b>	Reading Day.
<b>April 27, Wednesday</b>	Final examinations begin.
<b>May 4, Wednesday</b>	10:00 p.m. Exams for spring semester close.
<b>May 7, Saturday</b>	Commencement.

EXAMINATION SCHEDULE  
SPRING SEMESTER 2005

There will be no departure from the printed schedule, except as noted below: All examinations for one credit hour classes will be held during the last regular meeting of the class. Classes meeting more than three times a week will follow the examination schedule for MWF classes.

Examinations in classes meeting one night a week will be held at 7:30-10:00 p.m. on the first night of their usual meeting during the examination period (April 27-May 5). Examinations in classes meeting two or more nights a week and beginning before 8:00 p.m. will be held at 7:30-10:00 p.m. on the first night of their usual meeting during the examination period (April 27-May 5). Examinations in classes meeting two or more nights per week and beginning at or after 8:00 p.m. will be held at 7:30-10:00 p.m. on the second night of their usual meeting during the examination period (April 27-May 5). Classes meeting on Saturday morning will have the final examination on Saturday, May 1, at the usual hour at which the class meets.

Those classes beginning between hours or meeting more than one hour will have the final examination at the time scheduled of the hour during which the class begins (e.g., a 9:30-11:00 a.m. TTh class will meet the examination schedule of the 9:00 a.m. TTh class; an 8:00-10:00 a.m. MWF class will meet the examination schedule of the 8:00 a.m. MWF class)

Common examinations will be held according to the following schedule:

CHEM 0150, 1120, 1130, 1150, 1160 .....	5:00-7:30 Wednesday, April 27
CHEM 1121, 1131, 1151, 1161, 2753, 2763 .....	5:00-7:30 Thursday, April 28
FREN 1001, 1003; GERM 1001; SPAN 1001, 1004 .....	5:00-7:30 Friday, April 29
MATH 1065 .....	5:00-7:30 Monday, May 2
FREN 1002; GERM 1002; SPAN 1002, 1003 .....	5:00-7:30 Tuesday, May 3

Times class regularly meets	Time and day of examination
8:00 MWF	8:00 - 10:30 Wednesday, April 27
8:00 TTh	8:00 - 10:30 Thursday, April 28
9:00 MWF	8:00 - 10:30 Friday, April 29
9:00 TTh (9:30)	8:00 - 10:30 Tuesday, May 3
10:00 MWF	8:00 - 10:30 Monday, May 2
10:00 TTh	8:00 - 10:30 Wednesday, May 4
11:00 MWF	11:00 - 1:30 Wednesday, April 27
11:00 TTh	11:00 - 1:30 Wednesday, May 4
12:00 MWF	11:00 - 1:30 Friday, April 29
12:00 TTh (12:30)	11:00 - 1:30 Tuesday, May 3
1:00 MWF	11:00 - 1:30 Monday, May 2
1:00 TTh	11:00 - 1:30 Thursday, April 28
2:00 MWF	2:00 - 4:30 Wednesday, April 27
2:00 TTh	2:00 - 4:30 Thursday, April 28
3:00 MWF (3:30)	2:00 - 4:30 Friday, April 29
3:00 TTh (3:30)	2:00 - 4:30 Wednesday, May 4
4:00 MWF	2:00 - 4:30 Monday, May 2
4:00 TTh	2:00 - 4:30 Tuesday, May 3
5:00 MWF	5:00 - 7:30 Wednesday, April 27
5:00 TTh	5:00 - 7:30 Thursday, April 28

**SUMMER SESSION 2005**  
**FIRST TERM**

(Actual class days: 4 Mondays, 6 Tuesdays, 5 Wednesdays, 5 Thursdays, 5 Fridays, 1 registration day, 1 final exam day)

<b>March 15, Tuesday</b>	Last day to apply for admission to Graduate School for first summer term.
<b>May 13, Friday</b>	Schedules canceled for all who have not paid fees by 4:00 p.m.
<b>May 16, Monday</b>	New student registration and schedule changes.
<b>May 17, Tuesday</b>	Classes begin; late registration; schedule changes.
<b>May 18, Wednesday</b>	Last day for late registration and schedule changes (drop and add) for first term.
<b>May 19, Thursday</b>	Last day for schedule changes (add only).
<b>May 30, Monday</b>	State holiday (no classes).
<b>May 31, Tuesday</b>	Last day for undergraduate students to drop term-length courses or withdraw from school without grades. Block courses may be dropped only during the first 40 percent of regularly scheduled class meetings.
<b>June 15, Wednesday</b>	Last day for graduate students to drop courses without grades.
<b>June 21, Tuesday</b>	Classes end. Last day to submit grade replacement requests.
<b>June 22, Wednesday</b>	Final examinations.

**SECOND TERM**

(Actual class days: 4 Mondays, 5 Tuesdays, 5 Wednesdays, 6 Thursdays, 5 Fridays,  
1 day for new student registration, 1 final exam day)

<b>May 2, Monday</b>	Last day to apply for admission to Graduate School for second summer term
<b>June 20, Monday</b>	Schedules canceled for all who have not paid fees by 4:00 p.m.
<b>June 22, Wednesday</b>	New student registration and schedule changes
<b>June 23, Thursday</b>	Classes begin; late registration; schedule changes
<b>June 24, Friday</b>	Last day for late registration and schedule changes (drop and add) for second term
<b>June 27, Monday</b>	Last day for schedule changes (add only).
<b>July 4, Monday</b>	State holiday (no classes)
<b>July 7, Thursday</b>	Last day for undergraduate students to drop term-length courses or withdraw from school without grades. Block courses may be dropped only during the first 40 percent of regularly scheduled class meetings.
<b>July 18, Monday</b>	Last day to submit thesis to Graduate School for completion of degree in summer session
<b>July 22, Friday</b>	Last day for graduate students to drop courses without grades
<b>July 28, Thursday</b>	Classes end. Last day to submit grade replacement requests.
<b>July 29, Friday</b>	Final examinations; last day to submit appeals for readmission for fall semester

**11-WEEK SUMMER SESSION 2005**

(Actual class days: 8 Mondays, 11 Tuesdays, 10 Wednesdays, 11 Thursdays, 10 Fridays, 1 final exam day)

<b>March 15, Tuesday</b>	Last day to apply for admission to Graduate School for summer term.
<b>May 13, Friday</b>	Schedules cancelled for all who have not paid fees by 4:00 p.m.
<b>May 16, Monday</b>	Registration and schedule changes.
<b>May 17, Tuesday</b>	Classes begin; late registration; schedule changes.
<b>May 18, Wednesday</b>	Last day for late registration and schedule changes (drop and add).
<b>May 19, Thursday</b>	Last day for schedule changes (add only).
<b>May 30, Monday</b>	State holiday (no classes).
<b>June 14, Tuesday</b>	Last day for undergraduate students to drop term-length courses or withdraw from school without grades. Block courses may be dropped only during the first 40 percent of regular scheduled class meetings.
<b>June 22, Wednesday</b>	Midsummer Break (no classes).
<b>July 4, Monday</b>	State holiday (no classes).
<b>July 18, Monday</b>	Last day to submit thesis to Graduate School for completion of degree in the summer session.
<b>July 22, Friday</b>	Last day for graduate students to drop courses without grades.
<b>July 28, Thursday</b>	Classes end. Last day for submission of grade replacement requests.
<b>July 29, Friday</b>	Final examinations; last day to submit appeals for readmission for fall semester.



## *Welcome To* **EAST CAROLINA UNIVERSITY**

On July 2, 1908, Former Governor Thomas Jordan Jarvis, considered to be the father of East Carolina University, made the following remark as he broke ground for a teachers training school where Jarvis Dorm now stands:

*"We can never begin to calculate the value it will be to North Carolina."*

The teachers college, chartered by the North Carolina General Assembly on March 8, 1907, as a two-year normal school, opened its first regular session on October 5, 1909, with 174 men and women students enrolled. The first graduating class received diplomas on June 6, 1911. The years that followed revealed the accuracy of Former Governor Jarvis' statement.

Since its inception in 1907, East Carolina has evolved from a teachers training school to a research-intensive, doctoral II university. The student population has grown from 147 to over 20,000. The campus now includes more than 161 buildings, including the 259,000-square-foot Science and Technology Building. The university currently consists of a College of Arts and Sciences, which comprises fifteen departments and various interdisciplinary programs, five professional colleges, and three professional schools, including the Brody School of Medicine at East Carolina University.

East Carolina University has become the institution that was envisioned by its early leaders, fulfilling its motto, "to serve." Today's leadership continues to build upon the foundation laid by Robert H. Wright, the first president of the university:

*"We will give to the rising generation the purest inheritance of the nation and better preparation than has ever been given to a preceding generation. This school is an expression of that determination; it was built by the people, for the people, and may it ever remain with the people, as a servant of the people."*

In North Carolina, all public educational institutions that grant baccalaureate degrees are part of The University of North Carolina. Of the sixteen constituent institutions of the multicampus state university, East Carolina University is the third largest. The University of North Carolina includes Appalachian State University, East Carolina University, Elizabeth City State University, Fayetteville State University, North Carolina Agricultural and Technical State University, North Carolina Central University, North Carolina School of the Arts, North Carolina State University, the University of North Carolina at Asheville, the University of North Carolina at Chapel Hill, the University of North Carolina at Charlotte, the University of North Carolina at Greensboro, the University of North Carolina at Pembroke, the University of North Carolina at Wilmington, Western Carolina University, and Winston-Salem State University. The North Carolina School of Science and Mathematics, a residential high school for gifted students, is an affiliated school of The University of North Carolina.

### **OUR MISSION**

East Carolina University, a constituent institution of The University of North Carolina, is a public doctoral university committed to meeting the educational needs of North Carolina and the mid-Atlantic region. It offers baccalaureate, master's, specialist, and doctoral degrees in the liberal arts, sciences, and professional fields, including medicine. The university is dedicated to educational excellence, responsible stewardship of the public trust, and academic freedom. ECU values the contributions of a diverse community, supports shared governance, and guarantees equality of opportunity.

The university's motto is "serve," meaning "to serve." The university seeks to meet that obligation through the interrelated components of its mission: service through education, research and creative activity, and leadership and partnership.

The educational mission is to provide students with a rich, distinctive undergraduate and graduate educational experience. The university is committed to developing each learner's ability to discover, evaluate, and communicate knowledge; to make informed decisions; and to recognize a decision's ethical dimensions. The university also is committed to imparting a sense of citizenship and personal responsibility, fostering lifelong learning, and nurturing an understanding of the interdependencies of people and their environments.

ECU's research mission serves to advance knowledge, to encourage creative activity, to solve significant human problems, and to provide the foundation for professional practice through the support of basic and applied research. The university is committed to integrating research and creative activities in the educational experiences of students. It also is committed to enriching culture and being a leader in innovative research applications.

## GENERAL INFORMATION

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The service mission of East Carolina University, as an institution with a tradition of strong regional ties and public outreach, is to provide leadership and to engage in partnerships supporting public education, health care and human services, cultural activities, and regional development.

## ORGANIZATION OF THE UNIVERSITY OF NORTH CAROLINA

The University of North Carolina 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.

### BOARD OF GOVERNORS

J. Bradley Wilson, Chairman  
G. Irvin Aldridge, Vice Chairman  
Patsy B. Perry, Secretary

#### Terms Expiring in 2007

Brent D. Barringer, Cary	Adelaide Daniels Key, Asheville
J. Addison Bell, Matthews	Leroy Lail, Hickory
R. Steve Bowden, Greensboro	Charles S. Norwood, Goldsboro
F. Edward Broadwell, Jr., Asheville	Cary C. Owens, Asheville
William L. Burns, Jr., Durham	Patsy B. Perry, Durham
John W. Davis III, Winston-Salem	Gladys Ashe Robinson, Greensboro
Peter D. Hans, Raleigh	Estelle "Bunny" Sanders, Roper
Peter Keber, Charlotte	Priscilla P. Taylor, Chapel Hill

#### Terms Expiring in 2005

Bradley T. Adcock, Durham	Hannah D. Gage, Wilmington
G. Irvin Aldridge, Manteo	Willie J. Gilchrist, Halifax
James G. Babb, Charlotte	H. Frank Grainger, Cary
Anne W. Cates, Chapel Hill	Charles H. Mercer, Jr., Raleigh
John F.A.V. Cecil, Asheville	Jim W. Phillips, Jr., Greensboro
Bert Collins, Durham	J. Craig Souza, Raleigh
Ray S. Farris, Charlotte	Robert F. Warwick, Wilmington
Dudley E. Flood, Raleigh	J. Bradley Wilson, Durham

### Emeriti Members

C. Clifford Cameron, Charlotte  
James E. Holshouser, Jr, Southern Pines  
Benjamin S. Ruffin, Winston-Salem

### Ex-Officio Member

Jonathan L. Ducote

### OFFICERS OF ADMINISTRATION

The University of North Carolina Board of Governors elects a president, who administers The University of North Carolina.

Molly Corbett Broad, BA, MA, President  
Gretchen M. Bataille, BA, MA, DA, Senior Vice President, Academic Affairs  
Robyn Render, BS, Vice President, Information Resources and Chief Information Officer  
Bart Corgnati, BS, MS, Secretary of the University  
Russ Lea, BS, MA, PhD, Vice President for Research and Sponsored Programs  
J. B. Milliken, BA, JD, Senior Vice President for University Affairs  
Leslie J. Winner, AB, JD, Vice President and General Counsel



## **ORGANIZATION OF EAST CAROLINA UNIVERSITY**

Each institution has a board of trustees, which holds extensive powers over academic and other operations of its institution on delegation from the Board of Governors.

### **BOARD OF TRUSTEES**

William H. Bodenhamer, Jr., Fort Lauderdale, 2007	Willie C. Martin, Wilmington, DE, 2005
David S. Brody, Kinston, 2007	J. Fielding Miller, Raleigh, 2005
Robert J. Greczyn, Durham, 2007	E. David Redwine, Ocean Isle Beach, 2007
Robert O. Hill, Jr., Kinston, 2005	Stephen D. Showfety, Greensboro, 2007
Michael W. Kelly, Nags Head, 2007	James R. Talton, Jr., Cary, 2005
Dan V. Kinlaw, Fayetteville, 2005	Margaret C. Ward, Burlington, 2005
Shannon O'Donnell, President, Student Government Association, Ex-officio	

### **OFFICERS OF ADMINISTRATION**

Each of the sixteen 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.

#### **Office of the Chancellor**

Steve Ballard, BA, PhD, Chancellor
James LeRoy Smith, BA, MA, PhD, Interim Vice Chancellor for Academic Affairs and Assistant Secretary to the Board
Austin W. Bunch, BAEd, MEd, PhD, Chief of Staff
Mary Ann Rose, BSN, MSN, EdD, Assistant to the Chancellor
Ben G. Irons II, AB, JD, University Attorney
Robert J. Thompson, BA, MA, PhD, Director of Planning, Institutional Research, and Effectiveness and Director, Economic Development and Community Engagement
Taffye Benson Clayton, BA, MA, Assistant to the Chancellor, EEO/ADA Compliance Officer

#### **Graduate School Officers of Administration**

Paul D. Tschetter, BA, MA, PhD, Interim Dean of the Graduate School
Max C. Poole, BS, PhD, Associate Dean of the Graduate School
Linda N. Hudson, BS, MASS, MEd, PhD, Assistant Dean of the Graduate School

## **MEMBERSHIPS AND ACCREDITATIONS**

East Carolina University is a member of or accredited\* by the following as well as other organizations in the individual disciplines.

Academic Common Market	American Council for Construction Education*
Accreditation Association for Ambulatory Health Care, Inc. *	American Council on Education
Accreditation Council on Continuing Medical Education	American Council of Learned Societies
Accreditation Council for Graduate Medical Education	American Dietetic Association*
Accreditation Council for Occupational Therapy Education of the American Occupational Therapy Association*	American Historical Association
Accreditation Review Committee on Education for Physician Assistant in concert with the Commission on Accreditation of Allied Health Education Programs*	American Institute of Ultrasound in Medicine
Administration of Accounting Programs Group, American Accounting Association	American Library Association
American Association for Marriage and Family Therapy*	American Mathematical Society
American Association of Colleges of Nursing	American Music Therapy Association
American Association of Colleges for Teacher Education	American Philosophical Association
American Association of Family and Consumer Sciences	American Physical Therapy Association
American Association of State Colleges and Universities	American Political Science Association
American Chemical Society*	American Society of Allied Health Professions
American College Health Association	American Society of Cytopathology
American College of Sports Medicine	American Speech-Language-Hearing Association*
American College of Nurse-Midwives*	Arts Advocates of North Carolina
American College Personnel Association	Association of Academic Health Centers
	Association of Academic Health Sciences Libraries
	Association to Advance Collegiate Schools of Business International*

## GENERAL INFORMATION

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Association of the Advancement of Health Education/  
Society of Public Health Educators\*

Association of American Colleges

Association of American Medical Colleges

Association for the Care of Children's Health

Association of College and Research Libraries

Association of College and University Printers

Association of College Unions-International

Association of College and University Housing Officers-  
International

Association of Collegiate Schools of Planning

Association of Continuing Higher Education

Association of Experiential Education

Association for Gerontology in Higher Education

Association of Governing Boards of Universities and  
Colleges

Association on Higher Education and Disability

Association of Higher Education Facilities Officers

Association of Performing Arts Presenters

Association of Physician Assistant Program

Association of Southeastern Research Libraries

Association of University Research Parks

Campus Safety Health and Environmental Management  
Association

Coalition for Academic and Scientific Computation

College and University Mail Services Association

College and University Personnel Association

College and University System Exchange

Commission on Accreditation of Allied Health Education  
Programs in association with the American Health  
Information Management Association\*

Commission on Accreditation in Physical Therapy\*  
Conference USA

Consortium for Oceanographic Research and Education

Cooperative Education Association, Inc.

Corporation for Research and Educational Networking

Council for the Advancement and Support of Education

Council of Colleges of Arts and Sciences

Council of Graduate Schools in the United States

Council on Collegiate Education in Nursing

Council for Higher Education Accreditation

Council of Hotel, Restaurant, and Institutional Educators

Council on Postsecondary Accreditation

Council on Rehabilitation Education\*

Council on Social Work Education\*

Council on Undergraduate Research

Foundation for Interior Design Education Research\*

Fulbright Association

Health Education Accreditation of Allied Health Education  
Programs/Joint Review Committee on Educational  
Programs in Athletic Training\*

International Association of Campus Law Enforcement  
Administrators

International Association of Counseling Services

International Association of Management Education

International Association of Performing Arts Administrators

International Dance Education Association

International Parking Institute Congress

International Publishing Management Association

International Technology Education Association

International Ticketing Association

Intrafilm

Joint Commission for Ambulatory and Health Organization\*

Joint Commission on Accreditation of Healthcare  
Organizations

Liaison Committee on Medical Education\*

Medical Library Association

Music Library Association

National Accrediting Agency for Clinical Laboratory  
Sciences\*

National Association for Business Teacher Education

National Association of Campus Activities

National Association of Campus Card Users

National Association of College Stores

National Association of College and University Business  
Officers

National Association of College and University Food  
Services

National Association of College Auxiliary Services

National Association of College Law Enforcement Officers

National Association of Colleges and Employers

National Association of Collegiate Concessionaires

National Association for the Education of Young Children\*

National Association of Educational Buyers

National Association of Foreign Student Advisors

National Association of Industrial Technology\*

National Association of School Psychologist

National Association of Schools of Art and Design\*

National Association of Schools of Music\*

National Association of Schools of Public Affairs and  
Administration\*

National Association of State Universities and Land  
Grant Colleges

National Association of Student Financial Aid Administrators

National Association of Student Personnel Administrators

National Collegiate Athletic Association (NCAA)

National Collegiate Honors Council

National Commission for Cooperative Education

National Council for Accreditation of Environmental  
Health Curricula

National Council for Accreditation of Teacher Education\*

National Council for Exceptional Children

National Council of University Research Administrators

National Environmental Health Science and Protection  
Accreditation Council\*

National Humanities Alliance

National Intramural-Recreational Sports Association

National Kitchen and Bath Association\*

National League for Nursing Accrediting Commission\*

National Network of Libraries of Medicine

National Recreation and Parks Association/American  
Association for Leisure and Recreation Council on  
Accreditation\*

National Safety Council

National University Continuing Education Association

North American Association of Summer Sessions

North Carolina Alliance of Allied Health Professions

North Carolina Association for Biomedical Research

North Carolina Association of Colleges and Universities  
North Carolina Association of International Educators  
North Carolina Board of Nursing\*  
North Carolina Department of Justice, Criminal Justice  
Educational Training Standards Commission\*  
North Carolina State Board of Education\*  
Oak Ridge Associated Universities  
Society for College and University Planning  
Southeastern Association of Colleges and Employers  
Southeastern Universities Research Association  
Southern Association of Colleges and Schools\*

Southern Association of College and University Business  
Officers  
Southern Building Code Congress International  
Southern Conference of Graduate Schools  
The College Board  
The Renaissance Group  
University Consortium for International Programs  
University Corporation for Advanced Internet Development  
University of North Carolina Exchange Program  
University Risk Management Insurance Association

Other organizations in the individual disciplines. East Carolina University is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools (1866 Southern Lane, Decatur, Georgia 30033-4097; Telephone Number 404-679-4501) to award bachelor's, master's, and doctoral degrees. Approved for Teacher Certification by the North Carolina State Board of Education.

**CAMPUS AND BUILDINGS**

The main campus encompasses over 400 acres in an urban setting within the city of Greenville and is convenient to both the downtown area and shopping centers. The campus is a pleasing mixture of architectural styles. Most of the four million square feet of academic, research, and residence facilities have modern appointments and are well equipped. The health sciences campus, located on 70 acres, houses the Brody School of Medicine and is the hub of the university's health sciences program. The west research campus is the newest addition to the university with over 450 acres and is the home for several research and graduate programs.

Since 1993, the university has spent over \$350 million for capital expansion. Joyner Library houses over one million volumes; student services have been enhanced by the renovation of the Gallery in Jones Residence Hall and the addition of Todd Dining Facility and the Student Recreation Center; the health services complex has been expanded by the addition of the Warren Life Sciences Building; the athletic complex has grown with the expansion of Dowdy Ficklen Stadium to a capacity of 45,000 seats and the addition of a new strength and conditioning center, the Murphy Center. Major renovations have been completed on Jarvis Residence Hall, Jones Residence Hall, Student Health Services, the Wright Place, and the Blount Intramural Sports Complex. The university's information technology and computing services department has moved off-campus to a 32,000 square foot campus computing center. The university continues to focus resources on a comprehensive renovation program to incorporate new technology into classroom and lab facilities. In 2000, the university began a six-year capital expansion that exceeded \$200 million. In 2003, the university completed construction of the Science and Technology Building, which comprises 270,000 gross square feet of classrooms and labs to accommodate various disciplines including biology, chemistry, industrial technology, and engineering. Campus beautification continues to be a priority with the goal of preserving and enhancing the charming character of the campus.

A map of the university campuses with corresponding building key may be found inside the back cover of this publication. The building key for class schedules may be found following the index of this catalog.

**RESEARCH COMMITTEE AND RESEARCH FACILITIES**

In addition to research that is financed by outside agencies, research and publication by faculty members are supported by funds administered by the Faculty Senate Research and Creative Activity Committee and the vice chancellor for research, economic development, and community engagement.

**CAMPUS LIBRARIES**

**J. Y. JOYNER LIBRARY**

The main campus library at East Carolina University is Joyner Library, a facility containing 1.3 million bound volumes, more than two million pieces of microform, and 12,000 serial titles. The newspaper files on microform are extensive and serve as an important library resource. As a selective depository for United States Government publications, Joyner Library contains over one million international, federal, and state documents and 101,586 maps.

The East Carolina University Archives, a depository for the university's historical, administrative, and legal records, is located in Joyner Library.

## **GENERAL INFORMATION**

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The East Carolina Manuscript Collection is located within the special collections department of Joyner Library. This repository contains approximately 4,585 linear feet of records. Holdings of the collection include letters, diaries, speeches, scrapbooks, ledgers, legal and financial records, photographs, and related material dating from 1715 to the present. Active collection development occurs in four basic categories: North Carolina-related materials, military papers, missionary papers, and tobacco records.

Joyner Library's holdings in education, naval and maritime history, and law reference materials are particularly strong. Access to information resources is provided by print, CD-ROM, and on-line services located in the reference department.

The library's Teaching Resources Center houses a variety of curriculum resources for preschool through twelfth grade students.

The Music Library, a branch of Joyner, is located in the A.J. Fletcher Music Center. This library houses more than 65,000 items, including books, scores, video and sound recordings, and periodicals. The library provides reference services, computer searches, a reserve collection, and listening facilities. The Music Library is open seventy-eight hours each week.

All students registered at East Carolina University, regardless of location, have access to electronic library resources, including indexes, full-text databases, and journals through the library's web page at [www.lib.ecu.edu](http://www.lib.ecu.edu). Student status is verified by ECU Exchange e-mail user name and password. Materials may also be obtained through the William E. Laupus Health Sciences Library and Interlibrary Loan Services. Kudzu, a special interlibrary loan service available to ECU students, is a joint system of linked on-line catalogs that allows students, faculty, and staff access to more than 23 million volumes. In addition, several departments at Joyner Library have created a number of value-added services for distance education students; a web page specifically for distance education students linked from the library home page; guides to electronic resources (Ask a Reference Librarian), web-based tutorials, e-mail reference services, and a subject guide database (Pirate Source), the E-Journal Locator, the Virtual Reference Desk, and the North Carolina Periodicals Index.

Joyner Library is open 116 hours each week. Hours are posted on the main entrance of the building. Special hours are posted for holidays and semester breaks. The library maintains a recording of current operating hours that may be obtained by telephoning 252-328-4285.

### **WILLIAM E. LAUPUS HEALTH SCIENCES LIBRARY**

The William E. Laupus Health Sciences Library, located in the Brody Medical Sciences Complex, serves as the primary information resource facility for the university's health science programs. The Health Sciences Library contains approximately 145,814 bound or hard copy volumes, the equivalent of an additional 177,015 volumes in microformat, and receives 1,545 periodical and serial subscriptions.

The library is equipped with more than 100 computers available for public use and supports a growing program of electronic information and services. Reference services, bibliographic instruction, class reserves, historical collections, and a state of the art computer lab are also available. Additional information about library programs, services, and hours may be found by visiting our web site at [www.hsl.ecu.edu](http://www.hsl.ecu.edu).

Both Joyner Library and the Laupus Health Sciences Library resources are available through the [VirtualLibrary@ECU](mailto:VirtualLibrary@ECU).

## **INFORMATION TECHNOLOGY AND COMPUTING SERVICES**

Information Technology and Computing Services (ITCS) provides computing, network, and outreach support for academic education, research, and administrative programs on campus. East Carolina University is one of five universities holding membership in Internet2 in North Carolina and is recognized throughout the region as a leader in incorporating technological advances in all phases of operation. ITCS partners with campus departments, other universities, and industry to make strategic investments in the information technology infrastructure.

The core server facility provides a platform for faculty to develop on-line and Internet-enhanced course material so that the content is available to students anywhere in the world. The facility houses Windows Media Server, Digital Resources Collection, and personal web space for faculty instructional material. Blackboard is housed on remote corporate servers, enhancing course management system technical support. Students should be aware that ITCS services provided for distance education may be impacted by the quality of service rendered by the individual's Internet provider. Students must have a reliable e-mail account and a compatible browser must be used.

More than sixty student computer laboratories that support both discipline-specific applications as well as general computing are located throughout campus. These computer laboratories are all networked and both the Apple and PC platforms are supported throughout the university. Internet access is provided in a Cyber Cafe and through wireless connectivity on campus.

ITCS supports an immersive visualization facility for teaching and learning; a SGI Origin 2000 parallel processing computer for ECU faculty, staff, and graduate students pursuing research objectives; an IP/TV video streaming system that enables the ECU-networked community to access instructive and professional development opportunities, as well as real-time cable broadcasts and satellite programs over the Internet; an advanced videoconferencing Access Grid system that facilitates large-scale distributed meetings, collaborative work sessions, seminars, lectures, tutorials, and training; and a high-speed connection to the Internet. ECU's web portal (OneStop) enables students to access grades, register for classes, and transact many everyday administrative functions on-line.

Information technology assistance is provided through the university-wide Help Desk and computer training courses are offered on a regular basis. Additional information about ITCS and the information technology environment on campus may be obtained by writing the Chief Information Officer, East Carolina University, 209 Cotanche Street, Greenville, NC 27858-4353 or calling 252-328-9000. Students who have technical problems accessing the ECU web page should telephone the ITCS Help Desk at 252-328-6866 or the Student Help Desk at 252-328-4968.

## **OAK RIDGE ASSOCIATED UNIVERSITIES**

Since 1992, students and faculty of East Carolina University have benefited from its membership in Oak Ridge Associated Universities (ORAU). ORAU is a consortium of eighty-eight colleges and universities and a contractor for the US Department of Energy (DOE) located in Oak Ridge, Tennessee. ORAU works with its member institutions to help their students and faculty gain access to federal research facilities throughout the country; to keep its members informed about opportunities for fellowship, scholarship, and research appointments; and to organize research alliances among its members.

Through the Oak Ridge Institute for Science and Education (ORISE), the DOE facility that ORAU operates, undergraduates, graduates, postgraduates, as well as faculty enjoy access to a multitude of opportunities for study and research. Students can participate in programs covering a wide variety of disciplines, including business, earth sciences, epidemiology, engineering, physics, geological sciences, pharmacology, ocean sciences, biomedical sciences, nuclear chemistry, and mathematics. Appointment and program length range from one month to four years. Many of these programs are especially designed to increase the numbers of underrepresented minority students pursuing degrees in science- and engineering-related disciplines. A comprehensive listing of these programs and other opportunities, their disciplines, and details on locations and benefits can be found in the ORISE Catalog of Education and Training Programs, which is available at <http://www.ornl.gov/orise/educ.htm> or by calling either of the contacts below.

ORAU's Office of Partnership Development seeks opportunities for partnerships and alliances among ORAU's members, private industry, and major federal facilities. Activities include faculty development programs such as the Ralph E. Powe Junior Faculty Enhancement Awards, the Visiting Industrial Scholars Program, consortium research funding initiatives, faculty research, and support programs as well as services to chief research officers.

For more information about ORAU and its programs, contact:

John C. Sutherland

Chairman, Department of Physics

ORAU Councilor for East Carolina University

Monnie E. Champion

ORAU Corporate Secretary

(856) 576-3306

or visit the ORAU Home Page at <http://www.ornl.gov>.

## **OTHER RESEARCH FACILITIES**

Research opportunities are available at the Institute for Coastal and Marine Resources, the Biotechnology Center, the Developmental Evaluation Clinic, the Mental Health Training Institute, East Carolina Regional Development Institute, East Carolina Business Foundation, the Speech and Hearing Clinic, and the Reading Laboratory.

### SPONSORED JOURNALS AND PUBLICATIONS

The *Children's Folklore Review*, sponsored by the East Carolina University Department of English, is the official publication of the Children's Folklore Section (CFS) of the American Folklore Society. *The Review*, published twice a year for CFS members throughout the United States and in over a dozen foreign countries, contains information and articles of interest to scholars working with children and their lore.

The *North Carolina Geographer* is published twice yearly and provides high quality articles on the social and physical geography of North Carolina since its inception in 1941. The Geographer provides not only a forum for those interested in such research but also a highly visible testament to the quality research undertaken within the state.

The *North Carolina Literary Review* is published annually by the Department of English and the North Carolina Literary and Historical Association. NCLR publishes poetry, fiction, and nonfiction prose by and interviews with North Carolina writers and articles and essays about North Carolina literature, history, and culture.

*Tar River Poetry*, an international journal of poetry and reviews, is published twice a year (fall and spring) under the auspices of the Department of English.

### PATENT AND COPYRIGHT POLICIES

East Carolina University seeks to provide instruction, research, and service for the state and nation. University policy promotes these activities in a free and open environment with the intent to publish new information and results in the appropriate scholarly literature. However, the Board of Governors of The University of North Carolina has determined that patenting, licensing, and copyrighting of products resulting from the work of university employees and students utilizing university facilities must be consistent with the university's mission and purposes. University ownership of patents, licenses, and in some cases copyrights is described in detail in East Carolina University's policies relating to patents and copyrights. Copies of these policies can be obtained from the Office of Technology Transfer. East Carolina University policies and procedures are published in the *Faculty Manual*.

### ACADEMIC INTEGRITY POLICY

Academic integrity is expected of every East Carolina University student. Academically violating the Honor Code consists of the following: cheating, the giving or receiving of any unauthorized aid or assistance or the giving or receiving of unfair advantage on any form of academic work; plagiarism, copying the language, structure, ideas, and/or thoughts of another and adopting those as one's original work; falsification, statement of untruth, either verbal or written, regarding any circumstances relating to academic work; and attempting any act which if completed would constitute an academic integrity violation as defined above. Procedures governing academic integrity violations are described in the *East Carolina University Student Handbook* and in the *Faculty Manual*.

No student may drop the involved course or withdraw from school prior to resolving an academic integrity charge.

Comprehensive student programs and services promote intellectual, social, and cultural growth in ECU's community of learning. Students are encouraged to participate in a broad range of support services, activities, and programs that accommodate the diverse needs of all students; meet housing, nutrition, and physical and mental health needs; provide the setting for active participation and leadership in one's own learning; assist in developing logical thought processes and sound decision-making skills; and cultivate an appreciation of the arts. Moreover, the university seeks to contribute to the development of the whole individual by fostering in each student a deeper appreciation for lifelong learning, individual responsibility, and human diversity.

Students enrolled in East Carolina University are expected to uphold at all times standards of academic integrity and personal behavior that will reflect credit upon themselves, their families, and East Carolina University. Students are also expected to behave with propriety and to respect the rights and privileges of others. They are expected to abide by the laws of the city, state, and nation and by all rules and regulations of East Carolina University. Failure to do so may result in their being sanctioned by or separated from the university.

Registration at the university implies the student's acceptance of the published academic regulations and all other rules found in any official publication or announcements. University rules and regulations apply to all students. Conduct regulations, including the academic integrity policy, are described in the East Carolina University Student Handbook.

## **STUDENT PROFESSIONAL DEVELOPMENT**

### **COOPERATIVE EDUCATION**

Cooperative Education is an academic support program that integrates work experience with college studies over the course of a student's collegiate program. College studies and work assignments combine to produce an overall learning experience that enhances the student's academic program and gives direction to his/her career development. Available to undergraduate and graduate students in all academic areas, the program provides a number of immediate and long-range opportunities

- to gain experience in a chosen field;
- to open doors to future employment;
- to apply classroom knowledge and skills;
- to work with professionals;
- to obtain academic credit, if appropriate; and
- to earn money for college expenses.

To participate, students must have earned a minimum cumulative GPA of 2.0 on college work completed. To remain in the program, students must perform work satisfactory to their employers and maintain an acceptable cumulative grade point average. All university regulations apply to co-op students.

Work assignments, which are tailored to the needs of the student and the employer, are coordinated with the university academic calendar. Work experience may be scheduled during mornings, afternoons, or various days of the week under the parallel coop plan; for full semesters under the alternating program; or for summer only. In many cases it is possible, with advanced planning, to arrange a coop program that will not delay graduation.

Inquiries or requests for further information and descriptive brochures should be directed to the Office of Cooperative Education, 2300 Bate Building, East Carolina University, Greenville, NC 27858-4353; telephone/fax 252-328-6979/252-328-4394; e-mail [coop@mail.ecu.edu](mailto:coop@mail.ecu.edu); web site [www.ecu.edu/coop](http://www.ecu.edu/coop).

### **CAREER SERVICES**

Career Services provides programs and services to assist students with the transition from academic to the world of work by preparing students for life after graduation. Career Services offers services which include career counseling, workshops and seminars on career-related subjects, assistance with resume writing and interviewing, and opportunities for graduate assistantships, practicum, and internships. The center also offers students an easy-to-use computerized guidance program that helps clarify values, explores occupation options, and develops educational plans.

Career Services is open Monday through Friday 8:00 a.m. to 5:00 p.m. For more information visit Career Services, 701 East Fifth Street, telephone 252-328-6050, or access the web page at [www.ecu.edu/career services](http://www.ecu.edu/career%20services). While some services are available via the web, others may be available only on campus.

## **SECTION 1: STUDENT LIFE**

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### **COUNSELING AND STUDENT DEVELOPMENT**

The purpose of the Center for Counseling and Student Development is to assist students to make the most of their opportunities for academic and personal development while enrolled in the university. The center offers students counseling in the following areas: personal, academic, career, and alcohol and other drug abuse. In addition to individual counseling, group sessions are conducted for those students who wish to focus on various problems or personal concerns that arise from the stress of university life and interpersonal relations. The center's staff provides both classroom and individual programs for students who wish to improve their study skills. When necessary, tests and inventories are used to help students ascertain their areas of interest and/or to gain insight into their personal adjustment. Campus and distance education students are entitled to the services provided by the center without charge.

The Center for Counseling and Student Development is open Monday, Wednesday, Thursday, and Friday from 8:00 a.m. to 5:00 p.m. and Tuesday from 8:00 a.m. to 8:00 p.m. Students are encouraged to visit the center, which is located in 316 Wright, telephone 252-328-6661, or access the web page at [www.ecu.edu/counseling](http://www.ecu.edu/counseling).

### **OFFICE OF INSTITUTIONAL EQUITY**

The Office of Institutional Equity articulates and implements diversity and equity initiatives in order to fulfill the university's commitment to achieving and maintaining a multicultural campus environment. East Carolina University is committed to enriching the lives of students, faculty and staff by providing a diverse academic community where the exchange of ideas, knowledge and perspectives is an active part of living and learning. The Office of Institutional Equity (OIE) has been established to provide centralized leadership to East Carolina University's efforts to ensure compliance and equity in all programming, employment and educational opportunity.

### **OFFICE OF INTERCULTURAL STUDENT AFFAIRS**

The mission of the Office of Intercultural Student Affairs is to assist in creating an environment that is supportive and conducive to meeting the educational, intellectual, and social needs of multiethnic students on the East Carolina University campus. This is achieved through creative programming efforts such as peer mentoring, social justice institutes, leadership development opportunities for student organizations, and providing administrative assistance to student organizations. Additionally, the director is involved in campus retention and community recruitment initiatives as well as research to enhance those areas.

### **LEDONIA WRIGHT CULTURAL CENTER**

The Ledonia Wright Cultural Center will be intentional in our efforts to parallel the University's mission to increase awareness and promote cultural understanding.

The staff of the Center will work in conjunction with university departments and colleges to produce academic support programs and assist with recruitment, orientation, retention and graduation activities. We also help promote the principles of cultural competence among all at the University.

The cultural center is the heartbeat of East Carolina University's multicultural activity. Educational resources include a reading room/library computer workstations, tutorial services, health and career information booths, genealogy research tools, space for meetings, tours and art exhibitions.

The multicultural programming sponsored by the cultural center includes several ongoing programs and observances such as Dialogue on Diversity, Hispanic Heritage Month, Native American Heritage Month, Deaf Heritage Week, Multicultural Holiday Open House, Martin Luther King, Jr. Celebration, Black History Month, Women's History Month, Asian-Pacific Heritage Month and other special recognitions.

The cultural center hosts receptions and provides meeting facilities for students, staff, and faculty. A kitchen and other space are available for student to relax between classes. For further information, please contact Ledonia Wright Cultural Center at 328-1680 or visit our web site [www.ecu.edu/lwcc](http://www.ecu.edu/lwcc).



## **DISABILITY SUPPORT SERVICES**

The Department for Disability Support Services works in collaboration with faculty, staff, and departments throughout the university to fulfill the institution's commitment to accessibility. Services and accommodations are designed to meet the individual needs of all students and encompass all aspects of university life. The staff assists students with freshman and transfer transition issues, academic accommodations, academic counseling, and referrals for attendant care and mobility training. Additional program information is available in A-117 Brewster, by telephone at 252-328-6799, and on-line at <http://ecu.edu/studentlife/dss/>.

## **TESTING CENTER**

The Testing Center, operated by the Office of Institutional Planning, Research, and Effectiveness administers several national testing programs, including the PRAXIS, American College Testing, Allied Health Professions Admission Test, College-Level Examination Program, Law School Admission Test, Medical College Admission Test, Miller Analogies Test, Pharmacy College Admission Test, and Scholastic Assessment Tests. Local, state, and national licensing and certification examinations are administered by the office. Upon request, the office will administer individually arranged exams such as correspondence tests for other colleges and employer personnel examinations. Further information is available from the Testing Center, D-102 Brewster; telephone 252-328-6811.

## **STUDENT HANDBOOK**

*The East Carolina University Student Handbook*, is available on-line at [www.ecu.edu/studentlife/cluebook](http://www.ecu.edu/studentlife/cluebook). This publication contains sections entitled Where to Go for Solutions, Academic Calendars, Exam Schedules, University Policies and Regulations, Student Government Association, Judicial System, Residence Hall Policies and Guidelines, Use of University Facilities Policy, Solicitation and Posting Policy, Racial and Ethnic Harassment Policy, Sexual Harassment Policy, and Safety and You.

A printed version may be obtained from the Office of Student Conflict Resolution, Mendenhall Student Center Information Desk, Office of University Housing Services, Neighbor Offices, and the Office of the Vice Chancellor for Student Life.

## **CAMPUS SAFETY**

Information about criminal activity on the ECU campus, streets and sidewalks adjacent to campus, and in noncampus properties controlled by recognized student organizations is available at [www.ecu.edu/studentlife/studentsuccess](http://www.ecu.edu/studentlife/studentsuccess). This web publication provides information about the security of campus facilities, including residence halls; crime prevention information; information about services and counseling for victims of violence, including sexual assault and domestic violence; and the substance abuse policy.

## **STUDENT SERVICES**

Student services and programs include Adult and Commuter Student Services; Counseling and Student Development; Dining Services; the Office of Institutional Equity; Intercultural Student Affairs; Orientation and the First-Year Experience; Recreational Services; Research, Assessment, and Testing; Ombudsman; Student Health Services; Student Life Advancement; Campus Living; University Unions; and other areas such as judicial affairs, student organizations, student leadership development, fraternities, and sororities.

## **CAMPUS LIVING**

Campus Living is committed to offering personal and affordable services, supporting the academic mission of the university, and providing opportunities for individual growth within a comfortable environment and caring community. The ECU campus provides a supportive atmosphere in which a student can explore new academic ideas and social experiences. Campus living means meeting new people, some of whom will become good friends for life; living in an environment conducive to studying, where academic assistance is readily available; and taking advantage of numerous benefits, such as convenience to classes and campus activities, neighborhood, and lifestyle options that suit one's personality.

A variety of living and dining options is available. Residence halls are located in three neighborhoods on the campus. College Hill, central, and west neighborhoods offer the convenience of living near classrooms, the library, recreational facilities, campus activities, and campus restaurants. The university maintains fifteen residence halls that 5,300 students call home.

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Information regarding university housing is available at Campus Living, office suite 100, Jones Residence Hall. Detailed information is available through Campus Living; 252-ECU-HOME (328-4663) or the ECU home page at [www.ecu.edu/campusliving](http://www.ecu.edu/campusliving). The office also maintains an off-campus apartment listing service.

### **DINING**

Campus Dining Services recognizes the importance of variety, value, and convenience, and offers well-balanced, nutritious meals throughout the day at each of its seven locations. Two all-you-care-to-eat dining halls are located near the residential areas of campus. These restaurants serve breakfast, lunch, and dinner Monday through Friday, and brunch and dinner on weekends. Beverage bars and campus cafes offer food on an a la carte basis and are located throughout campus near academic buildings and residence halls. Each has its own distinct menu, atmosphere, and hours of operation. All Foods Fit, a menu of foods lower in fat that meet the American Heart Association's nutritional guidelines, is available at every campus dining location. A staff nutritionist monitors the All Foods Fit menu and assists students with dietary needs.

Campus Dining Services offers several convenient and economical meal plans that can be used in any of ECU's campus restaurants. Each offers a set number of meals each week throughout the semester and Pirate Bucks, a declining balance account. Freshmen living on campus are required to participate in a meal plan program.

In addition to great food, dining services hosts an array of special events, theme meals, ethnic parties, holiday celebrations, and more throughout the year, allowing students from across campus to get together and enjoy good times and great food.

More information about campus dining is available at the ECU Dining Services offices, Todd Dining Hall; telephone 252-ECU-FOOD (328-3663) or visit our web site at [www.ecu.edu/campusliving](http://www.ecu.edu/campusliving).

### **STUDENT HEALTH SERVICE**

The Student Health Service (SHS) provides individualized and quality health care and health education for currently enrolled, fee-paying, ECU students. The outpatient clinic provides health care through appointments for the students' convenience and through an urgent care clinic during operating hours. Services include, but are not limited to, routine health care (illness, accidents, physicals, wellness, etc.), mental health, physical therapy, sports medicine, health and wellness education, pharmacy, laboratory, x-ray, allergy vaccine clinic, self-care medication clinic, health insurance, and more.

The Wellness Education section at SHS assists students in examining their current lifestyle behaviors and making informed decisions regarding well being. The office offers information related to alcohol and other drugs, sexuality, nutrition, and men's and women's health issues as well as general health and safety issues. Brochures, pamphlets, books, videos, and CD-ROM resources are available.

The telephone numbers for Student Health Services are as follows: main switchboard 252-328-6841; wellness education 252-328-6794; pharmacy 252-328-6841, ext. 608.

### **ADULT AND COMMUTER SERVICES**

The Office of Adult and Commuter Student Services (ACSS) provides support services and programs which foster successful college experiences for commuters and students over twenty-four years of age. The office provides a resource booklet for new adult, commuter, and graduate students; newsletters and information on day care; transportation; and other community resources. The Pinnacle Nontraditional Student Honorary, an adult student list serve, a peer-helper program, and family activities are also sponsored by ACSS. Office staff serve as advocates for adults and commuters with the ECU community and strive to find effective avenues of communication with this diverse group of students. For more information, visit the office in the lower level of Mendenhall Student Center or call 252-328-6881. Information is also available at [www.ecu.edu/studentlife/acss](http://www.ecu.edu/studentlife/acss).

### **TRANSPORTATION**

#### **University Transit Services**

Student transit is funded by student activity fees and is operated by students for students, faculty, and staff at no charge with a valid ECU ID. An extensive bus route providing timely service to, from, and around the ECU campus, including commuter parking lots, off-campus housing areas, and several shopping/service areas, is provided. All lines run twice an hour at thirty-minute intervals. A list of the bus routes and schedules can be obtained from Mendenhall Student Center, the Office of

Parking and Traffic Services, and on the buses. For more information, contact ECU Transit at 252-328-0254 or access [www.ecu.edu/transit](http://www.ecu.edu/transit).

### **Department of Parking and Transportation Services**

Regulations governing traffic, parking, registration of motor vehicles, and enforcement are set forth in the *East Carolina University Traffic Ordinance*, which is available at the Department of Parking and Transportation Services, 305 East Tenth Street. All students desiring to utilize campus parking facilities must register their vehicles with Parking and Transportation Services and purchase a parking permit decal. A student desiring to register a motor vehicle not owned by him or herself, a spouse, a parent, or a guardian must obtain special permission from Parking and Transportation Services.

Parking permits allow parking in specific areas. Signs in each lot indicate the permit type authorized for the parking spaces in the lot. Freshmen vehicles are not to be parked on the main campus during the week. On Friday afternoon at 4:00 p.m., registered freshmen vehicles may park only in areas designated by the director of Parking and Transportation Services. Freshmen vehicles must relocate to the freshman parking areas by 12:00 midnight Sunday evening. There are thirty-minute metered loading zones located at the residence halls in which freshmen vehicles are permitted as long as the meter is activated.

The university's towing policy is strictly enforced. Parking on campus is by permit only and the permit must be properly displayed. Unregistered vehicles parking on campus may be towed; vehicles with three or more uncleared parking tickets may be towed; and any vehicle illegally parked in a towing enforced zone may be towed.

There is no overnight visitor parking in the university residence hall areas between Sunday midnight and 4:00 p.m. Friday. Visitors to campus must obtain a visitor's parking permit from Parking and Transportation Services, which operates from 7:30 a.m. to 5:00 p.m., Monday through Friday. After business hours, visitor permits may be obtained from the University Police Department, which operates twenty-four hours a day, seven days a week. Visitors should clear any citations with Parking and Transportation Services before leaving campus. Students are held responsible for uncleared traffic citations traced to their family members. For more information, access [www.ecu.edu/parking](http://www.ecu.edu/parking) or telephone 252-328-6294.

### **BANKING SERVICES**

Twenty-four-hour automated banking machines are available at Mendenhall Student Center and adjacent to the Rawl Building on the Student Plaza.

### **STUDENT STORES**

Dowdy Student Stores, owned and operated by East Carolina University, is an auxiliary enterprise for the convenience of the university community. The Student Stores stocks books, school supplies, computers, and other tools of the educational process for the students on campus as well as those taking distance education classes. The Student Stores also carries an extensive line of imprinted ECU merchandise featuring apparel, gifts, jewelry, and various accessories. Dowdy Student Stores contributes profits to scholarship programs and is among the top donors to the General Scholarship Fund. Textbooks and other information are available through the Student Stores web site at [www.studentstores.ecu.edu](http://www.studentstores.ecu.edu) or phone 252-328-6731 (toll free: 1-877-499-TEXT).

### **STUDENT ORGANIZATIONS AND ACTIVITIES**

All students, including distance education students, who meet membership criteria are eligible to participate in student organizations and activities. A list of student organizations can be accessed at [www.clubhouse.ecu.edu](http://www.clubhouse.ecu.edu).

#### **GRADUATE STUDENT ADVISORY COUNCIL**

The Graduate Student Advisory Council (GSAC) is the student organization representing the interests of the graduate students in the university. Among its activities, GSAC is responsible for planning and soliciting funds from the SGA for graduate student events and travel to research conferences. Additional information can be obtained at <http://www.ecu.edu/org/gsac/>.

#### **UNIVERSITY UNIONS**

The Department of University Unions offers a wide variety of programs, services, and facilities dedicated to enhancing the quality of life for the campus community. The Department is housed, for the most part, in Mendenhall Student Center, a 120,000 foot student center offering the central ticket office, information desk, lounges, meeting rooms, study nooks, snack bar, 800-seat theater, bowling alley, billiards area, computer lab, student government offices, student organization offices, social areas, and more to students, staff, faculty, and guests of the university. Other offices in Mendenhall Student Center include Adult and Commuter Students, Inter-Fraternity Council, Pan-Hellenic Council, National Panhellenic Council, Intercultural Student Senate, and the Office of Conflict Resolution.

The Department of University Unions encompasses the Student Union, Student Media, Student Leadership, Wright Auditorium, Office of Cultural Outreach, Central Ticket Office, and Recreation. Through a broad range of co-curricular, cultural, educational, developmental, recreational, and social programs, the department complements the academic programs of the university by providing programs which enhance the educational and cultural experience of students, by providing facilities which serve as laboratories where theoretical and experiential experiences are integrated, and through guidance by a professional staff that assists students to further develop their intellectual capabilities, creative abilities, leadership potential, and citizenship skills. The Department of University Unions seems to serve all constituents of the university as a unifying force in the life of East Carolina University, cultivating enduring regard for and loyalty to the university.

#### **STUDENT UNION**

The Student Union, located in 236 Mendenhall Student Center, serves as the principal student programming organization at East Carolina University. The Student Union is responsible for providing a balanced program of social, cultural, recreational, entertaining programs, and cultural events for the entire university family.

This organization, made up of student volunteers complements the academic arena with a wide variety of diverse events. Any student is eligible to help assist with the programs on the following committees: Films, Popular Entertainment, Spectrum, Visual Arts, Cultural, Marketing and Barefoot on the Mall. These hard working students make a difference at East Carolina University.

#### **STUDENT GOVERNMENT ASSOCIATION**

All East Carolina University students are members of the SGA which is the official representative governing body. The purposes of the SGA are to: provide a means for responsible and effective student participation within the organization and control of student affairs; act in the best interest of the student body and university community; provide an official voice for expressing student opinion; provide a means whereby students can gain experience and training in responsible political participation; investigate student problems, and participate in those decisions affecting students; foster an awareness of the students positions within campus, local, state, national and international communities; provide operational funding to registered campus organizations. Located in 255 Mendenhall Student Center, the Student Government is represented by currently enrolled students in good academic standing that serve on all three branches: Executive, Judicial, and Legislative. SGA highly encourages each student to join in order to allow your voice to be heard.

#### **STUDENT MEDIA**

*The East Carolinian*, the university paper, is published three times weekly by the students. It carries university and alumni news and is designed to furnish an outlet for student expression on all matters pertaining to student educational and social development. The paper is available on-line at <http://www.theeastcarolinian.com>.

*Expressions*, a periodic magazine, is published by the students. It includes campus news, much of which is of particular interest to minority students. *Expressions* may be accessed at <http://www.expressions.ecu.edu>.

*The Rebel* is the university literary magazine published by the students.

WZMB-FM is the student radio station offering news and a variety of musical programs of interest to all segments of the university community.

## **RECREATION**

### **Recreational Services**

The Department of Recreational Services is located in the Student Recreation Center and provides a broad and diverse program of wellness-oriented activities to all students, faculty, and staff. Recreational Services strives to enhance positive recreation and wellness lifestyles of the university community and to foster a lifelong commitment to learning skills associated with physical, social, emotional, and mental well being. Recreational opportunities are available in the following program areas. To receive more information on these programs, telephone 252-328-6387.

**Adventure:** The adventure program offers both single day and multi-day trips every semester such as sea kayaking, rock climbing, backpacking, snow skiing, white water rafting, and surfing. The adventure program also provides workshops on a variety of outdoor skills such as outdoor cooking and trip preparation. Outdoor equipment can be rented at the Adventure Outfitters in the Student Recreation Center. In addition, the adventure program operates a team building and leadership development course through the Ropes Challenge Course.

**Aquatics:** The aquatics program provides both group and private swimming lessons for adults and children as well as training and certification in community first aid and safety, CPR for the professional rescuer, and lifeguard training.

**ARISE:** An adapted recreation and intramural sport enrichment program provides opportunities in recreational activities for individuals with disabilities. ARISE offers adapted sea kayaking and water ski clinics, adapted rock climbing, swimming lessons, wheelchair basketball, WheelPower Dance Troupe, and handcycling.

**Club Sports:** The club sports program combines recreational opportunities with instruction and competition in a variety of sports related activities. Clubs are developed and organized by students with administrative and financial support provided by Recreational Services. Participants have the opportunity to develop leadership skills as they become involved in the day-to-day operation and management of their club. Active clubs include the following:

Adventure	Racquetball
Bowling	Roller Hockey
Cycling	Rugby (Men's & Women's)
Equestrian	Snowboarding/Skiing
Fencing	Soccer (Men's & Women's)
Field Hockey (Women's)	Softball (Women's)
Frisbee Disc Golf	Swimming
Lacrosse (Men's & Women's)	Ultimate Frisbee (Men's & Women's)
Martial Arts:	Underwater Hockey
Aikido	Volleyball (Men's & Women's)
Isshinryu	Water Polo (Men's & Women's)
Tae Kwon Do	Water Ski/Wakeboarding
Tai Chi	

**Fitness:** The fitness program of Recreational Services provides quality personal training, group fitness classes, seminars, workshops, and lifestyle enhancement classes designed to provide education about a variety of healthy lifestyle options. Personal trainers are nationally certified and can provide new exercise techniques and motivation. Group fitness classes are offered in a variety of class formats, including cycling, kickboxing, step, multi-impact, aqua, and muscle strengthening. Lifestyle enhancement classes include yoga, tai chi, racquetball, and self-defense.

**Intramurals:** Intramural sports offers a wide variety of competitive and recreational opportunities encompassing team, individual/dual, and special event activities for both men and women. Participation is open to all currently enrolled students

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and presently employed faculty and staff. Individuals or teams wishing to participate in an intramural sport need to attend the registration meeting for their selected sport. Registration meeting dates and times are published in the program guide each semester, available at the Student Recreation Center.

### Student Recreation Center

The 150,000 square foot Student Recreation Center located next to Mendenhall Student Center houses six multi-sports courts, one squash and seven racquetball courts, a twenty-eight foot climbing wall, one-seventh mile track, indoor/outdoor pool with lounging area, Center Court juice bar, three exercise studios, 10,000 square foot cardiovascular and weight training area, outdoor adventure center, locker rooms, and administrative offices. The Blount Recreational Sports Complex has eighteen acres of sport fields for flag football, soccer, and softball and is located off of Charles Boulevard behind the Belk Building. These fields are used for intramural and club sports and can be reserved for use by campus groups with advance notice. Currently enrolled students who have paid activity fees are automatically members of the Student Recreation Center and may use it by presenting a valid ECU One Card. Distance education students, faculty, staff, ECU alumni, spouses of ECU faculty, staff, and alumni, and student spouses are eligible to purchase memberships to the Student Recreation Center. Guest and dependent day passes are also available for purchase. Dependent children are admitted for free on Fridays and Saturdays when accompanied by a member. For additional information access the web site at [www.recserv.ecu.edu](http://www.recserv.ecu.edu).

### Mendenhall Student Center Recreation

Bowling, billiards, table tennis, and other tournaments are conducted in Mendenhall Student Center. Noncredit short courses are also planned and presented. Additional recreational opportunities are available at the Student Recreation Center through the Department of Recreational Services.

### HONOR SOCIETIES, PROFESSIONAL AND SERVICE FRATERNITIES

Alpha Epsilon Delta (Pre-Health Professions)	Omicron Delta Kappa (Leadership)
Alpha Iota Delta (Decision Sciences)	Order of Omega (Greek)
Alpha Kappa Delta (Sociology)	Phi Alpha (Social Work)
Alpha Mu Alpha (Marketing)	Phi Alpha Theta (History)
Alpha Omega Alpha (Medicine)	Phi Beta Delta (International Scholarship)
Alpha Phi Omega (Service)	Phi Eta Sigma (Freshman Scholarship)
Alpha Phi Sigma (Criminal Justice)	Phi Kappa Phi (All Academic Fields)
Beta Alpha Psi (Accounting)	Phi Sigma Iota (Foreign Languages)
Beta Beta Beta (Biology)	Phi Sigma Pi (Scholarship and Service)
Beta Gamma Sigma (Business)	Phi Sigma Tau (Philosophy)
Chi Sigma Iota (Counseling)	Phi Upsilon Omicron (Human Environmental Sciences)
Delta Pi Epsilon (Business Education)	Pinnacle (Nontraditional Students)
East Carolina Honors Organization	Pi Alpha Alpha (Public Administration)
Epsilon Nu Eta (Environmental Health)	Pi Kappa Lambda (Music)
Epsilon Pi Tau (Technology)	Pi Mu Epsilon (Mathematics)
Epsilon Sigma Alpha (Service)	Pi Omega Pi (Business Education)
Eta Sigma Gamma (Health Education)	Pi Sigma Alpha (Political Science)
Gamma Beta Phi (Co-educational Honor and Service)	Psi Chi (Psychology)
Gamma Chi Epsilon (Service)	Sigma Gamma Epsilon (Geology)
Gamma Sigma Sigma (Service)	Sigma Iota Epsilon (Management)
Gamma Theta Upsilon (Geography)	Sigma Lambda (Deafness)
Golden Key National Honor Society	Sigma Lambda Chi (Construction Management)
Kappa Theta Epsilon (Cooperative Education)	Sigma Pi Sigma (Physics)
Kappa Delta Pi (Education)	Sigma Tau Chi (Technical and Professional Communication)
Lambda Alpha (Anthropology)	Sigma Tau Delta (English)
National Residence Hall Honorary	Sigma Theta Tau (Nursing)
Omicron Delta Epsilon (Economics)	Sigma Xi (Scientific Research)

**SPECIAL INTEREST AND PROFESSIONAL ORGANIZATIONS**

Adult Education Association	East Carolina Friends
Adventure Club	East Carolina Native American Organization
Aikido Club	ECU Ambassadors
Air Force ROTC	ECU Chapter of the NAACP
Air Waves - The ECU Media Society	ECU Chapter of NAEA
Allied Blacks for Leadership and Equality	ECU Cheerleaders
Alpha Kappa Psi (Business)	Elementary Education Club
Alternative Spring Break	English Graduate Student Organization
Amateur Radio Society	Environmental Conservation Organization
American Chemical Society Student Affiliates	Environmental Health Club
American Fisheries Society	Exercise and Sports Science Major Club
American Marketing Association	Expressions
American Medical Student Association	Fencing Club
American Society of Interior Designers	Field Hockey Club
Amnesty International	Financial Management Association
Anthropology Graduate Student Organization	Fletcher Hall Council
Apparel Merchandising Textile Organization	Folk and Country Dancers
Arnold Air Society	Front Porch Productions
Association for the Education of Young Children	Gamers Guild
Aycock Hall Council	Garrett Hall Council
Badminton Club	Geo Club
Belk Hall Council	Gospel Choir
Bisexual, Gay and Lesbian Alliance for Diversity	Graduate Association of Social Workers
Biology Graduate Student Association	Graduate Business Association
Black Graduate Student Association	Graduate Student Advisory Council (GSAC)
Black Students' Union	Graduate Student Alliance
Bowling Club	Greene Hall Council
Cadet Wing Association	Healthy PIRATES
Campus Scouts of East Carolina University	Hospitality Management Association
Ceramics Guild	Humanist Association of Eastern North Carolina
Chemistry Graduate Student Association	Indian Student Organization
Child Development and Family Relations Master's Program	International Language Organization
Circle K	Isshiryu Karate Club
Clement Hall Council	Italian Club
Club Softball	Jeet Kune Do Association
Coastal Resources Management Association	Jones Hall Council
College Democrats	Keller Physician Assistant Society
College Republicans	Ladies Elite
Collegiate American String Teachers Association	Leadership Corps
Cotten/Fleming/Jarvis Hall Council	Maritime Studies Association
Council on Family Relations	Medieval Recreation Guild
Counselor Education Association	Men's Lacrosse Club
Curriculum and Instruction Graduate Student Organization	Men's Rugby Club
Craftsman East	Men's Soccer Club
Cricket Club	Men's Ultimate Frisbee - ECU Irates
Cycling Club	Men's Volleyball Club
Dance Team	Men's Water Polo Club
Democracy Matters	Metals Guild
Design Associates	Middle Grades Education Club
Doctoral Student Association	Minges Maniacs
East Carolina Association of Nursing Students	Minority Association of Pre-Health Students
East Carolina Communication Organization	Minority Student Coalition

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Model United Nations Club	Student Athletic Trainer's Club
Mountain Biking Racing Team	Student Council for Exceptional Children
National Association of Industrial Technology	Student Dietetic Association
National Society of Collegiate Scholars	Student Government Association
National Speech, Language and Hearing Association	Student North Carolina Association of Educators
North Carolina Student Rural Health Coalition	Student Occupational Therapy Association
Omniance Modeling	Student Pirate Club
Painting Guild	Student Rehabilitation Association
Pershing Rifles	Student Union
Phi Epsilon Kappa	Student Volunteers for REAL
Physical Therapy Club	Students for a free Tibet
Physicians for Social Responsibility	Students United
Physics Graduate Student Association	Swim Club
Pirate Bridge Club	Tae Kwon Do
Power of One	Tai Chi
Professional Association of Industrial Distribution	The Circle
Rebel	The Light
Recreation and Leisure Studies Graduate Society	The Navigators
Residence Hall Association	Textile Guild
School of Health and Human Performance Graduate Student Organization	Thespians for Diversity
School of Music Graduate Student Organization	Tyler Hall Council
Science Education Club	Undergraduate Sociological Society
Scott Hall Council	Underwater Hockey Club
Sculpture Guild	VOICE
Sign Language Club	Wakeboard Club
Slay/Umstead Hall Council	Waterski/Wakeboarding
Society for Advancement of Management	White Hall Council
Society for Clinical Laboratory Science	Women's Lacrosse Club
Society for Technical Communication	Women's Rugby Club
Society of Physics Students	Women's Soccer Club
Student Accounting Society	Women's Ultimate Frisbee
Student Association of Latino-Spanish Affairs	Women's Volleyball Club
Student Athletic Advisory Council	Women's Water Polo Club
	WZMB - Student Radio Station

**MUSIC GROUPS**  
**Large Performance Groups**

Chamber Singers	Symphonic Band
Concert Band	Symphony Orchestra
Concert Choir	University Chorale
Jazz Ensemble	Wind Ensemble
Marching Pirates	

**Small Performance Groups**

Brass Chamber Music	Percussion Ensemble
Collegium Musicum	Saxophone Chamber Music
Jazz Chamber Music	String Orchestra
Madrigal Singers	Woodwind Chamber Music
Opera Theatre	



**SOCIAL FRATERNITIES AND SORORITIES**

College Panhellenic Association  
Interfraternity Council

Junior Panhellenic Council  
National Pan-Hellenic Council

**Fraternities**

Alpha Sigma Phi  
Alpha Phi Alpha  
Beta Theta Pi  
Delta Chi  
Delta Sigma Phi  
Epsilon Chi Nu  
Kappa Alpha Order  
Kappa Alpha Psi  
Kappa Sigma  
Lambda Chi Alpha  
Omega psi Phi

Phi Beta Sigma  
Phi Kappa Psi  
Phi Kappa Tau  
Pi Kappa Alpha  
Pi Kappa Phi  
Sigma Alpha Epsilon  
Sigma Nu  
Sigma Phi Epsilon  
Sigma Pi  
Tau Kappa Epsilon  
Theta Chi

**Sororities**

Alpha Delta Pi  
Alpha Kappa Alpha  
Alpha Omicron Pi  
Alpha Phi  
Alpha Xi Delta  
Chi Omega  
Delta Sigma Theta

Delta Zeta  
Kappa Delta  
Sigma Gamma Rho  
Sigma Omicron Epsilon  
Sigma Sigma Sigma  
Zeta Phi Beta  
Zeta Tau Alpha

**RELIGIOUS ORGANIZATIONS**

As a tax-supported institution, East Carolina University neither promotes nor recommends a specific religious faith. The university does, however, encourage the participation of students and faculty members in the activities of their faith.

The groups which carry on regular activities either on campus or in their own student centers off campus are the following:

Apostolic Campus Ministry  
Baptist Student Union  
Buddhist Meditation and Study Group  
Campus Crusade for Christ  
Campus Christian Fellowship  
Episcopal Campus Ministries  
Newman Catholic Student Center  
Presbyterian Campus Ministry  
Students for Christ  
The Cross Culture  
The Gift of Life

Hillel (Jewish)  
Inter-Varsity Christian Fellowship  
King Youth Fellowship  
Latter-Day Saint Student Group Association  
Muslim Student Association  
New Generation Ministries  
The Way Campus Fellowship  
Victory Campus Ministries  
Wesley Foundation of Greenville  
Young Life

**SPORTS AND ATHLETICS**

East Carolina University is a Division I member of the National Collegiate Athletic Association (NCAA) and competes in Conference USA. The following intercollegiate sports are offered.

**Men's**

Fall-football, tennis, cross country, and soccer  
Winter-basketball, diving and swimming, and indoor track  
Spring-baseball, tennis, golf, and outdoor track

**Women's**

Fall-volleyball, tennis, cross country, and soccer  
Winter-basketball, diving and swimming, and indoor track  
Spring-softball, golf, tennis, and outdoor track

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Various sports camps are sponsored for boys and girls. For availability of sport camps held from year to year, please contact the athletic business office.

Intramural and club sports opportunities as well as additional summer sports and adventure camps are available through the Department of Recreational Services.

### **CULTURAL OPPORTUNITIES**

#### **CENTRAL TICKET OFFICE**

Located on the main floor of Mendenhall Student Center, the Central Ticket Office provides tickets to a variety of campus-wide programs and events including programs by the Student Union, Ledonia Wright Cultural Center, S. Rudolph Alexander Performing Arts Series, Travel-Adventure Film Series, Family Fare Series, Arts Smart Series, School of Music, Department of Theatre and Dance, Family Weekend, rentals for Wright Auditorium, Student Organization programs, and more. Tickets to home games for football and basketball are also distributed at the Central Ticket Office. Students are required to present an ECU one card to secure complimentary and discount tickets.

#### **CULTURAL AWARENESS**

Presenting programs that emphasize minority cultures and interests is the responsibility of the Student Union Cultural Awareness Committee. The committee annually sponsors minority films, a Jewish and International Festival, a Black Arts Festival, and handicapped awareness week programs.

#### **THE ARTS**

##### **East Carolina University Poetry Forum**

The East Carolina University Poetry Forum conducts an informal workshop in poetry that meets in the Mendenhall Student Center at 8:00 p.m. each first and third Thursday during the months of the academic year. The forum sponsors the visits of established poets: Robert Creely, Patricia Goedicke, William Stafford, James Dickey, Carolyn Kizer, Lucille Clifton, Fred Chappell, and Louis Simpson are among the poets who have read on the ECU campus.

##### **Family Fare Series/Arts Smart Series Cultural Outreach Office, Department of University Unions**

Dedicated to providing culturally enriching programs for young audiences, the Family Fare Series offer wholesome, curriculum related plays and concerts for family audiences on Saturday afternoons at Wright Auditorium. Arts Smart, a companion program, offers these performances to school children K-6 from twenty-one eastern NC counties who are bused in on Friday mornings.

##### **S. Rudolph Alexander Performing Arts Series**

Welcome to a world where *culture* isn't only about experiments in a Petri dish or a strand of pearls. Instead, *culture* is about having the opportunity to attend concerts by some of the greatest artists and performers the world can offer. The ECU S. Rudolph Alexander Performing Arts Series presents an annual season of nine of the world's best performers and performances of classical, opera, modern dance, ballet, Broadway, jazz, and more in Wright Auditorium at extremely modest prices. A component of the Department of University Unions, the series has served the university and regional community for more than forty years with cultural arts programming. The series also offers dynamic pre-show dinner/panel programs to help audiences learn more about the performances and the performers. For those who desire an extended opportunity to be involved, opportunities exist for graduate assistantships, marketing internships, and office assistants.

##### **Visual Arts Committee**

The Student Union Visual Arts Committee presents major touring exhibitions and works by area artists. The annual ILLUMINA Show, featuring works by student artists, is one of the committee's most noteworthy activities and is displayed in Mendenhall Student Center's gallery.

## **College of Fine Arts and Communication**

### ***Art Galleries and Exhibitions***

The Leo W. Jenkins Fine Arts Center, which houses the Wellington B. Gray Art Gallery, is operated under the College of Fine Arts and Communication, School of Art and Design. The Gray Art Gallery installs temporary exhibitions of contemporary art, including national and international traveling shows and ECU faculty and student exhibitions.

There are weekly shows by School of Art and Design majors in the Mendenhall Student Center, Baptist Student Center, and Jenkins Fine Arts Center as well as several locations in the community.

Student organizations, such as Craftsmen East, Ceramics Guild, Printmakers Guild, Design Associates, Painting Guild, Visual Arts Forum, Student Chapter NAEA, and other student art groups, hold programs, sales, and exhibitions during the year.

Visiting artists and scholars in contemporary art fields present lectures, seminars, and workshops to supplement the curriculum.

### ***East Carolina Playhouse***

The East Carolina Playhouse is the producing arm of the College of Fine Arts and Communication, School of Theatre and Dance. The Fine Arts and Performing Groups Board contributes partial funding for the playhouse to produce a musical (often in conjunction with the School of Music), plays, and a dance concert. Although preference in casting is given to students, roles in the productions are open to faculty and staff members of the university and to citizens of Greenville and the surrounding area. Freshmen are eligible to audition for productions in their first semester. Students and others also take part in all areas of technical production.

### ***School of Music Concerts***

The College of Fine Arts and Communication, School of Music annually mounts a vigorous concert program providing musical enrichment for the cultural life of the university community. All events are open to the public and include a faculty recital series; student recitals; a series of concerts by School of Music performance organizations, both instrumental and choral; opera workshop productions; and a series of chamber music concerts. A diversified musical repertoire provides the listener with a wide variety of music. Premiere performances of compositions by student and faculty composers are a feature of many concerts. Visiting artists, composers, and lecturers of international stature conduct master classes for School of Music students and faculty. Frequently scheduled is the presentation of a major choral-orchestral work by the combined forces of the School of Music.

## **ENTERTAINMENT**

### **Barefoot**

A Student Union committee, Barefoot, develops plans and programs to be carried out for the annual, all-day celebration of spring.

### **Films**

Throughout the year films are presented each week on campus. The Films Committee, which is part of the Student Union, selects popular films and presents them each Thursday, Friday, and Saturday night. The committee also selects foreign films and American classics and presents them on Wednesday evenings. Funds to provide the films are made available by the Student Union.

### **Popular Entertainment Committee**

The Popular Entertainment Committee annually presents on campus artists from the world of jazz, folk, rhythm and blues, rock, and popular entertainment. Funds to provide the coffeehouse programs are supplied by the Student Union.

### **Spectrum**

The Spectrum Committee presents programs that are of interest and high entertainment value. Lecturers, hypnotists, mimes, and comedians are but a few examples of this committee's programs.

### TRAVEL

#### **Travel-Adventure Film and Theme Dinner Series**

Budget trips to places such as New York City are made available by the Student Union. The Travel Adventure Film and Dinner Series is also presented by the Mendenhall Student Center. The ECU Travel-Adventure Film and Theme Dinner Series presents world travel films and serves gourmet dinners in Mendenhall Student Center. Some of the world's finest travel filmmakers narrate travelogues to exotic locales. All films are accompanied by all-you-can-eat gourmet buffets. Films are scheduled at 4:00 p.m. and 7:30 p.m., and dinner is served at 6:00 p.m. An ECU student and guest may attend the films free with a valid ECU One Card. Dinners may be purchased by cash, meal plan, or declining balance account. For information call the Central Ticket Office at 252-328-4788.

#### **Annual New York Adventure**

The Student Union hosts an annual trip to New York over Thanksgiving break. Busloads of ECU students, staff, and faculty take the yearly trek for a bite of the big apple at a student-friendly price.

East Carolina University is an equal educational opportunity institution. In keeping with this policy, the university makes no distinction in the admission of students or in any other of its activities on the basis of race, color, national origin, religion, gender, age, or disability.

APPLICATION

Application packets for graduate degree programs include a completed application form, official transcripts of all prior academic work, letters of recommendation, appropriate standardized test scores, statement of residence, and an application fee of \$50.

Prospective students may apply simultaneously for more than one graduate degree program, but each application requires the submission of a complete application packet. An application may be downloaded and printed or completed and submitted at the Graduate School web site, [www.ecu.edu/gradschool/](http://www.ecu.edu/gradschool/). Further information is available by telephoning the Graduate School at 252-328-6012.

The dates below are deadlines for receipt of the application form by the Graduate School. Early application is encouraged, particularly if application for an assistantship is contemplated. Students are encouraged to inquire about individual programs as early as possible since some programs have earlier deadlines and review applications only at fixed times during the year:

Session	Deadline	Session	Deadline
Fall	June 1	First Summer	March 15
Spring	October 15	Second Summer	May 1

Master's degree candidates planning to enroll in the fall who wish to be considered for out-of-state tuition waivers must submit applications by February 1. If applications are received after that date, waivers will be considered only as funds are available. Applications for the family nurse practitioner concentration in nursing are due March 1.

ADMISSION

To qualify for regular admission to a graduate degree program an applicant must have a baccalaureate degree from an institution accredited by a regional association and have either an overall GPA of 2.5 on a 4.0 scale on all undergraduate work or a GPA of 3.0 on a 4.0 scale in either the undergraduate major or work taken during the senior year. A satisfactory standardized test score is also required for all programs. Applicants to the EdD program must also have a master's degree from an accredited institution. Individual programs may have more stringent standards, and some need additional information and credentials. It is important that applicants discuss the process with the director of the program to which they apply as early as possible. Each graduate program decides on the admissibility of its students. Some programs will recommend admission by exception for a limited number of students who do not qualify for regular admission if the students have other offsetting strengths. Students with marginal credentials are advised to consult with the program director about their admissibility.

Applicants for admission to the Graduate School are required to complete a self-managed application prior to consideration for admission. This application requires that the student manage the application process by completing the appropriate forms, gathering the necessary transcripts and letters of recommendation, and returning the forms as one package to the Graduate School. Graduate School applications can be acquired by phone at 252-328-6012, by e-mail at [www.gradschool@mail.ecu.edu](mailto:www.gradschool@mail.ecu.edu), or from the Graduate School's home page [www.ecu.edu/gradschool/](http://www.ecu.edu/gradschool/).

One official transcript from every college or university previously attended where 7 s.h. or more course work was completed is required. The applicant must request a sealed copy of an official transcript from the registrar of each school attended. The student will forward the transcripts to the Graduate School as part of the self-managed application. Three letters of recommendation from persons who can attest to the applicant's academic competence or ability to do graduate work must be collected by the student and included in the self-managed application sent to the Graduate School. The School of Business does not require letters of recommendation for its applicants.

Scores from a standardized test are required for admission to all graduate programs. Applicants must request the testing service to forward the results to the Graduate School. Examinations must have been taken within the past five years.

The general test of the Graduate Record Examinations is required for programs in anthropology, biology, molecular biology, chemistry, communication sciences and disorders, computer science, economics, English, environmental health, geography, geology, history (MA), physical therapy, physics, political science, psychology, public administration, sociology, speech-language

## SECTION 2: ADMISSION AND READMISSION

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and auditory pathology (MS), and all PhD programs. The Graduate Management Admission Test is required for the graduate programs in accounting and business administration. The general test of the Graduate Record Examinations or the Miller Analogy Test is accepted by all other master's programs, including all MAEd programs, and the EdD program. Many programs do not require entrance exam scores for holders of the master's degree or more advanced degrees. However, biology, business administration, child development and family relations, communication sciences and disorders, counselor education, economics, educational leadership, exercise and sports science, health education, history, mathematics, molecular biology, nursing, psychology, public administration rehabilitation studies, social work, and speech-language and auditory pathology programs require entrance examination scores for all applicants.

The master of music degree with a major in education and all MAEd programs except adult education require North Carolina Teaching Licensure for admission.

The admissions requirements for graduate certificate programs depend upon the program. Some certificate programs require that the applicant be enrolled in a degree program while other certificate programs are designed for any person holding a baccalaureate degree. Credit earned while enrolled in a graduate certificate program may be transferred into a degree program with the approval of the department offering the degree program.

Applicants are admitted to degree and certificate programs only upon the issuance of a formal letter of admission by the Graduate School.

Requirements for admission to the summer session terms are the same as those for regular semesters of the academic year. However, some programs cannot be initiated in the summer session.

Students wishing to enroll in courses offered through the Division of Continuing Studies must be admitted to the university as a degree or non-degree student. Requirements for admission are the same as those for students enrolling on the main campus.

A graduate student in good standing at another institution may be admitted to a specific graduate course or courses without furnishing transcripts and examination scores if the dean of the student's graduate school so requests in writing. Students enroll as nondegree-seeking students.

Incomplete applications will be destroyed one year after the beginning date of the term of intended enrollment. Applicants may request that copies of transcripts be returned before the year is over, or they may request that their applications be continued for another year.

### NONDEGREE ADMISSION

The nondegree student classification is a temporary graduate classification. It may be used by those who need course credit for a post baccalaureate certificate or teacher licensure, who have expectations of enrolling in a degree or CAS program, or by those who desire professional or personal enrichment. To be allowed to enroll in the nondegree classification, a student must present a nondegree application supported by a transcript or other document showing a bachelor's degree from an accredited institution.

1. Nondegree students are not eligible to take graduate courses in all programs. Nondegree students should seek the permission of the graduate director in the department offering the course(s) prior to attempting to enroll.
2. A maximum of 9 s.h. of course work taken as a nondegree student may apply toward the credit requirement of the degree program.
3. Credit earned while enrolled in a graduate certificate program may be transferred into a degree program with the approval of the department offering the degree program.
4. Requests for degree credit for courses completed as a nondegree student are considered after admission to a graduate degree program. All nondegree course work accepted for degree credit must be approved by the chair of the student's department. All requests for degree credit must be approved by the dean of the Graduate School.
5. Course work taken as a nondegree student carries with it no implication that the student will be admitted to a degree program in the Graduate School.
6. The credit for course work taken as a nondegree student must be satisfactorily incorporated within the applicable time frame for completion of all degree requirements.

7. Nondegree students are expected to familiarize themselves with Graduate School policies and to seek further advice or clarification.

Nondegree application forms can be obtained from the Graduate School and should be returned to the Graduate School, East Carolina University, Greenville, NC 27858-4353. Students should submit nondegree applications no later than one week prior to registration day. A \$50 processing fee will be charged.

## **EARLY ADMISSION TO GRADUATE STUDIES**

There are a variety of ways that ECU undergraduate students may be admitted to take graduate courses before completing the requirements for their undergraduate degree.

### **INTEGRATED BACHELOR'S/MASTER'S PROGRAM**

This program allows ECU undergraduates with at least a 3.5 GPA to apply as juniors to an Integrated Bachelor's/Master's Program. Upon admission by the master's degree program the student can count up to 15 s.h. of graduate credit toward completion of the bachelor's degree. Students participating in this program earn the bachelor's degree prior to completion of the master's degree. Starting in Fall 2004 students considering this program will be able to apply for the BA Psychology/MS Occupational Therapy Program or the BS Quantitative Economics/MS Applied Economics Programs. Other combinations will become available; students should discuss their goals with their advisers and the Graduate School. Updated information about participating degree programs is available on the Succeed Sooner web site: [www.ecu.edu/succeedsooner](http://www.ecu.edu/succeedsooner).

### **ACCELERATED MASTER'S DEGREE PROGRAMS**

ECU currently offers two Accelerated Master's Degree Programs. These programs result in the awarding of one degree – the master's.

The School of Nursing offers an accelerated RN/MSN program for transfer students who have a RN license but do not have an undergraduate degree. Students completing the RN/MSN do not receive the BSN degree. Students in the RN/MSN option must complete all general education and cognate requirements prior to beginning undergraduate nursing courses. Separate application is made to the graduate program in the first or second semester of study in the RN/MSN option. Students enrolled in the RN/MSN option must maintain a 3.0 GPA in the 15 s.h. of undergraduate nursing courses to be eligible to continue in this option. Admission to the RN/MSN option does not guarantee entry into a specific graduate concentration.

The Department of Occupational Therapy offers an accelerated MS in Occupational Therapy program. Students interested in this program enroll as freshmen in the Health Services Management and follow the specified plan of study in the Health Service Management curriculum to complete required core undergraduate courses and prerequisites for the MS degree. Students apply for Graduate School in their junior year and may be admitted upon completion of the undergraduate plan of study – a minimum of 108 credits. Students will be awarded the MS in Occupational Therapy at end of five years completing a total of 162 credit hours.

### **SIX HOUR RULE**

ECU seniors who are within 6 s.h. or less of completion of all undergraduate degree requirements may apply for admission to graduate degree programs. If admitted prior to the semester or summer term during which 6 s.h. or less and any remaining requirements must be completed, they may enroll in 5000- or 6000-level courses applicable to graduate degree requirements. Graduate courses taken under the "six hour rule" do not double count toward completion of the undergraduate degree. Successful applicants must complete all remaining undergraduate degree requirements during the semester or summer term to which they are admitted. Failure to fulfill this requirement will result in cancellation of admission to graduate degree study and enrollment in any 6000-level courses will be invalidated.

### **UNDERGRADUATE/NONDEGREE GRADUATE DUAL ENROLLMENT**

Senior undergraduate students at East Carolina University who possess at least a 3.5 GPA in their last 30 semester hours of completed ECU course work are eligible to enroll in the Graduate School as a non-degree student and complete up to 9 semester hours of graduate-level course work. This form of dual enrollment is intended to give a student contemplating future admission to a graduate program the opportunity to take graduate courses while still an undergraduate. Permission

## **SECTION 2: ADMISSION AND READMISSION**

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must be obtained from the student's undergraduate adviser; the chairman of the department offering the courses, and the Graduate School prior to admission into the Graduate School.

### **OFFICIAL WITHDRAWAL**

Students desiring to withdraw officially from the university should apply for withdrawal to the Office of Registrar. After the student has obtained the signatures of the various officials designated on the form, the student must submit the form to the Office of Registrar for final approval. Distance education students should notify the Office of Student Services in the Division of Continuing Studies. Students withdrawing for medical/counseling reasons should complete the procedure within thirty days after the last class attendance. All other students withdrawing should complete this procedure immediately after the last class attendance. After classes have ended, no withdrawal, except in the case of severe medical emergency, can be filed. During the first thirty class days of a semester, a student may withdraw from school without receiving grades for courses in which he or she is enrolled. After the first thirty class days, a student withdrawing from school shall receive a grade of F for all classes which he or she is failing at the time unless, in the judgment of the dean of the Graduate School or the director of Continuing Studies, as appropriate, the failures were caused by circumstances beyond the student's control.

### **READMISSION**

A student who has had a graduate program terminated by the Graduate School for any reason may apply for readmission to the terminated program or to another program. In either case, the student will complete an application for readmission, which will be forwarded to the academic program for its review. If the graduate faculty of the academic program does not approve readmission, they will convey that decision in writing to the Graduate School office and the dean of the Graduate School will communicate that decision to the student in writing (copy to the director of graduate studies). If the graduate faculty of the academic program wishes to admit the student, they will forward that decision in writing to the Graduate School Administrative Board for review. The academic program must state the specific conditions the students must meet to be admitted and complete the program. If approved by the Administrative Board, the dean of the Graduate School will communicate the decision of the graduate faculty and the Administrative Board to the student in writing (copy to the director of graduate studies).

Any student who interrupts his or her graduate program by not registering for courses on or off campus during any one semester of the regular academic year must apply for readmission before being allowed to resume graduate work. Applications for readmission are to be made on forms furnished by the Graduate School. There is no fee for readmission. These applications should be presented to the Graduate School at least one week prior to the opening of registration for the semester or summer term in which the student wishes to resume graduate work. Degree or CAS students who do not enroll on or off campus during the semester or summer term to which they were admitted must file an updated application. Forms can be obtained from the Graduate School office. There is no fee for filing an updated application.

When a graduate program is interrupted for one calendar year, the student will not be readmitted unless he or she meets admission requirements current at the time of the request for readmission. The Graduate School Administrative Board will consider requests to waive this rule in specific cases when a student's major school or department recommends waiver.

### **MEDICAL HISTORY/IMMUNIZATIONS**

All new students (degree and nondegree) will receive a report of medical history form with the letter of acceptance. This report, which includes a record of required immunizations, must be completed and returned to the Student Health Service. Students will not be allowed to pay fees and begin attending classes if this report is not on file with the Student Health Service.

### **PREREQUISITES**

The dean of the college, director of the school, or chairperson of the department in which the candidate wishes to work will consult with the student concerning any deficiencies in his or her undergraduate program. Required make-ups may be removed at East Carolina University or at any other approved and regionally accredited institution.

Prerequisites are stated as integral parts of various programs, entrance requirements for degree programs, and sequential progression into subject matter. Students are not allowed to enroll in courses for which they have not met the prerequisites.



## **PROGRAM MODIFICATIONS FOR INDIVIDUAL STUDENTS**

It is important to note that published descriptions of college, school, or departmental graduate programs establish only minimum requirements. Every school or department possesses and reserves the right to require individual students to enroll in additional courses or perform additional tasks in order to meet school or departmental requirements for breadth and quality in the completion of graduate programs.

While such modifications are ordinarily made a matter of record at the beginning of a student's program, schools and departments have the prerogative to make changes in a student's program at any time prior to graduation.

## GENERAL INFORMATION

Because of the early publication of this catalog, the tuition and fee schedule is omitted. The current university schedule of tuition and fees can be obtained from the cashier's office and the admissions office.

It is estimated that the average student who is a North Carolina resident incurs necessary expenses of approximately \$8,500 for room, meals, tuition, fees, and books during an academic year of two semesters. The costs of meals and textbooks may vary considerably, according to individual requirements. The university operates food service facilities in six locations throughout the campus. Meals are available either under a meal plan or by individual selections at moderate prices. A cost of approximately \$1,100 per semester for meals is an estimate. Students are required to purchase their textbooks. For their convenience, the university owns and operates the Student Stores, located on the ground floor of the Wright Building, where all necessary books and supplies may be purchased. The cost of books will vary with the different curricula; \$400-\$600 per semester is a reasonable estimate.

## RESIDENCE STATUS FOR TUITION PURPOSES

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:

**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 in-state tuition rates is on the applicant for such classification, who must show his or her entitlement by the preponderance (the greater part) of the residuary information.

**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.

**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.

**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 circumstances 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 residuary intent. Furthermore, if both a husband and his 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.

**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. And students from the military may prove retention or establishment of residence by reference, as in other cases, to residuary acts accompanied by residuary intent. In addition, a separate North Carolina statute 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 in and concurrently living in North Carolina, may be charged a tuition rate lower than the out-of-state tuition rate to the extent that the total of entitlements for application tuition costs available from the federal government, plus certain amounts based under a statutory formula upon the in-state tuition rate, is a sum less than the out-of-state tuition rate for the pertinent enrollment. A dependent relative of a service member stationed in North Carolina is 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. 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

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classification statute reviewed elsewhere in this summary.

**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. If the twelve months period 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 domicile outside North Carolina does not by itself cause loss of legal residence, marking the beginning of the grace period.

**Minors.** Minors (persons under eighteen 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 an 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.

**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 this provision only once.

**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.

**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.

Copies of the most current North Carolina residency manual are available for inspection in the university residence classification section of the admissions office, Joyner Library, and Health Sciences Library. Students are responsible for being familiar with the contents of this source of regulation.

**Deadline for Application.** Any persons applying for the in-state rate of tuition should complete the current Residence Status Application and return it to the graduate residency classification officer, Graduate School, at least three weeks prior to registration day for the semester or term they are seeking in-state tuition.

## **EXPENSES**

### **FEE PAYMENT SCHEDULE**

Returning students or those admitted and registering before the collection of fees begins for the fall or spring semesters will be subject to a late payment fee if tuition and fees are not paid by a published deadline, which usually precedes registration day by about two weeks.

Students admitted to the university as nondegree students and those pursuing graduate degrees and sixth-year certificates will be charged tuition and fees as graduate students.

Tuition and fees are subject to revision by The UNC Board of Governors and/or the ECU Board of Trustees, who reserve the right to revise them at any time found necessary or advisable and without prior notice.

No person is allowed to attend class or receive class instruction without being properly registered either for credit or for audit.

See bulletins for summer session and continuing studies fees.

### **INDEBTEDNESS TO THE UNIVERSITY AND RETURNED CHECKS**

No degree, diploma, or certificate will be granted or transcript of credits furnished a student until all financial obligations to the university, other than secured student loans, have been paid. A student may not be permitted to register; to attend classes, or to take final examinations after the due date of any unpaid obligations.

A charge will be imposed by the Office of the Cashier, Student Stores, and other university offices for returned checks. They will also subject the maker to legal action and may jeopardize the privilege of cashing checks on campus.

## **REFUND POLICY**

### **REFUNDING OF TUITION AND FEES**

It is to the financial advantage of all students withdrawing, dropping to part-time status, or dropping to a lower block of credit hours to do so as early in the semester/session as possible. The official withdrawal policy may be found in the academic regulations section of this catalog. Refunds for tuition and required fees (excluding room and board charges which are determined by contractual agreement) will be made as follows for students who withdraw or drop to a lower block of credit hours:

- Through the first week of classes (five class days starting the first official day of classes for the university) tuition and required fees will be refunded at 100 percent minus a \$25 nonrefundable registration/processing fee.
- The second week of classes (six to ten consecutive class days) tuition and required fees will be refunded at 75 percent minus the registration/processing fee.
- The third week of classes (eleven to fifteen consecutive class days) tuition and required fees will be refunded at 50 percent minus the registration/processing fee.
- The fourth week of classes (sixteen to twenty consecutive class days) tuition and required fees will be refunded at 25 percent minus the registration/processing fee.
- Beginning with the fifth week of classes (twenty-first consecutive class day) refunds will not be considered.

If the student wishes to appeal, the process must be initiated in writing to the Office of the Registrar. Distance education students should contact the Office of Student Services, Division of Continuing Studies. Dually enrolled students (distance education and on campus) should notify both offices.

All refunds are subject to the above noted time limitations and will be based on the difference between the amount paid and the charge for the block of hours for which the student is officially registered.

### **POLICY EXCEPTIONS**

There will be no refunds for private music lessons and/or remedial math after the first five class days of each semester.

A separate and extended refund policy exists for first-time federal Title IV financial aid recipients. Refer to financial aid materials or contact the Office of Student Financial Aid.

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To officially withdraw from the university, a student must give written notice to the Office of the Registrar. Distance education students should also send written notification to the Division of Continuing Studies.

Any refunds that a student is entitled to shall first be applied to outstanding financial obligations owed the university.

### **SUMMER SESSIONS**

The refund period for withdrawal or reduction in course load is limited to the first week of classes (five class days starting with the first official day of classes for the university). During this period, 100 percent of the tuition and fees will be refunded minus a \$25 registration/processing charge.

## **FINANCIAL ASSISTANCE**

### **TUITION WAIVER FOR PERSONS AT LEAST 65 YEARS OF AGE**

Persons 65 years of age and older who meet the requirements for the in-state rate of tuition and the university requirements for admission can have their tuition and fees waived provided space is available in the course being sought.

### **VETERANS ADMINISTRATION EDUCATIONAL PAYMENTS**

The Offices of Veterans Administration (VA) and Social Security require a minimum course load of 9 s.h. of required courses per semester (except summer session) for payment of full-time benefits to veterans and eligible dependents.

After the student declares a major, benefits will be paid only for courses listed in the catalog under that degree/major program. Substitutions are allowed when the major chairperson gives written approval prior to the student's taking the course.

Students declared academically ineligible will be required to remove their probation before educational benefits can be recertified to the VA.

Students may be eligible for an additional allowance under a work-study program. The work-study program allows students to perform work for the VA in return for an hourly wage. They may perform outreach services under the supervision of a VA employee, prepare and process VA paperwork, work in a VA medical facility, or other approved activities. Students must be enrolled at three-quarter or full-time rate.

Students may be eligible to receive a special allowance for individual tutoring if they enter school at one half-time or more. To qualify, students must have a deficiency in a subject, making the tutoring necessary. There is no entitlement charged for tutorial assistance.

Further information is available at the campus veterans affairs office.

### **UNC CAMPUS SCHOLARSHIPS**

In 2002, the North Carolina State Legislature created the UNC Campus Scholarship program, formerly known as the Minority Presence Grant program. The criteria for this scholarship program are being determined by the ECU Office of Institutional Equity. The \$1,500 scholarship award is designed to assist in the diversification of the university's undergraduate student body to include the presence of first generation college students, students from disadvantaged socio-economics backgrounds and traditionally underrepresented populations on our campus.

### **NATIONAL/INTERNATIONAL FELLOWSHIPS AND SCHOLARSHIPS**

East Carolina University maintains an Office of National/International Fellowships and Scholarships to familiarize students with the competitive national and international fellowships and scholarships available to selected students intent on pursuing graduate work. These fellowships and scholarships, for the most part, are for terms long enough to ensure completion of the master's degree, but in some cases they allow for work on the doctoral degree. Among the fellowships and scholarships coordinated by this office are the Barry M. Goldwater Scholarship, the Marshall Scholarships, the Rhodes Scholarships, the Fulbright Grants, and the Harry S. Truman Scholarships (undergraduate only). Interested students should contact the director, Honors Program, D-107 Brewster Building; 252-328-6373.

**OFFICE OF STUDENT FINANCIAL AID**

Through the use of federal and state funds as well as contributions from its many friends and alumni, East Carolina University makes every effort to assist students in the continuation of their education. The staff of the university Office of Student Financial Aid assists students in obtaining funds from the source best suited to the individual's need.

Three main types of financial assistance are available to qualified students: gift aid, consisting of grants and scholarships; long-term educational loans; and part-time employment. Students classified as nondegree auditors, special students, or visitors are not eligible for financial aid.

Because the primary aim of the financial aid programs is to provide assistance to students who, without aid, would be unable to continue their education, most of the funds are awarded on the basis of financial need. However, in its efforts to strive for excellence, the university offers assistance to some talented students based on merit rather than need.

The university participates in federal programs which provide funds on the basis of financial need as follows:

Federal Pell Grant	Federal Work-Study Program
Federal Supplemental Educational Opportunity Grant	Federal Stafford Loan Program
Federal Parent Loan Program	Nursing Student Loan
Federal Perkins Loan	

Information pertaining to the application process, types of aid available, and academic requirements may be obtained from the East Carolina University Office of Student Financial Aid. Students should contact appropriate deans or departmental chairpersons of intended major areas concerning scholarships that are available in those disciplines.

## OFFICIAL ANNOUNCEMENTS

The university maintains approximately 100 official bulletin boards at key locations on campus and also maintains an official bulletin board on the ECU home page, [www.ecu.edu](http://www.ecu.edu). Through consecutively numbered official announcements, academic departments and other divisions of the university communicate essential and timely information to students; it is the responsibility of the student to read and know the contents of those announcements which affect his or her program.

## CLASS ATTENDANCE REGULATIONS

Class attendance is expected of all students. If class sessions are missed, and the student does not present an official university excuse, the decision as to whether the work may be made up or not will be determined by the instructor and the student.

## COURSES

### CREDIT

The main campus of East Carolina University operates on the semester system. The fall and spring semesters are each approximately fourteen weeks in length. The summer session is divided into two equal terms of approximately five and one-half weeks each. An alternative eleven week summer schedule is available in some areas. Doctoral students may enroll for a single eleven-week summer term. The Division of Continuing Studies will supply calendars for the off-campus centers.

The university is in session five and one-half days a week. Classes usually meet for 50-minute periods, but some of the courses meet for three hours in one evening or on Saturday morning.

Only courses numbered 5000 or higher can be counted toward completion of graduate degrees or CAS programs. At least one-half of the credit for a master's degree must be earned in courses for graduates only, numbering 6000 or above. During the summer terms, most courses are offered during the daytime. Three semester hour courses meet one and a half hours daily; five semester hour courses meet two and one-half hours daily. Other courses meet for the appropriate times in order to meet the total contact hour requirement. The university offers many graduate courses, workshops, conferences, and short courses during the summer session. **Graduate degree credit can be earned only at the rate of one semester hour of credit for each calendar week of attendance.**

Graduate students who seek and obtain permission to take courses at other institutions for subsequent transfer to degree programs at East Carolina University may obtain credit only **at the rate of one semester hour of credit for each calendar week of course attendance. Degree or CAS credit cannot be obtained through completion of correspondence courses.**

### CREDIT BY EXAMINATION

Some colleges, schools, and departments offer graduate course credit by examination according to policies adopted by such colleges, schools, and departments and the regulations described below. Not more than 20 percent of a degree or CAS program may be earned through credit by examination and credit thus earned will not be counted as residence credit.

Graduate students who are currently enrolled and who have been accepted in a nondoctoral degree or CAS program may receive credit by examination for a course in which they have not been enrolled for either credit or audit. This requires approval by the appropriate dean of a college, director of a professional school, or by the chairperson of a department in the Thomas Harriot College of Arts and Sciences and finally by the dean of the Graduate School. Appropriate forms are available in the Graduate School.

Successful petitioners must pay to the university cashier a nonrefundable fee per semester hour in advance of the examination. The forms, bearing the receipt of the cashier, must be shown to the instructor conducting the examination who, in turn, must report the grade to the registrar and the dean of the Graduate School. The examination must be conducted within one week following approval of the petition by the dean of the Graduate School.

The following departments and schools do not offer credit by examination: English, geography, history, political science, music, and nursing.

## **SECTION 4: ACADEMIC REGULATIONS**

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### **TRANSFER CREDITS**

Up to 20 percent of the credit hours in a program may be earned in a different but regionally accredited institution. No credit hours completed as part of an earned master's degree can be counted toward a second master's degree. Master's degree students in business administration, public administration, and social work and doctoral students are governed by statements in degree requirements in Section 7, Curricula.

Graduate-level course work taken elsewhere is not automatically applicable to a graduate degree program at East Carolina University. Applicants for admission must indicate clearly on application forms their attendance at other graduate-level institutions and petition college, school, or departmental advisers to apply such earned credits to their programs. College, school, or departmental petitions for application of transfer credit must be approved by the Administrative Board of the Graduate School. Ordinarily the board will approve the application of graduate course transfer credit only if (1) the college, school, or department so recommends; (2) the graduate credit was earned at a regionally accredited institution; (3) the student was admitted to a formal graduate degree program at the time the credit was earned with a minimum final course grade of B; and (4) the credit can be satisfactorily incorporated within the applicable time frame for completion of all degree requirements. Official transcripts which will provide adequate evidence to support such petitions must be supplied.

Graduate students who have been admitted to the Graduate School at East Carolina University may enroll at other regionally accredited graduate-level institutions for course work which is applicable to their programs provided they have obtained advance permission from their college, school, or departmental advisers and the dean of the Graduate School. Forms for permission to take course work elsewhere may be secured from the Graduate School office. Such transfer work is included in the 20 percent maximum application of such credit to degree programs. Transfer credit for short courses or workshops can be obtained only at the rate of 1 s.h. of credit for each calendar week of course attendance; concurrent enrollment in two or more short courses or workshops is not permitted.

### **STUDENT LOAD**

No more than 15 s.h. of work may be taken in any one semester. A student is considered to be enrolled full-time when registered for a minimum of 9 s.h. during a regular semester. Appropriate allowance can be made and equivalent credit can be given if work other than formal courses undertaken by the student contributes to the educational program.

### **AUDITING COURSES**

Auditing a course consists of attendance at classes and listening but taking no part in the class. An auditor is not responsible for any assignments, nor is he or she allowed to take any tests or examinations. However, in order to have the audited course recorded on the official transcript, a student must attend classes regularly. An auditor may not enroll in a participation course (art classes, laboratories, etc.). Under no circumstances will a grade be assigned, evaluations be made, or performance reports be issued on a student auditing a course. Auditing a course or part of a course is contingent upon the approval of the instructor and the appropriate departmental chairperson, school director, or college dean. Students may not register to audit a course until the last day of the drop/add period. Persons who wish to attend university classes without earning credit must be admitted to the university before seeking approval to audit any course. Individuals enrolled as nondegree undergraduate students will be assigned to the University College for assistance with registration. The applicants shall then complete the prescribed procedure for registering through the Office of the Registrar and pay the audit fee to the cashier's office before attendance in classes is permitted.

Students regularly enrolled in the university wishing to audit course(s) must initiate the approval process with their adviser.

### **REGISTRATION PROCEDURES**

Students who have received a letter of admission from the Graduate School report to the office of the college, school, or department in which they are enrolled to be assigned an adviser who will assist in scheduling classes and completing registration. Each student, new or continuing, has primary responsibility for assuring that he or she is completing degree requirements and is allowed to sign his or her own on-line registration schedule. To register, a student must complete an on-line registration schedule, consult an adviser, if necessary, and register via terminal operator or telephonic registration. To complete the process and be officially registered and entered on the class roll, on-campus students must pay fees to the cashier's office and distance education students pay to the Division of Continuing Studies. No person will be admitted to any class unless officially registered either for audit or for credit.



Students are expected to complete registration (including the payment of all required fees) on the dates prescribed in the university calendar. Students who register during the early registration period are required to pay their fees and secure their official schedules during a stipulated period prior to registration day. Students who fail to pay fees by this date will have their schedules canceled.

### **EARLY REGISTRATION**

Early registration is a time designated each semester for currently enrolled, readmitted, or newly admitted students to meet with their advisers, if necessary, to review their records and plan their courses for the upcoming semester. The student will complete an on-line registration schedule, after consulting an adviser if necessary, register via terminal operator or telephonic registration, or web registration, and receive a tuition and fee schedule giving further instructions.

### **SCHEDULE CHANGES**

A graduate student may add a course or courses through the day following the last day to register for the semester. The student must process and take to the Office of the Registrar the schedule change form but needs only the signature of the adviser, indicating the adviser's awareness of the action, and the signature of the instructor or departmental chairperson, indicating the space is available in the class.

A graduate nondoctoral student may drop a course and receive no grade up to two weeks prior to the last day of classes. The student must process the schedule change form by taking the form signed by the program adviser to the Office of the Registrar and having it entered into the computer. The adviser's signature indicates awareness of the change. **Within the last two weeks before examinations and during the examination period, a student who drops a course will receive a final grade of F unless he or she has permission from the dean of the Graduate School to drop for medical reasons or other justification.**

Doctoral students may drop courses only with permission of their departmental chairperson or graduate committees.

Students should pay particular attention to procedural directions printed on the forms. No course is officially dropped or added until the required procedure is completed.

## **GRADING SYSTEM**

### **GRADES AND SCHOLARSHIP**

At the first scheduled class meeting, the instructor must state the basic requirements and assignments of the course and indicate his or her method of evaluation.

In the Graduate School, grades consist of A, B, C, I, IP, F, and N.

#### **Change of Grade**

A change of grade, other than I, for any reason, must be made within one year from the date the original grade was received.

#### **Definition of Grades**

1. A-Excellent
2. B-Good
3. C-Passed
4. I-Incomplete – The grade of I is given for a deficiency in the quantity of work done in a course. "I" grades must be resolved within one calendar year or a grade of "F" will automatically be assigned. No exceptions to this policy will be allowed. No student will be allowed to graduate with an incomplete on his or her record.
5. IP-In Progress – A special grade reserved for capstone courses such as thesis, dissertation, professional paper, internships, practica, and similar courses. The "IP" grade is removed when the course is successfully completed. The grades in these courses are not included in meeting the cumulative "B" average required for graduation.
6. F-Failure
7. N-Audit

### Retention Standards

#### *Nondoctoral Programs*

1. Graduate courses with a final grade of C may be credited toward completion of any part of a nondoctoral degree program, but any student who receives a final grade of C on courses totaling in excess of 6 s.h. will have his or her program terminated.
2. A B average is required for graduation based on semester hours of A graded work equal to or exceeding semester hours of C work.
3. A student who receives either
  - (a) two Fs, or
  - (b) two Cs and an additional F or C, or
  - (c) three Cswill be subject to termination as described below.

#### *Doctoral Programs*

1. Students must maintain a cumulative B average in all formal course work while enrolled in doctoral programs, based on semester hours of A graded work equal to or exceeding semester hours of C work. If the cumulative average falls below B, the student's program is subject to termination. However, at the discretion of the student's department, one or two semesters of additional course work may be allowed to bring the cumulative average to B or better.
2. No grade less than B in a graduate-level course may be used to satisfy any part of the minimal credit hours required for the PhD or EdD degree. A grade less than B in a course defined by the student's department as being essential for the doctoral degree might, at the department's discretion, result in program termination.
3. A cumulative B average in graduate-level courses is a prerequisite for the administration of the PhD candidacy examination and of the EdD qualifying and comprehensive examinations.
4. The PhD student's department and individual advisory committee are responsible for evaluating research skills with respect to potential for independent and creative research. Failure to meet departmental standards may result in program termination.

### COMPREHENSIVE ASSESSMENTS

All graduate programs require students to successfully complete a comprehensive assessment. The assessment may include a comprehensive examination (written and/or oral), a research project, thesis, capstone course, portfolio, and/or equivalent. The specific requirements may be found in descriptions of degree programs in Section 7, Curricula.

#### **THESIS: RESEARCH, EXAMINATION, PREPARATION, AND DELIVERY**

In programs where a thesis is prepared, the student must comply with the specific regulations of his or her school or department and the general requirements of the Graduate School. These requirements are specified in the *Manual of Basic Requirements for Theses and Dissertations* which is approved by the Graduate School and available on the Graduate School's web site, [www.ecu.edu/gradschool/](http://www.ecu.edu/gradschool/). The manual contains details on the form, preparation, and binding of theses and dissertations.

Thesis topics must be approved by the thesis adviser; and the dean, director, or chairperson of the college, school, or department, and the dean of the Graduate School. All students whose thesis projects involve human subjects must have their proposals approved by the University and Medical Center Institutional Review Board (UMCIRB) before beginning their studies. All students whose research involves animals must have their proposals approved by the Institutional Animal Care and Use Committee (IACUC). A copy of the appropriate committee approval must be submitted with the title of the thesis.

Copies of the thesis must be presented by the student to his or her faculty thesis adviser for the use of the examining committee not later than one week prior to the date on which the examining committee will conduct the oral examination and defense of the thesis. At this oral defense of the thesis, the examining committee may ask the student questions regarding the subject matter in the major field. A student may attempt to defend the thesis no more than twice.

Students in the EdD program must complete a scholarly dissertation. Specific requirements for the proposal and the dissertation are available from the coordinator of the EdD program.

After the thesis or dissertation has been defended successfully, the original copy of the thesis or dissertation, prepared and printed on the required paper with the required format, properly signed by the director of the thesis or dissertation committee and the dean of the school or chair of the major department, must be submitted to the dean of the Graduate School. It must be delivered at least ten days prior to the last day of classes of the student's final semester and it must be left in the Graduate School for five full days for complete review.

After approval by the dean of the Graduate School, additional copies of the thesis or dissertation may be prepared by photocopy or printed by offset printing.

Three copies (including the original) of the final, approved thesis must be submitted to the university library. These three copies will be bound at no cost to the student. Two of these copies remain in the university library and the third is delivered to the school or department of the student's major. Additional copies may be bound at the student's expense. These optional copies may be for the thesis director and the student's personal use.

For copy requirements and binding procedures for PhD dissertations, see program descriptions, Section 7, Curricula.

## **CHANGE OF PROGRAM**

In order to change graduate degree programs, a student must file a petition to change programs on forms obtained from the Graduate School. The student's credentials will be sent to the new school or department for evaluation and recommendation. The petitioning student will be notified by the Graduate School concerning the outcome of the petition. A student who petitions successfully for transfer to a new degree program must complete new program requirements in force at the time of the change of program. Any courses credited from the old program must meet the time frame requirements for completion of the new program.

## **TERMINATION OR CONTINUANCE OF GRADUATE STUDY**

Each graduate student is admitted to study on the recommendation of the graduate faculty of a college, school, or department, or its authorized agent, and is responsible for courses and research in the major field of the student's program. When a student's record indicates that he or she has failed to maintain standards described in this section, or specific standards of the student's program described elsewhere in the graduate catalog or in school or departmental program descriptions, the dean of the Graduate School will notify the student by letter (copy to the adviser of the student) that his or her program must be terminated unless special arrangements for continuance are recommended by his or her major faculty, or an authorized agent, and approved by the Administrative Board of the Graduate School. The adviser will confer with the unit graduate faculty, or its authorized agent. Any appeal by the student must be considered at this stage in the process. Following conference and possible student appeal, the adviser will forward a written recommendation (copy to the student) to the chairperson of the Administrative Board of the Graduate School. If the recommendation is for termination, the student's program is terminated. A recommendation for continuance should stipulate requirements through which the student could complete his or her graduate program.

The Administrative Board may either accept the requirements or request that the student's major faculty modify them. When the requirements are acceptable to the Administrative Board, the dean of the Graduate School will inform the student by letter of the approved requirements (copy to the adviser of the student). The Graduate School office will ensure that these requirements are met before the student graduates.

## **WITHDRAWAL AND READMISSION**

For information on withdrawal and readmission, see Section 2, Admission and Readmission.

## **STUDENT EDUCATIONAL RECORDS**

### **POLICY ON POSTING GRADES**

As soon as they are determined at the end of each semester or summer term, grades are posted electronically. Students may secure their grades via the automated voice response system (252-328-2149) using their pin number, and via the OneStop (<http://onestop.ecu.edu>) using their exchange userid and password. In compliance with the Family Educational Rights and

## **SECTION 4: ACADEMIC REGULATIONS**

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Privacy Act, faculty are not allowed to post grades by Social Security Number or any other personally identifiable characteristic. Upon receipt of a written request to the Office of the Registrar, a report of grades is sent to the student at his or her permanent home address. Questions about final examination grades should be directed to the instructor who determined the grade.

### **TRANSCRIPTS OF RECORDS**

Requests for transcripts of a student's record should be addressed to the Office of the Registrar. For each copy, there is a fee of \$3. A transcript will not be issued for a student who is financially indebted to the university.

### **PRIVACY OF STUDENT EDUCATIONAL RECORDS POLICY**

The university policy for the administration of student educational records is in accordance with the provisions of the Family Educational Rights and Privacy Act, also known as the Buckley Amendment or FERPA. This policy provides that the student has a right of access to student educational records maintained by the university or any department or unit within the university. The policy also protects the confidentiality of personally identifiable information in student records. A copy of the university policy dealing with the privacy of student educational records is maintained in each professional school and academic department within the university. Each member of the faculty should be thoroughly familiar with this policy and comply with its provisions.

### **ACCESS TO STUDENT EDUCATIONAL RECORDS**

In compliance with the Family Educational Rights and Privacy Act of 1974, it is the policy of the university that students have the following rights in regard to official educational records maintained by the university.

1. Each student has the right to inspect and review any and all official educational records, files, and data maintained by the university and directly related to the student and not related to other students.
2. The university will comply with the request from a student to review his or her records within a reasonable time, but in any event not more than forty-five days after the request is made. Any inquiry pertaining to student records should be directed to the Office of the Registrar.
3. A student who believes that his or her educational records contain inaccuracies or misleading information or that his or her right of privacy is violated on the basis of information contained in such records has the right to a hearing to challenge such information and to have it removed from his or her record or to include in the record his or her own statement of explanation. Any complaint pertaining to student records should be made directly to the Office of the University Attorney, telephone 252-328-6940.
4. The university will not release any information from student records to anyone (except those agencies noted in item 5., below) without the prior written consent of the student. The consent must specify the records or information to be released, the reasons for the release, and the identity of the recipient of the records.
5. Legitimate educational interest is a demonstrated "need to know" by those officials of an institution who act in the student's educational interest. They include: faculty, administration, clerical and professional employees, and other persons who need student record information for the effective functioning of their office or position. The following criteria shall be taken into account in determining the legitimacy of a University official's access to student's records:
  - a. The official must seek the information within the context of the responsibilities that he or she has been assigned.
  - b. The information sought must be used within the context of official University business and not for purposes extraneous to the official's area of responsibility to the University.
6. Information from the student's records may be released without the written consent of the student in the following situations:
  - a. in compliance with a court order or subpoena;
  - b. requests from the staff or faculty of the university who have a legitimate educational interest in the information;
  - c. requests from other departments or educational agencies who have legitimate educational interest in the information;
  - d. requests from officials of other colleges or universities at which the student intends to enroll provided the student is furnished with a copy, if he or she so desires, so that he or she may have an opportunity to challenge the contents of the record;

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## **RESIDENCE AND GRADUATE REQUIREMENTS**

- e. requests from authorized representatives of the US Comptroller General or the administrative head of a federal educational agency in connection with an order or evaluation of federally supported educational programs;
- f. requests in connection with a student's application for receipt of financial aid;
- g. requests from parents of a dependent student as defined in Section 152 of the Internal Revenue Code of 1954; or
- h. requests from appropriate persons in connection with an emergency if the knowledge of such information is necessary to protect the health or safety of the student or other persons.

A student has the right to file a complaint at any time with the US Department of Education. However, it is expected that the student normally would exhaust the available administrative remedies for relief according to the university grievance procedures before filing such a complaint.

### **CHANGE OF NAME AND ADDRESS**

It is the obligation of every student to notify the Office of the Registrar of any change in name or address. Students may also change their address via the Internet. Failure to do so can cause serious delay in communication with the student.

### **RELEASE OF DIRECTORY INFORMATION**

The university routinely makes available in an annually updated printed directory and in an on-line directory certain information about its students. This policy is for the convenience of students, parents, other members of the university community, and the general public. In compliance with the Family Educational Rights and Privacy Act of 1974, the university will continue this policy of releasing directory information, including the following: the student's name, address (including e-mail address), telephone listing, date and place of birth, major field of study, participation in officially recognized activities and sports, weight and height of members of athletic teams, dates of attendance, degrees and awards received, and the most recent previous educational agency or institute attended by the student. If any student does not wish any or all of this directory information released without prior consent, the student must notify the Office of the Registrar in writing within seven days after registration day of the current term of enrollment.

## **RESIDENCE AND GRADUATE REQUIREMENTS**

### **RESIDENCE REQUIREMENT**

The residence requirement for a graduate degree program is met when a student has earned at least eighty percent of the required degree credit for his or her program (a program is defined as 30 or more s.h.) through enrollment in courses offered by East Carolina University. Individual graduate programs may specify additional residence requirements.

### **CONTINUOUS ENROLLMENT (OR REGISTRATION)**

Graduate students who have previously registered for all credits in a graduate degree program but who have not completed all requirements (e.g., thesis, professional paper, internship, etc.) must continue to register each semester (except summer terms) until all degree requirements are completed and filed with the registrar. Under special circumstance, exception to continuous registration may be approved by the dean of the Graduate School. Students must be registered for the semester of graduation (except summer; if registered for the prior spring semester).

### **RESEARCH SKILLS REQUIREMENT**

Programs require completion of a research skills component. How the research skills requirement is completed is defined by the academic program.

### **TIME LIMITATIONS**

The time limit for completing all credit (including transfer credit) in nondoctoral programs is six years (except for the master of science in social work which is limited to four years for full- and part-time students). College, school, and departmental petitions for time extensions for completion of degrees will be reviewed and acted upon by the Administrative Board of the Graduate School. The Administrative Board is empowered to establish the length of time for extensions that are granted and to specify the conditions governing time extensions that student petitioners must meet.

## **SECTION 4: ACADEMIC REGULATIONS**

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Students in the EdD program must complete their course work in six years. An extension may be granted with the approval of the faculty of the Department of Educational Leadership and the Administrative Board of the Graduate School.

For limitation of PhD programs, see Section 7, Curricula.

### **APPLICATION FOR GRADUATION**

Application for graduation must be made on a form provided by the registrar at least one semester prior to completion of the requirements of the degree.

## INTERNATIONAL PROGRAMS

### INTERNATIONAL AFFAIRS

East Carolina University actively seeks international students in its undergraduate and graduate programs. The presence of these students, with their varied geographic and educational backgrounds, helps promote international goodwill and understanding. It also provides an opportunity for other university students to further their knowledge and appreciation of cultures from many lands. The university aims to produce educated graduates capable of working and living in a complex and diverse world.

#### International Admissions

The Graduate School coordinates and admits international students seeking advanced degrees. The Graduate School Admissions Office can be found in 131 Ragsdale (telephone: 252-328-6012) or email at [gradschool@mail.ecu.edu](mailto:gradschool@mail.ecu.edu). The Office of International Affairs coordinates ECU's undergraduate international student recruitment and admissions. The International Affairs office also offers students and faculty a variety of opportunities to participate in world travel and learning experiences through a variety of programs. Scholarship, fellowship, and research programs are just a few of the opportunities available for the campus community.

#### International Student Services

The mission of the Office of International Affairs located at 306 East Ninth Street (telephone: 252-328-1939) is to help new students make a smooth transition from their home country and culture to the United States. Moreover, the office is prepared to assist ECU's international students throughout the course of their stay and ensure a rewarding educational experience. The office provides an orientation program to welcome and connect all new international students with the university. The office also coordinates a number of campus and community based cross-cultural programs to benefit the international and domestic population and administers immigration-related services for the campus.

#### *Study Abroad and Exchange Programs*

East Carolina University is a member of several consortia which are designed to facilitate and promote the exchange of students abroad. Students can attend more than 150 foreign institutions in over 35 countries by utilizing these exchanges. Of special interest, these exchanges permit students to study overseas while paying East Carolina University tuition and fees. Thus, study abroad costs are often no more than the costs of studying at ECU. Additionally, student exchange programs bring international students to campus and help facilitate the university's aim to globalize the campus. Study Abroad information and applications are available and processed through the Office of International Affairs.

In addition to the exchange programs, East Carolina University has numerous summer and long-term study-abroad programs offered at its own tuition and fee rates. International exchange linkages are being expanded regularly. Study abroad programs from other North Carolina institutions, and institutions throughout the U.S. are also available to ECU students. The Office of International Affairs coordinates East Carolina study abroad activities and assists students in identifying and applying to programs of interest by utilizing its large resource library to find the best opportunities.

#### *The Thomas W. and Izabel B. Rivers Endowment Fund*

The endowment fund established by Thomas W. and Izabel B. Rivers promotes the internationalization of ECU through support for students to study abroad, to attract international degree-seeking students to the university, and to assist faculty to engage in scholarly activities overseas. Awards are made throughout the year, as decided by a faculty panel. Information and applications are available through the Office of International Affairs.

Furthermore, International Affairs coordinates the Rivers Distinguished Chair of International Affairs program. It ensures that throughout each academic year outstanding scholars are in residence, assisting colleges, schools, or departments as well as faculty in the internationalization process through teaching, research, and conferences.

### **LEADERSHIP PROGRAMS**

#### **BB&T CENTER FOR LEADERSHIP DEVELOPMENT**

The mission of the center for leadership development is to explore and to enhance decision making among leaders, professionals, and entrepreneurs facing critical change in their environment. While the specific and long-term focus of the center will remain under study, the initial, constant, and common objective in all programs is to provide insights from thought leaders operating at the leading edge of strategic issues in society.

A personalized instructional framework will be used in a variety of settings, including the seminar, conference, and academic course format. The center's role as an integral part of the university's commitment to excellence and service to the region has created an immediate opportunity to serve professionals seeking additional knowledge as well as students studying and exploring the way leaders and professionals function.

Requests for further information should be addressed to the director, BB&T Center for Leadership Development, 1100 Bate Building, East Carolina University, Greenville, NC 27858-4353; telephone 252-328-6190.

#### **STUDENT LEADERSHIP DEVELOPMENT PROGRAMS**

Realizing that a fulfilling campus experience can assist in the recruitment, retention, and graduation of academically proficient and talented students, the Office of Student Leadership Development Programs supports the academic mission of the university by providing quality leadership education experiences and providing assistance to benefit extra-curricular student organizations.

Student leadership development programs offer a wealth of programs, including workshops, seminars, and speakers on various topics related to leadership. In addition, the office is home to a leadership library and numerous resources for student leaders and student organizations. For more information, telephone 252-328-4796 or visit [www.clubhouse.ecu.edu](http://www.clubhouse.ecu.edu).



## GRADUATE DEGREES, MINORS, AND CERTIFICATES

All programs listed may be available on campus unless otherwise indicated. Programs designated by the **DE** icon have been approved for distance education delivery. **DE-P** indicates that only a portion of the degree program is available through distance education.

Access [www.options.ecu.edu](http://www.options.ecu.edu) for information regarding delivery methods and services available for degree programs offered through distance education. Distance education offerings are subject to change as other options become available.

### GRADUATE DEGREES

Master of Arts (MA)	Master of Physical Therapy (MPT)
Master of Arts in Education (MAEd)	Master of Public Administration (MPA)
Master of Art and Design in Teaching (MAT)	Master of Public Health (MPH)
Master of Fine Art and Design (MFA)	Master of School Administration (MSA)
Master of Science (MS)	Master of Social Work (MSW)
Master of Science in Accounting (MSA)	Certificate of Advanced Study (CAS) (Sixth Year)
Master of Science in Environmental Health (MSEH)	Educational Specialist (EdS)
Master of Science in Nursing (MSN)	Doctor of Education (EdD)
Master of Science in Occupational Therapy (MSOT)	Doctor of Medicine (MD)
Master of Business Administration (MBA)	(See catalog of the Brody School of Medicine.)
Master of Library Science (MLS)	Doctor of Philosophy (PhD)
Master of Music (MM)	

### GRADUATE MINORS

Statistics	Women's Studies
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### GRADUATE CERTIFICATES

Apparel and Textile Management	Multicultural Literature
Applied Economics	Neonatal Nurse Practitioner
Aquatics Management	Nurse Anesthesia
Aquatics Therapy	Nurse Midwifery
Assistive Technology	Nurse Practitioner
Community Health Administration	Nursing Education
Computer Network Professional	Performance Improvement
Development and Environmental Planning	Professional Communication
Early Childhood Studies	School Business Management
Economic Development	School Social Work
Electronic Commerce	Social Work with the Deaf and Hard of Hearing
Family Nurse Practitioner	Special Endorsement in Computer Education
Gerontology	Statistics
Health Care Management	Substance Abuse
Hispanic Studies	Suzuki Pedagogy
Hospitality Management	Tax Certificate Program
Information Assurance	Tele-Learning
International Management	Virtual Reality in Education and Training
International Teaching	Website Developer
Management Information Systems	

## GRADUATE DEGREE PROGRAMS

Programs designated by the **DE** icon have been approved for distance education delivery. **DE-P** indicates that only a portion of the degree program is available through distance education. (For concentrations and specializations within degree programs, see departmental or school listings and the graduate catalog.)

<b>Course of Study</b>	<b>On-Line</b>	<b>Off-Campus Site</b>
Accounting MSA		
Adult Education MAEd	<b>DE-P</b>	
Anatomy and Cell Biology PhD		
Anthropology MA		
Art and Design MFA		
Art Education MAEd MAT	<b>DE-P</b>	
Biochemistry PhD		
Bioenergetics PhD		
Biology MS		
Biomedical Physics PhD		
Business Administration MBA	<b>DE</b>	
Business Education MAEd MAT	<b>DE-P</b>	
Chemistry MS		
Child Development and Family Relations MS		
Coastal Resources Management PhD		
Communication Sciences and Disorders PhD		
Computer Science MS		
Counselor Education MS EdS		
Criminal Justice MS	<b>DE</b>	
Economics MS (Applied and Resource Economics)		
Education, Secondary (See academic subject.)		
Educational Administration and Supervision EdS		

## GRADUATE DEGREE PROGRAMS

<b>Course of Study</b>	<b>On-Line</b>	<b>Off-Campus Site</b>
Educational Leadership EdD		
Elementary Education (K-6) MAEd MAT	DE-P	DE
English MA PhD (Technical and Professional Discourse)	DE-P	
English Education MAEd MAT		
Environmental Health MSEH		
Exercise and Sport Science MA		
Family and Consumer Sciences Education MAEd MAT		
Geography MA		
Geology MS		
Health Education MA MAEd MAT	DE	
History MA		
History Education MAEd		
Industrial Technology MS	DE	
Instructional Technology MS	DE-P	
Instructional Technology Education MAEd	DE	
Interdisciplinary Biological Sciences PhD		
International Studies MA		
Library Science MLS CAS	DE DE	
Maritime Studies MA		
Marketing Education MAEd MAT	DE-P DE-P	
Marriage and Family Therapy MS		
Mathematics MA		

## SECTION 6: DEGREES AND TEACHER LICENSURE

Course of Study	On-Line	Off-Campus Site
Mathematics Education MAEd		
Medical Family Therapy PhD		
Medicine MD		
Microbiology and Immunology PhD		
Middle Grades Education MAEd MAT		
Molecular Biology and Biotechnology MS		
Music Education MM MAT	DE-P	
Music Performance MM		
Music Theory-Composition MM		
Music Therapy MM		
Nursing MSN PhD	DE	
Nutrition MS	DE	
Occupational Safety MS	DE	
Occupational Therapy MSOT		
Pathology (See Interdisciplinary Biological Sciences.)		
Pharmacology PhD		
Physical Education MAEd MAT		
Physical Therapy MPT		
Physician Assistant MS	DE-P	
Physics MS (See also Biomedical Physics.)		
Physiology PhD		
Planning MA in geography with planning concentration; MPA with planning concentration; See Urban and Regional		
Psychology, Clinical MA		
Psychology, General and Theoretic MA	DE	
Psychology, School MA CAS		

## GENERAL REQUIREMENTS FOR DEGREES

Course of Study	On-Line	Off-Campus Site
Public Administration MPA		
Public Health MPH	DE-P	
Reading Education MAEd	DE-P	DE
Recreational Therapy Administration MS		
Recreation and Leisure Facilities Services Administration MS		
Rehabilitation Counseling MS		
Romance Languages (See French, Spanish.)		
School Administration MSA		DE
School Library/Media Coordinator Licensure		
Science Education MA MAEd	DE-P	
Secondary Education (See academic subject.)		
Social Work MSW		DE
Sociology MA		
Special Education, Behavioral/Emotional Disabilities MAEd	DE	
Special Education, Learning Disabilities MAEd	DE	
Special Education, Low Incidence Disabilities MAEd	DE	
Special Education, Mental Disabilities MAEd	DE	
Speech-Language and Auditory Pathology MS	DE	
Substance Abuse and Clinical Counseling MS		
Teaching-MAT (See specific teaching area.)		
Vocational Education MS	DE	
Vocational Evaluation MS		

## GENERAL REQUIREMENTS FOR DEGREES

The degrees described immediately below are offered in more than one college, school, or department, and the requirements set for them are limited to those that apply in every school and department offering these degrees. Additional requirements particular to each major field precede the list of courses offered in each academic unit. The description of a degree that is offered in only one academic unit is not included here. It precedes the list of courses in that academic unit.

Students should direct questions regarding specific course requirements to the dean, director, chairperson, or graduate adviser in their academic units. The Graduate School will assist in answering other questions.

Only 5000-level courses and other graduate-level courses apply toward graduate degrees or CAS programs. At least half of the credit for the master's degree must be earned in courses for graduates only, numbering 6000 or above.

## **SECTION 6: DEGREES AND TEACHER LICENSURE**

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Additional requirements applicable to all graduate students are explained in Section 4, Academic Regulations.

The university does not award degrees solely because a student successfully completed the required courses. Violations of the student Code of Conduct, including both academic and nonacademic violations, may result in a degree not being awarded. For example, when the student has disciplinary charges pending, the degree may be withheld or the awarding of the degree may be delayed.

### **MASTER OF ARTS AND MASTER OF SCIENCE**

A minimum of 30 s.h. is required for the master of arts and master of science degrees.

The goal of the MA and MS degree programs is to provide the student with a well-rounded and in-depth understanding of the subject matter. While there are not inflexible rules that govern course requirements in any part of the program, it is expected that the course work will be planned for the student to achieve career goals. In some programs students may take courses in a minor field or in several fields related to their major interest. The detailed course requirement for each program is left to the discretion of the departments and schools; the decision on these matters is to be made by the student's graduate committee in consultation with the student involved.

See Section 4, Academic Regulations, Research Skills Requirements and under the appropriate discipline below.

When required by a particular program, the thesis represents extended research in some area of the major field. Three to six semester hours of credit are allowed for the thesis, which may be a part of the semester hours from the major field. The writing of the thesis and distribution of copies must conform to the instructions given under Section 4, Academic Regulations.

### **MASTER OF ARTS IN EDUCATION**

The master of arts in education degree (MAEd) is offered by the College of Education, and the Schools of Art and Human Ecology. The MAEd requires a minimum of 36-39 s.h. credit, depending on the teaching area. School and departmental program descriptions provide information on specific programs. The MAEd (other than the MAEd in adult education) leads to advanced teacher licensure.

The consolidated MAEd offered in the College of Education comprises teaching areas as follows: business education, English education, elementary education, health education, history education (social studies licensure), instructional technology education, middle grades education, physical education, science education, and special education. The college also offers MAEds in adult education, educational supervision, and mathematics education. The MAEd in art education will be offered through the School of Art and the MAEd in family and consumer sciences through the College of Human Ecology. The master of music in music education will be offered through the School of Music.

The courses developed for the College of Education MAEd program replaced existing MAEd courses. If the previous graduate programs were not completed by summer 2002, individuals in those programs are now required to meet all the requirements of the new MAEd program. Students formally admitted to graduate programs are encouraged to make the transition to the new MAEd program. Students who have questions regarding the current program or the new MAEd program, should please contact their graduate adviser or department chair.

For most programs, a thesis is optional for the master of arts in education degree. However, a school or department may require theses in certain programs. If a thesis is written, it will count as 3 or 6 s.h. of credit and must meet the thesis requirements described under Section 4, Academic Regulations.

### **MASTER OF ARTS IN TEACHING**

The College of Education also offers the master of arts in teaching (MAT) with teaching field options as follows: art education, business education, elementary education, English education, family and consumer sciences education, health education, middle grades education, music education, physical education, and science education. The Schools of Art and Design, Music, Health and Human Performance and departments in the Thomas Harriot College of Arts and Sciences will offer subject matter courses and content specific methods courses as well as supervise interns in specific teaching areas. The MAT is a 39 s.h. degree of which 9 s.h. are internship. Successful completion of the MAT leads to advanced teaching licensure.

## **EDUCATIONAL SPECIALIST/CERTIFICATE OF ADVANCED STUDY**

Intermediate degrees requiring at least 30 s.h. of work beyond the master's degree are offered in the areas of educational administration and supervision, counselor education, library science and school psychology. Applicants must hold an appropriate master's degree from an accredited institution.

## **LICENSURE**

Licensure for teachers in North Carolina is dependent upon a competency-based teacher education program. Licensure requirements may exceed degree requirements. Applicants adding a new area of certification to an existing license must take the appropriate specialty area exam of the PRAXIS. When the credits and experiences have been properly planned, coordinated, and implemented, the dean of the College of Education or his or her designee approves the issuance of the proper teaching, counseling, or administrative license. Out-of-state applicants who do not have a teaching license and instate teachers who are changing, upgrading, and adding fields or subjects to their present licenses must submit their credentials to the appropriate academic department or school and to the dean of the College of Education for evaluation in terms of the competency-based teacher education program for North Carolina.

**GRAD: GRADUATE STUDIES**

**6665. Disciplinary Writing in Graduate Studies (3)** Instruction in writing texts required of students in their graduate programs.

**6999. Degree Completion (3)** Open to students in a non-thesis option master's degree program who have previously enrolled for all course work for degree program but must meet Graduate School requirement that they be registered the semester they graduate.

**7004. Research Ethics for a Complex World (2) Formerly GRAD 6000** May not receive credit for both GRAD 7004 and HUMS 6200. P: Current enrollment in master's or doctoral program. Introductory graduate course. Case studies, readings, policy review, assignments, and discussions with guest faculty examine areas of ethical concern for researchers. Areas include scientific misconduct, conflict of interest, abusive mentoring, improper authorship practices, and protection of human participants, animal subjects of research, and others.

**CENTER ON AGING**

*Jim Mitchell, Director, Physicians Quadrangle, Building N*

*Linner Griffin, Associate Director for Educational Programs, 112 Ragsdale Building*

**CERTIFICATE IN GERONTOLOGY**

The School of Social Work in the College of Human Ecology offers graduate certification in gerontology (aging studies). The Certificate requires completion of 15 s.h. of course work including: 1) GERO/SOCW/CDFR 5400, 2) one elective course from Aging and Social/Behavioral Science (SOCI 5600 or PSYC 5400), Aging and Health (SOCW 6322 or GERO/SOCI/MPH 6100), and Practice or Intervention in Aging (ADED 6453, ADED 6454, CDFR 5411, EXSS 5800, GERO/SOCW 6222, SOCW 6322 or GERO/SOCW/NURS 6022), and 3) GERO 6600. Those with significant work experience with an organization serving older adults may, with permission from the Center on Aging Associate Director for Educational Programs, substitute a course selected from those included in #2 above for GERO 6600. Up to 6 s.h. of coursework may consist of NC Gerontology Consortium distance education courses, provided that each course is consistent with the categories described in #2 above and that no more than 1 course is completed in each category.

**GERO: GERONTOLOGY**

**5400. Seminar in Aging Studies (3) Same as CDFR 5400; SOCW 5400** Entry point for graduate certificate in gerontology; exit course for undergraduate minor in gerontology. P: Consent of instructor. Topics include historical perspective on aging issues, normal aging and pathology, aging program administration, aging policy development, research in gerontology, rural aging, and aging and ethnicity.

**5903. Readings in Aging Studies (3) Same as CDFR 5903; SOCW 5903** May count maximum of 3 s.h. toward baccalaureate minor in GERO or graduate certificate in GERO. P: Consent of instructor and chair of instructor's home unit. Selected readings from monographs or journals. Focus on specialized areas in which student has taken one or more courses in either baccalaureate gerontology minor or graduate gerontology certificate.

**6022. Perspectives on Death and Dying (3) Same as NURS 6022 and SOCW 6022** Interdisciplinary exploration of issues related to death, dying and bereavement.

**6100. Aging and Health (3) Same as SOCI 6100 and MPH 6100** P: Consent of instructor or director of the Center on Aging. Analysis of behavioral, social, and cultural influences on the health status of older adults and intervention strategies.

**6222. Group Work with the Aged (3) Same as SOCW 6222** P: Graduate School admission. Case management, group work, and other techniques and approaches used in working with older people.

**6600. Practicum in Aging Studies (2)** Requires 130 hours per semester with an agency or organization providing institutional, community based, or in-home services to older adults.



### Gero Banked Courses

**5901,5902. Readings in Aging Studies (1,2,3)**

**6601. Practicum Seminar (1)**

## COASTAL RESOURCES MANAGEMENT

*Lauriston R. King, Program Director, 207 Ragsdale Building*

### PhD IN COASTAL RESOURCES MANAGEMENT

The PhD program in coastal resources management (CRM) focuses on building skills in acquisition, interpretation, and synthesis of scientific information on coastal environments and populations. These skills are developed through a curriculum of traditional disciplinary course work, dissertation research, special seminars, and internships with government agencies and private sector organizations.

Each student focuses in one of the programs' four areas of concentration (ecology, geoscience, social science, maritime studies), while developing a fundamental understanding of basic theory and methodology in two of the three other areas. The program provides specific knowledge in either estuarine/coastal ecology, coastal plain/continental margin geology, maritime social science, or maritime cultural heritage; general knowledge of theory and methodology in two related areas; background in the structure and functioning of coastal/marine policy and management; and understanding of the mechanisms by which scientific information is used in the formulation of public policy and site- or resource-specific decisions involving the use of coastal resources.

### Curriculum

The doctoral program requires a minimum of 65 s.h. of course work beyond a relevant baccalaureate degree, 23 s.h. of which are general requirements taken by all students in the program. These courses, designed to provide background essential to all four areas, include CRM 6100, 6200, 6300, 9000 (9 s.h.), 9400; MATH 5031.

Students select a primary area of concentration of 18 s.h. and two complementary areas of 9 s.h. each, which provide breadth of knowledge about theory and methodology in disciplines outside the primary area. Elective course work totaling 6 s.h. completes the minimum 65 s.h. specified above.

Please contact the director of CRM for more details concerning application procedures, admission requirements, and specific academic requirements.

### CRM: COASTAL RESOURCES MANAGEMENT

**6100. Introduction to Coastal Problems and Their Management (2)** Coastal environment, coastal resources, structure and role of government in coastal resources policy, critical research issues in coastal and estuarine ecology, coastal geosciences, marine affairs and policy, and maritime studies.

**6200. Research Design in Marine and Coastal Studies (3)** P: Graduate standing in CRM PhD program or consent of instructor. Fundamentals of research design in marine and coastal related scientific research.

**6300. Case Studies of Coastal Management Issues (3)** P: Graduate standing in CRM PhD program or consent of instructor. Teams of students with varying disciplinary backgrounds examine application of scientific data to specific coastal issues of concern to coastal management agencies and private sector organizations.

**9000. Dissertation (3)** May be repeated. May count maximum of 9 s.h.

**9001. Dissertation: Summer Research (1)** May be repeated. No credit may count toward degree. Students conducting dissertation research may only register for this course during the summer.

**9400. Coastal Management Internship (3)** P: Consent of program director. Supervised internship with government agency, private sector business or organization, or non-profit group that has coastal resources management responsibilities, concerns, or activities.

## MAST: MARITIME STUDIES

**6610. Legal and Professional Issues in Maritime Studies (3) Same as HIST 6610** Legal cases, legislation, professional standards, grant writing, and scholarship.

**6620. Public Policy and Management of Cultural Resources (3) Same as HIST 6620** Public laws and policies concerning local, state, national, and international regulations, and practices for management of cultural resources of maritime and coastal environment.

**6630. Seminar in Maritime Studies (3) Same as HIST 6630** Selected topics.

**6640. Maritime Cultural Resources (3) Same as HIST 6640** Coastal environmental resources (both under and above water), public presentation and display in museums or other public facilities, and impact on tourism and oceanic development.

**6650. Management of Coastal Cultural Resources (3) Same as HIST 6650** Management of submerged cultural resources, museums, aquariums, science or other public or private local, state, and federal educational agencies.

**6660. Maritime Heritage of the Coast (3) Same as HIST 6660** Focus on NC. Comparative examples from other regions provide foundation of understanding of coastal maritime heritage, including submerged cultural resources.

**6875. Seafaring: Above Water Nautical Archaeology (3) Same as HIST 6875** 3 weeks intensive shipboard instruction. P: HIST 5505 or 5515 or 5520 or 6850; consent of instructor. Relationship of vessel to crew. Daily work as related to archaeological elements recovered from submerged sites. Documentary record.

## PUBLIC HEALTH

*Chris Mansfield, Acting Program Director  
Lakeside Annex #3, Brody School of Medicine*

The master of public health (MPH) requires 42 s.h., comprising 33 to 39 s.h. of course work, a major professional paper, and an internship for students without sufficient previous professional experience in public health. The program is delivered through the Division of Community Health and Preventive Medicine, Department of Family Medicine, Brody School of Medicine. Up to 12 s.h. of a student's course work may be transferred from a school or program accredited by the Council on Education for Public Health.

The curriculum is divided among the following components: 12 s.h. in foundations (interdisciplinary rural health diagnosis and planning, fundamentals of environmental health, public health practice, behavioral science and health education); 12 s.h. in methods (research methods, epidemiology, biostatistics, and one advanced or specialized methods course); 6 to 9 s.h. in applications (internship, professional paper, independent study); and 9 to 12 s.h. in concentrations in health education and promotion or environmental health and safety or in electives for areas of emphasis in community health nursing, aging services, health services research, nutrition, or health administration. The internship may be repeated or waived depending on the student's experience. If the internship is waived, an independent study or course work must be substituted. The professional paper serves as a capstone, applied-learning experience. It will typically describe a public health action, intervention, or an increase in knowledge useful to public health practice that has resulted from the student's internship experience, professional employment or research. An independent study course may be used to form the research or professional experience into the professional paper. Students are encouraged to enroll in courses at the School of Public Health at the University of North Carolina at Chapel Hill for elective courses. Requests for transfer of courses taken prior to enrollment must be made at the time of admission and be approved by the director of the MPH program and the dean of the Graduate School. After admission, courses may be approved for transfer within the 12 s.h. limit by the director of the MPH program. For detailed information, see the Program Manual ([www.ecu.edu/mph](http://www.ecu.edu/mph)).

## MPH REQUIREMENTS

The master of public health requires a minimum of 42 s.h. as follows:

- I. Foundation courses ..... 12 s.h.  
MPH 6000, MPH/EHST 6010, MPH/HLTH 6013, MPH/NURS 6035

SECTION 7: CURRICULA

2. Methods courses .....	12 s.h.
MPH 6020, 6011; BIOS 6021; elective in advanced or specialized methods	
3. Applications .....	6-9 s.h.
MPH 6050, 6901, 6990	
4. Concentrations/Electives .....	9-12 s.h.
Chosen in consultation with adviser for concentrations, areas of emphasis, or joint degree programs.	

Concentration in Environmental Health and Safety

EHST 6700 (3), 6701 (1), 6800 (3) are required.

EHST 6980 (1,2,3) is taken for internship instead of MPH 6901, 6902, 6903 (1,2,3)

2-5 s.h. of electives taken from EHST 5001, 5010, 5011, 5020, 5800, 6100, 6120, 6201, 6202, 6203, 6400, 6420, 6600, 6710.

Concentration in Health Education and Promotion

HLTH 6400 (3) is required.

HLTH 6200 (2) and 6201 (1) are required as the advanced or specialized methods course

HLTH 6990, 6991 (3,3) are taken for internship instead of MPH 6901, 6902, 6903 (1,2,3)

6 s.h. of electives taken from HLTH 5002, 5200, 5310, 5900, 6100, 6355, 6500, 6501.

Dual MD – MPH degree

The MPH degree requires 42 s.h. and can be completed by medical students by taking MPH course work during a leave of absence between the second and third year of medical school as well as during summer vacations. A leave of absence to pursue the MPH degree may be granted to students in the Brody School of Medicine who have been accepted into the MPH program, have completed Step 1 of the USMLE, and are in good standing in the medical school.

MPH: PUBLIC HEALTH

- 6000. Public Health Practice (3)** Foundation for public health administration. Introduces MPH degree program. Applied focus on public health problems, issues, and resources of eastern North Carolina. Describes how empirical assessment of population health status informs managerial decision-making and describes the organization of the public health infrastructure. Overview range of practice in public health and of tools and resources for health improvement.
- 6010. Fundamentals of Environmental Health (3) Same as EHST 6010** Effects of environment on human health with focus on rural environment. Considers water supply and wastewater disposal, water quality, solid and hazardous wastes, air quality, occupational health and safety, food protection, and vector control.
- 6011. Epidemiology (3)** Introduces methods and concepts of epidemiologic research and application of epidemiology in public health and medicine.
- 6013. Behavioral Sciences and Health Education (3) Same as HLTH 6013** Introduces concepts of role of social factors in health and illness as well as health education/promotion. Overview of relationships between various social factors, with health outcomes. Includes theories and approaches of health education/promotion programs.
- 6020. Research Methods (3)** Synthesize material from social and behavioral sciences, biostatistics, and epidemiology to better understand health problems.
- 6021. Epidemiology of Chronic Disease (3)** P: MPH 6000, 6011, 6012; or consent of instructor: Practical information on chronic disease epidemiology, prevention, and control. Covers broad range of disease processes. Focuses on chronic diseases that account for large proportion of morbidity and mortality in population. Emphasizes risk factors that can be modified through public health interventions.

**6035. Interdisciplinary Rural Health (3) Same as NURS 6035** Theoretical base and skills for interdisciplinary rural health practice.

**6050, 6051, 6052. Independent Study (1,2,3)** May be repeated. May count a maximum of 6 s.h. toward degree. P: Consent of adviser. Study of topic not otherwise offered in public health curriculum or in greater depth than is possible within context of regular course.

**6901, 6902, 6903 Internship in Public Health (1,2,3)** Provides experiential learning in public health setting supervised by preceptor. Focuses on integrating public health concepts in interdisciplinary health care environment.

**6990. MPH Professional Paper (3)** May be repeated. May count maximum of 3 s.h. toward degree. P: Admission to MPH program; completion of MPH core curriculum; and consent of advisory committee. Capstone course. Includes applied learning experience that typically leads to public health action, intervention, or increase in knowledge useful to public health practice. Paper may take many forms but summarizes project selected by student and defended before student's committee, which includes a senior-level public health practitioner.

# THOMAS HARRIOT COLLEGE OF ARTS AND SCIENCES

W. Keats Sparrow, Dean, 1002 Bate Building

## DEPARTMENT OF ANTHROPOLOGY

Linda Wolfe, Chairperson, A-215 Brewster Building

### MA IN ANTHROPOLOGY

The graduate faculty reviews each candidate's undergraduate grades, GRE scores, a sample of writing, statement of purpose, and three letters of recommendation. Admission to the MA program in anthropology requires the equivalent of an undergraduate major in anthropology. Any student whose undergraduate preparation is deficient in the requirements for the degree program must complete the prescribed courses. Minimum degree requirement is 30-33 s.h. as follows:

1. Core requirements: ANTH 6101, 6102, 6103, 6104; choose one from the following: ANTH 5010, 5015, 6020 ..... 15 s.h.
2. Electives as specified by the student's adviser may include courses other than ANTH, with a maximum of 6 s.h. (3 s.h. for students pursuing non-thesis option) of ANTH 6501, 6502, 6503 ..... 12 s.h.
3. The student must pass a foreign language proficiency test or the equivalent or pass a minimum of 6 s.h. in research skills courses approved by the chairperson of the department with a minimum grade of B in addition to the regular curriculum. The student must pass a comprehensive examination covering each area of anthropology (archeology, cultural anthropology, and physical anthropology).
4. Options (Choose one of the following.) ..... 3-6 s.h.  
*Thesis option:* ANTH 7000 ..... 3 s.h.

The student writes a thesis and presents a seminar based on the thesis research. The thesis proposal and the subsequent thesis must be approved by the student's adviser and committee composed of three anthropology faculty members and an outside reviewer; the departmental director of graduate studies, and the departmental chairperson.

*Internship option:* ANTH 6994 (ANTH 6994 optional) ..... 3 s.h.

The student writes an internship report and presents a seminar based on the internship report. The internship and the subsequent report must be approved by the student's adviser and the committee composed of three anthropology faculty members and external internship supervisor; the departmental director of graduate studies, and the departmental chairperson.

*Non-thesis option:* Additional electives ..... 6 s.h.

The student's adviser and committee, the departmental director of graduate studies, and the chairperson must approve the student's course of study.

### ANTH: ANTHROPOLOGY

**5005. Contemporary Latin American Cultures (3)** Introduction to the varied and diverse cultural groups in modern Latin America.

**5010. Advanced Archaeological Methods and Theory (3)** P: ANTH 3077 or equivalent or consent of instructor. Advanced survey of methodology relevant to analysis of archaeological cultures. Emphasis on research design, processes of culture change, and theoretical applications.

**5015. Advanced Ethnographic Methods and Theory (3)** 3 hours per week and field research projects. P: ANTH 3050 or equivalent or consent of instructor. Advanced training in ethnographic field methods and theory. Emphasis on individual and group research.

**5030. Economic Anthropology (3)** P: ANTH 2200 or consent of instructor. Production, distribution, and consumption of goods and services from an anthropological perspective. Emphasis on ways in which society and culture influence economic behaviors in underdeveloped regions.

**5065. Maritime Anthropology (3)** P: ANTH 2200 or consent of instructor. Systematic study of human adaptations to marine environments around the world from prehistoric to contemporary periods. Emphasis on cross-cultural examinations of nonindustrial societies.

**5120. Archaeology of the Southeastern US (3)** P: ANTH 2000 or consent of instructor. Intensive study of prehistoric cultures in Southeastern US. Emphasis on cultural dynamics and environmental relationships.

## SECTION 7: CURRICULA

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**5125. Historical Archaeology (3)** P: ANTH 2000 or consent of instructor: Development and practice of historical archaeology with theoretical and methodological contributions. Contemporary issues, including on-going projects in NC and Southeast.

**5126. Public Archaeology (3)** P: ANTH 2000 or consent of instructor: Pragmatic approach to archaeology beyond the academic setting, including legislative mandates, contract archaeology, and public education.

**5175. Advanced Archaeological Field Training (6)** 40 hours of field research per week (summer). P: ANTH 3077 or 3175 or equivalent; or consent of instructor: Research methods applied to specific archaeological field problems.

**5201. Special Topics in Archaeology (3)** May be repeated for maximum of 6 s.h. P: Graduate standing or consent of instructor: Advanced level. Topics vary depending on student interest and current issues.

**5202. Special Topics in Cultural Anthropology (3)** May be repeated for maximum of 6 s.h. P: Graduate standing or consent of instructor: Advanced level. Topics vary depending on student interest and current issues.

**5203. Special Topics in Physical Anthropology (3)** May be repeated for maximum of 6 s.h. P: Graduate standing or consent of instructor: Advanced level. Topics vary depending on student interest and current issues.

**6020. Advanced Physical Anthropology Methods and Theory (3)** P: Graduate standing or consent of instructor: Advanced training. Primate behavior; human genetics, anthroposcopy, anthropometry, dermatoglyphics, and osteometry.

**6101. Core Course: Archaeology (3)** P: Admission to anthropology graduate program or consent of instructor: Methodological concepts, cultural-historical applications, and theoretical orientations appropriate to contemporary research in archaeology.

**6102. Core Course: Cultural Anthropology (3)** P: Admission to anthropology graduate program or consent of instructor: Contemporary research in subfield of cultural anthropology.

**6103. Core Course: Physical Anthropology (3)** P: Admission to anthropology graduate program or consent of instructor: Contemporary research in subfield of physical anthropology.

**6104. Anthropological Research Design (3)** P: Admission to anthropology graduate program or consent of instructor: Analytical techniques most useful to anthropologists. Persuasive writing and organizational skills necessary to develop effective research program.

**6501, 6502, 6503. Independent Reading and Research (1,2,3)** May be repeated for maximum of 6 s.h. for thesis and internship option and 3 s.h. for non-thesis option. P: Consent of instructor: Intensive research in selected subdiscipline of anthropology.

**6993, 6994. Internship (3,3)** 140 hours of supervised field experience. P: Admission to ANTH graduate program.

**7000. Thesis (3)** May be repeated. May count maximum of 3 s.h.

**7001. Thesis: Summer Research (1)** May be repeated. No credit may count toward degree. Students conducting thesis research may only register for this course during the summer.

### ANTH Banked Courses

**6105. Anthropological Research Design and Analytical Laboratory (1)**

## DEPARTMENT OF BIOLOGY

Ronald J. Newton, Chairperson, BN-108 Howell Science Complex

Gerhard W. Kalmus, Director of Graduate Studies, BN-108E Howell Science Complex

As a prerequisite to graduate study in a degree program, the Department of Biology requires that the applicant meet the admission requirements of the university, make satisfactory scores on the Graduate Record Examinations, and show competence in specific related areas. Each entering student should consult the director of graduate studies in biology prior to beginning graduate work.

Students must complete a minimum of 30 s.h. of course work (15 s.h. must be at the 6000-7000 level), a research-based thesis, a written comprehensive examination, a seminar based on thesis research, and a thesis defense and must show competence in teaching. Successful completion of the comprehensive examination consists of a passing grade on a written examination developed and graded by the student's thesis committee.

Up to 20 percent of required credit hours may be earned at another institution. See the director of graduate studies for acceptable transfer courses or consent to take courses off campus. The department attempts to offer courses on a one- or two-year rotation. However, because of changing interests of graduate students, it is unlikely that all the courses listed below will be offered in a two-year period.

For the PhD in interdisciplinary biological sciences, see the Brody School of Medicine.

### MS IN BIOLOGY

1. Core: BIOL 6880, 7000\*; BIOS 6021 or 6022; and 7 s.h. of electives ..... 15 s.h.
2. Concentration area (Choose a minimum of 15 s.h. from one area.) ..... 15 s.h.

#### *Cell biology:*

BIOL 5190, 5450, 5451, 5800, 5810, 5821, 5870, 5890, 5900, 5901, 6030, 6082, 6083, 6100, 6120, 6130, 6200, 6230, 6231, 6250, 6251, 6300, 6301, 6504, 6900, 7180, 7181, 7190, 7480, 7481, 7870, 7890.

#### *Environmental and organismic biology:*

BIOL 5150, 5151, 5200, 5201, 5220, 5221, 5260, 5261, 5270, 5351, 5400, 5401, 5550, 5551, 5600, 5601, 5680, 5730, 5731, 5740, 5741, 6010, 6020, 6021, 6040, 6041, 6220, 6514, 6700, 6800, 6820, 6821, 6850, 6860.

\*BIOL 7000 may be repeated for registration status, but only 6 s.h. may count toward graduation.

### MS IN MOLECULAR BIOLOGY AND BIOTECHNOLOGY

The candidate must have had undergraduate course work, or otherwise demonstrate competency, equivalent to two semesters of biochemistry, one semester of scientific or technical writing, genetics, and microbiology. Deficiencies in these areas must be made up before a degree is awarded. No more than 3 s.h. of courses at the 5000 and 6000 level taken to acquire basic competency may count toward the degree. The candidate must also take BIOL 3100, 3101 or pass a practical examination in this course. (No graduate credit will be awarded for BIOL 3100, 3101.) The degree requires 30 s.h. of credit as follows.

1. Required courses (13 s.h.): BIOL 5190, 6880, 7000\*, 7870, 7890.
2. A minimum of 14 s.h. (including two of the \*\* courses) must be taken from the following: BIOL 5260, 5261, 5510, 5511, 5520, 5521, 5890, 5900\*\*, 5901\*\*, 5930, 5931, 6030, 6082, 6083, 6100, 6120, 6180\*\*, 6181\*\*, 6190, 6200, 6230, 6231, 6250\*\*, 6251\*\*, 6504, 6514, 6992, 6993, 7480, 7481, 7870.
3. Electives: A maximum of 3 s.h. may be designated at the candidate's option as elective hours with the approval of the graduate director and the candidate's adviser, to complete graduation requirements of 30 s.h. for this degree.

\*BIOL 7000 may be repeated for registration status, but only 6 s.h. may count toward graduation.

Internship Option: Qualified students will be encouraged to spend from six months to one year in an internship at an industrial or governmental research laboratory. From 2-5 s.h. of internship credit can be applied toward the degree.

## SECTION 7: CURRICULA

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### **BIOL: BIOLOGY**

**5070, 5071. Ornithology (4,0)** 3 lecture hours and 1 3-hour lab per week. Field trips to observe native birds in natural surroundings required. P: 8 s.h. in BIOL. Survey of birds of the world. Emphasis on ecology, evolution, and behavior: adaptive radiation, migration, flight mechanics, morphology, taxonomy, bird song, reproduction, population biology, and conservation of birds.

**5150, 5151. Herpetology (4,0)** 3 lectures and 1 3-hour lab per week. P: 8 s.h. in BIOL. Taxonomy, anatomy, physiology, distribution, phylogeny, natural history, and ecology of reptiles and amphibians of the world. Emphasis on species of NC and Atlantic Coastal Plain.

**5190. Immunology I (3)** 3 lectures and 1 3-hour lab per week. P: BIOL 2300, 3220, 3221. Structure, function, and genetic organization of body's defense system. Interactions of immunocompetent cells and their role in infection, disease, and autoimmunity.

**5200, 5201. Invertebrate Zoology (4,0)** 3 lectures and 1 3-hour lab per week. P: 6 s.h. in BIOL. General comparative anatomical and physiological aspects of invertebrate groups. Emphasis on similarities, differences, and evolution.

**5220, 5221. Limnology (4)** 3 lectures and 1 3-hour lab per week. P: BIOL 2250, 2251; or consent of instructor. Physical, chemical, and biological factors of inland waters and their influence on aquatic organisms.

**5230, 5231. Phycology (4,0)** 3 lectures and 1 3-hour lab per week. P: BIOL 1200, 1201. Systematic survey of algae. Emphasis on their role in aquatic ecosystems. Lab employs techniques for studying algae and use of systematic keys.

**5260, 5261. Microbial Ecology (4,0)** 3 lectures and 2 2-hour labs per week. P: BIOL 2250, 2251, 3220, 3221; or consent of instructor. Interactions between microorganisms and their physical, chemical, and biological environment. Microbial involvement in energy flow, nutrient cycling and intra/inter-specific interactions. Introduction to statistical analyses of biological and ecological data.

**5270. Marine Community Ecology (3)** P: BIOL 2250, 2251; or consent of instructor. Advanced examination of ecology of marine and brackish water communities based on principles of population biology and community ecology. Emphasis on current hypotheses concerning the processes structuring major communities.

**5351. Biological Processes and the Chemistry of Natural Water (2)** 6 lab hours per week. P: BIOL 2250, 2251; 2 CHEM courses; or consent of instructor. Interactions of water quality and biological processes in aquatic ecosystems.

**5400. Wetland Ecology and Management (3)** P: BIOL 2250, 2251; or consent of instructor. Marshes, swamps, bogs, fens, and other intermittently flooded ecosystems. Emphasis on classification, ecosystem processes, structure, and management of freshwater and saltwater wetlands.

**5401. Wetland Ecology Laboratory (1)** P: BIOL 2250, 2251; C: BIOL 5400. Application of methods to measure ecological properties, assess the functioning, identify plant communities, and understand landscape interaction of wetland ecosystems.

**5450, 5451. Histology (4,0)** 2 lectures and 2 2-hour labs per week. P: 4 BIOL courses. Organization of cells, tissues, and organs at microscopic level.

**5510, 5511. Transmission Electron Microscopy (4,0)** 2 lecture and 6 lab hours per week. P for undergraduate students: Senior standing as BIOL major or consent of instructor. Introduction to theory, design, and use of transmission electron microscope and to preparation of biological materials for its use.

**5520, 5521. Scanning Electron Microscopy and X-Ray Analysis (2,0)** 1 lecture and 4 lab hours per week. P for undergraduate students: Senior standing as a BIOL major or consent of instructor. Introduction to theory and techniques of scanning electron microscopy and X-Ray analysis and preparation of materials for both.

**5550, 5551. Ichthyology (4,0)** 2 lectures and 2 3-hour labs per week. Evolution and biology of major fish groups of the world. Emphasis on NC species.

**5600, 5601. Fisheries Techniques (3,0)** For biology majors interested in marine biology. Field trips and field studies are integral. 2 lectures and 1 3-hour lab or field excursion per week. P: BIOL 2250, 2251; or equivalent. Practical training in field and lab experimental methods in fisheries techniques.



**5630, 5631. Comparative Animal Physiology (4,0)** 3 lectures and 1 3-hour lab per week. P: 2 BIOL and 2 organic CHEM courses. Principles of function of organ systems of major groups of animals. Nutrition, digestion, respiration, skin and temperature control, blood and circulatory systems, excretion, the muscular-skeletal system, nervous coordination, and endocrine system.

**5640, 5641. Entomology (4,0)** 3 lectures and 1 3-hour lab per week. P: 12 s.h. BIOL. General anatomy, physiology, ecology, and classification of insects.

**5680. Current Topics in Coastal Biology (3)** P: Consent of instructor. Seminar on environmental issues in coastal biology presented by directed reading, lecture, and discussion.

**5730, 5731. Animal Physiological Ecology (4,0)** 3 lectures and 1 3-hour lab per week. P: BIOL 2250, 2251; 3310, 3311 or 3320, 3321 or 5800, 5821; or consent of instructor. Physiological adjustments and responses of animals to their environment. Consideration given to mechanisms involved and to invertebrate, vertebrate, aquatic, and terrestrial animals.

**5740, 5741. Behavioral Ecology (4,0)** 3 lecture and 2 discussion hours per week. P: BIOL 3520 or 4200, 4201. Animal behavior from an evolutionary perspective. Readings from current scientific literature and weekly discussions.

**5750, 5751. Introduction to Regional Field Ecology (2,0) (5750:WI)** For science and environmental studies teachers. 20 hours of lecture and 32 hours of field trips. May not count toward MS in BIOL or molecular biology/biotechnology. Major regional ecosystems.

**5800. Principles of Biochemistry I (3)** 3 lecture hours per week. P: BIOL 3310, 3311; or consent of instructor; CHEM 2760, 2763. Intermediary metabolism, metabolic processes, and metabolic regulation of major groups of compounds in living cells.

**5810. Principles of Biochemistry II (3)** May be taken before BIOL 5800. P: BIOL 3310, 3311; or consent of instructor; CHEM 2760, 2763. Protein biochemistry. Structure and function of amino acids and proteins, including protein biosynthesis and kinetics. Structures illustrated using computer-modeling techniques.

**5821. Principles of Biochemistry Laboratory (1)** Required for biochemistry majors; recommended for biology majors. P/C for undergraduate students: BIOL 5800 or 5810. General biochemistry lab designed to complement BIOL 5800, 5810.

**5870. Molecular Genetics (3)** P: BIOL 2300; RP: BIOL 3220, 3221, 5810, 5821. Genetics of prokaryotic and eukaryotic organisms at molecular level. Structure and function of nucleic acids; replication, recombination, and repair; control of gene expression; and other related topics.

**5890. Virology (3)** P: BIOL 3100, 3101; or 5870; 3220, 3221. Plant, animal, and bacterial viruses. Emphasis on distinctive features of viruses as related to parasitism, disease, and basic research.

**5900, 5901. Biotechniques and Laboratory (2,3)** 2 1-hour lectures and 2 4-hour labs per week. P: BIOL 3100, 3101, 5870; consent of instructor; RP: BIOL 5810, 5821; C for 5901: BIOL 5900. Theory and practice of modern genetic engineering technology. Topics include DNA purification, electrophoresis, restriction mapping, use of DNA modifying enzymes, basic cloning in plasmid vectors, and strain construction by conjugation and transduction.

**5930, 5931. Microcomputer Applications in Molecular Biology (2,0)** 1 lecture and 1 3-hour lab per week. P: BIOL 3310, 3311; or 5810, 5821; or 5870. Techniques for analysis of biological characteristics of nucleic acid and protein molecules using BASIC with microcomputers.

**5950, 5951. Taxonomy of Vascular Plants (4,0)** 1 2-hour lecture and 1 4-hour lab per week. P: 12 s.h. BIOL or consent of instructor; RP: BIOL 2250, 2251. Plant importance, identification, classification, and evolution as well as how plants interact with living and nonliving environments. Field experiences emphasize major communities and dominant floral elements of coastal NC.

**5995. Internship (1)** 3 hours per week. May be repeated once for a maximum of 2 s.h. P: Consent of instructor. Lab experiences under direct supervision of a member of biology faculty.

**6003. Seminar (1)** Student, staff, and guest speakers on current research.

**6010. Estuarine Ecology (2)** P: BIOL 2250, 2251; or consent of instructor. Physical properties, energy flow, biogeochemical cycling, and biological patterns of estuaries.

## SECTION 7: CURRICULA

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**6020, 6021. Marine Biology (3,0)** 2 lectures and 2 lab hours per week (including field trips). P: Consent of instructor. Biology and ecology of marine organisms with at least one field trip to the coast for collection and identification.

**6030. Topics in Cell Biology (3)** P: Consent of instructor. Some combination of current work in bioenergetics, membrane biology, immunobiology, cell/organelle differentiation, and functions of specialized cells. Other topics not routinely considered in undergraduate courses will be reviewed also. Course content varies with interests of instructor.

**6040, 6041. Animal Behavior (4,0)** 3 lectures and 1 3-hour lab per week. P: Consent of instructor. Presentation of historical development of animal behavior as a field of study through directed reading, discussion, and practical experience. Presentation of some current principles and experimental approaches to animal behavior.

**6071. Human Gross Anatomy (4)** P: Consent of instructor. Dissection-based regional study of the human cadaver.

**6082, 6083. Fundamentals of Vertebrate Endocrinology (3,1)** 3 lectures and 1 3-hour lab per week. P: BIOL 3310, 3311; or 3320, 3321; or equivalent; C for 6083: BIOL 6082. Neurosecretions and endocrine glands. Emphasis on evolution, development, morphology, and physiology of endocrine system. Hormone biosynthesis and mechanisms of action.

**6090, 6091. Experimental Embryology (4,0)** 3 lectures and 1 3-hour lab per week. P: BIOL 4060, 4061. Historical and current understanding of molecular mechanisms underlying development. Application of experimental techniques to marine invertebrates, amphibian, and chick material.

**6100, 6120. Advances in Molecular Biology (2,2)** May be repeated once for credit with consent of instructor. P: BIOL 5810, 5821; or 5870; consent of instructor. In-depth focus on problems of current interest in molecular biology and genetic engineering. Topics vary by semester.

**6130. Advances in Developmental Biology (2)** P: Consent of instructor. Recent advances in animal and plant development. Specific discussion includes gene regulation, embryonic induction, hormone action, cell movement, cell growth, photoperiodism, etc., in relation to differentiation.

**6200. Mechanisms of Genetic Recombination (2)** P: BIOL 3220, 3221; or 5870; 5810, 5821; consent of instructor. Aspects of genetic recombination, including general and site specific recombination, gene mapping methods, DNA and RNA sequence rearrangements, and transposable genetic elements. Emphasis on current developments in growing field.

**6210. Phylogenetic Theory (3)** Theory and practice of modern phylogenetic methods. Topics include basic evolutionary concepts, reconstructing evolutionary relationships using molecular and other data, and statistical methods for assessing the reliability of phylogenetic analyses. Emphasis on hands-on experience with phylogenetic computer programs.

**6220. Evolution: Topics for Advanced Students (3)** P: A genetics course. Current concepts of evolution, presented by reading, lecture, and discussion.

**6230, 6231. Advanced Techniques in Molecular Biology (2,3)** 2 lectures and 2 4-hour labs per week. P: BIOL 5900, 5901; C for 6231: 6230. Advanced genetic engineering techniques for basic and applied research.

**6250, 6251. Protein Purification Techniques (4,0)** P: BIOL 5810, 5821. Purification methods used to isolate enzymes and other proteins from living cells. Recombinant DNA-based enzyme purification techniques.

**6300, 6301. Neurophysiology (3,0)** 2 lectures and 1 3-hour lab per week. P: BIOL 3310, 3311; or 3320, 3321; or equivalent. Cellular physiology of neurons and interrelationships between neurons.

**6345. Cell Motility (2) Same as ANAT 6345; BIOC 6345** P: General chemistry, organic chemistry, general biology, and general physics; or consent of instructor. Multidisciplinary exploration of mechanism, structure, and function of motile systems essential for eukaryotic life.

**6410. Contemporary Molecular and Cellular Biology for Advanced Placement Teachers (2)** In-depth review of energy transformations in cells, cell division, molecular genetics, and enzyme systems. Emphasis on advances in knowledge during the past decade. Course coordinator arranges lecturers on selected topics.

**6420. Contemporary Organismal Biology for Advanced Placement Teachers (2)** In-depth review of plant structure and function. Emphasis on angiosperms, animal structure, and function. Vertebrates and reproduction and development of plants and animals. Course coordinator arranges lecturers on selected topics that emphasize advances in knowledge during past decade.

**6430. Contemporary Population Biology for Advanced Placement Teachers (2)** In-depth review of genetics, evolution, behavior, ecology, and social biology. Emphasis on advances in knowledge during the past decade. Course coordinator arranges lecturers on selected topics.

**6504, 6514. Research Problems in Biology (2,2)** 4 research hours per week. P: Consent of instructor. Research completed under supervision of faculty member.

**6700. Plant Physiological Ecology (2)** P: One ecology course. Physiological mechanisms of plants relevant at individual, community, and ecosystem levels. Emphasis on higher plants in stressful environments.

**6800. Population Ecology (2)** P: One ecology course; consent of instructor. Intrinsic and extrinsic controls of microbe, plant, and animal population dynamics.

**6820, 6821. Systems Ecology (3,0)** 2 lectures and 1 3-hour lab per week. P: One ecology course; consent of instructor. Ecosystem structure and function utilizing systems analysis methods and computer models.

**6850, 6860. Advances in Ecology (2,2)** P: BIOL 2250, 2251; or equivalent; consent of instructor. Advanced treatment of specialized topics in ecology. Emphasis on readings from primary literature.

**6880. Introduction to Research (2)** Library reference services and cataloging systems. Writing techniques and problems encountered in preparation of thesis and research publications.

**6900. Vertebrate Reproductive Biology (3)** P: One cell and developmental biology or physiology course or consent of instructor. Mechanisms involved in vertebrate reproduction. Morphology, physiology, and biochemistry of reproductive systems. Topics include neuroendocrine control, environmental, and other factors regulating reproductive cycles as well as current research in reproductive technology.

**6910. Coastal Ecological Processes (4,0)** For PhD students without biology backgrounds and biology MS students. Provides PhD students in coastal resources management with fundamental concepts of ecology within context of coastal zone and with emphasis on local ecosystems.

**6920. Conservation Biology (2)** 2-hour lecture and discussion per week. P: Consent of instructor; RP: an ecology course. Application of principles of ecology, biogeography, population genetics, economics, sociology, anthropology, and philosophy to maintenance and restoration of biological diversity and management.

**6992, 6993. Internship in Applied Biology (3,2)** Variable classroom and/or lab hours per week. P: Completion of basic courses prescribed by joint screening committee composed of faculty from the biology department closely allied to proposed area of study and representatives from specific applied area (industry, government, etc.) Experience in classroom, research, governmental, or industrial applications of biology.

**6994. Internship (1)** 3 contact hours per week. P: Consent of instructor. Experience in classroom situations under direct supervision of biology faculty member.

**7000. Thesis (3)** May be repeated. May count maximum of 6 s.h.

**7001. Thesis: Summer Research (1)** May be repeated. No credit may count toward degree. Students conducting thesis research may only register for this course during the summer.

**7020, 7021. Marine Biology (3,0) Formerly BIOL 6020, 6021** P: Consent of instructor. Biology and ecology of marine organisms with at least one field trip to the coast for collection and identification.

**7130. Current Literature in Development Biology (1)** P: Consent of instructor. Review of current research literature related to development biology. Emphasis on critical analysis.

## SECTION 7: CURRICULA

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**7180, 7181. Cell Culture and Hybridoma Technology (3,0) Formerly BIOL 6180, 6181** 1 lecture and 6 lab hours per week. P: BIOL 5190 or equivalent. Principles and mechanisms of producing monoclonal antibodies. Emphasis on basic science application of monoclonal antibodies and laboratory techniques in cell culture and construction of hybridomas. Includes discussion of recent literature that includes scientific application of monoclonal antibodies.

**7190. Immunology II (3) Formerly BIOL 6190** P: BIOL 5190 or equivalent. Emphasis on MHC and T cell biology. Includes review and presentation of recent immunological literature.

**7210, 7211. Transgenic Methodology and Application (2,3)** 2 lectures and 1 6-hour lab per week. P: BIOL 5900, 5901 or consent of instructor; C for 7211: BIOL 7210. Production of transgenic animals and evaluation of selected genetic engineered constructs.

**7212, 7213. Gene Targeting and Knockout Animals (2,3)** 2 lectures and 1 6-hour lab per week. P: BIOL 5900, 5901, 6480, 6481; or consent of instructor; C for 7212: BIOL 7213. Gene manipulation and production of knockout animals.

**7360. Fisheries Management (3)** P: BIOL 2250 or 3660, MATH 2121, consent of instructor. Introduction to Fisheries Management topics including exploited populations of living aquatic resources – fish, shellfish, and other harvestable organisms.

**7370. Biological Effects of Radiation (3) Formerly BIOL 5370 Same as RONC 7370** P: BIOL 1100, 1101, 1200, 1201; or consent of instructor. Biological effects resulting from interactions of radiation and matter for scientifically, technically, and medically oriented students.

**7480, 7481. Cell Biology (4,0) Formerly BIOL 6480, 6481** 2 lectures and 6 lab hours per week. P: Consent of instructor. Investigates how cells develop, function, communicate, control their activities, and die.

**7870. Molecular Genetics (3) Formerly BIOL 6870** P: 1 course in genetics and 2 semesters of organic chemistry or consent of instructor. Introduces molecular mechanisms responsible for DNA replication, repair, and recombination as well as transcription and translation.

**7890. Current Literature in Molecular Biology (1) Formerly BIOL 6890** P: Consent of instructor. Review of current research literature related to molecular biology. Emphasis on critical analysis.

**7895. Current Literature in Cell Biology (1)** P: Consent of instructor. Review of current research literature related to cell biology. Emphasis on critical analysis.

**8815. Seminar in Biological Sciences (1)** May be repeated for credit. P: Consent of course director. Presentations on research or critical review of current literature topics by students in IDPBS program. Seminar presentation.

**9000. Dissertation (3)** May be repeated. May count for a maximum of 18 s.h.

**9001. Dissertation: Summer Research (1)** May be repeated. No credit may count toward degree. Students conducting dissertation research may only register for this course during the summer.

### BIOL Banked Courses

<b>5000, 5001. Radio Tracer Techniques in Biology (3,0)</b>	<b>5880, 5881. Microbial Physiology (4,0)</b>
<b>5020, 5021. Animal Parasitology (4,0)</b>	<b>5910, 5911. Vascular Plant Systematics (4,0)</b>
<b>5040, 5041. Mycology (4,0)</b>	<b>5920, 5921. Vertebrate Systematics (4,0)</b>
<b>5050. Applied Ecology (3)</b>	<b>6050. Biogeography (3)</b>
<b>5080, 5081. Plant Anatomy and Morphology (4,0)</b>	<b>6640, 6641. Ecological Entomology (4,0)</b>
<b>5110, 5111. Plant Growth and Development (4,0)</b>	<b>7530. Readings in Organismic and Field Biology (2)</b>
<b>5678. Biology of Aging (3)</b>	<b>7540. Readings in Cell Biology and Biochemistry (2)</b>
<b>5850, 5851. Biometry (3,0)</b>	
<b>5860, 5861. Biological Applications to Digital Computers (3,0)</b>	

## DEPARTMENT OF CHEMISTRY

*Chia-yu Li, Chairperson, 301 Science and Technology Building*

*Art A. Rodriguez, Director of Graduate Studies, 571 Science and Technology Building*

The Department of Chemistry offers the master of science degree with concentrations in five fields of chemistry (analytical, inorganic, organic, physical, and industrial) or in combinations of the five fields (i.e., physical-organic, etc.). The degree requires a minimum of 30 s.h. of graduate work, including the completion of a thesis.

Entrance examinations are administered in four traditional areas of chemistry for advisory purposes. Course selection is based on the student's performance on the entrance examinations, undergraduate background, and area of interest. Students will be required to remove undergraduate deficiencies.

### MS IN CHEMISTRY

1. Students must show competence in three of the five basic course areas listed below for 8-10 s.h. credit.

Analytical: CHEM 5350 or 6250

Biochemistry: BIOL 5800 or 5810; 5821

Inorganic: CHEM 5550

Organic: CHEM 5750 or 6750

Physical: CHEM 5970 or 6950

These courses can be waived on a course-by-course basis if a student has taken an equivalent course as an undergraduate student and demonstrates proficiency in that area, or by passing the entrance examination in that area.

2. Six semester hours of electives in chemistry or in other natural sciences or mathematics approved by the thesis committee. Three semester hours of the electives must be at the 6000 level in the student's major area in chemistry. Students in the industrial chemistry option must substitute CHEM 5993 for 3 s.h. of electives.
3. Two hours of seminar: CHEM 6103 (1 s.h. each; may be repeated). Degree students are required to attend all departmental seminars and to give two presentations on approved topics.
4. Research: CHEM 6502, 6503, 6504, 6505 (a minimum of 10 s.h.)
5. Thesis: CHEM 7000 (3 s.h.)
6. Research Skill: Students must satisfy the research skill requirement by successfully completing the following:
  - a. Submit and orally present a thesis research plan to their thesis committee.
  - b. Complete the seminar program, CHEM 6103, which includes instruction on searching the chemical literature, including computer-assisted searching, attending all departmental seminars, and presenting two departmental seminars.

### CHEM: CHEMISTRY

**5350, 5351. Instrumental Analysis (3,1) (WI,WI)** 3 lecture and 3 lab hours per week. P: CHEM 3960; C for 5350: CHEM 5351; C for 5351: CHEM 5350. Theory and practical uses of modern instrumental methods of chemical analysis.

**5525, 5526, 5527. Special Topics (1,2,3)** May be repeated for credit with change of topic. P: Consent of instructor. Selected topics of current interest in areas of analytical, inorganic, organic, and physical chemistry.

**5550. Advanced Inorganic Chemistry (3)** P: CHEM 3450, 3950. Study of newer theories, developments, and procedures in inorganic chemistry.

**5750. Advanced Organic Chemistry (3)** P: CHEM 2760; P/C: CHEM 3960. Physical organic topics, including aromaticity, acid/base chemistry, reactive intermediates, mechanisms of common organic reactions, and relationship between structure and reactivity.

**5760. Organic Structure Elucidation (3)** P: Consent of instructor. Application of modern instrumental methods to elucidation of structures of organic compounds, with particular regard to elucidation of complex structures from combined application of spectral tools.

**5993. Industrial Internship in Chemistry (3)** 25-30 lab hours per week. May be repeated. May count maximum of 3 s.h. toward CHEM major. P: Selection by joint Department of Chemistry/industry screening committee; CHEM 2250, 2760, 3950. Professional experience in industrial application of chemistry.

## SECTION 7: CURRICULA

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**6103. Chemistry Seminar (1)** May be repeated. Presentations of assigned topics on contemporary research and attendance at departmental seminars.

**6250. Advanced Analytical Chemistry (3)** P: CHEM 5350, 5351; or entrance examination. In-depth study of theory and research applications of statistics and sampling, spectroscopy, electrochemistry, separation science, and quantitative analysis.

**6502, 6503, 6504, 6505. Research (2,3,4,5)** May be repeated.

**6521. Special Topics for Chemistry Teachers (3)**

**6524, 6525, 6526. Special Topics in Analytical Chemistry (1,2,3)** May be repeated for credit with change of topic for a given course number. P: CHEM 5350 or equivalent. Lectures in restricted area of contemporary analytical chemistry. Possible topics include spectrometry, chromatography, electrochemical techniques, mass spectrometry, chemometrics, and chemical instrumentation. Variable topics and content.

**6527, 6528, 6529. Special Topics in Inorganic Chemistry (1,2,3)** May be repeated for credit with change of topic for a given course number. P: CHEM 5550 or equivalent. Lectures in restricted area of contemporary inorganic chemistry. Possible topics include structure and bonding, transition metal organometallic chemistry and homogeneous catalysis, inorganic kinetics and mechanisms, and physical methods in inorganic chemistry. Variable topics and content.

**6530, 6531, 6532. Special Topics in Organic Chemistry (1,2,3)** May be repeated for credit with change of topic for a given course number. P: Consent of instructor. Lectures in a restricted area of contemporary organic chemistry. Possible topics include polymer chemistry, photochemistry, stereochemistry, physical-organic chemistry, and modern synthetic techniques. Variable topics and content.

**6533, 6534, 6535. Special Topics in Physical Chemistry (1,2,3)** May be repeated for credit with change of topic for a given course number. P: Consent of instructor. Lectures in restricted area of contemporary physical chemistry. Possible topics include kinetics, spectroscopy, thermodynamics, statistical mechanics, nuclear chemistry, quantum chemistry, and interfacial and colloid chemistry. Variable topics and content.

**6750. Organic Synthesis (3)** P: CHEM 2760. Synthetically useful organic reactions and strategies in organic synthesis.

**6950. Introduction to Theoretical Chemistry (3)** P: CHEM 3960 or equivalent. Theory of electronic structure of atoms and molecules. Topics include variation method, perturbation theory, molecular symmetry, molecular orbital theory, and semiempirical treatment of polyatomic molecules.

**7000. Thesis (3)** May be repeated. May count maximum of 3 s.h.

**7001. Thesis: Summer Research (1)** May be repeated. No credit may count toward degree. Students conducting thesis research may only register for this course during the summer.

### CHEM Banked Courses

**5390. Bioanalytical Chemistry (2)**

**5450. Industrial Chemistry (3)**

**5560. Inorganic Reaction Mechanisms (2)**

**5950, 5951. Introduction to Nuclear Chemistry (2,1)**

**5970. Chemical Thermodynamics (2)**

**6150. Teaching General Chemistry (3)**

**6160. Teaching Analytical Chemistry (4)**

**6520. Teaching an Advanced Placement Course in Chemistry (5)**

**6522, 6523. Special Topics for Chemistry Teachers (3,3)**

## COASTAL AND MARINE STUDIES

*Paul Gares, Director, A-224 Brewster Building*

### COAS: COASTAL STUDIES

**5000. Scientific Diving and Underwater Research Techniques (5)** 4 lecture and 2 lab hours per week. P: Consent of instructor: Fundamentals of scientific diving, including use of Nitrox, specialized diving equipment, emergency procedures, and sampling techniques. Review of basic scuba diving skills.

**5001, 5002. Coastal Marine Resources Problem Analysis (3,3)** Equivalent of 60 hours of research per semester. P: Research project approved by instructor: Analysis of recognized problem in coastal marine resources in consultation with assigned faculty.

### COAS Banked Courses

**5025, 5026. Man and the Sea Seminar (1,1)**

**5050, 5051. Nautical Charts and Navigation (3,0)**

## DEPARTMENT OF ECONOMICS

*Richard E. Ericson, Chairperson, A-428 Brewster Building*

*John A. Bishop, Director of Graduate Studies, A-436 Brewster Building*

### MS IN APPLIED AND RESOURCE ECONOMICS

Applicants to the MS in applied and resource economics must meet the admissions requirements of the Graduate School, submit three letters of recommendation, make an acceptable score on the general portion of the Graduate Record Examinations, and have had at least one undergraduate course each in introductory statistics and differential calculus. Non-native speakers must make an acceptable score on the TOEFL. Undergraduate courses in intermediate microeconomics and macroeconomics are strongly recommended.

Students in this degree program must complete a minimum of 33 s.h. of course work. Core requirements in economics theory, econometric technique, and research methodology constitute 21 s.h. with the remaining 12 s.h. being electives. Up to 6 s.h. of electives may be taken outside the department with the approval of the graduate director.

1. Core courses: ECON 5360, 5501, 6301, 6302, 6390, 6401, 6402.
2. A comprehensive examination is administered after the completion of ECON 5360, 5501, 6301, 6302, 6401, 6402. The examination will test skills in applied theory and econometrics. Successful performance on this examination is necessary to continue in the program.
3. Research skills: Four of the core courses listed above constitute 12 s.h. of research skills in quantitative methods and research methodology: ECON 5360, 6301, 6302, 6390.  
Research project: The final component, ECON 6390, is a research project. It is the culmination of a student's analytical work and is designed to demonstrate applied research skills.

### CERTIFICATE IN APPLIED ECONOMICS

In addition to the MS in economics, the department offers a certificate in applied economics with five options: econometrics, forecasting/macroeconomics, health policy, public policy, and resource policy. Entry requirements include a degree application for regular admission and a letter to the graduate director, requesting enrollment in the program. The certificate will be awarded after completion of 9 s.h. of B or better work in the respective areas as follows:

**Econometrics:** ECON 6301 and two electives

**Forecasting:** ECON 6353 and two electives

**Health policy:** ECON 5910 and two electives

**Public policy:** ECON 5800 and two electives

**Resource policy:** ECON 5170 and two electives

## SECTION 7: CURRICULA

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### ECON: ECONOMICS

**5000. General Topics (3)** May be repeated for credit with change of topic. P for undergraduate students: ECON 3144, 3244. Consideration of new or advanced topics in economics.

**5150. Development (3)** P for undergraduate students: ECON 3144. Application of microeconomic analysis to investments in human resources, efficient organization of rural economics, intersectoral and international exchange, and interaction between politics and markets, especially in less developed countries.

**5170. Resources I (3)** P for undergraduate students: ECON 3144. Application of microeconomic analysis to study of allocation of natural resources.

**5360. Mathematical Economics (3)** P for undergraduate students: MATH 2171 or equivalent. Mathematical analysis applied to economic theory. Structure and specification of quantitative models.

**5501. Macroeconomic Theory (3)** P for undergraduate students: ECON 3244; ECON 5360 or MATH 2172. Business cycle fluctuations. Emphasis on determinants of consumption and investment and effectiveness of monetary and fiscal policy.

**5800. Public Economics (3)** P for undergraduate students: ECON 3144. Application of microeconomic analysis to collective choice in democratic societies, government expenditure programs, and taxation.

**5910. Health Economics (3)** P for undergraduate students: ECON 3144, 3244. Organization structure, financing, and regulation of health care delivery and economic measurement of performance.

**6000. Advanced Topics (3)** May be repeated for credit. Current advanced-level topics in economics.

**6102. Labor Supply (3)** P: ECON 6301, 6401. Theory and estimation of static labor supply models and to general theory of allocation of time.

**6125. Regulation (3)** P: ECON 6401. Market failure rationale for nonmarket allocation. Causes and effects of regulatory action. Behavior of regulatory agencies and regulated firms.

**6172. Resources II (3)** Application of microeconomic analysis to environmental problems, such as air and water pollution and formation of environmental policy.

**6300. Economics of Coastal Populations (3)** Advanced introduction to application of microeconomic analysis of coastal environmental problems and issues and economic basis for formation of coastal and marine policies.

**6301. Econometrics I (3)** Statistical theory and its basic applications to analysis of economic data.

**6302. Econometrics II (3)** P: ECON 6301, 6401. Development of general linear model and its extensions for analysis of economic data.

**6335. Discrete Choice Econometrics (3)** P: ECON 6301, 6401. Advanced course in econometric. Focus on regression techniques for analysis of qualitative and limited dependent variables.

**6353. Forecasting (3)** P: ECON 5501, 6301, 6401. Advanced course in econometrics. Focus on regression and time series techniques for forecasting of economic variables.

**6390. Research (3)** May be repeated. May count a maximum of 6 s.h. P: ECON 6301, 6401; consent of graduate director. Objectives and structure of methodologies for formulation and conduct of empirical research in economics.

**6401. Microeconomic Theory I (3)** Economic theory of behavior of households and firms in market economy.

**6402. Microeconomic Theory II (3)** P: ECON 6401. Extensions of choice theory. Efficiency and equilibrium under conditions of uncertainty and imperfect information. Welfare under "second best" constraints.

**6910. Quantitative Methods in Health Economics (3)** Applications of quantitative methods to selected health economics topics of current policy relevance.



## DEPARTMENT OF ENGLISH

*Bruce Southard, Chairperson, 2201 Bate Building*

*James C. Holte, Director of Graduate Studies, 2211 Bate Building*

As a prerequisite to graduate study in a degree program, the Department of English requires that the applicant meet the admission requirements of the university and submit satisfactory scores on the General Test of the Graduate Record Examinations. Applicants should have an undergraduate major, minor, or equivalent record of study in English, or for those applying to technical/professional communication or linguistics/TESL, an appropriate undergraduate degree. Each entering student is to consult with the director of graduate studies in English at the beginning of graduate studies. At the consultation, the director of graduate studies will review curriculum requirements and options, including available concentrations in literature, technical and professional communication, rhetoric and composition, creative writing, multicultural literature, and linguistics/TESL, and will suggest appropriate courses. Students seeking a concentration in creative writing must submit a portfolio of poems, short stories, or essays to the creative writing faculty prior to admission to the concentration.

### MA IN ENGLISH

A minimum of 30 s.h. of course work, all of which may be within the department, is required. Students emphasizing technical and professional communication, rhetoric and composition, and linguistics/TESL may complete a non-thesis option, including 33 s.h. of course work.

A bibliography and research methods course ..... 3 s.h.

One composition or linguistics course, selected from ENGL 5500, 6520, 6527, 6625, 7530, 7615 ..... 3 s.h.

Two 6000-level literature courses ..... 6 s.h.

English electives or courses in a concentration (with prior permission of the Graduate Committee may include up to 6 s.h. of graduate courses taken as a minor in another department) ..... 15 s.h.

A thesis, demonstrating the student's ability to gather, arrange, and interpret material which bears on a particular problem. Thesis options are available to qualified students in creative writing, technical and professional communication, rhetoric and composition, and linguistics/TESL ..... 3 s.h.

Technical and professional communication, rhetoric and composition, and linguistics/TESL students choosing the non-thesis option complete 6 s.h. of additional electives, instead of the 3 s.h. of thesis for a total of 33 s.h.

Research Skills Requirement: A reading knowledge of a foreign language. Students emphasizing technical and professional writing, rhetoric and composition, linguistics/TESL, and other suitable fields may substitute an appropriate level of computer skills.

A comprehensive qualifying examination, to be taken during the second or third semester of residence.

A final oral examination on the thesis; subject matter from course work may also be part of the examination.

### MAEd IN ENGLISH

Please refer to Section 7, College of Education, for degree requirements for the master of arts in teaching, and the master of arts in education, both of which lead to advanced licensure.

### PhD IN TECHNICAL AND PROFESSIONAL DISCOURSE

The PhD program in technical and professional discourse prepares researchers and scholars to assess discourse critically, develop innovative and interdisciplinary approaches to discourse issues, investigate and analyze discourse in a variety of academic and non-academic settings, and serve as faculty at various educational levels. This preparation is developed through a multi-disciplinary program of traditional and on-line courses, seminars, internships, and dissertation research.

Students in the program take courses in three major research areas: discourses and cultures, writing studies and pedagogy, and technical and professional communication.

With the assistance of advisors selected by the students, doctoral students develop individualized plans of study drawing on the resources of the Department of English, affiliate departments, and internship sponsors.

## SECTION 7: CURRICULA

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### CURRICULUM

The doctoral program requires a minimum of 60 hours of course work beyond the Masters, 18 hours of which are core courses: ENGL 8601, 8605, 8615, 8630, 7004, 8780. With the advice and consent of their advisors, students then select 15 hours of course work within the Department of English, 9 hours of electives, and a minimum of 18 hours of dissertation research.

Please contact the Director of Graduate Studies in English for additional details concerning application procedures, admission requirements, and specific academic requirements.

#### CERTIFICATE IN MULTICULTURAL LITERATURE

The Graduate Certificate in Multicultural Literature offers continuing education for post baccalaureate teachers, professionals, and potential graduate degree students in literatures from diverse ethnic and cultural groups that may have been excluded from mainstream literary studies. Coursework is interdisciplinary, with emphases on genre, historical context, and critical methodologies, and a focus on ethnic American and world literatures written in English.

This certificate is offered only online. Completion requires 12 s.h., including ENGL 6340 and 6360 (required), and 6 s.h. to be selected from 5360, 6330, 6350, 7365, and 6370. Other special topics graduate courses in related areas may be approved on an individual basis.

For further information, please go to <http://www.ecu.edu/english/>, or contact the Director of Graduate Studies.

#### CERTIFICATE IN PROFESSIONAL COMMUNICATION

Communication professionals work in a rapidly changing environment that requires them to update their abilities throughout their working career. Both conceptual and technological issues underlie those changes. This online certificate program is designed to help those communicators remain competitive.

The certificate requires 15 s.h. of courses in the area of technical & professional communication with a minimum B average in all certificate course work. Only 3 s.h. of C will count toward this certificate. Internship (Engl 6740 & 6741) and directed reading (Engl 6725) courses cannot count toward the certificate. No hours in another discipline can be counted. Additional details can be obtained by contacting the Director of Graduate Studies in the Department of English.

#### ENGLISH AS A SECOND LANGUAGE TEACHER LICENSURE

A person wishing to meet the requirements for the add-on certificate in Teaching English as Second Language (TESL), grades K-12, must hold an A-Level or G-Level license and complete the following courses, as well as any state-mandated examinations, such as the PRAXIS specialty area examination in TESL: ENGL 6526, 6527, 6528, 6529, 7525, 7530.

#### ENGL: ENGLISH

**5060. History of Literary Criticism (3)** Major texts of literary criticism from Plato through Pater.

**5125. The English Novel Through Hardy (3)** Development of English novel: Defoe, Richardson, Fielding, Austen, the Brontës, Dickens, Thackeray, Eliot, Hardy, and others.

**5150. The Twentieth-Century British and American Novel (3)** Representative British and American novelists of twentieth century: Joyce, Woolf, Lawrence, Hemingway, Faulkner, and recent writers.

**5160. English Drama to 1642 (3)** Types and developments of English drama from beginnings in Middle Ages until 1642.

**5165. English Drama: Dryden to Sheridan (3)** Types and developments of English drama from Restoration to Romantic period.

**5170. Modern Drama (3)** Drama from Ibsen to present. Focus on British and American playwrights.

**5230. Southern Regional Literature (3)** Southern writing representing attitudes of region. Confined to literary genres.

**5250. The American Novel, 1800 to 1920 (3)** Development of American novel. Emphasis on Brown, Cooper, Hawthorne, Melville, Twain, Howells, James, Crane, Dreiser, and Cather.

**5260.The Novel Since 1945 (3)** Contemporary novel in English. Emphasis on American and British works.

**5275.Nineteenth-Century Poetry (3)** Major British and American poets.

**5280.Twentieth-Century Poetry (3)** Variety of voices that comprise poetry written in English.

**5330. Studies in Women's Literature (3)** May be repeated for credit by graduate students. Writings of women within the context of feminist scholarship and criticism. Focus on genre within a literary period or a specific national/international context.

**5350. Special Studies in Film (3)** May be repeated for credit by graduate students. Aspects of world film literature. Topics to be announced by instructor.

**5360. Studies in African-American Literature (3)** May be repeated for credit by graduate students. Critical methodologies relating to development of African-American literature. Focus on genre or historical context.

**5500. Linguistic and Cultural History of the English Language (3)** May not count toward general education humanities requirement. Cultural emergence and linguistic development.

**5770. Advanced Editing (3)** May not count toward general education humanities requirement. P: ENGL 3870 or consent of instructor. Advanced study of and practice in various editorial functions as applied to non-fiction books, periodicals, and corporate documents.

**5780. Advanced Writing for Business and Industry (3)** May not count toward general education humanities requirement. P: ENGL 3880 or consent of instructor. Advanced composition with extensive writing practice.

**5840. Advanced Poetry Writing (3)** Graduate students may repeat for a maximum of 9 s.h. May not count toward general education humanities requirement. P: ENGL 3840 or consent of instructor. Advanced poetry-writing practice.

**5850. Advanced Fiction Writing (3)** Graduate students may repeat for a maximum of 9 s.h. May not count toward general education humanities requirement. P: ENGL 3850 or consent of instructor. Practice in prose fiction writing. Emphasis on publication.

**5860. Advanced Non-Fiction Writing (3)** Graduate students may repeat for a maximum of 9 s.h. May not count toward general education humanities requirement. P: ENGL 3860 or consent of instructor. Practice in non-fiction prose writing. Emphasis on publication.

**5890. Advanced Script Writing (3)** P: ENGL 3830; consent of instructor. Completion of one-act play or major portion of full-length play or screenplay.

**6000. Critical Writing in English Studies (3)** P: 3 s.h. graduate credit or consent of instructor. Study of academic writing conventions.

**6009. Research Methods in Language Study (3)** Research methods in study of language.

**6116. Medieval English Literature (3)** Middle English literature from 1100 to 1500, exclusive of Chaucer.

**6121. Shakespeare and Renaissance Literature (3)** Critical, historical, and bibliographical investigation of principal works of sixteenth century, two by Shakespeare. Some attention to forces shaping the age.

**6131. Milton and Seventeenth-Century Literature (3)** English nondramatic literature from 1600-1660. Emphasis on metaphysical tradition and Milton's poetry.

**6151. Eighteenth-Century British Literature (3)** British nondramatic literature from 1660-1800.

**6155. Romantic Literature (3)** Major English Romantic writers and lesser known figures. Blake, Coleridge, Wm. Wordsworth, Keats, Byron, P. Shelley, Godwin, D. Wordsworth, M. Shelley, Wallstonecraft, and DeQuincy.

**6175. Victorian Literature (3)** Major structural genres. Relationship among important works and writers of Victorian literature, and ideas, art, and culture they helped to express and shape. Founded upon three indispensable major writers: Carlyle, Tennyson, and Wilde.

## SECTION 7: CURRICULA

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**6185.Twentieth-Century British Literature (3)** Development of British literature from 1900 to present.

**6215.American Literature to 1830 (3)** Varieties of American literature from time of earliest European explorations and encounters to beginnings of US.Writings come from British, Spanish, Native-American,African-American, and other cultural traditions.

**6220.The American Renaissance (3)** Major and minor writers include Poe, Emerson,Thoreau, Hawthorne, Melville, and such secondary figures as Margaret Fuller,Amos Bronson Alcott, and Christopher Cranch.

**6250.American Realism (3)** Themes, problems, and works in American literature and culture from Civil War to World War I.

**6260.Twentieth-Century American Literature (3)** Advanced study.

**6330.Studies in Hispanic-American Literatures (3)** Explores Hispanic-American literatures in twentieth century.

**6340.Ethnic American Literature (3)** Writers who have contributed to multicultural American literature, including African-American,Jewish-American, Native-American, Hispanic-American, and Asian-American.

**6350.Studies in Native American Literature (3)** Exploration of Native American literatures of the twentieth century.

**6360.World Literature Written in English (3)** Comparative literatures. Focus on post colonial writers. Emphasis on anglophone texts from Africa, the Caribbean, South and Central America, Asia, and Pacific Rim.

**6370. Caribbean Literature (3)** Critical examination of Caribbean literature.

**6380.Studies in African Literature (3)** Explores African literature written in English in twentieth century.

**6390.Advanced Studies of Science Fiction and Fantasy (3)** Historical trends, problems, and contemporary movements in science fiction and fantasy.

**6515.Advanced Studies in Children's Literature (3)** Sources of literature for children. Emphasis on excellence and suitability.Attention given to trends, problems, and recent research.

**6520.Applied Linguistics for Language Teachers (3)** Pedagogical application of linguistic theory.Emphasis on pragmatics and sociolinguistics.

**6526.The Structure of English: Phonology and Morphology (3) Formerly ENGL 5501** Contemporary linguistic theory and its practical application to teaching phonological and morphological components of English language.

**6527.The Structure of English: Syntax and Semantics (3) Formerly ENGL 5502** P: Consent of instructor. Contemporary linguistic theory and its practical application to teaching syntactic and semantic components of English language.

**6528.Teaching English as a Second Language:Theories and Principles (3) Formerly ENGL 5503** Current theories and principles of teaching English to non-native speakers or speakers of nonstandard dialects.

**6529.Applied Linguistics for ESL Teachers (3) Formerly ENGL 5504** Pedagogical application of linguistic theory. Emphasis on teaching English as a second language.

**6531.TESL: Methods and Practicum (3)** Approaches and methods in ESL teaching. Provides ESL teaching and classroom experience.

**6540,6541. Internship in Teaching English as a Second Language (3,3)** Supervised internship. P: Consent of instructor. Practical experience in an ESL teaching environment.Parallel reading and study.

**6625.Teaching Composition:Theory and Practice (3)** Composition theory and its applications to college writing instruction.

**6700.Technical Editing and Production (3)**Theory and abilities needed to function as editor;particularly a managing and production editor. Culminates in project demonstrating that knowledge.Editing as part of document production process.

**6705. Professional Communication (3)** Study of effective, ethical, responsible, and professional communication by learning abilities, strategies, and conceptual knowledge needed to address a variety of communication tasks in a variety of work environments. Use of emerging technologies as a tool for communicators.

**6715. Technical Writing (3)** Intensive study. Emphasis on style, writing modes, technical reports, instructional manuals, and technical proposals.

**6725. Directed Readings in Technical and Professional Writing (3)** P: Consent of instructor and approval of director of graduate studies. Advanced individual study of selected areas.

**6730. Issues in Technical Communication (3)** P: Admission to graduate program. Tradition and trends in academic, business, and industrial theories and applications of technical communication.

**6740, 6741. Internship in Technical and Professional Communication (3,3)** Supervised internship. P: Consent of instructor. Practical professional writing in work environment. Parallel reading and study.

**6870. Literature: The Writer's Perspective (3)** Appropriate for students choosing literature or creative writing concentration. Advanced study of modern and contemporary works of poetry, fiction, and creative nonfiction. Emphasis on writer's craft.

**6880. Directed Readings in Creative Writing (3)** P: Admission to graduate concentration in writing; consent of instructor. Directed individual study of selected areas of advanced creative poetry, fiction, or nonfiction writing.

**6940. Film and English Studies (3)** Examination of the role of film in literary studies. Emphasis on film as a literary and cultural artifact.

**7000. Thesis (3)** May be repeated. May count maximum of 3 s.h.

**7001. Thesis: Summer Research (1)** May be repeated. No credit may count toward degree. Students conducting thesis research may only register for this course during the summer.

**7005. Bibliography and Methods (3) Formerly ENGL 6005** Bibliographical tools and methods of research in English language and literature.

**7070. Literary Theory (3) Formerly ENGL 5070** Major critical approaches of twentieth century.

**7525. Language and Society (3) Formerly ENGL 6525** Language in relation to culture and society.

**7530. Descriptive Linguistics (3) Formerly ENGL 6530** Contemporary models employed in linguistic analysis on all levels, practical applications of models to wide diversity of natural languages, and evaluation of models with respect to their descriptive and explanatory adequacy and their universal and cross-cultural application.

**7601. Research Design in Rhetoric and Composition (3) Formerly ENGL 6601** Principles and techniques of research design.

**7605. Discourse Analysis (3) Formerly ENGL 6605** Principles governing human communicative interaction in written and oral modalities.

**7615. Rhetorical Theory (3) Formerly ENGL 6615** Classical and modern theories of rhetorical discourse.

**7630. Cultural Rhetoric and Writing (3)** Study of how cultural values and assumption affect writing practices through genre, style, and conventions of argument.

**7640. Discourse for Special Interests (3)** May be repeated for a maximum of 6 s.h. with change of topic. Focuses on analysis and production of discourse in a variety of academic, professional, and public contexts.

**7666. Teaching English in the Two-Year College Internship (3)** May be repeated for a maximum of 6 s.h. P: 18 s.h. graduate ENGL credit or consent of instructor. Supervised on-site research and instruction in rhetoric, composition, and theory.

**7680. Writing Systems of the World (3)** Examines writing systems and their relationship to larger human phenomenon of spoken language.

## SECTION 7: CURRICULA

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**7701. Research Methods in Technical and Professional Writing (3) Formerly ENGL 6701** Applied research in library, observation and investigation, experimentation, and survey.

**7705. Ethical Issues in Professional Communication (3)** Overview of theories of ethics from classical to the present. Emphasizes impact of ethical systems on professional communicators preparing print and on-line documents in various organizations and industries.

**7710. Professional Communication (3)** Study of effective, ethical, responsible, and professional communication by learning abilities, strategies, and conceptual knowledge needed to address a variety of communication tasks in a variety of work environments. Use of emerging technologies as tools for communication.

**7712. Grant and Proposal Writing (3)** Study of grant & proposal funding resources and worksheets. Preparation of grant or proposal to be reviewed by at least two experts, revised accordingly, and then submitted to funding agency.

**7716. Classics in Scientific and Technical Literature (3) Formerly ENGL 6716** Examines scientific and technical writing from classic times to present.

**7730. Issues in Technical Communication (3) Formerly ENGL 6730** Traditions and trends in academic business and industrial theories and applications of technical communications.

**7765. Technical and Professional Communication (3) Formerly ENGL 6765** May be repeated for credit. May count maximum of 9 s.h. toward certificate program. Special studies seminars.

**7766. Special Studies Seminars in Communication and Emerging Technologies (3)** May be repeated for a maximum of 6 s.h. with change of topic.

**7780. Theory of Professional Communication (3)** Traces theories drawn from variety of fields that inform such topics as social context of technical communication, aims of technical discourse, readability, invention and audience, audience analysis, technical style, and graphics.

**7785. History of Professional Communication (3)** Traces development of contemporary professional communication from print to electronic media.

**7950. Problems in Teaching Composition (3) Formerly 6950** Advanced composition theory and its applications to writing instruction.

**8100. Directed Reading (3)** May be repeated for a maximum of 6 s.h. with a change of topic. Directed studies in specific areas not covered by other courses.

**8200. Cooperative/Research Assignment (3)** May be repeated for a maximum of 6 s.h. Supervised research in technical and professional discourse.

**8601. Advanced Research Methods (3)** Principles and techniques in research design.

**8605. Advanced Discourse Analysis (3)** Principles governing human communicative interaction in written and oral modalities.

**8615. Advanced Rhetorical Theory (3)** Classical and modern theories of rhetorical discourse.

**8630. Advanced Cultural Rhetoric and Writing (3)** Study of how cultural values and assumptions affect writing practices through genre, style, and conventions of arguments.

**8780. Advanced Theory of Professional Communication (3)** Traces theories drawn from variety of fields that inform such topics as social context of technical communication. Aims of technical discourse, readability, invention and audience, audience analysis, technical style, and graphics.

**9000. Dissertation (3)** May be repeated. May count a maximum of 18 s.h. Original research investigation of significant aspect in field of technical and professional discourse.

**9001. Dissertation: Summer Research (1)** May be repeated. May not count toward degree. Students conducting research may only register for this course during summer.

## ENGL: ENGLISH, SPECIAL STUDIES SEMINARS

**6865. Creative Writing (3)** May be repeated with credit. Special studies seminars.

**7065. Foundations of Literary Criticism (3) Formerly ENGL 6065** May be repeated for credit. Special studies seminars. Focus on literary criticism topics.

**7165. English Literature (3) Formerly ENGL 6165** May be repeated for credit. Special studies seminars. Focus on author; genre, or period studies.

**7265. American Literature (3) Formerly ENGL 6265** May be repeated for credit. Special studies seminar. Focus on author; genre, or period studies.

**7365. Multicultural Literature (3) Formerly ENGL 6365** May be repeated for credit. Special studies seminars. Focus on topics in regional literatures, ethnic literatures, and English literatures from non-English-speaking countries.

**7465. Folklore (3) Formerly ENGL 6465** May be repeated for credit. Special studies seminars. Focus on collection, classification, analysis, and/or archiving of traditional folk materials.

**7565. Linguistics, Education, and ESL (3) Formerly ENGL 6565** May be repeated for credit. Special studies seminars.

**7665. Rhetoric and Composition (3) Formerly ENGL 6665** May be repeated for credit. Special studies seminars.

**7765. Technical and Professional Communication (3) Formerly ENGL 6765** May be repeated for credit. May count maximum of 9 s.h. toward certificate program. Special studies seminars.

### ENGL Banked Courses

**5120. English Drama (3)**

**5130. The English Novel through Jane Austen (3)**

**5140. The English Novel from Scott through Hardy (3)**

**5190. The Aesthetic Movement (3)**

**5270. Contemporary Poetry (3)**

**5390. Advanced Studies in Science Fiction and Fantasy (3)**

**5410. Pre-Shakespearean Drama (3)**

**5460. Early Twentieth-Century Poetry (3)**

**5740. Modern Prose Literature (3)**

**6105. British Literature and the Classical Tradition (3)**

**6106. British Literature and the Romantic Tradition (3)**

**6115. Introduction to Old English (3)**

**6117. Chaucer (3)**

**6118. Arthurian Romance (3)**

**6125. Sixteenth-Century English Literature (3)**

**6126. Spenser (3)**

**6127. Studies in Shakespeare (3)**

**6135. Jacobean Drama (3)**

**6136. Early Seventeenth-Century English Literature (3)**

**6141. The Age of Pope (3)**

**6142. The Age of Johnson (3)**

**6143. Blake, Wordsworth, and Coleridge (3)**

**6144. Byron, Shelley, and Keats (3)**

**6145. Studies in Victorian Poetry (3)**

**6146. Victorian and Edwardian Culture (3)**

**6147. Modern British Novel (3)**

**6205. American Traditions in Literature (3)**

**6210. Studies in American Literature Before 1830 (3)**

**6230. Whitman (3)**

**6245. Modern American Novel (3)**

**6410. Folklore and Literature (3)**

### ETHNIC STUDIES

*Gay Wilentz, Director, 2105 Bate Building*

*Ellen Arnold, Assistant Director, 2145 Bate Building*

## ETHN: ETHNIC STUDIES

**5000. Directed Readings in Ethnic Studies (3)** Graduate credit only. P: ETHN 2001 or 2002 or 2003; consent of director. In-depth exploration and written senior-level paper on topic relevant to ethnic studies.

## SECTION 7: CURRICULA

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**5500. Studies in Ethnicity (3)** Graduate credit only; P: ETHN 2001 or 2002 or 2003 or consent of program director. Theoretical and methodological issues.

### DEPARTMENT OF FOREIGN LANGUAGES AND LITERATURES

*Sylvie D. Henning, Chairperson, 3324 Bate Building*

#### CERTIFICATE IN HISPANIC STUDIES

The graduate certificate in Hispanic studies provides students with opportunities to develop advanced/superior Spanish language skills as well as to deepen their understanding of Hispanic cultures, including literature. No particular configuration of courses is required. The certificate is flexible and allows students to design, in consultation with the program coordinator, a program that meets their personal and professional needs. The certificate requires 18 s.h. of credit, 12 s.h. of which must be at the 6000-level, chosen from the following courses.

Language studies: SPAN 5340, 5940, 6000, 6001, 6400

Culture studies: SPAN 5440, 5445, 6100, 6101

Literature: SPAN 5550, 6200, 6202

Pedagogy: SPAN 6600

Special topics: SPAN 5700, 6521, 6522, 6523

#### FORL: FOREIGN LANGUAGE

**6000. Foreign Language for Reading Knowledge (3)** Reading skills adequate to successfully conduct research utilizing scholarly texts.

#### FREN: FRENCH

**5305. Advanced Syntax (3)** P: FREN 3330 or graduate standing. Detailed and comprehensive study of most difficult points of French grammar. Directed practice in analyzing and writing exercises.

**5700. Special Topics in French or Francophone Studies (3)** May be repeated for maximum of 6 s.h. with change of topic. P: Consent of dept chair. Selected topics relating to language, literature, culture or civilization of France or another French-speaking region of the world.

**6000. Advanced Language Skills I (3)** Indepth exploration of varieties and styles of modern French usage.

**6100. The Culture and Civilization of France (3)** Detailed examination of formation of France from its beginnings to the present.

**6101. The Culture and Civilization of the Francophone World (3)** Indepth exploration of civilization and culture of French-speaking world outside of France.

#### FREN Banked Courses

**5350. The French Novel (3)**

**6001. Advanced Language Skills II (3)**

**6200. Readings in French Prose (3)**

**6202. Readings in French Drama (3)**

**6410. Old French I (3)**

**6411. Old French II (3)**

**6412. Medieval Literature (3)**

**6414. Corneille and Racine (3)**

**6416. French Poetry from Chateaubriand to Present (3)**

**6420. Civilization (3)**

**6424. Stylistics (3)**

**6425. Advanced Phonetics (3)**

**6428. Applied Linguistics (3)**

**6440. Rousseau and Voltaire (3)**

**6450. Nineteenth Century Drama to 1840 (3)**

**6451. Nineteenth Century Drama after 1840 (3)**

**6452. Twentieth Century Drama (3)**

**6461. Rabelais and Montaigne (3)**

**6472. Seventeenth Century French Literature (3)**

**6481. Eighteenth Century French Literature and the Revolution of 1789 (3)**

**6488. Bibliography and Methods of Research (3)**

**6491. Nineteenth Century Novel (3)**

**6521, 6522, 6523. Special Readings (3,3,3)**

**7000. Thesis (3)**



**GERM: GERMAN**

**5700. Selected Topics (3)** May be repeated for maximum of 6 s.h. with change of topic. P: Consent of dept chair. Selected topics relating to language, literature, culture, or civilization of a German-speaking country. Topics vary.

**SPAN: SPANISH**

**5340. Advanced Translation I (3)** P: SPAN 4340. Practice of translation skills with greater variety of style and subject matter.

**5440. Contemporary Issues of the Hispanic World (3)** May be repeated for maximum of 6 s.h. with change of topic. P: Consent of dept chair. Selected events, artistic trends, and currents of thought that significantly contribute to life in contemporary Hispanic societies.

**5445. Hispanic Cinema (3)** May be repeated for maximum of 6 s.h. with change of topic. P: Consent of dept chair. Films as cultural product reflecting social, political, and economic realities. Power to represent, inform, and create. Viewed and discussed by representative directors.

**5550. Hispanic Women Writers (3)** May be repeated for maximum of 6 s.h. with change of topic. May not be repeated for credit by students in WOST program. P: Consent of dept chair. In-depth study and discussion of representative writings by women in Hispanic countries from variety of genres. Emphasis on relationships between society and origin, content, and form of texts.

**5700. Special Topics in Hispanic Studies (3)** May be repeated for maximum of 6 s.h. with change of topic. P: Consent of dept chair. Topics relating to language, literature, culture, or civilization of Spain or Latin America.

**5940. Advanced Translation II (3)** Candidates who successfully complete this course may be allowed to take qualifying exams for award of the Certificate in Spanish Translation. P: SPAN 5340. Continuation of skills practiced in SPAN 4340, 5340 at advanced level. Translation of written texts in variety of styles and different topics, from Spanish into English and vice versa.

**6000. Advanced Language Skills I (3)** In-depth exploration of varieties and styles of modern Spanish usage.

**6001. Advanced Language Skills II (3)** Continuation of SPAN 6000.

**6100. Cultural Studies, Spain (3)** History, culture, and civilization of Spain. In-depth exploration of special topic or theme.

**6101. Cultural Studies of Spanish America (3)** Spanish American society and culture before 1492 and up to time of independence.

**6200. Readings in Spanish Literature (3)** Exhaustive study of masterpieces of Spanish literature from Middle Ages to present.

**6202. Readings in Twentieth-Century Spanish-American Literature (3)** Literary works by recognized Spanish-American writers of twentieth century. Major artistic movements and socioeconomic/political realities of various regions.

**6400. Spanish Linguistics (3)** Introduces nature of grammar and approaches to the description of Spanish grammar. Emphasis on Chomsky's Principles and Parameters Model.

**6521, 6522, 6523. Special Readings (3,3,3)** Intensive reading in area where student may already have credit.

**6600. Recent Trends in Foreign Language Teaching, Learning, and Acquisition (3)** Current developments, issues, and research in teaching, learning, and acquisition of foreign languages.

SPAN Banked Courses

6410.Old Spanish I (3)	6428.Applied Linguistics (3)
6411.Old Spanish II (3)	6451.Romantic and Post-Romantic Drama (3)
6412.Medieval Literature (3)	6470.The Latin-American Novel (3)
6414.Lope deVega and the Beginnings of Spanish Drama (3)	6471.The Hispanic-American Short Story (3)
6415.Calderon and His Contemporaries (3)	6488.Bibliography and Methods of Research (3)
6416.Poetry (3)	6491.The Regional Novel (3)
6420.Hispanic Civilization (3)	6492.Galdos (3)
6424.Stylistics (3)	6494.The Generation of 1898 (3)
6425.Advanced Phonetics (3)	7000.Thesis (3)

DEPARTMENT OF GEOGRAPHY

Ronald L. Mitchelson, Chairperson, A-227 Brewster Building  
Scott Lecce, Director of Graduate Studies, A-225 Brewster Building

Students wishing to pursue the MA in geography must present two letters of recommendation and meet the admission standards of the Graduate School.

MA IN GEOGRAPHY

The master of arts in the geography thesis option requires a minimum of 30 s.h. of 5000- and 6000-level courses, with 18 s.h. at the 6000 level. The non-thesis/internship option requires 36 s.h., with 21 s.h. at the 6000 level. The master of arts in geography with a planning concentration offers only the non-thesis/internship option and requires a minimum of 36 s.h. at the 5000 and 6000 levels with a minimum of 21 s.h. at the 6000 level.

- Core courses: GEOG 6100, 6110 ..... 6 s.h.
- Research skills course ..... 3 s.h.  
Choose a research skills/methods course related to the area of specialty and intended research:  
ANTH 5015; GEOG 6150, 6160; HIST 5960; or other course selected in consultation with adviser.
- Concentration (Choose one area.) ..... 6-15 s.h.  
*Geography (6-15 s.h.):*  
Thesis option: Choose a minimum of 6 s.h. electives at the 5000 and 6000 levels in the major field areas (physical, human, techniques). Students are encouraged to take at least one course outside their selected major area of study. Courses in other departments may be selected in consultation with student's adviser.  
Non-thesis/Internship option: Choose 12-15 s.h. electives at the 5000 and 6000 levels in the major field areas (physical, human, techniques). Students are encouraged to take at least one course outside their selected major area of study. Courses in other departments may be selected in consultation with student's adviser.  
*Planning (15 s.h.):*  
Choose two (6 s.h.) from the following: PLAN 6000, 6010, 6020  
Choose one (3 s.h.) from the following: PLAN 6018, 6028, 6038  
Choose 6 s.h. PLAN electives at the 5000 and 6000 levels  
*Rural development (12-15 s.h.):*  
GEOG 6350, 6355  
Choose a minimum of 6-9 s.h. of 5000- and 6000-level courses in geography and other departments in an area of specialization
- Electives ..... 9 s.h.  
Choose a minimum of 9 s.h. electives at the 5000 or 6000 level in the area of specialization (human, physical, techniques).
- Thesis or non-thesis/internship option ..... 3-6 s.h.  
*Geography (3-6 s.h.):*  
Thesis option: GEOG 7000 (3-6 s.h.) Students must pass the thesis defense.  
Non-thesis/internship option: GEOG 6801, 6802, and/or 6803. Students must complete internship for minimum of 3 s.h. or maximum of 6 s.h. Student must present professional report and pass report defense.

*Planning (3 s.h.):*

Non-thesis/Internship option: Choose one (3 s.h.) from the following: GEOG 6801, 6802, 6803. Student must present professional report and pass report defense.

*Rural development (3-6 s.h.):*

Thesis option: GEOG 7000 (6 s.h.) Students must pass the thesis defense.

Non-thesis/internship option: GEOG 6801, 6802, and/or 6803. Students must complete internship for minimum of 3 s.h. or maximum of 6 s.h., present professional report, and pass report defense.

## CERTIFICATE IN ECONOMIC DEVELOPMENT

The interdisciplinary graduate certificate in economic development provides students with opportunities to develop theoretical, analytical, and practical skills for both public and private sector careers in regional, economic, and community development. The certificate is open to students enrolled in graduate degree programs as well as nondegree applicants holding a baccalaureate degree. For those who complete the certificate as nondegree students, a maximum of 9 s.h. may be used in a subsequent degree program. Some degree programs will permit fewer. The program offers a flexible design to provide students from diverse disciplinary backgrounds with the opportunity to acquire a foundation in regional, economic, and community development while specializing in their respective areas of interest. The program requires completion of 15 s.h. in the respective areas as follows: ECON 5150; GEOG 6350; PADM 6123; SOCI 6400; 3 s.h. elective chosen in consultation with certificate coordinator(s). Students are encouraged to choose an elective in an area of specialization. A list of appropriate electives is available from the certificate coordinator(s).

## GEOG: GEOGRAPHY

**5220. Physical Geography Field Experience (3)** 10 classroom hours of orientation and organization over a 2-week period followed by 3 weeks (15 working days) in a field location. Undergraduates may not count toward general education social sciences requirement. P: GEOG 2200, 2250; or consent of instructor. Field-based introduction to basic aspects of physical geography research. Development of research questions, field techniques, use of modern instrumentation, and geographic analysis of field data.

**5281, 5282, 5283. Selected Topics in Physical Geography (1,2,3)** May be repeated for up to 6 s.h. Undergraduates may not count toward general education social sciences requirement. P: Consent of instructor. Seminar on selected topic.

**5393. Seminar in Human Geography (3)** May be repeated for up to 6 s.h. Undergraduates may not count toward general education social sciences requirement. P: Consent of instructor. Seminar on selected topic in economic-human geography.

**5440. Techniques for Coastal Resource Analysis (3)** P: GEOG 3410. Application of geographic information science to coastal resource management.

**6100. History and Philosophy of Geography (3)** Major paradigms constituting discipline of geography. Research frameworks within these paradigms.

**6110. Research Design in Geography (3)** For beginning graduate student. P: Graduate standing. Analysis of research procedures. Research objectives, literature searches, data collection design, data analysis techniques, and modes of presentation.

**6150. Quantitative Methods in Geography (3)** P: Introductory course in statistics or GEOG 3400. Advanced statistical methods related to geography.

**6160. Field Geography (3)** P: Dept consent. Advanced inquiry into development of field techniques and research methods in geography. Data collection, analysis, and writing from field sources.

**6200. Research Methods in Physical Geography (3)** Introduces field and lab methods typically used in research in geomorphology and other disciplines of physical geography.

**6210. Advanced Fluvial and Hydrological Processes (3)** Comprehensive examination of principles of surface water hydrology and fluvial geomorphology and their application to environmental problems.

## SECTION 7: CURRICULA

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**6220.Advanced Coastal Geomorphology (3)** Advanced examination of principles of coastal processes and geomorphology, and their application to environmental problems.

**6230. Earth Surface Processes on the Coastal Plain (3)** Detailed examination of the dominant geomorphic processes and sediment dynamics involved in the creation of landforms and the redistribution of sediments and contaminants in coastal plain environments. Emphasis on laboratory experimentation.

**6291, 6292, 6293. Independent Study in Physical Geography (1,2,3)** May be repeated for maximum of 6 s.h. May not count toward thesis research. P: Consent of instructor. Analysis of specific problem in physical geography under direct supervision of graduate faculty member.

**6300. Seminar in Cultural Geography (3)** For beginning graduate students. Seminar: Comprehensive exposure to concepts, principles, and terminology of cultural geography. Problem solving and research through required papers.

**6310. Seminar in Economic Geography (3)** For beginning graduate students. Comprehensive exposure to concepts, principles, and terminology of economic geography. Problem solving and research through required papers.

**6315. Advanced Geographic Images (3)** Social and cultural images of space, place, and environment as produced and consumed through various media and at a variety of scales.

**6320. Feminist Theories of Economy (3)** Economy and development from feminist and geographical perspective.

**6325. Advanced Population and Development (3)** Demographic issues and population policies in relation to resource use and economic development.

**6330. Global Restructuring of Agro-Food Systems (3)** Contemporary trends in global restructuring of agro-food systems of industrialized and developing nations.

**6335. Tourism Development (3)** Traditional and emerging forms of tourism development as they transform economic, social, cultural, and environmental landscapes inside and outside the US.

**6340. Advanced Medical Geography (3)** Topics range from geographic patterns and processes of disease to locational aspects of health care delivery systems. GIS used to describe and analyze problems in medical geography. Students become acquainted with current research literature.

**6345. Human Migration and Global Restructuring (3)** Causes and consequences of human migration processes associated with political and economic restructuring in different regions of the globe.

**6350. Seminar in Rural Development (3)** Geographic theories and approaches used to study issues and problems facing rural areas.

**6355. Rural Development Practicum (3)** Contemporary approaches to project design, implementation, management, and evaluation. Applies course in grant writing, problem solving, community analysis, participatory action research, group facilitation, and project evaluation.

**6390. Political Geography (3)** Geographic factors in current national and world problems at advanced level.

**6391, 6392, 6393. Independent Study in Human Geography (1,2,3)** May be repeated for maximum of 6 s.h. P: Consent of instructor. Analysis of specific problem in human geography under direct supervision of graduate faculty member.

**6400. Seminar in Geographic Information and Analysis (3)** P: Consent of the instructor. Comprehensive exposure to concepts, principles, applications, and social implications of remote sensing, geographic information systems, and cartography.

**6410. Advanced Cartography (3)** P: Undergraduate course work in digital cartographic methods or consent of instructor. Readings, discussion, and independent investigation of cartography topics. Analytic cartography, spatial analysis, and visualization techniques.

**6420. Advanced Remote Sensing (3)** P: GEOG 3420 or consent of instructor. Interpretation of environmental phenomena recorded in digital data formats by remote sensing instruments. Advanced techniques of digital image processing for remotely sensed images.

**6430.Advanced Geographic Information Systems (3)** P: GEOG 3430 or consent of instructor.Advanced topics.

**6491,6492,6493. Independent Study in Geographic Techniques (1,2,3)** May be repeated for maximum of 6 s.h. P: Consent of instructor:Analysis of specific problem in geographic techniques under direct supervision of graduate faculty member.

**6510.Meteorological Measurement Systems (3)** 2 lecture and 3 lab hours per week. Principles of meteorological instruments and measurement techniques; basic and advanced methods in data logging, processing, quality analysis and quality control; hands-on experience in labs, and practical training via independent field project.

**6520.Atmosphere Turbulence (3)** Mechanisms and characterization of atmospheric turbulence in terms of fluid dynamics and mathematical methods. Modeling and measurement techniques in the study of atmospheric turbulence.

**6530.Advanced Micrometeorology (3)** Advanced measurement and modeling techniques and their use in micrometeorological research; estimation of exchange of momentum, mass and energy between Earth's surface and lowest atmosphere, and their representation in large-scale meteorological models.

**6540.Advanced Coastal Storms (3)** Advanced dynamics, analysis, and forecasting of extratropical and tropical storms. History of storms in the Carolinas and current mitigation plans.

**6801,6802,6803. Internship in Geography (1,2,3)** 60 hours of work responsibility required per semester hour of credit. P: 18 s.h. of graduate work in GEOG; consent of director of geography must be obtained during semester prior to internship. Application of advanced geographic principles in industrial, governmental, or business setting.

**7000.Thesis (3)** May be repeated. May count maximum of 6 s.h.

**7001.Thesis: Summer Research (1)** May be repeated. No credit may count toward degree. Students conducting thesis research may only register for this course during the summer.

**7300. Seminar in Geography of Heritage (3)** Geographic perspective on the nature of heritage and its cultural, political and economic uses.

### GEOG Banked Courses

**5009. Geography of Public and Private Park Land Use (2)**

**5020. Spatial Efficiency Analysis (3)**

**5022.Theories of Industrial Location (3)**

**5024. Regional Development (3)**

**5050,5051. Nautical Charts and Navigation (3,0)**

**5084. Map Compilation and Design (3)**

**5098. Hydrology and Water Resources (3)**

**5191,5192,5193.Seminar in Regional Geography (1,2,3)**

**5200. Climatology: Regions and Applications (3)**

**5210.Terrain Analysis (3)**

**6010. Resources and Conservation (3)**

**6023. Seminar in Teaching Methods (3)**

**6191,6192,6193.Independent Study in Regional Geography (1,2,3)**

## DEPARTMENT OF GEOLOGY

*Stephen J. Culver, Chairperson, 101 Graham Building*

*Terri L. Woods, Director of Graduate Studies, 103 Graham Building*

### MS IN GEOLOGY

The department offers a master of science in geology with both a thesis and non-thesis option. In the non-thesis option, a major paper is substituted for the thesis and 3 s.h. additional course work is required. Course prerequisites listed are for ECU courses; equivalent courses from other schools will be accepted. The Department of Geology is a participating department in the East Carolina University Institute of Coastal and Marine Resources and in the Coastal Resources Management PhD program. The degree requires a minimum of 30-33 s.h. of credit as follows.

Thesis option requirements are as follows:

1. Equivalent of the East Carolina University BS degree in geology or progress toward elimination of deficiencies defined at the time of entrance into the Graduate School.
2. Passing a graduate qualifying examination. (See geology MS degree guidelines, available from the geology department office.)

## SECTION 7: CURRICULA

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3. A total of 30 s.h. of course work, of which a maximum of 6 s.h. may be from outside the department. At least 15 s.h. must be at the 6000 level.
4. Completion of a 6 s.h. research skills option is required. The research skills option consists of GEOL 6900, 7000. (GEOL 7000 must be repeated once.)

Non-thesis option requirements are as follows:

1. Equivalent of the East Carolina University BS degree in geology or progress toward elimination of deficiencies defined at the time of entrance into the Graduate School.
2. Passing a graduate qualifying examination. (See geology MS degree guidelines, available from the geology department office.)
3. A total of 33 s.h. of course work, of which a maximum of 6 s.h. may be from outside the department. At least 17 s.h. must be at the 6000 level.
4. GEOL 5400, 5401.
5. Choose one sequence from GEOL 6040, 6041; GEOL 6020, 6021; GEOL 6200, 6201.
6. Completion of a 6 s.h. research skills option is required. The research skills option consists of GEOL 6900, 6998.

### GEOL: GEOLOGY

**5000, 5001. Geomorphology (3,0)** 2 lectures and 1 3-hour lab per week. P: GEOL 1500, 1501; an additional 4 s.h. in introductory GEOL sequences; or consent of instructor. Advanced study of landforms, stages of their development, and agencies which have shaped them.

**5150. The Geologic Component of Environmental Science (3)** P: Introductory GEOL course or consent of instructor. Basic geologic knowledge and insights that support sound, rational, and science-based environmental decisions and policies in regard to land and water use. Topics include pollution abatement, clean up, and prevention; resource extraction, use, and conservation; and hazardous geologic processes.

**5300. Geology of Coastal Processes and Environments (3)** May include field trips to various coastal systems. P: GEOL 1550, 4010, 4011; or consent of instructor. Modern coastal systems. Diversity and distribution, complexity and dynamics of interacting processes and responses, origin and evolutionary history, and role of man as major modifying force.

**5350. Marine Geology (3)** P: GEOL 1550, 4010, 4011; or consent of instructor. Geology of world's ocean basins. Impact of geophysical, geochemical, and geobiological principles on concepts of origin and evolution of ocean basins; source, transportation, and deposition of marine sediments and formation of marine stratigraphic record; and role of oceanographic processes affecting earth history such as sea level fluctuation, plate tectonics, paleogeography, and paleoclimatology.

**5400, 5401. Optical Mineralogy (3,0)** 2 lectures and 1 3-hour lab per week. P: GEOL 3000, 3001. Theory and basic techniques for determining optical constants of crystals using a polarizing microscope and thin sections.

**5450. Introduction to Aqueous Geochemistry (3)** 2 lectures and 1 3-hour lab per week. P: CHEM 1150, 1151, 1160, 1161; or equivalent. Application of chemical principles to study of elements at earth's surface; their transportation in aqueous solutions; and weathering, groundwater, and surface water chemistry, geochemical cycles, and distribution of stable isotopes.

**5500, 5510, 5520. Directed Studies in Geology (2,2,2)** P: Senior or graduate standing in GEOL or consent of instructor. Independent study on selected topic. May include field work, directed readings, or some combination thereof. Occasionally special field study or course offered using one of these course numbers.

**5600, 5601. Economic Geology (3,0)** 2 lectures and 1 3-hour lab per week. P: GEOL 3000, 3001. Genesis, mode of occurrence, and utilization of mineral resources. Metals, nonmetals, and basic energy resources such as petroleum, coal, and uranium. Emphasis on geology of these resources and their relationship to modern technological society.

**5710, 5711. Ground Water Hydrology (3,0)** 2 lectures and 1 3-hour lab per week. P: GEOL 1500, 1501; or consent of instructor. Origin, occurrence, movement, quality, regional analysis, and management of ground water. Interrelationship of ground and surface water. Lab emphasis on aquifer test data collection and interpretation.

**6020, 6021. Magmas and Igneous Rocks (3,0)** 2 lectures and 1 3-hour lab per week. P: GEOL 5400, 5401; or equivalent. Magmas from generation to emplacement as intrusive and volcanic rocks. Lab includes recognition and textural interpretations utilizing rock thin sections and polarized-light microscopes.

**6040, 6041. Metamorphic Petrology (3,0)** 2 lectures and 1 3-hour lab per week. P: GEOL 5400, 5401; or equivalent. Advanced course. Emphasis on chemical systems, pressure and temperature of mineral formation, and tectonic significance of metamorphic assemblages. Lab emphasis on petrographic studies.

**6200, 6201. Sedimentary Petrology (3,0)** 2 lectures and 1 3-hour lab per week. Field trip. P: GEOL 5400, 5401; or consent of instructor. Terrigenous and carbonate rocks using hand specimen and optical petrographic techniques.

**6220, 6221. Carbonate Petrology (3,0)** P: GEOL 6200, 6201; or consent of instructor. Description, classification, and origin of sedimentary carbonate rocks. Examines roles played by various groups of animals and plants in carbonate sediment formation. Special emphasis on sedimentary processes and environments that control deposition of modern carbonate sediments.

**6250. Stratigraphic Analysis (3)** P: GEOL 4020, 4021; or equivalent. Interpretation of stratified sedimentary rocks. Emphasis on principles and methodology.

**6300, 6301. Sedimentary Environments (3,0)** 2 lectures and 1 3-hour lab per week. P: GEOL 4010, 4011, 4200, 4201; or consent of instructor. Emphasis on recent environments of sediment deposition. Products of sedimentary processes as related to their analogs in stratigraphic record.

**6310, 6311. Principles of Paleoecology (3,0)** 2 lectures and 1 3-hour lab per week. P: GEOL 4200, 4201. Interpretation of ecological relationships of ancient organisms and their environments. Emphasis on principles and methodology. Importance of ecological studies of modern animals and plants and extrapolation of such information to similar ancient groups.

**6350. Environmental and Global Change (3)** Field trips required. P: GEOL 4010, 4011; or consent of instructor. Geologic history of past two million years. Emphasis on global and regional environmental changes associated with Quaternary glaciations and sea-level fluctuations. Investigation of interactions between land, sea, and ice; geologic evidence used for reconstructing Quaternary environments; dating methods; and ways in which living organisms (including humans) have responded to past environmental change.

**6400. Geochemistry (4,0)** 3 lectures and 1 3-hour lab per week. P: CHEM 1150, 1151, 1160, 1161; or equivalent. Introduction to principles which determine distribution, organization, and abundance of the elements.

**6500. Tectonics (3)** Features, styles, and processes of deformation and tectonic evolution studied in plate-edge terranes and intraplate tectonic regions.

**6522, 6532. Readings in Selected Geology Topics (1,1)** P: Graduate standing in GEOL or consent of instructor. Directed readings of topics not covered in regular course offerings or advanced study of previously covered topic.

**6523, 6533. Readings in Selected Geologic Topics (1,1)** P: Graduate standing in GEOL or consent of instructor. Directed readings of topics not covered in regular course offerings or advanced study of previously covered topic.

**6550, 6551. Principles of Geophysics (3,0)** 2 lectures and 1 3-hour lab per week. P: GEOL 3300, 3301; PHYS 1250, 1260 or equivalent. Seismology, gravity, rock magnetism, and heat flow as applied to earth. Emphasis on relationships between large scale features of earth and their geophysical characteristics. Lab introduces geophysical instrumentation, data processing, and interpretation.

**6703. Seminar in Geology (1)** P: Graduate standing in GEOL or consent of instructor. Selected topics of current geological interest.

**6704. Seminar in Geology (2)** P: Graduate standing in GEOL or consent of instructor. Selected topics of current geological interest.

**6705. Seminar in Geology (3)** P: Graduate standing in GEOL or consent of instructor. Selected topics of current geological interest.

**6900. Preparation of Geological Manuscripts (3)** P: Consent of instructor. Emphasis on grammatical style, syntax, and organization of manuscripts. Supplementary exercises develop skills in preparing illustrations (computer graphics, drafting, photographic techniques). Steps of publication process presented in detail.

## SECTION 7: CURRICULA

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**6950. Geological Data Analysis (3,0)** 2 lectures and 1 3-hour lab per week. P: Graduate standing in GEOL or consent of instructor. Discussion and implementation of various methods of geological data analysis. Emphasis on methods most applicable to research topics in geology. Topics include data collection and project design, box models, and uni- and multi-variate analysis of geological data, and time-series analysis.

**6998. Research Project (3)** May be repeated once. May count a maximum of 3 s.h. P: Non-thesis GEOL major; consent of adviser. Formulate research project demonstrating principles and procedures used to recognize, state, solve, and write problems of geological importance. Requires formal seminar presentation of completed project and paper.

**7000. Thesis (3)** May be repeated. May count a maximum of 6 s.h.

**7001. Thesis: Summer Research (1)** May be repeated. No credit may count toward degree. Students conducting thesis research may only register for this course during the summer.

**7830. Principles of Biogeochemical Interactions (3) Formerly GEOL 6830** P: CHEM 1160. General introduction to life's effects on chemistry of Earth's surface. Examines interactions between atmosphere, land surface, and oceans. Stresses human impact on global environmental chemistry.

**7910. Sediment Transport and Depositional Processes (4)** P: GEOL 4010; or consent of instructor. An examination of the processes involved in the transport and deposition of sediment. Focus will be on fundamental principles and how they apply to active processes, recent sediment, and environmental applications.

**7920, 7921. Advanced Surface Water/Groundwater Hydrology (4,0)** P: GEOL 5710, 5711; or consent of instructor. Advanced hydrologic topics with an emphasis on computer applications and modeling. Evaluates steady-state and nonsteady-state models and applied aspects of hydrology related to management of water resources.

**7930. Biogeochemical Processes (4) Formerly GEOL 6930** P: CHEM 1160. Overview of life's effects on chemistry of Earth's surface. Examines interactions between atmosphere, land surface, and oceans. Biotic mechanisms in these habitats followed by synthesis of global cycles of biologically relevant elements (C, N, O, P, and S).

### GEOL Banked Courses

**5050. Regional Geomorphology of the US (2)**

**5250, 5251. Stratigraphy (3,0)**

**5700, 5701. Geohydrology of Drainage Basins (3,0)**

**5750, 5751. Introduction to Engineering Geology (3,0)**

**6100, 6101. Igneous and Metamorphic Petrology (4,0)**

**6210, 6211. Sandstone Petrology (3,0)**

**6230, 6231. Clay Mineralogy (3,0)**

**6240. Diagenesis (2)**

**6330. The Pleistocene (2)**

**6340, 6341. Micropaleontology (3,0)**

**6560. Tectonostratigraphy (2)**

**6570. Tectonic Analysis of North America (2)**

## DEPARTMENT OF HISTORY

*Michael A. Palmer, Chairperson, A-315 Brewster Building*

*Carl E. Swanson, Director of Graduate Studies, A-319 Brewster Building*

As a prerequisite to graduate study in a degree program, the Department of History requires that the applicant meet the admission requirements of the university and make a satisfactory score on the entrance examination designated for the program selected: Graduate Record Examinations aptitude section for the MA in history; and the Graduate Record Examinations aptitude section for the MA in maritime studies. Each entering student should consult with the director of graduate studies in history prior to beginning graduate work.

### MA IN HISTORY

#### American, European, Military, or Public History

The master of arts in history requires a total of 30 s.h. of course work. The department offers four areas of concentration as follows: American history, European history, military history, and public history. The student is required to take a minimum of 24 s.h. in one of these areas to which the historiography course, the seminar, and the thesis will contribute 12 s.h. of credit. (The concentration in public history requires successful completion of an internship in lieu of the seminar.) The student must also take a total of 6 s.h. either in a related field of history outside of the major concentration or (at the recommendation of



the adviser and director of graduate studies, and with the approval of the chairperson of the Department of History) outside the Department of History.

In addition to the 30 s.h. of course work described above, students must fulfill the department's research skills requirement by: a) successful demonstration of reading knowledge in a foreign language (FORL 6000 satisfies this requirement); or b) successful completion of HIST 5950, 5951 (Introduction to Quantitative History/Directed Readings and Research in Quantitative History); or c) CSCI 5774 (Programming for Research) or CSCI 2600 (Introduction to Digital Computation). If HIST 5950, 5951 are used to satisfy the research skills requirement, they may not be counted toward the 30 s.h. requirement for the degree. Students who intend to pursue a PhD program are strongly advised to fulfill the foreign language requirement.

An oral comprehensive examination will be a component of the thesis defense. Candidates will be required to demonstrate their knowledge of their field of concentration as well as establish how their thesis contributes to that field of study.

Minimum degree requirement is 30 s.h. of credit as follows:

1. Core courses: HIST 6900, 7000 ..... 9 s.h.
2. Seminar or Internship ..... 3 s.h.  
American, European, and Military History Concentrations: HIST 6910 or 6920  
Public History Concentration: Internship
3. Area of concentration (American, European, Military, or Public History) ..... 12 s.h.
4. Related history outside area of concentration ..... 6 s.h.
5. Research skills requirement.

### **MA IN MARITIME STUDIES**

The master of arts in maritime studies requires a total of 36 s.h. of course work, 26 s.h. of which must be taken in history. The student may take the additional 10 s.h. in history or related fields outside the Department of History. Course work is divided into three broad areas of inquiry as follows: core courses in maritime history and nautical archaeology and the thesis account for 18 s.h. History electives account for 6-12 s.h., and professional phase courses account for 6-12 s.h.

In addition to the 36 s.h. of course work described above, students must fulfill the department's research skills requirement by one of the following: a) successful demonstration of reading knowledge in a foreign language (FORL 6000 satisfies this requirement); b) successful completion of HIST 5950, 5951 (Introduction to Quantitative History/Directed Readings and Research in Quantitative History); or c) CSCI 5774 (Programming for Research) or CSCI 2600 (Introduction to Digital Computation). If HIST 5950, 5951 are used to satisfy the research skills requirement, they may not be counted toward the 36 s.h. requirement for the degree. Students who intend to pursue a PhD program are strongly advised to fulfill the foreign language requirement.

An oral comprehensive examination will be a component of the thesis defense. Candidates will be required to demonstrate their knowledge of their field of concentration as well as establish how their thesis contributes to that field of study.

Minimum degree requirement is 36 s.h. of credit as follows:

1. Core courses ..... 18 s.h.
  - a. Maritime History (Choose three from the following.) ..... 9 s.h.  
HIST 5505, 5515, 5520, 5525, 6080
  - b. Nautical Archaeology (Choose one from the following.) ..... 3 s.h.  
HIST 6805, 6820
  - c. Thesis: HIST 7000 ..... 6 s.h.
2. History electives\* ..... 6-12 s.h.
3. Professional phase electives\* (Maximum of 10 s.h. in courses other than HIST may be counted toward the degree) ..... 6-12 s.h.
4. Research Skills Requirement

\*The director of graduate studies in history maintains a list of history electives and professional phase courses.

## SECTION 7: CURRICULA

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### HIST: HISTORY

**5005. Selected Topics (3) (WI\*)** May be repeated with change of topic. May count maximum of 3 s.h. toward graduate or undergraduate HIST major or minor. Intensive study of selected topics from historical perspective.

**5122. Social and Cultural History of the United States Since 1865 (3)** Selected main currents in American thought. Social and intellectual activity since 1865.

**5125. American Political Development in the Nineteenth Century (3)** Evolution of major political party conflict from mellowing of first party system to 1890s realignment.

**5130. Comparative History of New World Slavery and Race Relations (3) (WI\*)** Origin and development of slavery and race relations in US and various societies in Western Hemisphere.

**5135. Problems in North Carolina History (3) (WI\*)** P: HIST 1050, 1051; or consent of instructor. Process by which NC evolved from isolated English colony into part of modern US. Emphasis on bibliographic work. Research in archival and manuscript sources.

**5140. The Old South (3)** Development of southern US to outbreak of Civil War.

**5141. The South Since 1877 (3) (WI\*)** Development of southern US from end of Civil War to recent years.

**5220. Selected Topics in US Women's History (3)** In-depth exploration of topics. Analysis of major themes, documents, and theoretical work.

**5230. Themes in African American History (3)** Intensive examination of pivotal themes and writings.

**5300. Comparative History of Non-Western Civilizations (3) (WI\*)** May not count toward 3 s.h. 5000-level requirement for undergraduate HIST majors. Evolution of major civilizations of Asia, Africa, and Middle East. Emphasis on comparative cultural foundations of civilizations.

**5310. Intellectual History of Europe (3)** Major themes of modern European thought. Analysis of selected readings from representative nineteenth- and twentieth-century thinkers.

**5340. The Ancient Near East (3)** Civilizations from lower paleolithic age to conquest of Persia by Alexander the Great.

**5350. The Renaissance in European History (3)** Cultural and intellectual developments of western Europe from about 1300 to about 1600.

**5360. The Reformation, 1450-1598 (3)** European history from 1450 to 1598. Renaissance materials as background.

**5440. Twentieth-Century England (3)** England in two great wars—World Wars I and II. Development of socialism. Breakup of British Empire. British Commonwealth of Nations. English development since 1945.

**5450. Tudor-Stuart England (3)** Emergence of England into world leadership. Internal developments which shaped its political, economic, and social life in sixteenth, seventeenth, and early eighteenth centuries.

**5470. History of Soviet Russia Since 1917 (3)** Russian revolutions of 1917 and rise of Soviet Union to superpower status.

**5480. Weimar and the Rise of Hitler (3)** Society, culture, and politics of Germany during Weimar Republic. Failure of democracy and establishment of Nazi state.

**5505. Maritime History of the Western World to 1415 (3)** Designated as European history. Maritime activities from classical antiquity through Middle Ages. Emphasis on development of maritime commerce, piracy, and naval warfare.

**5515. Maritime History of the Western World 1415-1815 (3) (WI\*)** Designated as European history. European voyages of discovery, expansion of maritime commerce, establishment of overseas possessions, and domination of world's sea-lanes.

**5520. Maritime History of the Western World Since 1815 (3)** Designated as American history. Impact of maritime activities on political, diplomatic, economic, and military affairs. Emphasis on technology.

**5525. Sea Power, 480 BC to the Present (3) (WI\*)** Sea power from Classical Era to the atomic age. Nature of warfare at sea. Changing role of sea power in eras of peace and war.

**5530. Field School in Maritime History and Underwater Research (2) (S)** 20 classroom/lab hours per week. P: Scientific diving certification; consent of instructor. Early field experience.

**5555. Constitutionalism and Kingship in Early Modern Europe (3)** Royal absolutism as dominant philosophy in seventeenth-century state building. Role of Continental political ideologies in development of English constitutional government.

**5660. Imperialism in Theory and Practice, 1800 to the Present (3) (WI\*)** Theoretical and empirical perspectives on European expansion, primarily in Africa and Asia. Political, economic, social, and non-European origins of imperialism.

**5670. Diplomatic History of Europe, 1815 to the Present (3)** Survey of international relations of great European powers.

**5680. Diplomatic History of Modern Asia (3)** Role of diplomacy. Emphasis on conflict between East and West since 1800.

**5765. Latin America, 1492 to the Present (3) (WI\*)** Selected historical problems in Latin-American society and economy. Conquests and settlement, role of indigenous people in the formation of Latin-American society, reform and revolution, independence, and organization of nation states.

**5910. Introduction to the Administration of Archives and Historical Manuscripts (3)** Undergraduates may not count toward 3 s.h. 5000-level HIST major requirement. Background, preservation, and use of archives and historical manuscripts. Emphasis on historical evolution of archival profession and administration of archives and manuscript repositories.

**5920, 5921. Techniques of Museum and Historic Site Development (3,0) (F)** Undergraduates may not count toward 3 s.h. 5000-level HIST major requirement. History and theory of museology and techniques of museum and historic site management.

**5930, 5931. Field and Laboratory Studies in Museum and Historic Site Development (3,0)** Undergraduates may not count toward 3 s.h. 5000-level HIST major requirement. Development of practical methods for operation and management of history museums and historic sites.

**5950. Introduction to Quantitative History (2)** P: 20 s.h. of undergraduate history. Categories of quantitative history. Role of computer and techniques of its implementation in historical research.

**5951. Directed Readings and Research in Quantitative History (1)** P: HIST 5950. Intensive examination of special historical field in area of student's interest. Research projects limited to quantitative assessments of historical eras.

**5960. Introduction to Oral History (3)** Theory and methodology of oral history interviewing and interpretation of oral history materials. Emphasis on fieldwork projects.

**5970. Living History (3)** P: Consent of instructor. Interpretations of past events. Focus on seventeen- through nineteenth-century event specifics, world view, clothing, and accouterments.

**5985. Historic Preservation Planning (3) Same as PLAN 5985** Historic preservation planning. Examination of theoretical, legal, historical, and design bases of preservation planning.

**6020. American Colonial History (3)** Indepth consideration of selected aspects of the period.

**6025. American Revolution and Early Republic (3)** Evolution of Federal Union out of events and experiences of colonial, revolutionary, and confederation periods.

**6030. Middle Period of American History (3)** Selected topics of American history between 1815 and 1860.

**6035. Civil War (3)** Selected political, military, economic, and diplomatic problems of Civil War.

**6040. United States History, 1865-1898 (3)** Indepth study of selected topics between Civil War and Spanish-American War.

**6045. Progressive Movements and the Age of Normalcy in American History (3)** US domestic history from 1900 to 1929. Covers Progressive Era and the twenties.

## SECTION 7: CURRICULA

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- 6050.The Great Depression, New Deal, and World War II (3)** Historical assessment of US history between 1929 and 1945.
- 6055.The United States Since 1945 (3)** Detailed study of selected topics covering history of US since 1945.
- 6080. Studies in European Maritime History and Archaeology (3)** Shipwrecks and results of archaeological research from Vikings through age of Atlantic exploration and colonization.
- 6180.Diplomatic History of the United States to 1898 (3)** Major episodes, principal interpretative conflicts, and significant personalities.
- 6181.Diplomatic History of the United States Since 1898 (3)** Major episodes, principal interpretative conflicts, and significant personalities.
- 6205.Topics in Military History (3)** May be repeated with change of topic. May count maximum of 3 s.h. toward degree. Intensive study of selected military topics from historical perspective.
- 6210.War and Society (3)** Interrelationship between society and warfare from the dawn of civilization to the present.
- 6221.American Military History to 1900 (3)** May not be taken by students who have earned credit for HIST 3121. History of military thought and institutions in US from era of American Revolution through nineteenth century. Interrelationship between war and society. Political, economic, and social aspects of military affairs.
- 6222.American Military History Since 1900 (3)** May not be taken by students who have earned credit for HIST 3122. History of American military thought and institutions since 1900. Interrelationship between war and society. Political, economic, and social aspects of military affairs.
- 6230.Warfare and Society in Ancient Greece and Rome, 750 BC to 500AD (3)** War as common phenomenon.
- 6260.The United States and the Middle East, 1783 to the Present (3)** The history of American interests and involvement in the Middle East since 1783.
- 6280. Eighteenth-Century Warfare (3)** Land sea warfare between 1650 and 1790. Global perspective. Emphasis on European and North American military, social, and political experiences.
- 6350. History of Ancient Greece (3)** Detailed study of certain selected aspects.
- 6355. History of Ancient Rome (3)** Detailed study of certain aspects.
- 6360. Medieval History (3)** Detailed study of certain selected aspects.
- 6365. Early Modern Europe, 1598-1815 (3)** Selected topics in history of continental Europe from beginning of seventeenth century to Congress of Vienna.
- 6370. Nineteenth-Century European History (3)** Intensive study of selected crucial issues.
- 6375. Twentieth-Century European History (3)** Emphasis on social and intellectual processes and effects of two world wars.
- 6444.The Old Regime, the French Revolution, and Napoleon (3)** Intensive study of the society of orders, its disintegration and destruction by the French Revolution, and the new order implemented by Napoleon.
- 6450. Imperial Britain, 1651-1965 (3)** History of Britain during its period of Empire. Focus on ideological, political, social, and economic impact of the Empire on Britain itself from Cromwell to Churchill.
- 6610. Legal and Professional Issues in Maritime Studies (3) Same as MAST 6610** Legal cases, legislation, professional standards, grant writing, and scholarship.
- 6620. Public Policy and Management of Cultural Resources (3) Same as MAST 6620** Public laws and policies concerning local, state, national, and international regulations and practices for management of cultural resources of maritime and coastal environment.

**6630. Seminar in Maritime Studies (3) Same as MAST 6630** Selected topics.

**6640. Maritime Cultural Resources (3) Same as MAST 6640** Coastal environmental resources (both under and above water), public presentation and display in museums or other public facilities, and impact on tourism and oceanic development.

**6650. Management of Coastal Cultural Resources (3) Same as MAST 6650** Management of submerged cultural resources, museums, aquariums, science or other public or private local, state, and federal educational agencies.

**6660. Maritime Heritage of the Coast (3) Same as MAST 6660** Focus on NC. Comparative examples from other regions provide foundation of understanding of coastal maritime heritage, including submerged cultural resources.

**6805. History and Theory of Nautical Archaeology (3)** P: Consent of instructor. Detailed introduction to historical and theoretical foundations.

**6810. History of Marine Architecture and Ship Construction (3)** Development of marine architecture tracing the evolution of ship design from its Mediterranean origins through twentieth century. Emphasis on traditions influencing and/or developed in US. Associated construction techniques examined in detail and modeled.

**6820. Research Methodology in Nautical Archaeology (3)** P: Consent of instructor. Detailed introduction to current research methods and equipment.

**6825. American Maritime Material Culture (3)** P: Consent of instructor. Culture and various approaches used to examine material objects within the human maritime experience.

**6840. Conservation of Material from an Underwater Environment (3)** 3 lecture and 3 lab hours per week. P: Consent of instructor. Comprehensive introduction and preliminary laboratory experience.

**6850. Field Research in Maritime History (6)** P: HIST 5530; consent of instructor. Closely supervised on-site investigation of one or more selected underwater archaeological sites during first half of semester and laboratory cleaning, cataloging, analysis, and conservation of material from test site during second half. Historical, field, and lab research data developed for project report.

**6875. Seafaring: Above Water Nautical Archaeology (3) Same as MAST 6875** 3 weeks intensive shipboard instruction. P: HIST 5505 or 5515 or 5520 or 6850; consent of instructor. Relationship of vessel to crew. Daily work as related to archaeological elements recovered from submerged sites. Documentary record.

**6885. Recording Watercraft (1)** P: HIST 6810; consent of instructor. Practical instruction in documentation of watercraft. Traditional measurement, photogrammetry, and computer-assisted drawing in accordance with national agency standards.

**6900. Historiography: Introduction to Research (3)** Required of all candidates for HIST MA and MAEd. Problems of historical analysis. Major historians, historical writings, and trends in field of history.

**6910. Seminar in American History (3)** Introduction to research methodology and writing.

**6920. Seminar in European History (3)** Introduction to research methodology and writing.

**6940, 6941, 6942. Graduate Internship in Archives and Historical Records Administration (3,6,9)** May count 3 s.h. toward internship (HIST 6940-6948). P: Consent of instructor. Supervised practical field experience in archival and manuscript agencies.

**6943, 6944, 6945. Graduate Internship in Museum Administration (3,6,9)** May count maximum of 3 s.h. toward internship (HIST 6940-6948). P: Consent of instructor. Supervised practical field experience.

**6946, 6947, 6948. Graduate Internship in Historic Site Administration (3,6,9)** May count 3 s.h. toward internship (HIST 6940-6948). P: Consent of instructor. Supervised practical field experience.

**6990, 6991, 6992. Directed Studies in History (1,2,3)** Maximum of 10 percent of required hours in HIST can be taken by directed study courses. P: Consent of director of graduate studies in history and supervising professor. Advanced indepth study on special topics under direction of graduate faculty member.

## SECTION 7: CURRICULA

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**6993. Directed Research Project (3)** May be repeated. May count maximum of 3 s.h. Directed reading and research program for history MAEd candidates.

**7000. Thesis (3)** May be repeated. May count maximum of 6 s.h.

**7001. Thesis: Summer Research (1)** May be repeated. No credit may count toward degree. Students conducting thesis research may only register for this course during the summer.

### HIST Banked Courses

**5120. American Social and Cultural History to 1787 (3)**

**5121. American Social and Cultural History, 1787-1865 (3)**

**5150. The American West (3)**

**5210. History of American Urban Life (3)**

**5460. History of the Balkans in the Twentieth Century (3)**

**5770. The Relation of Latin America to World History (3)**

**6405. Proseminar in the History of England (3)**

## INTERNATIONAL STUDIES

*Sylvie Debevec Henning, Co-Director, 3324-A Bate Building*

*Lester Zeager, Co-Director, A-434 Brewster Building*

The master of arts in international studies is a multidisciplinary program designed to prepare students for professional careers in international business, the foreign service, the military, international humanitarian agencies, international programs for colleges and universities and other settings involving interaction with people from other cultures. The program provides global perspectives on economic, political, environmental, and cultural issues. Students acquire skills in a foreign language, communicating across cultures, decision making, and conflict resolution and choose a concentration in a professional or academic specialty or area studies.

### MA IN INTERNATIONAL STUDIES

The minimum requirement for the degree is 36 s.h. of credit as follows:

1. International Studies Core: INTL 6005, 6105, 6500, 6510.
2. Complete 12 s.h. in an academic, professional, or geographic concentration approved by the international studies director prior to taking.
3. Complete 6 s.h. of international field experience, INTL 6930, 6940. Waiver may be granted by international studies director.
4. Complete comprehensive examination after completion of 18 s.h.
5. Complete international studies foreign language requirement.
6. Option (Choose one of the following options.)

*Advanced language and culture option (6 s.h.):*

6 s.h. of Spanish, French, or English at the 5000-level or higher, including at least 3 s.h. at the 6000-level. Not available to native speakers of the language selected.

*Business option (6 s.h.):*

ENGL 5860; MKTG 6992. Available only to students who choose a concentration in business.

*International administration option (6 s.h.):*

PADM 6220; 3 s.h. from PADM 6163, POLS 6330, or POLS 6440.

Available only to students who choose a concentration in political science.

*Thesis option (6 s.h.):*

INTL 7000 (repeat once for a total of 6 s.h.) The student must satisfactorily defend the thesis.

### CERTIFICATE IN INTERNATIONAL TEACHING

The graduate certificate in international teaching is an interdisciplinary certificate program coordinated by the director of the North Carolina Japan Center East. Participating students must register for special sections of the courses delivered electronically.

The certificate requires 9 s.h. of credit as follows: HIST 5005; INTL 6930; TCHR 6001

## **INTL: INTERNATIONAL STUDIES**

**5000. Senior Seminar in International Studies (3) (S)** P: Consent of instructor or graduate standing. Diverse contemporary international issues. Topics determined by instructor may include ethical/normative perspectives in world community; demographic trends of population, food, and health; energy policies; environmental hazards such as climate and pollution; economic development; selected regional conflicts; and initiatives in transnational cooperation.

**6005. Communications Across Cultures (3)** P: Consent of instructor. Different modes of human communication as related to varying cultural contexts.

**6105. Global Systems (3)** Systems models and approaches. Structures, processes, and outputs of various systems, including global social, political, economic, and environmental systems and global telecommunications/technological system.

**6500. International Problem Solving and Decision Making (3)** P: Consent of instructor. Focus on understanding and application of process at organizational level. Analytical models appropriate to public and private sectors may include project management, cost/benefit analysis, mathematical programming, and simulation in international settings.

**6510. Seminar on International Professional Practice (3)** P: Consent of instructor. Synthesis of students' experiences, analysis of professional practices, and examination of present and future issues in global/regional context through program components and their application to foreign internship/research projects.

**6930, 6940. International Field Experience (3,3)** Second-culture study, practical training, internship, research, and/or employment in student's field of study and professional activities.

**7000. Thesis (3)** May be repeated. May count a maximum 6 s.h.

**7001. Thesis: Summer Research (1)** May be repeated. No credit may count toward degree. Students conducting thesis research may only register for this course during the summer.

## **DEPARTMENT OF MATHEMATICS**

*Gail Ratcliff, Chairperson, 124 Austin Building*

*John P. Daughtry, Director of Graduate Studies, 331 Austin Building*

The Department of Mathematics requires that the applicant meet the admission requirements of the Graduate School, have an undergraduate major in mathematics or its near equivalent, and submit satisfactory scores on the Graduate Record Examinations or the Miller Analogry Test. Each applicant's credentials will be reviewed by the director of graduate studies, who will determine if undergraduate deficiencies are present and, if so, will prescribe the method of their removal and determine a precondition for admission.

### **MA IN MATHEMATICS**

The department currently offers seven areas of concentration at the graduate level: algebra, analysis, applied mathematics, differential equations, geometry, number theory, and topology. All students are required to complete successfully MATH 5101, 5102, Advanced Calculus I and II, if they have not previously completed equivalent courses. Applicants to a graduate program should normally have completed an undergraduate major, or its equivalent, in mathematics.

A student enrolled in the MA program who wishes to write a thesis and to receive the 6 s.h. credit for thesis work must register for and successfully complete MATH 7000.

The research skills requirement for students enrolled in the MA program is satisfied by demonstrating sufficient competency in an appropriate foreign language or by having earned a minimum grade of C in CSCI 2510 or 2600 and either MATH 5031 or CSCI 5774, provided that these courses were completed no more than five years from the date of acceptance to graduate studies at East Carolina University.

Additional requirements are given below:

1. Students must satisfy the research skills requirement in a foreign language or computer science.
2. Students must score satisfactorily on a comprehensive examination.

SECTION 7: CURRICULA

- 3. Students must write a thesis (6 s.h.) or take 9 s.h. of course work prefixed MATH and numbered above 5000. Students electing to take the 9 s.h. of course work are required to complete a research project under the direction of a member of the graduate faculty.
- 4. Concentration ..... 24s.h.  
Mathematics – MATH 5102, 6011, 6111, 6121, 6651, 5311 or 5801 or 6401 or 6411; 6 s.h. electives  
Statistics – MATH 5031, 5101, 5102, 5801, 6802, 6001, 5000 or 6804, 5774

STATISTICS MINOR

Twelve s.h. of graduate course work for the statistics minor is required as follows: MATH 5031, 5801, 6802; one additional graduate-level statistics course.

CERTIFICATE IN STATISTICS

The statistics certification requires a minimum of 9-15 s.h. credit as follows:  
Students who have successfully completed MATH 3307, 3308 must complete 9 s.h. as follows: CSCI 5774; MATH 5000, 5031.  
Students who have successfully completed MATH 3307 must complete 12 s.h. as follows: CSCI 5774; MATH 5000, 5031, 6802.  
Students who have not successfully completed MATH 3307 must complete 15 s.h. as follows: CSCI 5774; MATH 5000, 5031, 5801, 6802.

MATH: MATHEMATICS

**5000. Introduction to Sampling Design (3) (F)** P: MATH 3308 or 3229 or consent of instructor: Fundamental principles of survey sampling. Data sources and types, questionnaire design, various sampling schemes, sampling and nonsampling errors, and statistical analysis.

**5002. Logic for Mathematics and Computer Science (3) (S) Same as CSCI 5002** P: CSCI 3510 or MATE 3223 or 2775 or MATH 2427 or 2775 or 3256 or PHIL 3580 or equivalent. Methods of mathematical logic that have important applications in mathematics and computer science.

**5021. Theory of Numbers I (3)** P: MATH 3263 or consent of instructor: Topics in elementary and algebraic number theory such as properties of integers, Diophantine equations, congruences, quadratic and other residues, and algebraic integers.

**5031. Applied Statistical Analysis (3) (WI)** May not count toward mathematics hours required for mathematics MA. P: MATH 2228, 3584; or equivalent; or consent of instructor: Topics include analysis of variance and covariance, experimental design, multiple and partial regression and correlation, nonparametric statistics, and use of computer statistical package.

**5064. Introduction to Modern Algebra II (3)** May not be taken for credit by those having completed MATH 6011. P: MATH 3263 or consent of instructor: Continuation of development of topics begun in MATH 3263. Normal subgroups, factor groups, homomorphism, rings, ideals, quotient rings, and fields.

**5101. Advanced Calculus I (3)** P: MATH 2173 or consent of instructor: Axioms of real number system, completeness, sequences, infinite series, power series, continuity, uniform continuity, differentiation, Riemann integral, Fundamental Theorem of Calculus.

**5102. Advanced Calculus II (3)** P: MATH 3256, 5101; or consent of instructor: Mathematical analysis of functions of several real variables. Includes limits, continuity, differentiation, and integration of multivariable functions.

**5110. Elementary Complex Variables (3)** May not be taken for credit by those having completed MATH 6111. P: MATH 2173. Complex numbers, analytic functions, mapping by elementary functions, integrals, residues, and poles.

**5121. Numerical Analysis in One Variable (3)** P: MATH 2173. Numerical analysis of problems with one independent variable. Solution of nonlinear equations in one unknown, interpolation and approximation of functions of one variable, numerical integration, and numerical differentiation and optimization.

**5122. Numerical Analysis in Several Variables (3)** P: MATH 2173, 3256, 4331. Numerical analysis of problems with several independent variables. Numerical solution of ordinary differential equations, systems of linear equations, numerical linear algebra and matrix algebra, systems of nonlinear equations, and systems of ordinary differential equations.



**5131. Deterministic Methods in Operations Research (3)** P: MATH 2173; 3307 or 5801. Mathematical models; linear programming; simplex method, with applications to optimization; duality theorem; project planning and control problems; and elementary game theory.

**5132. Probabilistic Methods in Operations Research (3)** P: MATH 2173, 3256; 3307 or 5801. Introduction to stochastic processes. Queuing theory with applications to inventory theory and forecasting, Poisson and Markov processes, reliability simulation, decision analysis, integer programming, and nonlinear programming.

**5270. Pascal Using the Microcomputer (3)** May not be taken by students who have successfully completed CSCI 2610. May not count toward MATH or CSCI major or minor. P: MATH 1065 or equivalent. Pascal language and use in problem solving utilizing a microcomputer.

**5311. Mathematical Physics (3) Same as PHYS 5311** P: MATH 4331; PHYS 2360; or consent of instructor. Mathematical methods important in physics. Emphasis on application. Functions of complex variables, ordinary and partial differential equations, integrals and integral transforms, and special functions.

**5322. Foundations of Mathematics (3) (WI)** P: MATH 3233, 3263; or equivalent. Fundamental concepts and structural development of mathematics. Non-Euclidean geometries, logic, Boolean algebra, and set theory. Construction of complex number systems. Transfinite cardinal numbers and study of relations and functions. Topics developed as postulational systems.

**5521. Readings and Lectures in Mathematics (3)** Individual work with student.

**5551. The Historical Development of Mathematics (3)** P: MATH 3233; C: MATH 2172 or consent of instructor. History of mathematics from antiquity to present. Emphasis on study of significant problems which prompted development of new mathematics. Uses computer resources and library for research of topics and solutions.

**5581. Theory of Equations (3)** P: MATH 2173 or consent of instructor. Topics include operations with complex numbers, De Moivre's Theorem, properties of polynomial functions, roots of general cubic and quartic equations, methods of determining roots of equations of higher degree, and methods of approximating roots.

**5601. Non-Euclidean Geometry (3)** P: MATH 3233 or consent of instructor. Non-Euclidean geometries, finite geometries, and analysis of other geometries from point of view of properties which remain invariant under certain transformations.

**5774. Programming for Research (3) Same as CSCI 5774** For graduate student who wishes to use computer science to meet required research skills of his or her dept. May not count toward MATH major or minor. P: General statistics course or consent of instructor. Emphasis on minimum-level programming skill and use of statistical packages.

**5801. Probability Theory (3)** P: MATH 2173 or 3307. Axioms of probability, random variables and expectations, discrete and continuous distributions, moment generating functions, functions of random variables, Central Limit Theorem, and applications.

**6000. Introduction to Graduate Mathematics (3)** May not be taken for credit after MATH 5101 or 6011. P: Consent of the director of graduate studies or adviser. Introduction to advanced mathematics for beginning graduate students. Covers various proof methods and provides rigorous introduction to topics in logic, number theory, abstract algebra, and analysis.

**6001. Matrix Algebra (3)** P: MATH 3256 or consent of instructor. Properties of vectors and matrices and their applications.

**6011, 6012. Modern Algebra I, II (3,3)** P for 6011: MATH 3263 or equivalent; P for 6012: MATH 6011. Basic algebraic structures. Groups, rings, modules, integral domains, and fields.

**6022. Theory of Numbers II (3)** P: MATH 5021. Advanced topics in algebraic and analytic number theory.

**6111, 6112. Introduction to Complex Variables I, II (3,3)** P for 6111: MATH 5102; P for 6112: MATH 6111. I. Analytic functions, mapping of functions, differentiation and integration, power series, and residues. II. Integral functions, infinite products, Mittag-Leffler expansion, maximum modulus theorem, convex functions, the Schwarz-Christoffel transformation, analytic continuation, Riemann surfaces, and selected topics in functions of a complex variable.

## SECTION 7: CURRICULA

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**6121, 6122. Real Variables I, II (3,3)** P for 6121: MATH 5101 or consent of instructor; P for 6122: MATH 6121 or consent of instructor. I. Study of functions of one real variable and convergence of sequences and series of functions: functions of bounded variation, measures, measurable sets, measurable functions, convergence almost everywhere, absolutely continuous functions, Lebesgue integration, differentiation, and the Fundamental Theorem of the Calculus. II. Lebesgue spaces and associated inequalities, measures in  $\mathbb{R}^n$ , measure spaces and the associated theory of integration and differentiation; the Radon-Nikodym Theorem with applications to probability and statistics.

**6251, 6252. Advanced Placement Mathematics for Secondary Teachers I, II (3,3)** May count toward certificate renewal or certification in teaching gifted and talented students. May not count toward MA in mathematics. Intensive study of topics covered in Calculus AB and Calculus BC of advanced placement mathematics.

**6271. Teaching Collegiate Mathematics (2)** P: MATE 4323. Curricula and methods of teaching mathematics to adults in colleges and technical schools.

**6401, 6402. Introduction to Partial Differential Equations I, II (3,3)** P for 6401: MATH 4331 or consent of instructor; P for 6402: MATH 6401 or consent of instructor. I. Study of linear and nonlinear partial differential equations of the first order with emphasis on the formal aspects of these equations. Also, use of partial differential equations in analysis, geometry, and physical sciences is considered where appropriate. II. Continuation of MATH 6401 to include nonlinear partial differential equations of the second order and higher orders. Certain theoretical aspects of partial differential equations and a limited amount of Fourier Series, Fourier transforms, Laplace transforms, and boundary value problems are included.

**6411, 6412. Ordinary Differential Equations I, II (3,3)** P for 6411: MATH 4331 or consent of instructor; P for 6412: MATH 6411 or consent of instructor. I. Existence, uniqueness, and technique of solutions to first and second order differential equations are considered. Bases for linear equations, stability, and series solutions about an ordinary point are considered. II. Autonomous systems, series solutions about a regular singular point, and Sturm-Liouville Systems are examined.

**6500. Special Topics (3)** May be repeated for credit with change of topic. P: Consent of instructor. Selected topics of current interest.

**6561. Properties of Infinite Series (3)** P: Consent of instructor. Infinite series beyond advanced calculus level.

**6571. Elements of Probability (3)** May not count toward mathematics requirement for MATH MA. P: Consent of instructor. Axiomatic development of probability from set operations viewpoint. Use of probability measures.

**6601. An Introduction to Differential Geometry (3)** P: MATH 2173, 3256. Basic ideas of differential geometry through study of curves and surfaces in three-dimensional space. Regular curves, regular surfaces, Gauss Map, and intrinsic and global differential geometry of surfaces.

**6611, 6612. Introduction to Higher Geometry I, II (3,3)** P for 6611: MATH 3233 or consent of instructor; P for 6612: 6611. I. Homogeneous linear equations and linear dependence; projections and rigid motions, homogeneous Cartesian coordinates; linear dependence of points and lines; point geometry and line geometry; harmonic division and cross ratio; one- and two-dimensional projective transformations. II. Continuation of the study of projective coordinates in the plane; an introduction to various types of geometries; a study of point curves and line curves with intensive study of point conics and line conics.

**6651. Introduction to Topology (3)** P: MATH 5101. Metric spaces and basic point-set topology, open sets, closed sets, connectedness, compactness, and limit points.

**6802. Statistical Inference (3)** P: MATH 3307 or 5801; consent of instructor. Estimation and hypothesis testing from both classical and Bayesian points of view. Use of  $t$ ,  $F$ , and chi-squared distributions. Least squares procedures.

**6803. The Linear Model (3)** P: MATH 3256, 5801. Topics include general linear model, regression models, design models, estimation of parameters, theory of least squares, and testing general linear hypotheses.

**6804. Stochastic Processes (3)** P: MATH 3256, 5801. Most widely used models for random phenomena which vary with time. Topics include Markov, Poisson, birth and death, and stationary processes.

**6805. Topics in Mathematical Statistics (3)** P: MATH 3256, 5801. Mathematical theory of certain topics in statistics outside range of MATH 6802. Topics vary by faculty and student interests.

**7000.Thesis (3)** May be repeated. May count maximum of 6 s.h.

**7001.Thesis: Summer Research (1)** May be repeated. No credit may count toward degree. Students conducting thesis research may only register for this course during the summer.

### MATH Banked Courses

**5252. Modern Mathematics for Elementary Teachers II (3)**

**5261, 5262. Modern Mathematics for Secondary Teachers I, II (3,3)**

**5301, 5302. Analytical Mechanics I, II (3,3)**

**5321, 6322. Applied Mathematics I, II (3,3)**

**5331. Introduction to Celestial Mechanics (3)**

**5610. Applied Analysis (3)**

**6652. Introduction to Topology II (3)**

## MEDIEVAL AND RENAISSANCE STUDIES

*Kevin Moll, Director, 201 Fletcher*

### MRST: MEDIEVAL AND RENAISSANCE

**5000. Medieval and Renaissance Studies Seminar (3)** P: 9 s.h. in MRST or consent of director. Interdisciplinary seminar.

## DEPARTMENT OF PHILOSOPHY

*George Bailey, Chairperson, A-327 Brewster Building*

The members of the Department of Philosophy encourage graduate students to consider the possibility of completing a minor program of study selected from the courses below. Each member of the department is willing to discuss such a possibility with graduate students from any area of study.

### PHIL: PHILOSOPHY

**5531, 5532, 5533. Directed Readings (1,2,3) (F,S,SS)** May be repeated for credit with consent of instructor and dept chair. P: Consent of directing professor and dept chair.

### PHIL Banked Courses

**5273. Reasoning Skills in Elementary Education (3)**

**5285. Philosophical Problems in the Health Care Professions (3)**

## DEPARTMENT OF PHYSICS

*John Sutherland, Chairperson, S-209 Howell Science Complex*

*L. H. Toburen, Director of Graduate Studies, C-201 Howell Science Complex*

### MS IN PHYSICS

The Department of Physics offers the master of science in physics with concentrations in applied physics and medical physics. The applied physics concentration requires the completion of a thesis whereas the medical physics concentration requires 6 s.h. of clinical study in lieu of thesis. A satisfactory knowledge of an acceptable computer language or of an acceptable foreign language is required. Attendance at a minimum of one-half of the regular Department of Physics seminars given during the student's residence in the graduate program is required.

- I. Core ..... 16-22 s.h.  
 PHYS 5400\*, 5600, 5601, 5900, 5901, 6816  
 Applied physics concentration: Thesis 7000 (repeated once); 6 s.h. electives from: PHYS 5700, 5715, 6250, 6900  
 Medical physics concentration: PHYS or RONC 6992, 6993; PHYS 5400\* or 3 s.h. electives from: PHYS 6300, 6900
2. Concentration (Choose one area.) ..... 12-18 sh.  
*Applied physics (12 s.h.):*  
 PHYS 5311, 6200, 6300, 6450

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*Medical physics (18 s.h.):*

BIOL or RONC 7370; PHYS 5700, 5715, 6710, 6720; PHYS or RONC 6718

\*Students in the medical physics concentration who have had an undergraduate course in quantum mechanics may substitute the 3 s.h. elective, listed above, for PHYS 5400.

In addition, a student in the medical physics concentration must demonstrate a satisfactory knowledge of medical terminology through taking BIOL 2130 (preferred) or HIMA 3000.

Termination rules:

1. A student must receive a minimum final grade of B in each of the required courses in the medical physics option.
2. A student, because of inappropriate behavior in a clinical setting, will be immediately suspended by the instructor. A review by the Graduate Committee will determine if the student is eligible to continue in the medical physics option.

### PhD IN BIOMEDICAL PHYSICS

The primary objective of the PhD program in biomedical physics is to graduate scientists who can apply the tools and concepts of physics to solve significant biological and medical problems and advance our understanding of fundamental biomedical processes. Core curricula in both applied physics and biomedical areas are designed to provide training for students with diverse backgrounds in physics, applied physics, biochemistry, and engineering. All students are required to complete a dissertation project under supervision of a faculty adviser.

#### Admission

The applicant must have a master's degree in physics, applied physics, medical physics, or related fields or must have shown a significant progress towards obtaining a master's degree in the above fields. Acceptable performance on the GRE and a minimum cumulative GPA of 3.0 on a 4.0 scale in graduate work are required.

The following documents are required before final admission is approved: completed application form for admission to Graduate School, official transcripts from colleges and universities attended, official or certified copy of score reports of the GRE and TOEFL (if applicable), letters of reference from three persons who can attest to the applicant's academic competence, and an essay describing the applicant's career goals and research interests which are consistent with the educational opportunities offered in the PhD program.

#### Course and Residence Requirements

The PhD program requires a minimum of 30 s.h. of courses beyond the master's degree. The student will take a minimum of 6 s.h. of courses from a physics core, a minimum of 6 s.h. of courses from a biomedical core, and a minimum of 18 s.h. of dissertation research courses. Additional courses may be required by the executive committee, depending on the individual student's preparation. Students must demonstrate a working knowledge of at least one high-level computer language, such as FORTRAN or C. Students must pass doctoral candidacy exam and write and successfully defend a doctoral dissertation.

Students must complete at least five consecutive semesters in residence (excluding summers).

#### Transfer Credits

Because of the broad interest and collaborative nature of the PhD program, the executive committee will evaluate transfer credits on a case-by-case basis. A maximum of 6 s.h. of transfer credit may be accepted.

If a student enrolls in this program and already has the equivalent of the 12 s.h. beyond the master's degree, he or she may petition the executive committee for a waiver of or substitution for these courses. After a majority of the core courses have been completed, students in this program must pass the doctoral candidacy examination before being admitted to candidacy for the PhD in biomedical physics.

#### Other Requirements

The PhD program should be completed by the end of three years following the student's initial enrollment. With the endorsement of the advisory committee, a student having deficiencies in preparation may request an extension of no more than two years.

## **PHYS: PHYSICS**

**5311. Mathematical Physics I (3) Same as MATH 5311** P: MATH 4331; PHYS 2360; or consent of instructor.

Mathematical methods important in physics. Emphasis on application. Functions of complex variables, ordinary and partial differential equations, integrals and integral transforms, and special functions.

**5400. Quantum Mechanics I (3)** P: Intermediate modern physics. Fundamentals of quantum theory as applied to atomic and molecular systems.

**5600, 5601. Modern Electronics (3,0)** 2 lecture and 2 lab hours per week. P: PHYS 4610. Theory and application of modern electronic devices. Circuit design using linear, nonlinear, and hybrid integrated circuits and their application in a graphical (GUI), computer-based environment for scientific instrument and process control.

**5700. Health Physics (3)** P: PHYS 2600, 4417; or consent of instructor. Broad spectrum of topics in radiation protection. Emphasis on interactions of radiation with matter; methods of radiation detection, dosimetry, principles of shielding, and regulations pertaining to work with radiation.

**5715. Biomedical Physics (3)** P: BIOL 1050; CHEM 1160; PHYS 2360; or consent of instructor. Applications of physics principles in biology and medicine. Topics include statistical analysis, biomechanics, structure of cells and membranes, transport in medium and through membranes, interaction of photons and charged particles with biological systems.

**5900, 5901. Computational Physics (3,0)** 1 lecture and 4 lab hours per week. P: MATH 4331; PHYS 2360 or 5311. Application of modern computer program with symbolic, numerical, and graphical capabilities to problems in physics.

**6100. Mathematics Physics II (3)** P: MATH 5311 or PHYS 5311 or consent of instructor. Math methods important in physics. Emphasis on application, including conformal mapping, eigenfunctions, eigenvalues, and Green's functions, integral equations, calculus of variations, numerical methods, probability and statistics, and group theory.

**6200. Thermodynamics and Statistical Physics (3)** P: Intermediate thermodynamics. Classical thermodynamics with applications and introduction to statistical thermodynamics. Topics include heat engines, thermodynamic potentials, Maxwell relations, phase changes, ideal gases, kinetic theory of gases, and quantum statistics.

**6250. Classical Mechanics (3)** P: Intermediate mechanics. Theoretical classical mechanics including Lagrange's equations, central force motion, rigid body motion, special relativity, and oscillations.

**6300. Electrodynamics I (3)** P: Intermediate electromagnetic theory. Boundary value problems in electrostatics. Emphasis on use of Green's functions and special functions, multipoles and dielectrics, magnetostatics Maxwell's equations, and plane EM waves, wave guides and resonant cavities.

**6310. Electrodynamics II (3)** P: PHYS 6300. Advanced electromagnetic theory, including dynamics of relativistic particles, collisions between charged particles, and scattering and absorption of radiation.

**6400. Quantum Mechanics II (3)** P: PHYS 5400. Relativistic quantum theory and theories of second quantization and angular momentum with applications to structure of light nuclei.

**6450. Solid State Physics (3)** P: PHYS 5400 or consent of instructor. Coherent picture for understanding complex properties of solids. Topics include periodic structure of crystal lattice, phonons, electronic properties in framework of energy band theory, basic concepts of quasiparticles and their interactions in solid materials.

**6526, 6527, 6528. Readings in Physics I, II, III (1,2,3)** Equivalent of 1 classroom hour per week, per credit hour. P: Consent of dept chair. Intensive readings or problem research in some physics-related field under supervision of faculty.

**6620, 6621. Advanced Techniques in Experimental Physics (2,1)** 2 classroom and 3 lab hours per week. P: Graduate standing in PHYS or CHEM. Experimental techniques in radio frequency spectroscopy (NMR, ESR, and NEQR), microwave applications, and accelerator-based atomic physics (trace element analysis using x-rays), which includes theory of phenomena and operation of lab instruments.

## SECTION 7: CURRICULA

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**6710. Nuclear Medicine Physics (3)** P: PHYS 4417 or consent of director of medical physics. Comprehensive overview of physical aspects of diagnostic and therapeutic applications of radionuclides, radiation beams and measurements, imaging systems, and related equipment with lab activities in facility design, instrumentation essentials, quality assurance, and survey techniques.

**6718. Therapeutic Radiological Physics (3) Same as RONC 6718** P: Consent of director of medical physics. Production, application, and measurement of electromagnetic radiation and high energy particle beams in therapeutic practice. Emphasis on conceptual, instrumental, and methodological aspects of therapeutic radiology.

**6720. Physics of Medical Imaging (3)** P: PHYS 6710 or consent of director of medical physics program. Physical principles of diagnostic radiology. Analog and digital x-ray radiography (including mammography), fluoroscopy, and computed tomography. Principles and applications of ultrasound and magnetic resonance imaging, diagnostic calibration, radionuclide sources, counters, scanners, cameras, dosimetry, recording media, film densitometry, non-film media, and image evaluation.

**6810. Topics in Atomic Collisions (3)** P: Consent of instructor. Review of processes in atomic collisions and their quantitative understanding. Introduction to theories required to describe experimentally-observed behavior in electron-atom, ion-atom, and/or molecule collisions, and methods of observations. Emphasis on general topics of interest as found in current literature and particular areas of research at ECU Accelerator Laboratory.

**6816, 6817. Seminar (1,1)** Equivalent of 1 lecture hour per week. Areas of research in progress in physics department.

**6900. Introduction to Research (3)** Literature and lab research on individual problems in major field.

**6910. Research Problems in Biomedical Physics (3)** May be repeated. P: Consent of instructor and dept chair. Research on specialized topic or topics related to biomedical application of physics under supervision of faculty member.

**6992. Radiation Therapy Physics (3) Same as RONC 6992** P: PHYS 6718 or RONC 6718. Radiation dose calculation and measurement of high energy photon and electron beams, high and low dose rate brachytherapy sources in clinical radiation therapy, cavity theory in ion chamber calibrations of photon and electron beams. Quality assurance, acceptance testing, and commissioning of equipment for clinical radiation therapy (linear accelerators, HDR, TLD, simulator, CT scanner).

**6993. Clinical and Medical Dosimetry (3) Same as RONC 6993** P: PHYS 6992 or RONC 6992. Practical patient dosimetry problems in radiation oncology. Irregular field calculations, two- and three-dimensional treatment planning, isodose distribution, high and low dose rate brachytherapy planning for intracavitary, and interstitial radioactive sources.

**7000. Thesis (3)** May be repeated. May count maximum of 6 s.h.

**7001. Thesis: Summer Research (1)** May be repeated. No credit may count toward degree. Students conducting thesis research may only register for this course during the summer.

**9000. Dissertation (3)** May be repeated. May count maximum of 18 s.h.

**9001. Dissertation: Summer Research (1)** May be repeated. No credit may count toward degree. Students conducting dissertation research may only register for this course during the summer.

### PHYS Banked Courses

**5060. The Conceptual Development of Physics (3)**

**5321. Applied Mathematics I (3)**

**5350. Modern Optics (3)**

**5610. Applied Electromagnetism (3)**

**5630. Gaseous Conductors (3)**

**5640, 5641. Solar Energy (3,0)**

**5710, 5711. Topics in Health Physics I (3,0)**

**5720, 5721. Topics in Health Physics II (3,0)**

**5800. Biophysics (2)**

**6322. Applied Mathematics II (3)**

**6991. Clinical Rotation in Diagnostic Physics (3)**

## DEPARTMENT OF POLITICAL SCIENCE

*Richard C. Kearney, Chairperson, A-124 Brewster Building*  
*Carmine Scavo, Director of Graduate Studies, A-124 Brewster Building*

### MPA

The master of public administration program is designed to provide students with basic administrative skills which can be utilized in a variety of administrative careers. It is based on a core curriculum of required public administration and quantitative analysis courses with a variety of related electives that will provide students with a choice of emphases depending upon career objectives.

All students applying for the MPA program are expected to take the GRE. Requests for exceptions will be considered only if the student presents recent acceptable scores on a comparable standardized entrance exam.

Students may transfer up to 15 s.h. from a regionally accredited institution with the approval of the director of the MPA program and the dean of the Graduate School. Requests for transfer credit should be made at the time of admission.

Students may earn the MPA degree by completing 45 s.h. as follows: 24 s.h. in core public administration and quantitative analysis courses, 3 s.h. of internship work for pre-service students, 15 s.h. elective credit in an area of emphasis to be approved by the director of the MPA program, and 3 s.h. for the MPA professional paper.

Public administration required core courses: PADM 6100, 6110, 6120, 6140, 6160, 6161, 6230, 6260 ..... 24 s.h.  
 Internship ..... 3 s.h.

Pre-service students seeking the MPA are required to complete a 3 s.h. internship in a local, state, federal, or approved not-for-profit agency. Students with relevant work experience in excess of one year may apply to the director of the MPA program for exemption from this requirement. Those students who are exempted from this requirement will complete 42 s.h. instead of 45 s.h. However, no academic credit will be awarded for work experience.

MPA professional paper ..... 3 s.h.

All students must enroll in PADM 6900 and complete an MPA professional paper in which they identify a public management problem or policy issue and develop a problem-resolution strategy. The completed paper must be defended successfully before a three-member committee of MPA faculty members (one member may be from outside the MPA faculty upon approval of the director of the MPA program).

Electives (MPA) ..... 15 s.h.

1. Students may elect to complete PADM 6198 or 6199 for a maximum of 6 s.h. of independent study. The independent courses must be completed under the supervision of a public administration instructor in the Department of Political Science; these courses are open only to students who have completed a minimum of 12 s.h.
2. For a planning emphasis, students must complete electives approved jointly by the graduate coordinator of the urban and regional planning program and the director of the MPA program.
3. For an emphasis in community health administration, students with a subfield in health administration should seek counseling from the graduate director of the community health program regarding requirements for certification beyond the formal MPA and Graduate School requirements. See Section 7, School of Allied Health Sciences, Department of Community Health, for requirements.

Recommended elective courses: POLS 6155, 6345, 6382; PADM 6111, 6123, 6150, 6163, 6170, 6187, 6188, 6198, 6199; PLAN 6000, 6010, 6020; PSYC 5343, 6421, 6422; COHE 6000, 6502; BIOS 5010; REHB 5793, 5795; EHST 6010; JUST 6502; PLAN 6015.

Other courses may be substituted if approved by the director of the MPA program.

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### CERTIFICATE IN SECURITY STUDIES

*Carmine Scavo, Interim Coordinator, Brewster A-124*

Through the Division of Academic Affairs, the university offers the interdisciplinary graduate certificate in Security Studies. This program provides students with an understanding of national and international threats posed by non-state actors such as terrorist networks, and the landscape of response coordination required to meet challenges posed by such threats. The goal of the certificate program is to develop new thinking towards security within a changing environment. Countering and responding to the new threats requires integration of traditional military strategies with criminal justice systems and investigation, intelligence gathering, policy development, emergency planning and response, and interagency cooperation at multiple levels of government and between governments.

Applicants seeking admission must be graduate students or non-degree students holding a baccalaureate degree. All applicants must complete the certificate application and have it approved by the program coordinator:

Choose five of the six following courses (15 s.h.) in consultation with the certificate coordinator: EHST 6010, JUST 6502, PADM 6170, PLAN 6015; POLS 6155, 6382.

#### POLS: POLITICAL SCIENCE

**5000. American Government and Politics (3)** May not count toward POLS major or minor or MPA degree. P: Consent of instructor. Introductory survey of readings in American national government and politics for students interested in graduate work, but who have no undergraduate background in political science or public administration.

**6040. Problems in State Government (3)** Intensive study of significant problems confronting American state governments.

**6080. American Foreign Relations (3)** Most important events and characteristics of American foreign policy since World War II.

**6155. Changing Nature of National Security (3)** Overview of the processes, forces, and influences involved in determining contemporary national security policy in the United States. Explores the historical and constitutional basis of "common defense," evaluates the national security policy making process, and the forces and issues that define our national security infrastructure.

**6310. Comparative Government I (3)** Theoretical and comparative study of major parliamentary governments of Western Europe.

**6320. Comparative Government II (3)** Theoretical and comparative study of former USSR and East European Communist states.

**6330. Political Modernization and the Non-Western World (3)** Theoretical analysis of developmental processes in politics of Asia, Africa, and Latin America.

**6345. Comparative Public Policy (3)** Cross-national study of selected major policy issues, their development and implementation through analysis of policy substance, and its linkage to policy process.

**6382. Global Terrorism (3)** Introduces issues defining and characterizing terrorism. Primary emphasis given to issues in countering terrorism such as intelligence, international treaty issues, and the use of military and criminal justice tools to respond to terrorism.

**6430. Seminar in International Politics (3)** P: Consent of instructor. Concentrated study of major theories of international politics and/or selected case studies.

**6440. Seminar in International Organization (3)** P: Consent of instructor. Advanced study of selected aspects.

**6524. Readings in American Foreign Relations (3)** P: POLS 6080. Intensive study in selected area.



**POLS Banked Courses**

**5030.Seminar in American Government (3)**  
**5050.Seminar in Political Participation and Behavior (3)**  
**5381.Seminar in Comparative Politics (3)**  
**5410.Seminar in International Relations (3)**  
**6010.President and Congress (3)**  
**6020.Judicial Systems (3)**  
**6060. Constitutional Law: Structure and Powers (3)**  
**6070. Constitutional Law: Civil Liberties (3)**

**6230.Seminar in Political Theory (3)**  
**6240.American Political Thought (3)**  
**6250.Research in Political Science (3)**  
**6260.Seminar in Behavioral Methodology (3)**  
**6520.Readings in American National Government (3)**  
**6522.Readings in State Government (3)**  
**6523.Readings in Constitutional Law (3)**  
**6529.Readings in American Political Thought (3)**

**PADM: PUBLIC ADMINISTRATION**

**6100. Politics and Management in Public Agencies (3)** P: Consent of instructor: Study, functions, structures, and processes of public administration at all levels of government. General management issues in public agencies. Emphasis on political institutions and their impact on policy process.

**6110. Human Resource Management in Public Agencies (3)** P: Consent of instructor: Assessment skills for recruitment and maintenance of personnel in public sector: Comparative study of all phases of human resource management in federal, state, and local governments.

**6111. Contemporary Problems in Public Personnel Administration (3)** Problems faced by public personnel administrators stemming from changes in social, political, and technological environment. Focus on merit system.

**6112. Productivity in the Public Sector (3)** P: PADM 6110. Various approaches that increase efficiency with which resources (especially human resources) may be converted into products or services. Barriers to productivity. Emphasis on motivation of public employees.

**6115. Readings in Public Personnel Administration (3)** P: PADM 6110, 6111. Intensive study of an area in the field.

**6116. Women, Public Policy, and Administration (3)** Significant works, discussion of timely problems, and guided individual research on women, public policy, and administration.

**6120. Public Budgeting and Finance (3)** P: Consent of instructor: Comparative study of US budgetary and revenue systems.

**6122. Local Government Budgeting and Financing (3)** P: PADM 6120. Intensive study of theory and practice of government budgeting and finance at local level. Topics may include operating and capital budget making, revenue sources and forecasting, intergovernmental transfers, accounting and auditing systems, borrowing, and cash management.

**6123. Economic Development (3)** Theory, practice, and history of local government economic development policies in US.

**6125. Readings in Public Budgeting and Finance (3)** P: PADM 6120. Intensive study of an area in the field.

**6130. Urban Policy and Administration (3)** Policy-oriented study of urban government, leadership styles, and problems.

**6140. Administrative Law and Ethics (3)** P: Consent of instructor: Structure and processes of administrative agency rule making and adjudication in US. Emphasis on administrative ethics and role of values in practice of public administration.

**6150. Seminar in Public Administration (3)** May be repeated. May count maximum of 6 s.h. toward MPA degree with change of topic. Intensive study of various topics.

**6160. Public Policy Formulation and Implementation (3)** P: Consent of instructor: Formulation and implementation of public policy at federal, state, and local levels of government. Application of various models and theories of policy formation and implementation to substantive policy areas.

**6161. Applied Policy Analysis and Program Evaluation (3)** P: Consent of instructor: Public policy at all levels of government. Program charting, budget examination, management analysis, systems analysis, program evaluation, implementation analysis, and cost-benefit analysis.

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**6162. Environmental Administration (3)** RP: Course or other background in public policy. Political and bureaucratic constraints reflecting conflicting objectives of energy independence and pollution-free environment.

**6163. Environmental Policy Analysis (3)** P: Consent of instructor. Political, economic, and regulatory issues associated with protection and enhancement of quality of physical environment. Formation, implementation, and evaluation of environmental and natural resource policies. Emphasis on development of research skills to facilitate reasonable knowledgeable about formulation and termination of environmental policies.

**6164. State and Local Environmental Policy (3)** P: PADM 6162 or consent of instructor. Comparative study of state and local government structures and processes related to environmental laws, regulations, organizational structures, and implementation results.

**6170. Intergovernmental/Interagency Relations (3)** Patterns of relations between officials of various US governmental units and agencies.

**6187, 6188, 6189. Internship in Public Administration (1,2,3)** Approximately 100 hours per semester per credit hour. P: Consent of instructor. Experiential learning in public agency setting under academic supervision.

**6198, 6199. Independent Research (3,3)** P: Completion of 12 s.h. of degree requirements; consent of instructor. Individualized.

**6210. Organization Theory in the Public Context (3)** Behavior and interaction of individuals and groups in complex organizations in public context. Analysis of processes, conditions, and constraints in formulation and implementation of public policy.

**6220. Leadership in the Public Sector (3)** Techniques involved in leadership of public sector organizations. Focus on direct supervision of employees. Emphasis on use of power and authority to accomplish publicly determined goals and objectives.

**6230. Quantitative Methods for Public Administration (3)** Familiarity with algebra and descriptive statistics presumed. P: Undergraduate course in statistics or consent of instructor. Basic statistical methods and their applications in public administration and policy analysis.

**6260. Computer Applications for Public Administration (3)** Basic knowledge and skills in computerized data management, foundations of scientific policy analysis, and experience in applications of basic descriptive statistics. Emphasis on microcomputer-based information management principles and skills.

**6300. Marine and Coastal Policy (3)** P: PADM 6162 or consent of instructor. Contemporary marine and coastal resource issues and conflicts. Mechanisms used to manage resource use in coastal zone.

**6900. MPA Professional Paper (3)** May be repeated. May count maximum of 3 s.h. toward MPA degree. P: Admission to MPA degree program; consent of MPA program director. Identification of public management or policy issue and development of problem-resolution strategy. Completed paper defended before three-member MPA faculty committee.

**6901. Professional Paper: Summer Research (1)** May be repeated. No credit may count toward degree. Students conducting thesis research may only register for this course during the summer.

### PADM Banked Courses

**6175. Public Policy and Management in Rural Areas (3)**

## DEPARTMENT OF PSYCHOLOGY

Michael B. Brown, Acting Chairperson and Director of Graduate Studies, 115 Rawl Building

Program Directors:

Thomas W. Durham, Clinical Psychology

John G. Cope, General Psychology

Michael B. Brown, School Psychology

The Department of Psychology offers degrees in three graduate areas. All three areas require the completion of a research skills course (PSYC 6430), completion of a thesis, and written and oral examinations over the field and the thesis. The student will consult with his or her program director in order to decide which approved elective courses best meet the needs of his or her program. Additional alternative courses may be considered, subject to the approval of the student's program director and the departmental chairperson. It is important to note that requirements of both the Graduate School and the Department of Psychology must be met before a degree is awarded.

### MA IN PSYCHOLOGY, GENERAL AND THEORETIC

The general psychology program offers students the opportunity to specialize in one of three concentrations. The academic concentration (30 s.h.) is designed to provide the preparation necessary to teach psychology at the community college level. The research concentration (42 s.h.) focuses on courses for those who wish to conduct research or prepare for doctoral training. The industrial/organizational concentration (45 s.h.) is designed for students wishing to apply psychological expertise to situations involving human resources in organizations.

The industrial/organizational concentration requires a summer internship between the first and second year.

Program requirements include:

1. Research skills requirement: PSYC 6430 ..... 3 s. h.
2. Thesis or Teaching Practicum ..... 6 s. h.
- Academic concentration:  
PSYC 6800, 6810
- Research concentration:  
PSYC 7000
- Industrial/Organizational concentration:  
PSYC 7000
3. Electives ..... 6-15 s.h.
- Academic concentration:  
6 s.h. must be in PSYC
- Research concentration:  
12 s.h. are required of which 3 s.h. must be PSYC
- Industrial/Organizational concentration:  
15 s.h. are required of which 6 s.h. must be PSYC
4. Concentration areas (Choose one.) ..... 15-21 s.h.
- Academic concentration:  
PSYC 6406, 6412, 6421; 6427 or 6428; 6450 or 6475
- Research concentration:  
PSYC 6412, 6421; 6427 or 6428; 6431; 6450 or 6475; 6519, 6520
- Industrial/Organizational concentration:  
PSYC 6327, 6343, 6420, 6431, 6465, 6521, 6970

### MA IN PSYCHOLOGY, CLINICAL

The clinical psychology program of study leads to a master of arts degree in psychology and eligibility for licensure in North Carolina as a licensed psychological associate. Students are admitted into one of two concentration areas within the program: child clinical psychology (including MR/DD) or adult clinical psychology. The program requires a minimum of 51 s.h. of instruction and is generally completed in two years. During the second year, the student will spend 1000 hours in an on-site internship placement under the supervision of a licensed psychologist. The program provides classroom training in ethics,

SECTION 7: CURRICULA

psychological assessment and diagnosis, and psychotherapy. In addition to classroom learning, the student will also engage in supervised practica experiences during the first-year of training in addition to the second-year practicum. Finally, students will gain research experience through the completion of a master's thesis project during the second year of training.

Admission to the clinical program follows a review of credentials as well as an on-site interview. Continuation in the program is based upon satisfactory course work and effective personal functioning and ethical behavior. At the end of each semester of the student's enrollment, the clinical faculty will conduct a review of student performance. Continuation in the program is contingent upon a favorable review during these evaluations. Students who consistently show borderline course performance, who are not developing good applied skills in the practice of psychology, who fail to complete course work on a timely basis, or who otherwise perform unprofessionally or unsatisfactorily, may be required to complete additional courses or practicum work, or may be removed from the program.

Program requirements include:

- I. Core courses ..... 30 s.h.
  - Clinical requirement: PSYC 6465 ..... 3 s.h.
  - Internship: PSYC 6990, 699 I ..... 6 s.h.
  - Practicum: PSYC 6460, 646 I, 6462 ..... 6 s.h.
  - Research skills requirement: PSYC 6430 ..... 3 s.h.
  - Therapy: PSYC 6466 ..... 3 s.h.
  - Thesis: PSYC 7000 (repeat once) ..... 6 s.h.
  - Core electives ..... 3 s.h.
    - Choose one from: PSYC 6406, 64 I 2, 642 I, 6426, 6427, 6428, 6475
- 2. Concentration area (Choose one.) ..... 15 s.h.
  - 3 s.h. assessment elective
  - 3 s.h. therapy elective
  - Adult clinical psychology concentration:
    - PSYC 6450, 6468, 6485
  - Child clinical psychology concentration:
    - PSYC 6452, 6467, 6484
- 3. Electives ..... 6 s.h.

MA IN SCHOOL PSYCHOLOGY/CAS IN SCHOOL PSYCHOLOGY

The graduate program in school psychology is a three-year program to train psychologists for practice in school and related settings and requires 63 s.h. credit. The program requires full-time attendance, and students must complete both the MA and CAS degrees. The first two years of the program provide classroom training and field experiences in assessment, consultation, and interventions for children, adolescents, families, and systems. The third year consists of a full-time paid internship in a public school setting.

Program completion meets the current requirements for licensure by the North Carolina Department of Public Instruction as a Level II school psychologist, for certification by the National School Psychology Certification Board, and satisfies the educational requirements for licensure by the North Carolina Psychology Board as a licensed psychological associate. The program is approved by the National Association of School Psychologists, the National Council for the Accreditation of Teacher Education Programs, and the North Carolina Department of Public Instruction.

Program requirements include:

- Assessment: PSYC 6409, 64 I 0, 64 I I ..... 9 s.h.
- Consultation/Intervention: PSYC 6402, 6442, 6467 ..... 9 s.h.
- Internship: PSYC 7992, 7993 ..... 6 s.h.
- Practicum: PSYC 6950, 695 I ..... 6 s.h.
- Professional school psychology: PSYC 6404 ..... 3 s.h.
- Psychological foundations: COAD 6407; PSYC 6405, 6406, 64 I 3, 6452 ..... 15 s.h.
- Research skills requirement: PSYC 6430 ..... 3 s.h.
- Thesis: PSYC 7000 (repeat once) ..... 6 s.h.
- EDUC 6424 or ELEM 6425; SPED 5 I 0 I ..... 6 s.h.

## PSYC: PSYCHOLOGY

**5250.Topics in Psychology (3) (WI\*)** P: Minimum of 9 s.h. in PSYC. Selected topics at advanced level.Topics vary.

**5311.Sensation and Perception (3)** P: PSYC 3310, 3311; or consent of instructor.Psychophysics and psychophysiology of various sense systems together with current theoretical approaches to perception.

**5325.Introduction to Psychological Testing (3)** P: PSYC 1000 or 1060; a statistics course. Principles of testing, including requirements for validity, reliability, norm samples, and examples of psychological tests.

**5380.Psychology of the Exceptional Child (3)** P: PSYC 1000 or 1060. Study of children who are markedly different from the average child in physical, mental, emotional, academic, or social characteristics.

**5400.Advanced Gerontology (3)** P: PSYC 1000 or 1060; GERO 2400 or consent of instructor: Seminar on psychological research and its applications to the aged.

**5990,5991,5992.Field Experience in Psychology (1,1,1)** May be taken concurrently.Accepted graduate psychology students spend approximately 10 hours per week per credit hour in lab/field experiences under joint supervision of field supervisor and university instructor.May count maximum of 3 s.h. of field experience toward BA or MA PSYC requirement. Additional hours may count toward electives. P for undergraduate students: PSYC major; 9 s.h. in PSYC; minimum cumulative and PSYC major 2.0 GPA; dept consent. P for graduate students: PSYC major; minimum cumulative and major GPA of 3.0 in PSYC; dept consent.Application of concepts and principles from related courses to applied situations in field.

**6312.Laboratory Methods in Behavioral Neuroscience (3) Formerly PSYC 5312,5313** 1 lecture and 4 lab hours per week. P: Consent of instructor: Basic techniques of animal surgery, histological examination, drug administration, and behavior testing.

**6315.Neuroscience: Literature and Laboratory Experience (3) Formerly PSYC 5315,5316** May be repeated. May count a maximum of 12 s.h. 1 hour seminar and 8 hours lab per week. P: Graduate standing; consent of instructor. Recently published research and participation in ongoing research.

**6320.Behavioral Pharmacology Seminar (3) Formerly PSYC 5320** P: Consent of instructor: Behavioral and neurophysiological effects of psychoactive drugs in experimental animal and clinical populations.

**6327.Methods in Human Measurement (3)** P: Statistics course or consent of instructor: Rationale and techniques of psychological measurement. Emphasis on determination of different estimates of reliability and validity: Introduction to questionnaire and test construction and fair employment procedures.

**6333.Applied Behavior Analysis (3)** P: PSYC 4333 or consent of instructor: Advanced study of principles, applications, and research methodology of behavior analysis.

**6343.Psychology of Organizational Behavior (3)** P: PSYC 3241 or graduate standing or consent of instructor: Systems approach to understand behavior in work organizations. Emphasis on recent research on job satisfaction and motivation to work. Cases and simulations illustrate principles of leadership, decision making, and organizational design.Topics vary as new research appears.

**6350.Psychology of Sexual Behavior (3)** P: Graduate standing; 6 s.h. of PSYC or consent of instructor: Research relating to psychological aspects of sexual behavior: Conventional and unconventional sexual expression. Research regarding treatment methods for sexual problems.

**6353.Behavioral Assessment and Intervention (3)** P: PSYC 4333 or 6333.Application of behavioral principles to assessment and intervention with children and adults with developmental and/or learning disabilities, behavioral disorders, psychiatric diagnoses, medical illness and health/fitness-related issues.

**6380.Interdisciplinary Practice: Services for Children with Serious Emotional Disturbances and Their Families (3) Same as CDFR 6380; NURS 6380; SOCW 6380** System of care model for use across disciplines in mental health services for children with serious emotional disturbances and their families. Prepares professionals to participate in holistic, interdisciplinary team practice in variety of settings.

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**6402. School Consultation (3)** P: Graduate standing in school or clinical psychology or counselor education or consent of instructor. Theory, models, and methods of consultation and systems change in schools.

**6404. Professional School Psychology (3)** P: Graduate standing in school psychology or consent of instructor. Current issues in school psychology. History, foundations, models of service delivery, and legal and ethical issues in school psychology. Role and function of school psychologist.

**6405. Advanced Educational Psychology (3)** Comprehensive study of psychological principles and techniques as applied to various aspects of human learning. Emphasis on relationships between brain functions and learning processes.

**6406. Advanced Developmental Psychology (3)** Review of theories and research dealing with developmental change. Emphasis on life span development and application of developmental psychology to social service professions.

**6408. History of Psychological Thought (3)** P: Graduate standing or consent of instructor. Review of major themes of psychological thought from the Renaissance through the 20th century.

**6409. School Assessment I (3)** P: Graduate standing in school psychology or consent of instructor. Standardized testing procedures, applied psychometrics, and selection, administration, and interpretation of individual measures of intelligence and visual-motor abilities.

**6410. School Assessment II (3)** P: PSYC 6409. Selection, administration, and interpretation of measures of children's academic, behavioral, emotional, and social functioning.

**6411. School Assessment III (3)** P: PSYC 6410; RP: PSYC 6452. Selection, administration, and interpretation of instruments and measures to assess preschool children and children with low-incidence handicaps.

**6412. Advanced Physiological Psychology (3)** P: PSYC 2210, 3310. Advanced study of research and theory on neurophysiology of learning, drives, emotions, perception, and attention.

**6413. Clinical Neuropsychology (3)** P: Graduate standing in school or clinical psychology or consent of instructor. Introductory study of brain structure. Emphasis on practical assessment and intervention strategies.

**6420. Issues in Personnel Selection (3)** Application of psychological research and theory to personnel selection and training. Emphasis on theoretical and practical considerations of job analysis, selection, performance appraisal, and training. Current issues in criterion development, test validation, and federal guidelines.

**6421. Social Psychology (3)** Current research and theory in selected topics such as attitudes, dehumanization and conformity, aggression, and effective group functioning and change.

**6422. Group Dynamics (3)** Psychological nature of task-oriented groups and dynamics and principles of group processes. Relationship between groups and individuals, group structure, group performance, leadership, group tasks, and communication patterns.

**6426. Motivation (3)** Research and theory in motivation.

**6427. Advanced Principles of Learning (3)** P: Graduate standing in PSYC or consent of instructor. Intensive review of elementary principles of learning and more advanced study of field of learning. Emphasis on principles rather than theory.

**6428. Cognitive Psychology (3)** P: Graduate standing in PSYC or consent of instructor. Research and theory in cognition. Attention, memory, imagery, language, conceptual behavior, and problem solving.

**6430. Statistics and Research Design (3)** 2 classroom and 3 lab hours per week. P: Graduate standing in PSYC or consent of instructor. Statistical inference, including special correlational techniques, significance tests, and analysis of variance. Coordination of statistics with principles, methods, and design. Computation of descriptive and inferential statistics.

**6431. Design and Analysis (3)** Designed for student preparing to engage in research. P: Graduate standing in PSYC or consent of instructor and one graduate-level (inferential) statistics course. Research in experimental areas of behavioral sciences.

**6433. Computation of Behavioral Statistics (3)** P: PSYC 6430, 6431. Computation of behavioral statistics using hand calculators, microprocessors, and mainframe statistical packages.

**6440. Individual and Group Counseling Theory (2)** May not count toward degree unless PSYC 644 I is completed.

P: Graduate standing in school psychology program or consent of instructor: Basic theory and application of principles involved in individual and group counseling. Emphasis on application of theoretical and practical approaches of group and individual counseling for school psychologist.

**644 I. Individual and Group Counseling Theory and Practice (1)** 3 hours per week in school setting under academic supervision. P: Graduate standing in school psychology; PSYC 6440. Application of concepts and principles of group processes by school psychologist.

**6442. Psychological and Educational Interventions (3)** P: Graduate standing in school psychology; PSYC 6409, 64 I 0. Plan, implement, and evaluate psychological and educational interventions for children's academic and behavior problems. Integration of instructional and behavioral psychology, instructional design, remedial instructional strategies, and behavior management techniques.

**6450. Advanced Psychopathology (3)** P: Admission to clinical psychology graduate program. Diagnosis, etiology from several theoretical viewpoints, and implications for interventions. Broad biopsychosocial framework.

**6452. Child and Adolescent Psychopathology (3)** P: Graduate standing in school or clinical psychology or counselor education or consent of instructor: Major childhood emotional disorders. Emphasis on assessment and diagnosis.

**6460. Clinical Psychology Practicum I (2)** C: PSYC 6466. Development of skills in intake interviewing, mental status examination, diagnostic interviewing, and other specialized assessment interviews.

**646 I. Clinical Psychology Practicum II (2)** C: PSYC 6484 or 6485. Development of skills in intellectual, visual-motor; behavior ratings, and personality evaluation with major psychology assessment instruments.

**6462. Clinical Psychology Practicum III (2)** Placement in mental health facility. C: PSYC 6467 or 6468. Development of skills in individual psychotherapy with adults or children.

**6465. Ethics and Professional Practice (3)** P: Admission to PSYC graduate program. Seminar reviews ethical principles and practice issues relevant to professional psychology.

**6466. Psychotherapy Concepts and Techniques (3)** P: Consent of instructor: Basic theory. Emphasis on object relations, self psychology, or interpersonal specialties, plus cultural awareness and research. Live training in intake procedures and case management.

**6467. Psychotherapeutic Interventions with Children and Families (3)** P: PSYC 6452 or consent of instructor: Theoretical models, system of care components, and therapy techniques for working with children with emotional problems and their families. Ecological interpersonal and behavioral approaches.

**6468. Psychotherapy: Theories, Research, and Practice (3)** P: PSYC 6450 or consent of instructor: Psychotherapy research, theories, and techniques. Professional issues and ethical and value considerations.

**6475. Personality Theory (3)** In-depth evaluation of major theories of personality, past and present.

**6477. Seminar in Group Psychotherapy (3)** P: Psychotherapy or counseling course or consent of instructor: Principles of existential and other group psychotherapies. Emphasis on specific populations, research, and cultural issues. Training group experience.

**6484. Psychological Assessment of Children and Adolescents (3)** C: PSYC 646 I. Introduction to intellectual and personality assessment for children aged birth to sixteen.

**6485. Psychological Assessment of Adults and Older Adolescents (3)** C: PSYC 646 I. Selection and use of appropriate psychological assessment procedures leading to integrated report of findings for evaluation of intelligence, emotional disorder; and personality of persons over age seventeen with a wide variety of presenting problems.

**6486. The Rorschach Technique (3)** P: Consent of instructor: Intensive study of Rorschach technique. Emphasis on Exner's administration, scoring, and interpretive system to assess personality functioning of individual.

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**6501,6502,6503. Problems in Psychology (1,1,1)** P: PSYC major or minor; consent of dept chair: Individual study under supervision of staff member.

**6510. Assessment in Mental Retardation and Developmental Disabilities I (3)** P: Admission to graduate program in MR/DD; PSYC 5325. Selection, administration, scoring and interpretation of several measures of intellectual, adaptive, and language development functioning. Emphasis on benefits and limitations of comprehensive psychological assessment information in programming of individuals with mental retardation and/or developmental disabilities.

**6511. Assessment in Mental Retardation and Developmental Disabilities II (3)** P: PSYC 6510. Selection, administration, scoring, and interpretation of several measures of intellectual, adaptive, and language development functioning. Specifically geared toward or adapted for individuals who are significantly impaired, by visual, auditory, and motor handicaps; autism; and severe and profound mental retardation.

**6519,6520. Directed Research I, II (3,3)** P: Consent of dept chair and major professor: Individual research.

**6521. Special Topics in Industrial/Organizational Psychology (3)** Basic understanding of current theoretical and applied issues relevant to study and practice of industrial/organizational psychology. Emphasis on newly developed technology and research in areas such as organizational theory, small group theories and processes, teams, and organizational development. Topics vary with new research.

**6800. Teaching Psychology (3)** P: Graduate standing in PSYC. Development of lesson plans, course delivery systems, effective teaching approaches, and methods of classroom management, testing procedures, tests, teaching of specific areas, and related matters. Information, theory, and training necessary to teach (under supervision) 2000-level or below psychology courses.

**6810. Practicum in Teaching Psychology (3)** P: PSYC 6800 and admission to general PSYC program. Assists assigned faculty member in all aspects of course instruction, including lesson plans, course delivery systems, provision of class lectures, and design and implementation of all student evaluations and tests.

**6815. Seminar in Behavioral Neuroscience (1)** May be repeated. May count a maximum of 8 s.h. P: Consent of course director: Critique of current literature in behavioral neuroscience.

**6950. Practicum in Therapeutic Approaches with Children (3)** P: PSYC 6440; C: PSYC 6441. Supervised practicum counseling individuals and groups. Instruction and practice in intervention techniques. Emphasis on initial interviews, social and interpersonal problem solving, psychological investigation, reflection, confrontation, disclosure, and termination of therapy.

**6951. Practicum in Psychoeducational Assessment (3)** P: PSYC 6409. Practicum experiences in psychoeducational techniques, procedures, and analysis and interpretation of psychological tests results. Emphasis on various techniques, including psychometric diagnostics, curriculum-based assessment, behavioral observational techniques, and development of writing skills.

**6960,6961. Internship in Mental Retardation/ Developmental Disabilities I, II (2,2)** P: Advanced standing in the graduate general PSYC program with a concentration in MR/DD; P for 6961 only: PSYC 6510, 6511. Application of behavioral technology and assessment and behavioral programming techniques in facilities serving individuals with mental retardation/developmental disabilities.

**6970. Internship in Industrial/Organizational Psychology (3)** P: Advanced standing in PSYC; consent of general program director: Professional experience in organizational application of psychological techniques and principles.

**6980,6981,6982. Field Experience in Psychology (1,1,1)** May be taken concurrently. May count maximum of 3 s.h. field experience toward PSYC MA. Additional hours may count toward general electives. Approximately 10 hours per week per credit hour in lab/field experiences under the joint supervision of a field supervisor and a university instructor. P: PSYC major; minimum cumulative and major 3.0 GPA; dept consent. Emphasis on application of concept and principles from related courses to applied situations in field.

**6990,6991. Clinical Psychology Internship (3,3)** 1000-hour placement in human services facility. P: Advanced standing in graduate clinical PSYC program. Utilize, develop, and integrate techniques acquired in clinical program.



**6994.Seminar for School Psychology Practicum (2)** Discussions and experiences to increase knowledge and understanding of organization and operation of public schools.

**7000.Thesis (3)** May be repeated. May count maximum of 6 s.h.

**7001.Thesis: Summer Research (1)** May be repeated. No credit may count toward degree. Students conducting thesis research may only register for this course during the summer.

**7412. Advanced Behavioral Neuroscience (3) Formerly PSYC 6412** P: Graduate standing in psychology or consent of instructor. Advanced study of research and theories on neural mediation of behavior and cognitive functions.

**7427.Advanced Principles of Learning (3) Formerly PSYC 6427** P: Graduate standing in PSYC or consent of instructor. Intensive review of elementary principles of learning and more advanced study of the field of learning. Emphasis on principles rather than theory.

**7992.School Internship I (3)** P: Completion of MA in school psychology degree requirements; current standing in CAS in school psychology program. Full-time, supervised experience providing school psychological services in public school setting.

**7993.School Internship II (3)** P: PSYC 7992. Full-time, supervised experience providing school psychological services in public school setting.

**9000. Dissertation (3)** May be repeated. May count a maximum of 18 s.h.

**9001. Dissertation: Summer Research (1)** May be repeated. No credit may count toward degree. Students conducting dissertation research may only register for this course during the summer.

### PSYC Banked Courses

**5370. Mental Hygiene in Schools (2)**

**6401. Advanced Child Psychology (3)**

**6403. Seminar in School Psychology (2)**

**6445. Sport Psychology (3)**

**6469. Behavior Therapy: Research and Techniques (3)**

## RELIGIOUS STUDIES

*Calvin Mercer, Director, C-300 Brewster Building*

### RELI: RELIGIOUS STUDIES

**5000. Religious Studies Seminar (3)** May be repeated for credit with change of topic. P: Consent of instructor or director of RELI. Interdisciplinary seminar examines selected topics.

## DEPARTMENT OF SOCIOLOGY

*Lee Maril, Chairperson, A-415 Brewster Building*

*Bob Edwards, Director of Graduate Studies, A-402 Brewster Building*

### MA IN SOCIOLOGY

In addition to a traditional liberal arts master's program, students may choose to pursue one of three areas of concentration: health services and research, social issues in regional development, and environment and society. Through graduate assistantships, practica, and participation in faculty research, students in these concentrations are expected to become affiliated with one of the following university institutes: the Center for Health Services Research and Development, the Center on Aging, Regional Development Services, or the Institute for Coastal and Marine Resources.

Admission Requirements: Two letters of recommendation and meet the admission standards of the Graduate School. Where an admission examination is required, it is the Graduate Record Examinations.

The MA degree requires 33 s.h. if a student elects to complete a capstone practicum or thesis; otherwise, the degree requires 39 s.h.

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1. Research skills: All degree candidates must earn at least a B in SOCI 6312, 6313.
2. Required core courses: SOCI 6212, 6213, 6312, 6313, 6430, 6459, 6488 ..... 15 s.h.
3. Electives: With approval of the director of graduate studies, students select elective courses that are relevant to their concentration or to their career interests ..... 12 s.h.
4. Capstone course: SOCI 6992 or SOCI 7000 ..... 6 s.h.  
Students selecting one of the three concentrations will normally do a practicum in affiliation with a university institute described above. Students who choose not to do a practicum or a thesis must complete the degree by taking an additional 12 s.h. of elective courses with the approval of the graduate program director.
5. All students must pass a written comprehensive examination following the completion of their required core courses.

### SOCI: SOCIOLOGY

**5100. Seminar in Social Inequality and Diversity (3)** P for undergraduates: SOCI 2110 and consent of instructor; P for graduate students: Graduate standing in SOCI or consent of instructor. Critical examination of theory and research on stratification. Consequences for industrial and nonindustrial societies. Emphasis on method and design for analysis.

**5200. Seminar in the Sociology of Health (3)** P: SOCI 2110 or consent of instructor. Individual as health care consumer. Social factors affecting distribution of disease in population, socio-political structure of health care services in US, and health care system from perspective of various health care providers.

**5300. Seminar in Juvenile Delinquency (3)** P: SOCI 2110 or consent of instructor. Juvenile delinquency as a socio-legal phenomenon. Special attention to theoretical and methodological issues in study of delinquency, consequences of and societal responses to delinquency, and prediction and intervention techniques.

**5318. Social Aspects of Death and Dying (3)** P: SOCI 2110 or consent of instructor. Sociological perspective. Focus on organizational aspects of death and dying as process and status.

**5335. Sociology of Marriage Problems (3)** For students planning to work in marriage counseling. P: SOCI 2110; consent of instructor. Advanced study of nature, causes, consequences, and treatment of marriage problems. Supervised individual experience in sociological and counseling techniques.

**5400. Seminar in Gender Roles (3)** P for undergraduates: SOCI 2110 and consent of instructor; P for graduate students: SOCI 2110 or graduate standing or consent of instructor. Origins of gender roles and gender stratification. Personal, interpersonal, and social consequences of gender. Alternatives to traditional gender relations.

**5500. Seminar in Population (3)** P for undergraduates: SOCI 2110 and consent of instructor; P for graduate students: SOCI 3222 or 3225 or 3235 or consent of instructor. Intensive study of substantive theory, methods of population analysis, and select problems of population dynamics, communities, and regions.

**5600. Seminar in Aging (3)** P: SOCI 2111 or consent of instructor. Places experience of aging in a social context. Begins with examination of aging from demographic and entitlement perspectives and concludes with application of sociological theory to changing self definition accompanying age-related functional decline.

**5700. Seminar in Social Interaction (3)** P for undergraduates: SOCI 2110 and consent of instructor; P for graduate students: SOCI 2110 or graduate standing. Empirical research on interaction in small groups and relations between group structure and personality. Emphasis on micro-sociological research methods and results.

**5800. Seminar in the Family (3)** P for undergraduates: SOCI 2110 and consent of instructor; P for graduate students: SOCI 2110 or graduate standing or consent of instructor. Sociological theories, methods, and applications involving family and social policies. Emphasis on comparative and social historical perspectives for understanding family in social context and change.

**5900. Special Topics Seminar (3)** P for undergraduates: SOCI 2110 and consent of instructor; P for graduate students: SOCI 2110 or graduate standing or consent of instructor. Selected advanced topics in sociology vary depending on student interest and current issues.

**6212, 6213. Social Statistics (3,0)** Principles underlying application of statistical techniques to sociological research data. Application of packaged computer programs to problems.

**6300.Seminar in Environment and Society (3)** In-depth treatment of human dimensions of environmental conditions and issues. Emphasis on society as cause of environmental problems and social impacts of these problems at the regional, national, and international levels.

**6312, 6313. Multivariate Techniques and Analysis (3,0)** P: SOCI 6212, 6213. Multivariate techniques currently used in sociology (beginning with multiple regression). Evaluation of published research using these techniques. Application of techniques to real data. Integration of sociological theory and statistics.

**6400. Social Issues in Regional Development (3)** Social, cultural, and development issues facing regions such as eastern NC within context of social changes occurring in American society. Macro and micro sociological theories used to explore relationships between local issues (e.g., gender, race, class, power, poverty, and community) and national and international trends (e.g., demographic, social, and cultural).

**6430. Society and the Individual (3)** Influence of culture and social relations on character structure and development of human personality. Draws from anthropological, sociological, and psychological materials.

**6459. Seminar on Modern Sociological Theory (3)** Comparison and analysis of concepts, conceptual schemes, and theories of leading contemporary theorists in relation to modern research.

**6488. Seminar in Research Methods and Design (3)** P: SOCI 6312, 6313. Research methodology, experimental and survey designs, and scaling and sampling techniques. Field projects designed and carried out by class. Critical analysis of techniques and results.

**6521. Readings in Sociology (1)** P: Consent of instructor and dept chair. Modern sociological research monographs or specialized areas of sociology in which student has taken one or more courses.

**6523. Readings in Sociology (3)** P: Consent of instructor and dept chair. Extensive readings from modern sociological research monographs or specialized areas of sociology in which student has taken one or more courses.

**6600. Society and Coastal Policy (3)** Sociological perspectives on relationship among society, marine and coastal science, coastal environmental problems and issues, and public policy formation. Special consideration given to current coastal environmental issues pertinent to NC.

**6992. Practicum (6)** 135 hours of relevant field work. P: Approval of dept graduate faculty and student's practicum committee. Plan, implement, and evaluate individual project of applied sociology.

**7000. Thesis (3)** May be repeated. May count maximum of 6 s.h.

**7001. Thesis: Summer Research (1)** May be repeated. No credit may count toward degree. Students conducting thesis research may only register for this course during the summer.

### SOCI Banked Courses

**5311. Contemporary Social Problems (3)**

**5314. Sociological Concepts (3)**

**6411. Seminar on Teaching Sociology and Anthropology (1)**

**6418. Research in Marriage and the Family (3)**

**6429. Seminar in Social Organization (3)**

**6431. Seminar on Deviant Behavior (3)**

**6441. Seminar on Social Systems (3)**

**6445. Seminar on Racial and Cultural Contacts (3)**

**6480. Techniques of Population Analysis (3)**

**6490. Small Group Research (3)**

**6522. Readings in Sociology (2)**

### WOMEN'S STUDIES

*Cheryl Dudasik-Wiggs, Co-Director, 2108 Bate Building*

*Christa Reiser, Co-Director, A-407 Brewster Building*

The graduate women's studies minor consists of 9 s.h. of graduate-level course work designed to complement the student's major field by exploring the experience of women in relationship to issues of gender, race/ethnicity, sexual orientation, class, political structures, and social systems. The minor encourages critical thinking, seeks new knowledge, and explores feminist theory across cultural and disciplinary boundaries.

The minor includes the theoretical foundations course, WOST 5000, and at least two courses from the following: SOCI 5400; CDFR 5300; NURS 5327; SOCW 5007; WOST 6100; a maximum of 3 s.h. in WOST 6101, 6102, 6103, or approved courses at the graduate level.

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#### WOST: WOMEN'S STUDIES

**5000. Advanced Seminar in Women's Studies (3)** P: Consent of instructor. Interdisciplinary. History and development of feminist theories that shape women's studies. Readings reflect international and multi-ethnic perspectives by including materials from variety of countries and cultures.

**6100. Special Topics in Women's Studies (3)** Selected advanced topics in women's studies. Topics vary depending on student interest and current issues in women's studies.

**6101, 6102, 6103. Independent Study (1,2,3)** Intensive research in selected area of women's studies.

# SCHOOL OF ALLIED HEALTH SCIENCES

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*Stephen W Thomas, Dean, 302-C Belk Building*

## **HPRO: HEALTH PROFESSIONS**

**5000.Seminar in Human Sexual Dysfunctions (3)** Exploration of problems in human sexual behavior and functioning. Emphasis on development of assessment and intervention skills in delivery of sexual health care to broad spectrum of clients.

**5011, 5012. Gross Anatomy (5,0)** P: Enrolled in OCCT or PTHE programs or consent of dept chairs. Structure of human body. Lab dissection.

**5030, 5031. Neuroanatomy (3,0)** P: Enrolled in OCCT or PTHE programs or consent of dept chairs; HPRO 5011, 5012. Relationship between structure and function of the nervous system and foundations of neurology. Pathophysiology of specific neurologic disorders common to practice of occupational and physical therapy.

## **DEPARTMENT OF BIOSTATISTICS**

*Paul Vos, Interim Chairperson, 102 Belk Annex #6*

## **BIOS: BIOSTATISTICS**

**5010. Epidemiology for Health Professionals (3)** P: BIOS 1500 or consent of instructor. Distribution of disease in human populations and factors that influence this distribution. Emphasis on leading causes of death, evaluating health research, and utilizing epidemiologic methods.

**5450. Applied Multivariate Analysis (3)** P for undergraduate students: BIOS 3501; or equivalent; or consent of instructor; P for graduate students: BIOS 6021, 6022; or equivalent; or consent of instructor. Development and discussion of multivariate topics. Multivariate normal distribution, MANOVA, principal components analysis, discriminant analysis, and other related topics.

**5500. Nonparametric Statistical Methods (3)** P for undergraduate students: BIOS 3501 or consent of instructor; P for graduate students: A statistics course; consent of instructor. Application of nonparametric methods for various problems in statistical analysis. Procedures based on randomization and ranks.

**6021. Biostatistics for Health Professionals I (3) Formerly BIOS 5021** P: MATH 1065; BIOS 1500; or consent of instructor. May not be used as a prerequisite for HPRO 4350. Application of statistics to health field. Types, organization, and display of data; elementary probability; rates and standardization of rates; parametric and nonparametric techniques when dealing with one or two samples (matched or independent); one-way ANOVA; and simple linear regression.

**6022. Biostatistics for Health Professionals II (3) Formerly BIOS 5022** P: BIOS 6021 or consent of instructor. Continuation of BIOS 6021. Topics include ANOVA for multi-factor designs; analysis of single degree of freedom contrasts, randomized block, and repeated measures designs; multiple linear and logistic regression; odds ratio; and relative risk in 2x2 tables.

**6501. Experimental Design I (3)** P: BIOS 6022 or equivalent or consent of instructor. Detailed coverage of analysis of variance. Topics include analysis of variance for completely randomized, randomized block, factorial, and split plot designs; multiple comparison procedures, tests of normality and homogeneity of variance; and introduction to general linear model.

**6502. Experimental Design II (3)** P: BIOS 6501 or equivalent or consent of instructor. Continuation of BIOS 6501. Topics include analysis of variance for hierarchical designs, partially and completely confounded designs, fractional factorial designs, and a coverage of analyses for unbalanced designs.

## **BIOS Banked Courses**

**5300. Advanced Epidemiologic Design and Analysis (3)**

**5350. Application of Statistical Methods in Epidemiology (2)**

**5400. Research Planning in Epidemiology (3)**

**5575. Introduction to Survivorship Analysis (3)**

**5600. Categorical Data Analysis (3)**

### DEPARTMENT OF COMMUNICATION SCIENCES AND DISORDERS

*Gregg D. Givens, Interim Chairperson, 107 Belk Annex I*

#### MS IN SPEECH, LANGUAGE, AND AUDITORY PATHOLOGY

Graduate programs are accredited by the Council for Academic Accreditation of the American Speech-Language-Hearing Association.

##### Admission

Application for admission to the graduate program in speech, language, and auditory pathology must be initiated through the Graduate School. (See Section 2, Admission and Readmission.) The department requires that the applicant take the Graduate Record Examinations (GRE) and submit three letters of reference.

Completed applications should be received no later than February 1 for enrollment in the fall semester. Applications for full-time study beginning in either the spring or summer semesters will be considered only under special circumstances because of the sequential nature of the program of study.

##### Major Areas of Study

Candidates for the MS degree in speech, language, and auditory pathology may select from the major emphasis areas of speech-language pathology and communication sciences.

The speech-language pathology emphasis area is a professional program designed to prepare students for immediate placement in public school and other clinical positions. Persons completing this program of study must meet all academic and clinical requirements for certification by the American Speech-Language-Hearing Association, licensure in North Carolina as well as in most other states, and graduate certification by the North Carolina State Department of Public Instruction.

The communication sciences emphasis area is tailored to the special interests of the students. The course of study can include a substantial portion of the courses in the speech-language pathology and audiology emphasis areas. Additionally, students are required to complete a thesis and successfully pass a final oral defense of the thesis.

##### Degree Requirements

The university confers the degree of master of science in speech, language and auditory pathology when the candidate has earned at least 60 s.h. of graduate credit.

A background of undergraduate courses in speech and hearing sciences is essential. For those students who do not have an undergraduate degree in the field, specific undergraduate courses must be taken prior to formally beginning the MS degree sequence. The following undergraduate courses or their equivalent must be taken prior to acceptance into the graduate program: CSDI 3010 (phonetics), 3020 (child language development), 3030 (anatomy, physiology, and acoustics), 3050 (acquisition and development of phonology and articulation), 4100 (introduction to audiology), 4110 (aural rehabilitation). See requirements for the BS degree in the undergraduate catalog for course descriptions.

Candidates are required to take a final comprehensive examination, which may be taken upon completion of enrollment in all didactic courses required for the degree in the major area of study.

##### Required Courses

Regardless of the major emphasis area chosen, 9 s.h. of specific core courses are required as follows: CSDI 6100, 6103, 6121. The communication science emphasis requires an additional 6 s.h. (CSDI 6101, 6523). The communication sciences emphasis requires a thesis. For the speech-language pathology emphasis, only 3 s.h. of thesis credit may count toward the degree. For the communication science emphasis, 6 s.h. of thesis are required for the degree.

In addition to the general core requirements, the emphasis in speech-language pathology requires an additional 33 s.h. of didactic courses. These courses include CSDI 6101, 6104, 6106, 6108, 6109, 6110, 6112, 6113, 6114, 6200, 6900. Clinical course requirements include: CSDI 6226, 6227, 6229, 6990, 6993.

For the candidate whose major area of study is in speech-language pathology a minimum of 250 clinical clock hours in the diagnosis and treatment of communication disorders is required at the graduate level.

If there are no hours accumulated at the undergraduate level, 375 hours will be required at the graduate level to meet certification and licensure requirements as set forth by the American Speech-Language-Hearing Association and the North Carolina State Board of Examiners.

## **PhD IN COMMUNICATION SCIENCES AND DISORDERS**

The PhD program is designed for advanced scholars with interest in communication sciences and disorders. Two areas of study exist within the program, including speech-language pathology and audiology. Students may enroll in either the research concentration in speech-language pathology, or audiology, or the clinical concentration in audiology. Students enrolled in the research concentrations are required to take course work in a science core, which includes computer applications to the fields, physiology, acoustics and language science (speech-language pathology concentration), a support core taken across disciplines, a statistics core, and an area of concentration developed with the major professor. Students enrolled in the clinical concentration are required to take course work in a science core, which includes computer applications to the fields, physiology and acoustic sciences, a statistics core, a clinical audiology core, and a clinical residency. All students are required to complete a dissertation project prior to being awarded the degree, doctor of philosophy.

### **Admission**

The Admissions Committee will make a holistic judgment of applicant qualifications. Admission to study at the doctoral level requires acceptance by the Graduate School and the department. The application for admission to the Graduate School and official transcripts from each college or university attended must be sent to the dean of the Graduate School. In addition, the following must be sent to the chairperson of the Doctoral Admissions Committee, Department of Communication Sciences and Disorders: Graduate Record Examination scores; three letters of recommendation, with at least two from previous faculty of previous colleges or universities attended; a sample of scholarly writing which may be a thesis, a published or unpublished reprint, or term paper; and a statement that summarizes in as much detail as possible the reasons for pursuing doctoral study and doctoral research objectives.

The applicant must have a master's degree or its equivalent in speech-language pathology, audiology, or communication sciences to be considered for entry into the research concentration in speech-language pathology, communication sciences, and audiology graduate programs. Acceptable performance on the Graduate Record Examinations and a minimum cumulative GPA of 3.5 on a 4.0 scale in graduate work are required. Post-baccalaureate entry into the clinical audiology program is offered. (See clinical audiology concentration.)

Applicants seeking admission to doctoral study should have completed a well-integrated program of study that includes course work in biological/physical sciences and mathematics, behavioral and/or social sciences, and human communication sciences and disorders.

### **Research Concentration:**

1. Master's degree from an accredited institution or its equivalent, in speech-language pathology, audiology, or communication sciences with a minimum overall grade point average of 3.5 (on a scale of A=4.0) in graduate work.
2. Graduate Record Examination within five years. A minimum score of 1000 (Verbal and Quantitative subtests) will be required for consideration of admission. Graduate Record Examination is waived as an entrance requirement for Merit Scholars at East Carolina University if other criteria are met.
3. Three letters of recommendation, at least two from faculty of the college(s) or university(s) previously attended.
4. A sample of scholarly writing which may be a thesis, a published or unpublished reprint, or term paper.
5. A statement that summarizes reasons for pursuing doctoral study and doctoral research objectives in as much detail as possible.

### **Clinical Audiology Concentration:**

1. Baccalaureate or master's degree from an accredited institution.
2. The applicant must have an undergraduate grade point average of 3.2 on a 4.0 scale. The applicant with a master's degree or its equivalent must have a minimum overall grade point average of 3.5 (on a scale of A=4.0) in graduate work.

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3. Undergraduate course prerequisites include the following courses: life sciences (6 s.h.), physical sciences (3 s.h.), behavioral sciences (6 s.h.), English (3 s.h.), mathematics (3 s.h.), statistics (3 s.h.), anatomy and physiology (3 s.h.), introduction to audiology (3 s.h.), speech and hearing sciences (3 s.h.), language development (3 s.h.). Other courses in communication sciences and disorders are strongly encouraged.
4. Graduate Record Examination within five years. A minimum score of 1000 (Verbal and Quantitative subtests) is required for consideration of admission. Graduate Record Examination is waived as an entrance requirement for Merit Scholars at East Carolina University if other criteria are met. Merit Scholars at East Carolina University will receive automatic admission to 3 of the 6 class places if application is completed before their senior year of their baccalaureate program.
5. Three (3) letters of recommendation, at least two from faculty of the college(s) or university(s) previously attended.
6. Interview

### Degree Requirements

#### **Research Concentration: Communication sciences, and speech-language pathology and audiology**

The research concentration requires a minimum 53 s.h. of didactic and research experiences, involving the entire doctoral faculty. The student will develop a background in a science core curriculum (12 s.h.), a support core taken across disciplines (9 s.h.), a statistics core (statistics and research design) (9 s.h.), research ethics (2 s.h.), a research internship (6 s.h.), and dissertation (minimum 3 s.h.). The student and major professor will select and design an area of major concentration, including 12 s.h. of course work or independent studies.

Except for credits accepted by transfer, the Department of Communication Sciences and Disorders requires that all graduate work, including the dissertation, be completed in residence. The course of study ordinarily requires at least three years of full-time study. Students who have not completed a master's thesis are required to complete by the end of the first academic year a research project with the scope of a thesis (thesis equivalence), approved by a majority of the student's program committee.

#### **Clinical Concentration: Audiology**

**Baccalaureate admission:** The post-baccalaureate clinical audiology PhD option consists of a minimum of 95 graduate credit hours to include broad-based knowledge in areas of applied clinical audiology, structure and development of hearing and communication disorders, speech and hearing sciences, statistics, computers and instrumentation, and research design.

The clinical option is designed to provide course work in an area of concentration guided by the major professor; while securing a background for the student in a science core curriculum (12 s.h.), a support core taken across disciplines (9 s.h.), a statistics core (statistics and research design) (9 s.h.), clinical audiology course work (33 s.h.), clinical experience/residency (24 s.h.), and research internship/dissertation (minimum 6 s.h.).

**Post-Master's admission:** The post-master's entrance to the clinical audiology concentration requires a minimum of 53 s.h. to include a broad-based contemporary knowledge in areas of applied clinical audiology. The student will develop a background in a science core curriculum (12 s.h.), a statistics core (statistics and research design) (9 s.h.), a research internship (6 s.h.), a major clinical core (18 s.h.), clinical residency (3 s.h.), and dissertation (minimum 3 s.h.).

**Examination:** The clinical program of study includes a "Gateway" examination during the summer session of the first year of study. A second "Gateway" or "comprehensive" examination is administered during the summer session at the end of the second year of study. The student's program will be terminated with the second failure of the "comprehensive" examination.

**Clinical Residency:** The clinical residency will be a hierarchy of experiences. The student will experience both part-time and full-time clinical placements. The final clinical experience will consist of a full-time clinical residency placement preparing the student for contemporary competent clinical practice upon graduation. Following completion of the clinical residency experience, the student must pass a clinical defense prior to admission to candidacy for the PhD. The student must pass the preliminary clinical examination which is designed to evaluate critical analysis and synthesis of all related academic and clinical aspects of the field of preparation. The student's program will be terminated with the second failure of the clinical defense.

Except for credits accepted by transfer, the Department of Communication Sciences and Disorders requires that all graduate work, including the dissertation, be completed in residence. The course of study ordinarily requires at least three years of full-time study.



### Transfer Credit

Credit will be accepted for transfer at the discretion of the Department of Communication Sciences and Disorders and the dean of the Graduate School. A maximum of 9 s.h. of doctoral credit (course work taken beyond the master's degree) may be applied toward the support and/or statistics cores. Credit will not be accepted in the science core or area of concentration.

### Doctoral Candidacy Requirements

Following completion of most course work and prior to admission to candidacy for the PhD, students must pass a preliminary examination intended to test fundamental knowledge in both the major and support fields. The candidate will undergo written and oral examinations for mastery of the areas of concentration, the support core, statistical applications in the area of basic and applied research, and research design. Critical analysis and synthesis of all related academic, research, and clinical aspects of the field of preparation must be demonstrated. For the clinical PhD, the second gateway examination will constitute this preliminary examination.

The student's program committee is responsible for the administration and evaluation of the preliminary examination. The recommendation of the committee is sent to the chairperson of the department who forwards to the dean of the Graduate School one of the following recommendations:

The responses to the preliminary examination are satisfactory and the student is recommended to candidacy.

Some responses to the preliminary examination are unsatisfactory and the student is to be re-examined at a specific time. Areas of deficiency to be rewritten and the dates of re-examination will be determined by the program committee.

The responses to the examination are unsatisfactory and a full re-examination will be administered during the subsequent semester. Failure of the second examination results in termination of the program.

### Doctoral Dissertation

After passing the preliminary examination, the candidate must initiate the development of an appropriate dissertation research project. The dissertation must reflect independent, scholarly research that will contribute significant new knowledge to the candidate's area of concentration.

Prior to initiating the dissertation research, the candidate's program committee (composed of the major professor and at least three members of the graduate faculty) must approve a prospectus of the proposed dissertation containing the following:

A review of the pertinent literature.

A statement of the nature of the problem and the objectives of the proposed investigation.

A complete methodology, based on preliminary pilot investigations, which include a description and number of subjects to be studied, a discussion of the dependent and independent variables that will be manipulated, and a detailed description of the experimental procedures to be employed, including all experimental instrumentation.

A detailed outline and justification of the statistical analysis of the data that will be obtained.

A copy of the approved Human Subjects Review Board Application.

With the guidance and approval of the major professor, the candidate formally presents the prospectus to the faculty of the Department of Communication Sciences and Disorders at an open meeting. The program committee must agree that the research proposal is satisfactory, with only one dissenting vote allowed.

It is the responsibility of the program committee to counsel the candidate in the research program, critique the dissertation, and conduct the final examination. Upon the satisfactory completion of all requirements, the committee and departmental chairperson will recommend to the dean of the Graduate School the award of the doctoral degree.

The basic form of the dissertation manuscript will follow the East Carolina University manual of style. The East Carolina University library will bind the final copies of the document. Six bound copies of the final approved manuscript must be deposited in the Graduate School office. The Graduate School office will microfilm the dissertation and list the title and abstract in *Dissertation Abstracts*. The student will be billed, at cost, for this service.

### Enrichment

In addition to course requirements, each student will be assigned various preceptorships, involving mentored classroom and clinical instruction and administration to assist the student in gaining perspective and experience in university teaching, clinical supervision, and management. Students will be encouraged to participate in university-wide seminars.

### Research Internship

In addition to the didactic portion of the doctoral program, each student enrolled in the research concentration will be required to complete two predissertation directed research projects to gain perspectives and laboratory experiences in the area of concentration and/or areas outside the concentration. These projects will be publishable, data-based manuscripts, one developed by the end of each of the first two academic years. At least one of the two research internships must be completed with a faculty member whose primary appointment is in the Department of Communication Sciences and Disorders. Successful completion of an internship requires a written report approved by the supervising faculty member(s) with credit awarded for two of the following courses: CSDI 8070, 8071, 8080, 8081, 8090, 8091. Courses marked (\*) are required for the PhD.

### Time Limits for Completion of Degree Requirements

A doctoral degree program must be completed before the end of the twelfth semester, excluding summers, following initial enrollment. With endorsement of the student's program committee and the departmental chairperson, a student may request one extension of not more than two semesters, summers included.

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### CSDI: SPEECH, LANGUAGE, AND HEARING SCIENCES

**5010. Procedures in Clinical Management (3)** P for undergraduate students: CSDI major; CSDI 3020, 3050, 3105; or consent of instructor; P for graduate students: Consent of instructor. Procedures used in diagnostic and treatment of communication disorders. Topics include observation styles, task presentation and analysis, reinforcement techniques, group management, and intervention models. Multicultural communication models and supervised observation experiences in various clinical and public school settings.

**5510, 5511, 5512. Special Problems in Speech and Hearing (2,2,2)** For advanced senior and graduate students. May be repeated for maximum of 6 s.h. May count toward the CSDI major with consent of dept chair. Independent exploration of specific areas of interest in communication disorders and research.

**5565. Seminar in Augmentative Communication (3)** 2 and 1/2 lecture and 1 lab hours per week. P: Consent of instructor. Interdisciplinary approach to augmentative communication. Emphasis on team approach, including discussion of and experience with patients who require use of augmentative communication systems. Areas of study include assessment, intervention, neuromotor management, environmental control, computer access, and funding.

**6000. Methods in Clinical Audiology (3)** P: Admission to CSDI MS program; CSDI 4100. Summary of current state of the science/art of clinical audiology. Emphasis on present procedures in testing and knowledge of specific auditory tests.

**6001. Advanced Audiological Evaluation (2)** P: CSDI 6000. Advanced audiological testing procedures, including central, nonorganic, and auditory-perceptual evaluations.

**6005. Pathologies of the Auditory Mechanism (2)** P: Consent of instructor. Auditory physiology and pathologies of hearing mechanism from external ear to cortex.

**6006. Hearing Impaired Adults: Counseling and Rehabilitation Factors (3)** P: Consent of instructor. Comprehensive description of historical and recent approaches to adult and geriatric aural/oral rehabilitation. Development and demonstration of counseling and rehabilitation procedures.

**6007. Industrial Audiology and Instrumentation (3)** P: CSDI 6000 or consent of instructor. Specific topics, including fundamental aspects of the noise problem, measurement of sound, effects of noise on man, control of noise and noise exposure, use and calibration of instruments to measure sound, and description of effective industrial hearing-conservation program.

**6008.Amplification I: Basic Principles and Electroacoustics (3)** P: Admission to graduate study; C: CSDI 6000.

Measurement of electroacoustic characteristics of hearing aids, differing types of hearing aid circuitry, and real-ear measurements of hearing aid performance.

**6009.Auditory Electrophysiology I (4)** P: CSDI 6000. Theory and application of clinical use of electrophysiological and electroacoustical procedures in measurement of auditory function.**6010. Hearing Science (2)** P: CSDI 3030, 6000; PHYS 1090, 1091; or consent of instructor. Psychoacoustics, acoustics of speech perception, psychophysical methods, and theories of hearing.**6011.Amplification II: Selection and Verification (3)** P: CSDI 6008. Knowledge base for selection and verification of fittings of hearing aid circuitry. Special purpose aids and assistive listening devices based upon audiologic information from clinical cases.**6013.The Hearing Impaired Child: Diagnosis and Communication Management (3)** P: Consent of instructor. Comprehensive description of current state of knowledge in assessment and aural/oral habilitation of auditorily handicapped child.**6019.Auditory Electrophysiology II (3)** P: CSDI 6009 or consent of instructor. Advanced theory and clinical application of auditory electrophysiological and electroacoustic auditory measurement procedures.**6100. Language Disorders (3)** P: Undergraduate course in language development. Childhood language disorders from infancy to school-age period. Principles of assessment, intervention, and classification of various types of language disorders. Specific language impairment, developmental and acquired language disorders, and autism.**6101. Language and Learning Disabilities (3)** P: CSDI 6100. Oral and written language learning disabilities in school-age and adolescent populations. Contemporary theories, assessment practices, and intervention techniques used in management of those with language learning disorders and/or dyslexia.**6103. Research Design in Speech and Hearing (3)** P: Undergraduate statistics course. Fundamentals of research and experimental design and basic statistical analysis in communication sciences and disorders.**6104. Seminar in Voice Disorders (3)** P: CSDI 6121 or consent of instructor. Anatomy and physiology of vocal mechanism and phonatory process. Consideration of influence of pathology on phonation. In-depth study of special voice problems as well as those more commonly encountered in clinical practice and their treatment.**6106. Stuttering and Other Fluency Disorders (3)** P: Consent of instructor. Current and historical concepts of nature and etiology of stuttering and other fluency disorders such as methodologies of assessment and treatment of children and adults, parent counseling, and research design.**6108. Seminar in Articulation/Phonology Disorders (3)** P: Undergraduate course in articulation/phonology or consent of instructor. Phonologic/articulatory development and disorders, dynamics of articulatory production, phonetics as clinical tool, and nature and development of normal and defective articulation/phonology. Contemporary scientific methodology, technology, and research in appraisal and treatment of phonological/articulatory disorders.**6109. Motor Speech Disorders (3)** P: CSDI 3020, 3030, 6110; or consent of instructor. Neurophysiology of motor speech behavior coupled with detailed clinical analyses and treatment of various forms of dysarthria and apraxia.**6110. Brain, Language, and Aphasia (3)** P: CSDI 6100 or consent of instructor. Comprehensive study of correlative nature of brain and language. Emphasis on aphasiology, including neurological, cognitive, and linguistic aspects.**6112. Seminar in Cranio-Facial Anomalies and Alaryngeal Rehabilitation (3)** P: Consent of instructor. Anatomy, physiology, assessment, and treatment of persons with cranio-facial anomalies (including cleft lip and palate) and alaryngeal disorders (laryngectomy).**6113. Linguistic/Cognitive Impairments in Brain-Injured Adults (3)** P: CSDI 6110 or consent of instructor. Relationships between cognition, communicative abilities, and brain in normal aging dementia, various causes of dementia, head injury, and right hemisphere brain-damage in adults.

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- 6114. Dysphagia and Neuromotor Functions (3)** P: CSDI 6109. Relationships between brain and neuromotor functions specifically in regard to swallowing function. Identification, characteristics, assessment, and treatment of disordered swallowing.
- 6115. Appraisal of Communication Disorders I (3)** Principles underlying evaluation and diagnosis of communication disorders. Emphasis on psychometric principles in assessment of children.
- 6121. Speech Science (3)** P: CSDI 3030 or equivalent. Acoustic theory of speech production and anatomical and physiological aspects of speech-motor production.
- 6200. Multicultural Communication Disorders (3)** P: Consent of instructor. Speech and language variations in regional dialects, bilingualism, foreign accent, and multicultural populations. Emphasis on assessing disorders and providing therapy to multicultural and multilingual populations.
- 6225, 6226, 6227. Clinical Practicum in Speech and Language Pathologies (1,2,3)** For CSDI graduate students. Each course may be repeated from 1-3 semesters. P: Completion of 24 s.h. of undergraduate and/or graduate academic course work in CSDI; consent of instructor. Utilization of advanced theoretical knowledge with practical application for speech-language and hearing impaired individuals under direct faculty supervision in University Speech and Hearing Clinic.
- 6229. Distance Education Clinical Internship (3)** For CSDI graduate students enrolled in distance education program. May be repeated for 3 semesters. P: Completion of 24 s.h. of academic CSDI graduate course work and consent of director of CSDI DE program. Advanced supervised clinical practice in diagnostic and therapy procedures at university affiliated clinical facilities.
- 6230, 6231, 6232. Clinical Practicum in Audiology (1,2,3)** Each course may be repeated from 1-3 semesters. P: CSDI 6000, 6001; consent of instructor. Intensive clinical practice in audiological diagnosis and/or aural rehabilitation under direct faculty supervision.
- 6520. Master of Science Paper (2)** P: CSDI 6103. Formulation of lab project, a case study, or library research project. Principles and procedures of recognizing and stating problems of scientific, professional, and clinical importance in CSDI.
- 6521, 6522, 6523. Readings in Speech and Hearing Research (1,2,3)** Each course may be repeated from 1-3 semesters. P: Consent of instructor. Independent exploration of areas of interest in contemporary research in communication disorders and speech and hearing science.
- 6525, 6526. Research in Audiology (3,6)** For CSDI graduate students. P: CSDI 6103; consent of instructor and dept chair. Independent studies, lab projects, case studies, and research problems.
- 6527, 6528, 6529. Research in Speech-Language Pathology (1-3)** For CSDI graduate students. P: CSDI 6103; consent of dept chair. Independent studies, lab projects, case studies, and research problems in communication sciences and disorders.
- 6900. Administration and Supervision in Speech-Language Pathology and Audiology (3)** P: Consent of instructor. Methods involved in organization, management, and supervision in a public school or clinical speech-language and hearing therapy program.
- 6990, 6991. Internship in Speech-Language Pathology and Audiology (1,1)** May be taken concurrently. Each course may be repeated for maximum of 3 s.h. each. P: Completion of a minimum of 1 semester of full-time graduate study at ECU and 100 patient contact hours; consent of the director of clinical operations and the dept chair. Directed experience with communicatively handicapped in clinical facility outside university.
- 6992. Internship in Speech-Language Pathology/Audiology (2)** May be repeated. P: CSDI 6990 or 6991. Directed clinical experience in university-affiliated clinical facility for a full semester.
- 6993. Full-time Internship in Speech-Language Pathology/Audiology (2-9)** Credit hours designated relative to clinical responsibilities of student at their specific clinical site of practice. P: Completion of minimum of 3 semesters of full-time graduate study at East Carolina University and 150 patient contact hours; consent of director of clinical operations and dept chair. Directed full-time clinical experience in university-affiliated clinical facility for full semester.
- 7000. Thesis (3)** May be repeated. May count maximum of 3 s.h.

**7001. Thesis: Summer Research (1)** May be repeated. No credit may count toward degree. Students conducting thesis research may only register for this course during the summer.

**7004. Research Ethics for a Complex World (2) Same as GRAD 7004** P: Current enrollment in master's or doctoral program. Introductory graduate course. Case studies, readings, policy review, assignments, and discussions with guest faculty examine areas of ethical concern for researchers. Areas include scientific misconduct, conflict of interest, abusive mentoring, improper authorship practices, protection of human participants, animal subjects of research, and others.

**7500. Professional Issues in Communication Disorders (3)** P: Consent of instructor. Contemporary topics in administration of clinical programs in speech-language pathology and audiology, clinical supervision models, theories of leadership, state licensure and national certification standards, and legal and other current issues.

**8000. Methods in Clinical Audiology (3)** P: Consent of instructor. In-depth understanding of issues and employment of basic and advanced auditory tests. Emphasis on relationship between these topics and clinical competency required with advanced testing and diagnosis.

**8001. Anatomy and Physiology of the Vestibular System (2)** P: Consent of instructor. Functional anatomy and neurophysiology of vestibular and balance systems, from level of inner ear to central nervous system. Emphasis on describing anatomical and physiological bases for both normal and pathological vestibular and balance functions.

**8002. Assessment and Management of the Vestibular System (3)** P: CSDI 8001 and consent of instructor. Theory and clinical application of current electrophysiological procedures for assessing peripheral and central nervous system portions of vestibular and balance systems.

**8003. Advanced Pediatric Assessment (3)** P: CSDI 6001, 6019. Contemporary developments in assessment and habilitation of hearing loss in infants and children. Includes areas of otoacoustic emissions, auditory evoked potentials, acoustic emissions, and behavioral auditory assessment and auditory processing.

**8004. Embryology, Genetics, and the Auditory System (3)** P: CSDI 6000, 6013; or consent of instructor. Comprehensive study of embryology, genetics, and syndromes as related to auditory system.

**8005. Methods in Amplification (3)** P: CSDI 6011 or consent of instructor. Current issues relating to evaluation of hearing loss for amplification purposes, verification, and validation of hearing aid fittings. Emphasis on current research, software applications, and clinical implications for high performance technology systems.

**8006. Auditory Processing (3)** P: CSDI 8000 or consent of instructor. Contemporary theories of auditory processing. Methodologies in assessment and management of auditory processing skills and disorders.

**8009. Psychoacoustics (3)** P: Consent of instructor. Examines abilities and limitations of human hearing to discover how sounds entering the ear are processed to give listener useful information about the world outside. Specific topics include measurement methods; frequency, intensity and temporal encoding; localization; and speech perception.

**8010. Computer and Instrumentation Applications to Speech and Hearing Science\* (3)** Knowledge and skills in application of basic signal processing technologies in speech and hearing laboratories. Stimulus generation and analysis techniques as well as physiological recording methods. Emphasis on digital instrumentation training. Analog devices included as needed for certain applications.

**8012. Physiological Phonetics\* (3)** P: CSDI 6121 or equivalent. Physiologic aspects of speech-motor production. Lab experiences include physiological measurements of respiratory, phonatory, articulatory, and resonance mechanisms.

**8013. Methods in Clinical Audiology II (3)** P: CSDI 8000 or consent of instructor. Analysis and synthesis of results from advanced audiological testing (behavioral, electrophysiological, and neurological) and differential diagnosis of auditory pathologies.

**8014. Acoustic Phonetics\* (3)** P: CSDI 6121 or equivalent. Acoustic theory of speech production and acoustic analysis of speech. Lab experiences include modern analytical techniques in speech analysis.

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**8016.Auditory Physiology (3)** P: CSDI 6009, 6010; or equivalent. Functional anatomy and physiology of auditory nervous system, from level of inner ear to cerebral cortex. Emphasis on describing anatomical and physiological bases for both normal and pathological hearing functions.

**8017. Advanced Methods in Amplification II (3)** P: CSDI 8005 or consent of instructor. Emphasis on development and use of clinical protocols for audiological evaluation of infants, children, and adults as it relates to use of digital amplification systems, assistive devices, and cochlear implants.

**8018. Neurolinguistics (3)** P: CSDI 6101, 6103, 6110; or equivalent. Relationships between brain and language and between brain and other cognitive abilities that influence communication.

**8019. Electrophysiological Measures in Audition I (3)** P: CSDI 8000 or consent of instructor. Introduces issues underlying employment of theory and application of clinical use of clinical procedures in electrophysiological measurement of auditory function. Topics restricted to measurement techniques at auditory periphery and early evoked potentials.

**8020. Advanced Seminar in Communication Sciences (I-9)** May register for maximum of 9 s.h. May count toward concentration area. P: Consent of instructor.

**8021. Aural Rehabilitation (4)** 3 hours of didactic lecture and one hour of lab weekly. P: CSDI 8013, 8100, 8230; or consent of instructor. Lab involves development, compilation, and use of aural rehabilitation evaluation tools, treatment plans, and outcome measures.

**8022. Advanced Seminar in Audiology (I-9)** May register for a maximum of 9 s.h. May count toward concentration area. P: Consent of instructor.

**8023. Advanced Seminar in Speech-Language Pathology (I-9)** May register for a maximum of 9 s.h. May count toward concentration area. P: Consent of instructor.

**8024. Advanced Electrophysiological Measures (3)** P: CSDI 8019 and consent of instructor. Seminar: Latest developments in auditory neurophysiological measurement techniques. Review of test procedures in clinical use and those under research development. Focus on all levels of auditory system, from inner ear to temporal lobe. Intensive review of basic science and clinical research literature as well as hands-on lab experiences with new procedures.

**8026. Electrophysiological Measures in Audition II (3)** P: Consent of instructor. Introduces issues underlying theory and application of clinical use of measurement techniques for middle and late evoked potentials.

**8030. Doctoral Colloquium (I-9)** May register for a maximum of 9 s.h. P: Consent of instructor. Current topics in field of communication sciences and disorders, varying from grantsmanship to health care leadership.

**8070, 8071, 8072, 8073. Research Internship: Communication Sciences (3,3,3,3)** P: Consent of instructor. Directed research with CSDI doctoral faculty member.

**8080, 8081, 8082, 8083. Research Internship: Audiology (3,3,3,3)** P: Consent of instructor. Directed research with CSDI doctoral faculty member.

**8090, 8091, 8092, 8093. Research Internship: Speech-Language-Pathology (3,3,3,3)** P: Consent of instructor. Directed research with CSDI doctoral faculty member.

**8100. Advanced Audiology Methods Lab (I)** P: Consent of instructor. Lab experiences in assessment of auditory systems.

**8102. Vestibular Lab (I)** P: Consent of instructor. Lab experiences in assessment of vestibular and balance systems.

**8103. Electrophysiological Measures in Audition I - Laboratory (I)** P: Consent of instructor. Hands-on lab exercises for clinical procedures in electrophysiological measurement of auditory periphery and early evoked potentials.

**8104. Electrophysiological Measures in Audition II - Laboratory (I)** P: CSDI 8019, 8103; or consent of instructor. Hands-on lab exercises for clinical procedures in electrophysiological measurement of middle and late evoked potentials.

**8230, 8231, 8232. Clinical Practicum in Audiology (I,2,3)** P: CSDI 8000 or consent of dept clinic director. Intensive clinical experience in audiological diagnosis and /or aural rehabilitation.

**8993. Clinical Residency (6-9)** P: Completion of comprehensive examination or consent of dept director of graduate studies. Full-time clinical experience in application of advanced clinical skills.

**9000\*. Dissertation (3)** May be repeated. May count maximum of 6 s.h. toward the degree.

**9001. Dissertation: Summer Research (1)** May be repeated. No credit may count toward degree. Students conducting dissertation research may only register for this course during the summer.

### **CSDI Banked Courses**

**5100. Introduction to Speech-Language and Hearing Disorders (2)**

**6116. Appraisal of Communication Disorders II (3)**

## **DEPARTMENT OF COMMUNITY HEALTH**

*Donald E. Ensley, Chairperson and Director of Graduate Studies, 302-F Belk Building*

### **MPA/COMMUNITY HEALTH ADMINISTRATION**

In cooperation with the Department of Political Science, graduate students seeking the master of public administration degree (MPA) may take 15 s.h. in COHE, and approved electives for the completion of an emphasis in community health administration. Required courses are the following: COHE 6000, 6100, 6300, 6971. Electives may be taken from the following: BIOS 5010; COHE 6502; ENGL 5780; ACCT 6241; FINA 6144.

Further information on MPA/Community Health requirements is available in the Department of Political Science.

Students completing the concentration in community health meet the educational requirements for certification as Local Health Administrator I in North Carolina in either public health or mental health administration.

### **MBA WITH HEALTH CARE MANAGEMENT CERTIFICATION**

MBA students interested in pursuing the MBA with the health care management certification must take COHE 6000, 6600, 6610, and 6620 as electives in the MBA program. A certificate of completion will be issued by the School of Allied Health Sciences. Other graduate students interested in taking these electives must confer with the program directors of the respective schools.

### **COHE: COMMUNITY HEALTH**

**6000. Health Care Systems and Problems (3)** P: Consent of instructor. Advanced study of contemporary health care problems. Evolution, philosophy, and present and future trends of our health care system. Emphasis on health policy and practices of community health service institutions and agencies.

**6100. Community Health Administration (3)** P: COHE 6000 or consent of instructor. Role and application of basic administrative theory and practice in health service institutions and agencies. Emphasis on public aspects of health service.

**6300. Health Law (3)** P: Consent of instructor. Process and substance of law related to organization and delivery of health services in the US. Recognition of legal issues arising in the practice of health administration, understanding of how legal system thinks, and effective communicate with lawyers practicing in health care field.

**6500, 6502. Independent Study (2,3)** P: Approval of outline of study by student's committee or adviser. Tutorial study or supervised research in contemporary health problems, programs, and educational methods.

**6600. Management of Health Care Operations (3)** P: COHE 6000. Focus on day-to-day operational aspects of managing health care organizations. Operational needs of various health care providers. Emphasis on legal, marketing, service, quality, and personnel issues.

**6610. Financial Management of Health Care Organizations (3)** P: COHE 6000; FINA 6144. Focus on acquisition, allocation, and management of financial resources within health care organizations. Emphasis on application of financial tools to unique problems of these organizations.

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**6620. Health Care Strategic Planning and Management (3)** P: COHE 6600, 6610. Focus on methods for strategic planning and management health services organizations. Emphasis on techniques for determining strategies for unique services. Integrates strategy, structure, and administrative systems.

**6971. Health Policy (3) Same as NURS 6971** Overview of health policy and legal issues related to delivery of health care. Emphasis on action, theory, and roles; strategies of power politics; legal foundations; and trends in policy formation with implications for health care administrators.

**6990. Internship in Community Health (3)** P: COHE 6000 or consent by the student's adviser and the Department of Community Health. Professional learning experience in work study program in community health setting. Supervised by experienced health professional approved by Department of Community Health and student's faculty adviser.

COHE Banked Courses

- 5460, 5461. Patient Education for Interdisciplinary Health Care Providers (3,0)**  
**6200. Community Health Education I: Concepts and Theories (3)**  
**6201. Community Health Education II: Methods and Techniques (3)**
- 6400. Trends and Issues in Health Care (3)**  
**6501. Independent Study (2)**  
**6991. Internship in Community Health (3)**  
**6992. Internship Project (1)**  
**6993. Major Paper (4)**  
**6999. Thesis (4-6)**

DEPARTMENT OF OCCUPATIONAL THERAPY

Anne E. Dickerson, Chairperson, 306 Belk Building

MASTER OF SCIENCE IN OCCUPATIONAL THERAPY

There are two degree paths in occupational therapy. The professional (entry-level) master's degree offers preparation for certification for individuals with baccalaureate degrees in fields other than occupational therapy. The second degree path is a post-professional master's degree, which offers course work for individuals who have an undergraduate degree in occupational therapy and who are certified occupational therapists (OTR). Students who complete a professional (entry-level) master's degree at ECU cannot apply for the post-professional master's degree in occupational therapy.

Admission

Application for admission to the graduate program in occupational therapy must be initiated through the Graduate School. (See Section 2, Admission and Readmission.) The department requires that the applicant meet the following minimum admission requirements: a minimum cumulative GPA of 3.0 on a 4.0 scale, satisfactory Graduate Record Examinations, and acceptable TOEFL or TSL score for non-English foreign students. At the time of application, the applicant must submit two letters of reference and a completed statement as specified in the Graduate School application.

For the professional (entry-level) master's degree path, the applicant must present evidence that the required prerequisite course work will be completed and an undergraduate degree (other than occupational therapy) conferred before the start of the program in the fall. Required undergraduate prerequisite courses include anatomy, physiology, statistics, developmental psychology or other course with emphasis on human development across the lifespan, abnormal psychology, introduction to anthropology or sociology, an introduction to occupational therapy course, and a reasoning course such as logic, ethics, or research inquiry in social sciences. Students must demonstrate a proficiency in medical terminology or take a course in medical terminology.

For the post-professional master's degree path, applicants must present evidence of an undergraduate degree from an accredited baccalaureate occupational therapy program.

Degree Requirements

Minimum degree requirement is 70 s.h. for the professional (entry-level) path and 30-33 s.h. for the post-professional path as follows:

Core courses ..... 12 s.h.  
OCCT 6080, 6455, 6550, 6600



Research options (Choose one.) .....	6-9 s.h.
Master's project: .....	6 s.h.
OCCT 6650, 6660 .....	
Thesis: .....	6-9 s.h.
BIOS 5022 or Qualitative analysis. ....	3 s.h.
OCCT 7000 .....	3-6 s.h.
Choose one path:	
<i>Professional (entry-level) path</i> .....	52 s.h.
OCCT 6000, 6001, 6002, 6003, 6004, 6005, 6006, 6007, 6008, 6009, 6100, 6150, 6200, 6250, 6300, 6350, 6400 6450, 6460, 6500 .....	
<i>Post-professional path</i> .....	12 s.h.
OCCT 6020 .....	3 s.h.
Concentration Area .....	3 s.h.
OCCT 6060 or 6070 .....	
Electives. ....	6 s.h.

Successful completion of OCCT 6455 with a grade of B or better serves as a comprehensive examination.

Standard grading policies will follow Graduate School guidelines. Verification by the department chair of the completion of the professional (entry-level) master's degree requirements is necessary to meet occupational therapy practice licensure statutes of the North Carolina Board of Occupational Therapy. Verification by the registrar for completion of the professional (entry-level) master's program is required to take the national certification examination.

### **ACCREDITATION**

The occupational therapy program is accredited by the Accreditation Council for Occupational Therapy Education (ACOTE) of the American Occupational Therapy Association (AOTA), located at 4720 Montgomery Lane, P.O. Box 31220, Bethesda, MD 20824-1220. ACOTE's telephone number c/o AOTA is 301-652-2682. Graduates of this program will be eligible to sit for the national certification examination for the occupational therapist administered by the National Board for Certification in Occupational Therapy (NBCOT) located at 800 S. Frederick Ave., Suite 2000, Gaithersburg, MD 20877, 301-990-7979. After successful completion of this exam, the individual will be an occupational therapist, registered (OTR). In addition, most states require licensure in order to practice; however, state licenses are usually based on the results of the NBCOT certification examination. However, a felony conviction may affect a graduate's ability to sit for the NBCOT certification examination or attain state licensure.

### **ACCELERATED PROGRAM IN THE PROFESSIONAL MASTER'S DEGREE PATH IN OCCUPATIONAL THERAPY**

The accelerated program provides a means by which highly qualified undergraduate students at East Carolina University enroll in the undergraduate program of Health Services Management with the intention of preparing for a professional master's (entry-level) degree path in Occupational Therapy. The student in this program does not obtain an undergraduate degree, but completes a master's degree in five years by completing a total of 162 credit hours including all general education courses and core requirements of the undergraduate degree and graduate degree programs.

### **Admission**

Students must maintain an accumulated grade point average (GPA) of 3.2/4.0 at East Carolina University in the undergraduate program. Students should apply to the graduate school in their junior year or after completing at least seventy-five (75) credit hours, including credits earned from advanced placement. Completion of the course requirements does not guarantee an admission to the Graduate School. Students who do not complete the occupational therapy program, must complete all required courses to obtain an undergraduate degree in Health Services Management.

### **Degree Requirements**

Required courses include: general education courses, PSYC 1000, 3206, 4375; PHIL 1110, 1175, 1500, 1180, or 2275; BIOS 1500; CHEM 1120; ECON 2113; SOCI 2110; BIOL 2140, 2141, 2150, 2151; HIMA 3000, 3120, 3020, 4030; HSMA 3030, 3035, 4050, 4010, 4055, 4903; OCCT 3000, 6000, 6001, 6002, 6003, 6004, 6005, 6006, 6007, 6008, 6009, 6080, 6100, 6150, 6200, 6250, 6500, 6600, 6300, 6350, 6550, 6400, 6450, 6455, and 6650, 6660 or BIOS 6022; OCCT 7000.

P=Prerequisite(s); C=Corequisite(s); P/C=Prerequisite(s) or Corequisite(s); R=Recommended P, C, or P/C

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### INTERGRATED UNDERGRADUATE/GRADUATE DEGREE PROGRAM IN PSYCHOLOGY AND OCCUPATIONAL THERAPY

The Integrated Undergraduate/Graduate Degree Program in Psychology and Occupational Therapy provides a means by which highly qualified undergraduate students at East Carolina University may pursue an undergraduate degree in psychology with the intention of completing the professional masters degree in occupational therapy in five years. Fifteen semester credits of graduate courses count towards both the undergraduate and graduate degree. Total for both undergraduate and graduate programs are 181 credits.

#### Admission

Students must apply to the graduate school as an integrated undergraduate/graduate after 75 credits of undergraduate work is completed. Incoming students must meet requirements for the honors program and must maintain a cumulative grade point average (GPA) of 3.5/4.0 at East Carolina University. Students who complete the program will receive an undergraduate degree in psychology upon completing all required courses, typically at the end of the first year of the graduate occupational therapy program. Permission to pursue the integrated program does not guarantee an admission to the Graduate School.

#### Degree Requirements

Required courses include: general education courses, foreign language (12 credits): PHIL 1110, 1175, 1500, 1180, or 2275; CHEM 1120; SOCI 2110; ANTH 1000 or 2200; HIMA 3000; BIOL 1050, 1051, 2140, 2141, 2150, 2151; PSYC 1000, 3206, 4375, 3226, 2210, 3311, 4000; electives (12 credits): OCCT 3000, 6000, 6001, 6002, 6003, 6004, 6005, 6006, 6007, 6008, 6009, 6080, 6100, 6150, 6200, 6250, 6500, 6600, 6300, 6350, 6550, 6400, 6450, 6455, and 6660 or BIOS 6022; OCCT 7000.

### CERTIFICATE IN ASSISTIVE TECHNOLOGY

The certificate in assistive technology will equip students with specific skills and knowledge in assistive technology. The overall objective of the program is to prepare educational and/or health care professionals in the knowledge and skills needed to utilize assistive technology for the enhancement of a student and/or client's functional performance. Specifically, candidates who successfully complete the certification will have a broad-based knowledge of assistive technology; the ability to assess assistive technology needs with clients/students and plan implementation based upon that assessment; the ability to work with a collaborative team to implement assistive technology; and the knowledge and skills to effectively manage resources for procurement of assistive technology.

Applicants seeking admission must be graduate students or education or health care professionals working in their respective fields. Professionals can enroll as non-degree seeking students. Admission is based on completion of the certificate application and approval by the program coordinator.

The certificate program requires 12 s.h. of graduate-level course work in assistive technology, emphasizing practical application and collaborative team work. Required courses include SPED/OCCT 6701, 6702, 6703, and an elective.

#### OCCT: OCCUPATIONAL THERAPY

**6000. Foundations of Occupational Therapy (4)** P: OCCT 3000 or introductory OCCT course approved by the dept chair. Foundations and models of practice of OT. Dimensions and characteristics of human occupation and their relationship to models of practice. Analysis of occupation, including real and symbolic aspects meaningful for individuals and populations.

**6001, 6002. Occupation and Movement (2,1)** 2 classroom and 3 lab hours per week. P: ANAT and PHLY courses approved by dept chair; P or C: OCCT 6000. Musculoskeletal system as related to human occupation. Mobility, stability, posture, biomechanics, development of movement, relationship between kinesiological components, and gradation of activities.

**6003, 6004. Dyadic and Group Skills in Occupational Therapy (2,2)** 2 classroom and 4-6 lab hours per week. P: OCCT 3000, P or C: OCCT 6000. Application of systems theory, communication, and techniques to dyadic and group processes relevant to OT. Relationships and roles of OT practice with individuals across life span.

**6005,6006.Health Impairments and OccupationalTherapy I (3,I)** 3 classroom and 3 lab hours per week. P: OCCT 3000. P or C: OCCT 6000, 6001, 6002. Etiology of impairments and models of ablement/disablement. Identification of consequences of diseases, injuries or disorders and impact of these on human occupation.Application of appropriate OT frames of reference and remedial techniques.

**6007,6008.Health Impairments and OccupationalTherapy II (3,I)** 3 classroom and 3 lab hours per week. P: OCCT 6001, 6002, 6005, 6006. Continuation of OCCT 6005, 6006.

**6009. Neurological Foundations of OccupationalTherapy (3)** P: OCCT 6000,ANAT and PHLY courses approved by dept chair. Occupational performance as affected by human nervous system. Structures and functions of human nervous system and relationship of occupation to brain function.

**6020.Theoretical Models of Practice in OccupationalTherapy (3)** P: Enrollment in OCCT or consent of dept chair.Advanced examination and conceptualization of OT theories within models of practice, including consultation.Analysis and comparison of theories applied to areas of specialty in service delivery systems.

**6060. Directed Independent Study (3)** Requires approval by occupational therapy adviser and/or graduate committee. May be repeated more than once with change of topic. Individualized, advanced, or indepth study of topic not offered in OT curriculum.

**6070. Special Topics (3)** May be repeated more than once with change of topic.Topics of current importance not covered thoroughly in other courses.

**6080. Environmental Contexts and Systems of OccupationalTherapy (3)** P: OCCT 6000, 6003, 6004, or consent of the dept. chair: Systems analysis of societal, cultural, physical, and temporal environments. Evaluation of use of environment and technology to enhance occupational function.

**6100,6150.Therapeutic Use of Human Occupation I (3,I)** 3 classroom and 3 lab hours per week. P: OCCT 6000, 6001, 6002, 6003, 6004, 6005, 6006; P or C: OCCT 6007, 6008, 6080. First in three course sequence. Client compensation and education. Case studies represent different treatment settings that require minimal supervision, resources requirements, systems coordination, and clear reimbursement protocols.

**6200,6250.Therapeutic Use of Human Occupation II (4,I)** 4 classroom and 4 lab hours per week. P: OCCT 6100, 6150. Extension of OCCT 6100, 6150. Case studies reflect complex health care systems, reimbursement issues, and professional support environments.

**6300,6350.Therapeutic Use of Human Occupation III (4,I)** 3 classroom and 3 lab hours per week. P: OCCT 6200, 6250; C: OCCT 6400. Extension of OCCT 6200, 6250. Case studies reflect community-based practice, require coordination of systems, and development of innovative OT services.

**6400. Fieldwork I (I)** 2-week clinical experience. P: OCCT 6200, 6250; C: OCCT 6300, 6350. Role of occupational therapist in variety of nontraditional or emerging practice settings and service delivery systems. Continued development of OT theory, evaluation, and treatment planning skills. Exploration and development of creative applications of therapeutic occupation.

**6450. Fieldwork II (6)** May be repeated. May count for a maximum of 12 credits. 12-week, full-time clinical practice. P: OCCT 6080, 6300, 6350, 6400, 6500. Practice and master skills necessary to function as competent, entry-level occupational therapist.

**6455.Application ofTheory to Practice (3)** P: 6300, 6350. P or C: OCCT 6450. Integrates fieldwork and classroom experiences. Cases used to explore issues about management and supervision, OT intervention, research, and education. Analyzes current use of theory in OT practice sites.

**6500. Managing OccupationalTherapy Services I (3)** P: OCCT 6080. Leadership theory and roles in OT. Focus on supervision issues and management of service delivery programs. Emphasis on theories of change. Systems theory used as basis for understanding organizational structures and development.

**6550. Managing OccupationalTherapy Services II (3)** P: OCCT 6500 or consent of the dept. chair: Knowledge and skills to effectively plan, implement, and evaluate OT programs. Emphasis on student development as change agents.

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**6600. Concepts and Practice of Research in Occupational Therapy (3)** P: A statistics course approved by dept chair. Principles and processes involved in scientific research. Qualitative and quantitative approaches. Application of knowledge culminates in development of research proposal.

**6650. Conducting Research in Occupational Therapy (3)** P: OCCT 6600, 6200, 6250. P or C: 6300, 6350. Design and implementation of research project that contributes to knowledge base of OT. Approved research proposal and collection of research data.

**6660. Master's Project (3)** P: OCCT 6650. Completion of research project which contributes to knowledge base of OT and manuscript appropriate for submission to refereed journal.

**6701. Assistive Technology Devices and Services (3) Same as SPED 6701** Broad overview of assistive technology, including legal, educational, and discipline specific information. Provides basic information that prepares students for other certificate courses.

**6702. Assessment, Planning, and Implementation of Assistive Technology (3) Same as SPED 6702** P: SPED 6701 or OCCT 6701. Explores assistive technology assessments and planning and implementation of assistive technology within student/client's environment. Students attain skills in variety of technology using cross-disciplinary team approach.

**6703. Collaborative Resource Management of Assistive Technology (3) Same as SPED 6703** P: OCCT 6701 or SPED 6701. Human, product, electronic, and funding resources to meet technology needs for individuals with disabilities examined within state and national networks. Practical collaborative skills practiced in cross-disciplinary team assignments.

**7000. Thesis (3)** May be repeated. May count maximum of 6 s.h.

**7001. Thesis: Summer Research (1)** May be repeated. No credit may count toward degree. Students conducting thesis research may only register for this course during the summer.

**7100. Qualitative Research: Analysis and Interpretation (3) Same as HLTH 7100, NURS 7100** P: Permission of instructor. Application and evaluation of qualitative research design and methods including data collection, management, and analysis approaches, and the art and science of interpretation.

### OCCT Banked Courses

**6010. Service Delivery System Management (3)**

**6030. Planning, Implementation, and Evaluation of Occupational Therapy Models of Practice (3)**

**6040. Clinical Reasoning in Occupational Therapy (3)**

**6050. Research Design and Methodology in Occupational Therapy (3)**

**6460. Fieldwork II (6)**

## DEPARTMENT OF PHYSICAL THERAPY

*Denis Brunt, Chairperson, Belk Annex III*

### MASTER IN PHYSICAL THERAPY

#### Degree Requirements

The master of physical therapy degree (MPT) offers a thesis and a non-thesis option.

The non-thesis option will be granted following satisfactory completion of 75 s.h. of required courses in physical therapy (PTHE), health professions (HPRO), and rehabilitation studies (REHB). Standard grading policies will follow Graduate School guidelines. A student who receives a failing grade in any required course or more than two Cs in 8 s.h. will have his or her program terminated. The departmental chairperson's verification of the completion of all degree requirements is necessary to meet physical therapy practice licensure statutes of the North Carolina Board of Physical Therapy Examiners and those of other states.

The thesis option is available to students presently enrolled in the master of physical therapy program and requires 81 s.h. The additional 6 s.h. beyond the non-thesis option comprises the completion and successful defense of an approved thesis (3 s.h.) (PTHE 7000) and an additional 3 s.h. as determined by the adviser and graduate committee in consultation with the student. Students may withdraw from the thesis option at anytime without penalty.

**PTHE: PHYSICAL THERAPY**

**6000. Introduction to Patient Care (2)** P: Enrolled in PTHE curriculum or consent of dept chair: Merging roles and responsibilities of physical therapist. Therapist-patient interaction, diagnostic interviewing strategies, and basic patient care skills.

**6110. Human Physiology (5)** P: HPRO 5011, 5012; enrolled in PTHE curriculum or consent of instructor: Physiologic principles of tissues and systems of human body. Physiologic systems studied relative to normal and specific pathologic conditions commonly encountered in practice of PT.

**6111. Physical Therapy Modalities and Instrumentation (2)** Lecture and lab. P: HPRO 5011, 5012; PTHE 6000; C: PTHE 6110; HPRO 5013. Theory, physiological considerations, and indications, contraindications, and techniques of thermal agents. Wound care management. Clinical decision making and problem solving relative to selection and application of thermal agents in specific patient cases.

**6112. Musculoskeletal Evaluation and Treatment I (3)** P: HPRO 5011, 5012; enrolled in PTHE curriculum or consent of dept chair: Development of competencies essential to formulating PT diagnosis, developing a treatment plan, and applying soft tissue and joint mobilization procedures in the management of musculoskeletal problems.

**6113. Basic Evaluation Procedures (1)** P: HPRO 5011, 5012; PTHE 6000; C: PTHE 6112. Practice in methods and instrumentation used in measurement of musculoskeletal function.

**6114. Functional Anatomy (3)** Lecture and lab. P: HPRO 5011, 5012; PTHE 6000. Basic principles of human biomechanics, exercise physiology, and functional anatomy. Emphasis on muscle and joint action and abnormal muscle and joint functions due to physical disability.

**6211. Therapeutic Exercise (4)** Lecture and lab. P: HPRO 5011, 5012; PTHE 6110, 6112, 6113, 6114. Physiological basis, rationale, and techniques for exercise of cardiovascular, respiratory, musculoskeletal, and nervous systems in normal and pathologically impaired individuals.

**6212. Electrotherapeutics Diagnosis and Treatment (3)** Lecture and lab. P: Enrolled in PTHE curriculum or consent of dept chair: Physics of electricity, physiological basis, and indications, contraindications, and utilization of instrumentation for electrophysiological treatment procedures common to PT practice. Current literature, lecture, and lab practice to learn relationship between disorders and diseases of neuromuscular system and use of electrical treatment procedures.

**6213. Methods of Professional Communication (1)** P: Enrolled in PTHE curriculum. Small group problem-solving approach to developing and implementing educational programs designed for specific patient groups and professional health practitioners. Documentation of evaluative and therapeutic patient care data in medical legal records.

**6215. Clinical Education I (2)** 40 hours per week for 4 weeks. P: PTHE 6111, 6112, 6211, 6212, 6213. Introduction to clinical practice through observation and supervised activity, which introduces student to multiple aspects of total patient care in various treatment settings.

**6216. Clinical Education II (3)** Supervised clinical training and experience in medical training facility. 40 hours per week for 6 weeks. P: PTHE 6215. Emphasis on special program functions of physical therapist in multifaceted institution.

**6217. Survey of Pharmacological Agents and Pathological Processes (3)** Overview of general pathology and pharmacology. Emphasis on etiology, symptoms, and pharmacological management of selected disease processes and their implications for physical therapists.

**6310. Neuromuscular Integration Across the Life Span (3)** Lecture and lab. P: HPRO 5030, 5031; PTHE 6110. Neural control of movement over life span. Emphasis on normal, developmentally disabled, and neurologically-injured adults and children. Expected changes which may occur due to plasticity and motor learning.

**6311. Pediatric Therapeutic Intervention (2)** P: HPRO 5030, 5031; C: PTHE 6310. Overview of pediatric evaluation and treatment techniques utilizing developmental reflex testing. Emphasis on standardized tests of motor development, assessment of variety of neuromuscular and skeletal abnormalities and positioning, and handling and intervention strategies.

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**6312. Adult Therapeutic Intervention I (2)** P: HPRO 5030, 5031; C: PTHE 6310. Neurorehabilitative care of adults with neurologic and movement control disorders. Application of evaluative and therapeutic intervention methods effective in identifying and treating motion control dysfunctions.

**6314. Research Design (3)** P: Enrolled in PTHE curriculum or consent of dept chair. Scientific method, research design, basic statistics, critical analysis of journal articles, methodological decision making, and standard procedures for communicating results to appropriate professionals.

**6315. Administration of Physical Therapy Services (3)** P: Enrolled in PTHE curriculum or consent of dept chair. Impact of health care industry trends and issues on development and operations of PT services. Application of planning, organizing, marketing, and financing principles to establishment of PT clinical practice arrangements. Means of directing and controlling staff performance and standards relevant to medico-legal, ethical, and quality control aspects of PT services.

**6410. Prosthetics and Orthotics (3)** Lecture and demonstration. P: HPRO 5011, 5012; PTHE 6211. Types, components, prescription criteria, function, training, and evaluation of classical and contemporary upper- and lower-extremity orthotic and prosthetic appliances.

**6411. Adult Therapeutic Intervention II (2)** Lecture and lab. P: PTHE 6211; C: PTHE 6410. Patient presentation. Principles and application of techniques involved in rehabilitation setting. Emphasis on rehabilitative management of spinal cord injured patient. Wheelchair prescription, ADL equipment, and psychological adjustment to disability.

**6412. Cardiovascular and Pulmonary Rehabilitation (3)** P: PTHE 6211. Assessment and treatment strategies used in rehabilitative care of individuals with cardiac, peripheral vascular, and pulmonary impairments. Analysis of physiological responses to physical rehabilitation treatment, benefits of preventive management, and value of interdisciplinary team management.

**6415. Musculoskeletal Evaluation and Treatment II (3)** Continuation of PTHE 6112. P: PTHE 6112. In-depth coverage of materials for acquisition of knowledge and skills essential to formulating PT diagnosis in persons suffering musculoskeletal problems of spinal column. Development of treatment plans based on patient evaluation and application of soft tissue and joint mobilization procedures to cervical, thoracic, lumbar, and sacral regions of spine.

**6416. Special Topics (2)** In-depth study of pertinent topics related to PT theory and practice. Topic, format, and subject in accordance with faculty and student interests and professional importance.

**6417. Research Practicum (2)** Continuation of PTHE 6314. P: PTHE 6314. Individual or small group research project under direction or supervision of sponsoring professor. Presentation of results, discussion, and conclusions of research projects.

**6418. Directed Independent Study (2)** May be repeated with change of topic. May count maximum of 2 s.h. P: Enrolled in MPT program; consent of dept chair. Individualized, independent, in-depth study of topic important to PT profession.

**6510. Clinical Education III (3)** 40 hours per week for 6 weeks. P: PTHE 6216. Supervised clinical experiences concentrating on specialized areas of PT practice.

**6511. Clinical Education IV (3)** 40 hours per week for 6 weeks. P: PTHE 6510. Supervised clinical training and experience arranged with cooperative long-term rehabilitation facilities.

**7000. Thesis (3)** May be repeated. May count a maximum of 3 s.h.

**7001. Thesis: Summer Research (1)** May be repeated. No credit may count toward degree. Students conducting thesis research may only register for this course during the summer.

### PTHE Banked Courses

**6214. Clinical Problem Solving I (1)**

**6414. Clinical Problem Solving II (2)**

## DEPARTMENT OF PHYSICIAN ASSISTANT STUDIES

Larry Dennis, Chair, West Academic Building, West Research Campus

### MS IN PHYSICIAN ASSISTANT STUDIES

Physician assistant majors must pass all health professions and physician assistant core courses with a minimum numerical grade of 75 percent or an overall GPA of 3.0 for the semester. A student earning less than a grade of 75 percent or an overall GPA of 3.0 for the semester must petition the Department of Physician Assistant Studies for probationary continuation. A student must have completed a baccalaureate degree from a regionally accredited college or university and the physician assistant prerequisite requirements as listed below. The student must have a minimum cumulative and math/science GPA of 3.0 to be eligible to apply for admission in to the professional phase of the physician assistant curriculum. Any exceptions must be approved by the program director. The minimum requirement for the degree is 99 s.h. as follows:

Prerequisite Requirements: Courses to be completed prior to entering the program with at least a 3.0 GPA.

BIOL 1100, 1101, 2110, 2111; 2140, 2141, 2150, 2151; BIOS 1500; MATH 2228 or Psych 2101; CHEM 1150, 1151, 1160, 1161, 2650, 2651 (or CHEM 2750, 2753), 2770; PSYC 1000.

Core Courses: PADP 6000, 6010, 6020, 6050, 6150, 6200, 6210, 6220, 6250, 6500, 6650, 6680, 6800, 6850, 6980; PHLY 6330; HPRO 5011, 5012. To continue to the clinical portion of the curriculum, the student must successfully pass all didactic courses listed above with an overall 3.0 GPA and no more than two Cs.

Clinical Courses: PADP 6310, 6320, 6330, 6340, 6350, 6360, 6370, 6380.

### PADP: PHYSICIAN ASSISTANT STUDIES

**6000. The Role of the Physician Assistant and the History, Philosophy, and Ethics of Medical Practice (1)** History of medicine. Introduces medical ethics, nonclinical aspects of dependent practice, and roles of other health care providers involved in medical team approach to medical care and disease prevention. Explores different cultures and their perception of medicine, legal issues, quality assurance, and risk management. Facilitates development of realistic role identity for the physician assistant.

**6010. Diagnostic Methods I (3)** Laboratory procedures used to identify pathophysiological processes and the rationale for ordering them. Interpretation of laboratory results and treatment options.

**6020. Diagnostic Methods II (3)** Continuation of PADP 6010. Emphasize ordering and interpreting lab tests in organ system based pathological case studies. Interpretation and ordering of electrocardiography, radiography and MRI, CT and PET scans.

**6050. Introduction to Clinical Medicine (3)** Emphasis upon medical problem solving utilizing the patient management format and case studies.

**6150. Clinical Medicine I (5)** Clinically-oriented didactic and lab skills as preparation for clinical rotations and future clinical practice. Etiology, pathophysiology, clinical manifestations, and appropriate management of selected disease entities. Clinical training in lab sciences, standardized patients, and obtaining and writing history and physical exams. Enhances acquisition of skills necessary to formulate a diagnosis and treatment plan. Presents musculoskeletal, infectious disease, dermatology, and cardiology systems.

**6200. History and Physical Exam I (2)** Emphasizes patient interviewing, communication skills, and counseling skills. Proper use of instruments and techniques used in performing a thorough physical examination.

**6210. History and Physical Examination II (3)** Continuation of PADP 6200. Emphasizes the adult physical examination.

**6220. History and Physical Examination III (3)** Continuation of PADP 6200 and 6210. Emphasizes the examination of the pediatric patient and the geriatric patient.

**6250. Clinical Medicine II (4)** Continuation of PADP 6150. Presents pulmonary, nephrology, neurology, endocrine, and hematology/oncology systems. Includes geriatrics and pediatrics.

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**6310. Behavioral Medicine Clinical Practicum (5)** Advanced rotation focuses on community settings in area of student's medical vocational interest. Facilitates acquisition of communication and behavioral modification skills useful in primary care setting.

**6320. Internal Medicine Clinical Practicum (5)** Application of medical knowledge to basic and complicated problems and situations encountered in internal medicine practice. Collect database, formulate complete problem list, and participate in daily rounds and management of patient problems. Develops awareness of complexity of disease processes and differential diagnosis.

**6330. Family Medicine Clinical Practicum (5)** Indepth emphasis on outpatient evaluation, treatment of conditions common at family medicine/primary care level, and appropriate health maintenance measures for all age groups.

**6340. General Surgery Clinical Practicum (5)** Routine health care of variety of surgical inpatients and outpatients. Assignment to surgical team with emphasis on pre-operative evaluation and preparatory procedures, assisting at operating table, and management of patients through post-operative period to discharge.

**6350. Emergency Medicine Clinical Practicum (5)** Evaluation and management of emergency and surgical problems seen in emergency department. Initial evaluation of potential surgical conditions and performance of problem-specific exams, emergency procedures, and minor surgical skills.

**6360. Pediatrics Clinical Practicum (5)** Assignment to institutional setting or community-based pediatric site. Emphasis on communication skills and relating sensitively to children and parents. Familiarization with normal growth and development, pediatric preventive medicine, and evaluation and management of common childhood illnesses.

**6370. Obstetrics and Gynecology Clinical Practicum (5)** Includes routine gynecological exams and significant amount of time assisting in surgery. Explores gynecological problems, pregnancy, and delivery. Emphasis on clinical experience with cancer detection techniques, abnormal menstruation and bleeding, infections, and contraception counseling.

**6380. Geriatrics Clinical Practicum (5)** Clinical experience with the aging population focusing on unique medical, psychosocial, environmental and cultural aspects of aging.

**6500. Pharmacology and Pharmacotherapeutics (4)** Pharmacological knowledge basic to assessment and management skills for advanced clinical practice. Pharmacological management of patients throughout life span with common acute and chronic health problems. Overviews of selected drug classes. Emphasis on data collection and diagnostic reasoning in relation to major drug classifications, monitoring, and evaluation of pharmacological interventions. Application of cost-benefit, risk-benefit, efficacy, side-effects, and adverse responses through case studies to develop knowledge and skills that adhere to legal standards of practice.

**6650. Surgery and Emergency Medicine Skills (4)** Clinically-oriented didactic and lab skills related to knowledge and skills needed in emergency department and surgical arena. Indepth focus on acute and surgical conditions encountered in primary care and surgical settings. Pre-operative and post-operative care as well as surgical preparation to be properly demonstrated.

**6680. Introduction to Clerkship (4)** Emphasis on preparing the student for clinical rotation experiences and medical procedures.

**6800. Behavioral Medicine and Psychosocial Issues in Health Care (2)** General survey of fundamental principles underlying human behavior. Includes physiological development, learning, memory, motivation, and social and abnormal behavior. Emphasis on improving communication skills and integrating knowledge of psychosocial principles and diagnoses with clinical situations. Development of counseling skills, ability to handle patients with stress, and death and dying issues. Covers additional content in psychiatric case studies, problem-solving methodologies, and evidence-based medicine.

**6850. Health Promotion/Disease Prevention (2)** Basic concepts include distribution, prevalence, causation, mode of transmission and dissemination, control, and prevention strategies used to counter significant infectious disease and occupational injuries. Investigates reportable diseases and conditions; role of state health departments in the process; and role of CDC&P in collecting and evaluating data reported by state, identifying emerging pathogens, and informing treatment community in a timely manner through such venues as the MMWR.



**6980. Research Project (4)** Admission to candidacy, successful completion of didactic and clinical phases of the program, and successful performance on comprehensive exam as designated by dept.

### PADP Banked Courses

**6300. Physical Diagnosis (4)**

**6400. Communication Skills (1)**

**6600. Advanced Clinical Practicum (3)**

**6700. Advanced Clinical Practicum (3)**

**6950. Epidemiology/Methods I (2)**

**6951. Epidemiology/Methods II (1)**

## DEPARTMENT OF REHABILITATION STUDIES

*Paul Alston Chair, 312 Belk Building*

The department offers three degree programs. Students in the rehabilitation counseling, and substance abuse and clinical counseling degree programs must complete a minimum of 48 s.h. of credit, which includes 12 s.h. or one semester of internship. Students in the vocational evaluation degree program must complete a minimum of 45 s.h. of credit, which includes 12 s.h. or one semester of internship. Students with an undergraduate degree in rehabilitation services are required to complete a minimum of 42 s.h. of credit for any of the three MS degree programs. Required courses passed with a grade of B or higher at the undergraduate level will be waived.

### MS IN REHABILITATION COUNSELING

Required courses: REHB 5000, 5100, 6000, 6250, 6301, 6310, 6360, 6401, 6550, 6991, 6992, 6993, 6994, and 9 s.h. of research and electives.

### MS IN SUBSTANCE ABUSE AND CLINICAL COUNSELING

Required courses: REHB 5000, 5793, 5796, 6250, 6301, 6310, 6330, 6350, 6360, 6401, 6550, 6991, 6992, 6993, 6994; 4 s.h. of research and electives. Students entering the substance abuse programs are also required to complete REHB 2003 or equivalent by the end of the first semester of enrollment.

An emphasis in Employee Assistance Program (EAP) Counseling is available. The courses from the rehabilitation counseling track and a minimum of 9 s.h. of electives will be required. The electives must be selected in part from areas such as psychology, substance abuse, and family and marriage counseling.

### MS IN VOCATIONAL EVALUATION

Required courses: REHB 5000, 5100, 5400, 6000, 6250, 6401, 6403, 6404, 6405, 6550, 6991, 6992, 6993, 6994; 3 s.h. of research and electives.

## REHB: REHABILITATION STUDIES

**5000. Introduction to Rehabilitation (3)** Entire field of rehabilitation. Emphasis on rehabilitation counseling.

**5100, 5101. Occupational Analysis and Placement (3,0)** 3 classroom and 3 field lab hours per week. P for nonmajors: Consent of instructor. Occupational theory, job analysis, and placement process in vocational rehabilitation.

**5400. Introduction to Vocational Evaluation (3)** P: Graduate or senior standing; consent of instructor or dept chair. History, theory, philosophy, and definitions of vocational evaluation and assessment of individuals who are disabled or disadvantaged. Review of service delivery and self-determination models in public and private sectors. Vocational evaluation and its relationship to career development, work, and labor market. Assessment processes, instruments, and techniques in rehabilitation, education, and social service settings.

**5793. Treatment of Alcohol and Drug Addiction (3)** P: REHB 2003 or consent of instructor. Sociocultural, psychological, and physiological contributions to alcohol and major drug addictions. Etiological theories of addiction. Philosophies and modalities of treatment including family, individual, and group counseling. Vocational rehabilitation. Detoxification processes, etc. Self-help treatment philosophies. Intervention concepts and strategies; dynamics of motivation; assessment techniques; models for contemporary treatment of addiction within health care system. Roles of various professionals in treating addiction. Barriers to effective application of treatment processes.

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**5795. Prevention of Alcohol and Drug Abuse (3)** P: REHB 2003 or consent of instructor: Various issues related to prevention of alcohol and drug abuse as a community health problem. Critical evaluation of various models and philosophies of prevention. Early intervention and secondary prevention models, including employee assistance programs. Exposure to ongoing prevention efforts and strategies. Barriers to prevention programs.

**5796. Contemporary Alcohol/Drug Abuse Issues (3)** P: REHB 5793 or consent of instructor: Current significant and/or controversial issues.

**6000, 6001. Medical and Psychosocial Aspects of Disability (3,0)** Functional capacities of individuals with disabilities, impact of disability on individual, and personal and social adjustment to life.

**6200. Psychosocial Aspects of Disability (3)** Social and psychological issues related to physical and mental disability. Identification of adjustment problems and design of appropriate rehabilitation responses. Emphasis on rehabilitation of severely physically and mentally disabled persons.

**6250. Psychiatric Rehabilitation (3)** Basic diagnostic and treatment practices for counseling and rehabilitation of individuals with mental disorders.

**6301. Rehabilitation Counseling Theory (3)** Theory and techniques. Practical counseling problems in rehabilitation setting.

**6310. Prepracticum in Rehabilitation Counseling (3)** Counseling skills and techniques, assessment practices, treatment/rehabilitation plans, discharge summaries/termination reports, case management, professional issues, standards, and ethics.

**6320. Family Treatment in Substance Abuse Rehabilitation (3) Same as CDFR 6320** P: REHB 5793 or consent of instructor: Rehabilitation and treatment strategies. Family intervention strategies, family counseling, and treatment of adult children of addicted parents. Emphasis on relationships of family, substance abuse, and major physical and mental disabilities.

**6330. Substance Abuse Counseling (3)** P: REHB 2003 or consent of instructor: Theory and practice for counseling substance abusers. Specialized counseling issues related to family issues, multiple diagnosis, special populations, stress management, criminal justice system, and relapse prevention.

**6350. Group Counseling for Addictive Behavior (3)** P: REHB 6301, 6310; or consent of instructor: Group counseling processes with chemically-addicted persons. Didactic information on group counseling theory for addicts coupled with experiential group counseling process.

**6360, 6361. Rehabilitation Counseling Practicum (3,0)** Minimum of 8 hours per week in applied setting. Counsel clients with problems of personal/social adjustment, substance abuse, adjustment to disability, educational planning, and vocational choice.

**6401. Rehabilitation Evaluation (3)** Tests and measurement theory. Principles and hands-on exposure to standardized psychological, vocational, and educational tests and inventories. Ethical, legal, and practical considerations in testing adolescents and adults that are disabled or disadvantaged. Interpreting tests and using test results in report writing, rehabilitation counseling, planning, and self-determination.

**6405, 6406. Vocational Evaluation Practicum and Lab (3,0)** Classroom instruction and field experience. P: REHB 5400 or consent of instructor or dept chair: Administering, modifying, scoring, and interpreting various vocational evaluation instruments. Behavioral observation and recording techniques. Community-based assessment strategies. Group discussion of case studies and problems.

**6501. Problems and Research in Rehabilitation (1)** May be repeated for 1-6 s.h. Advanced independent study and research for MS research project. Close supervision of faculty member.

**6521, 6522, 6523. Directed Readings in Rehabilitation (1,1,1)** No class meetings; hours for instructor conferences arranged. Intensive reading on particular rehabilitation problem based on student's special interests and needs.

**6550. Rehabilitation Research (3)** Research design and techniques. Development of proposal for MS research project or thesis.

**6561, 6562. Master of Science Research Project (2,2)** Nature of project determines whether student takes 2 or 4 s.h. P: Consent of instructor: Formulation of lab project, case study, or library research project that demonstrates principles and procedures of recognizing and formulating problems of scientific, professional, and clinical importance in rehabilitation.

**6620. Private Sector Rehabilitation (3)** Private rehabilitation counseling. Insurance rehabilitation, worker's compensation consulting, vocational expert testimony, and ethical issues.

**6799. Independent Study in Alcohol/Drug Abuse Addiction (3)** P: REHB 5793, 5795; or consent of instructor. Etiology, epidemiology, treatment, rehabilitation, intervention, or prevention.

**6800. Seminar in Rehabilitation (1)** May be repeated for maximum of 3 s.h. May count toward electives for graduate students in the Department of Rehabilitation Studies. Contemporary issues affecting field of rehabilitation counseling.

**6991, 6992, 6993, 6994. Internship in Rehabilitation (3 each)** Normally taken in last semester of student's program. Placement in agency involved in some phase of rehabilitation process.

**7000. Thesis (3)** May be repeated. May count maximum of 6 s.h.

**7001. Thesis: Summer Research (1)** May be repeated. No credit may count toward degree. Students conducting thesis research may only register for this course during the summer.

**7340. Advanced Clinical Counseling Theories and Techniques (3)** P: REHB 6301, 6310 or equivalent; or consent of instructor: Counseling theories utilized with people with disabilities, such as cognitive-behavioral counseling, transactional analysis, and gestalt therapy. Counseling techniques and strategies such as stress management skill training, anger management, self-esteem building, conflict management, dream work, and alternative and complementary therapies.

**7403. Advanced Vocational Evaluation Methods (3) Formerly REHB 6403** P: REHB 5400 or consent of instructor or dept chair: Current vocational evaluation research. Various assessment samples and systems. Work sample development, standardization, and modification. Synthesis and interpretation of vocational evaluation results and report writing.

**7404. Seminar in Vocational Evaluation Administration (3) Formerly REHB 6404** P: REHB 5400 or consent of instructor or dept chair: Developing and administering public and private vocational evaluation units. Development of service grants and contracts. Professional, ethical, and legal issues and concerns in vocational evaluation. Consultation, certification, accreditation, and program evaluation methods.

**7601. Rehabilitation Administration (3) Formerly REHB 6601** Provides overview of management and supervisory theory for rehabilitation service delivery organizations.

**7610. Employee Assistance Programs (3) Formerly REHB 6610** P: Consent of instructor: Theory and practice of employee assistance programs. Organization, structure, and professional helping role.

**8350. Advanced Group Counseling in Rehabilitation (3)** P: REHB 6350 or equivalent or consent of instructor: Advanced group counseling techniques and skills with people in rehabilitation settings. Includes experiential component.

**8360. Advanced Practicum in Rehabilitation Counseling (3)** 3 lecture and 8 lab hours weekly. P: Experience in rehabilitation counseling or equivalent. Advanced counseling techniques and approaches to specific counseling issues.

**8380. Rehabilitation Counseling Supervision (3)** Current knowledge in theoretical foundations and applied models of counselor/clinical supervision within a rehabilitation counseling context. Doctoral students develop skills in roles of supervisor-teacher; supervisor-counselor; and supervisor-consultant. Simulated counselor-supervision experiences and engagement in experiential training by supervising several master's-level practicum and/or internship supervisees.

**8410. Seminar in Vocational Evaluation Systems Design (3)** P: REHB 5400 or equivalent. Examines vocational assessment and vocational systems, including construction, standardization, and administration. Reviews service delivery systems that utilize vocational evaluation/assessment instruments. Analysis of effective service and system matches.

**8420. Advanced Rehabilitation Evaluation (3)** P: REHB 6401 or equivalent. In-depth analysis of instrument development and standardization. Review Federal laws/regulations, codes of ethics, cultural and disability issues, and case law influencing standardized assessment. Emphasis on test administration and interpretation for individuals with disabilities.

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**8531,8532,8533.Independent Study (1,1,1)** Intensive reading on a particular area of rehabilitation or administration. Hours for instructor conferences arranged individually with student.

**8550.Advanced Research in Rehabilitation (3)** Prepares professionals to study and evaluate professional practice.

**8630.Theory and Design of Rehabilitation Programs (3)** P: REHB 7601 or equivalent or consent of instructor: Theory,philosophy,and administrative processes behind design and operation of different rehabilitation service delivery programs.Approaches to evaluating and improving program effectiveness.

**8710. Substance Abuse Seminar (3)** P: REHB 5796, 5793, 6330; or consent of instructor: Covers contemporary and controversial issues in substance abuse field. Explores opposing viewpoints from leading health care professionals, social scientists, and social commentators. Develops critical thinking skills, including debates, literature review, and class discussion. Examines several major issues facing the substance abuse field.

**8810. Doctoral Seminar in Rehabilitation Counseling (1-4)** Forum to review, discuss, write, and develop research on a variety of current topics in rehabilitation counseling and/or administration.

**8991,8992,8993,8994.Advanced Internship (3,3,3,3)** Placement in on-site location that provides a structured professional role experience.

**9000. Dissertation (6)** May be repeated. May count maximum of 18 s.h.

**9001. Dissertation Summer Research (1)** May be repeated. No credit may count toward degree. Students conducting dissertation research may only register for the course during summer.

REHB Banked Courses

**6502,6503,6504,6505,6506. Problems and Research in Rehabilitation (1 each)**

**6602. Technical and Legal Aspects in Rehabilitation Administration (3)**

# COLLEGE OF BUSINESS

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*Ernest B. Uhr, Dean, 3119 Bate Building*

*Frederick D. Niswander, Assistant Dean for Graduate Programs, 3203 Bate Building*

## MISSION

The College of Business provides an environment where students, faculty, and business professionals can pursue the acquisition of applied and theoretical knowledge relevant to the operation of profit and nonprofit organizations. The college, which consists of five departments, offers the BSBA degree with ten concentrations, the five-year BSA/MSA and a stand-alone MSA program in professional accounting, and the MBA degree. The college also offers a tax option in the professional accounting program as well as health care, management information systems, and other options in the MBA program. We expect our graduates to be prepared to be managers and analysts in large and small organizations which operate on both a profit and nonprofit basis. In addition, the faculty is engaged in the expansion of knowledge through research. The college supports the business practitioner through the Division of Professional Programs, Bureau of Business Research, Small Business Institute, and applied research projects in both graduate and undergraduate classes. The college supports primary and secondary education in the state through its Center for Economic Education.

## ACCREDITATION

The undergraduate and master's business programs are accredited by AACSB International. Since the primary objective of accreditation and the College of Business is to foster high quality in education for business administration and management, most of the school's resources are dedicated to its degree programs. Consequently, nonbusiness majors will not be permitted to enroll in more than 15 s.h. of graduate course credit offered by the College of Business.

## MASTER'S PROGRAMS IN BUSINESS

The master of business administration (MBA) degree program offers professional training to qualified applicants who aspire to careers as efficient and responsible managers. The program is structured for students with baccalaureate degrees in nonbusiness as well as business fields and emphasizes the development of basic analytical skills in problem solving and decision making.

The master of science in accounting (MSA) degree program includes advanced study in business administration and provides for greater depth and breadth in professional courses in accounting than is possible in current undergraduate degree programs or master's in business administration programs. A business core, accounting core, and graduate accounting electives comprise the graduate program, which requires 30 s.h. of graduate work beyond the baccalaureate in accounting. Students entering the program must satisfy the common body of knowledge and the concentration in accounting as required for the baccalaureate degree.

**Admission:** The MBA and MSA degree programs are open to students with baccalaureate degrees from institutions accredited by a COPA-recognized institutional accrediting agency who present evidence of their ability to pursue graduate study. The decision is based on a combination of factors including a total of at least 950 points for the MBA or 1000 points for the MSA based on the formula: 200 times the cumulative GPA (4.0 system) plus the GMAT score; or at least 1000 points for the MBA or 1050 for the MSA based on the formula: 200 times upper division GPA (4.0 system) plus the GMAT score.

There is an additional application for the international management option.

A maximum of 12 s.h. of the breadth requirements of the MBA or of the accounting electives in the MSA program may be transferred from another AACSB accredited MBA or MSA program or an equivalent international graduate business program with the approval of the assistant dean for graduate programs and the dean of the Graduate School.

## MBA

The MBA degree program has two major components, business core, and breadth, requiring 60 s.h. The courses required to fulfill the business core requirement are ACCT 6241; DSCI 6123, 6143, 6213; ENGL 5780; FINA 6144, 6204, 6214; MGMT 6102; MKTG 6162. Some or all of the business core courses may be waived if equivalent recent work of sufficient depth has been completed at a high performance level which may reduce the program to 30-57 s.h. The breadth requirement is satisfied by completing the following courses: ACCT 6521; DSCI 6613, 6683; FINA 6604; MGMT 6722, 6802; MKTG 6822 and sufficient electives, approved by the assistant dean for graduate programs, to complete the 30-60 s.h. requirement. Electives are divided into analytical and behavioral subgroups and each student is usually required to take at least one elective from

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each subgroup, although a student judged weak in one of the subgroups may be required to take all three electives from that subgroup. The analytical subgroup includes all accounting, decision science, and finance electives, and MKTG 6642. The behavioral subgroup includes all management electives and MKTG 6652, 6832, 6842. At least 30 s.h. must be in business courses numbered 6300 or above. Students may choose to use their electives to complete one of the certificate programs described below.

MD/MBA

The Brody School of Medicine and the College of Business cooperatively offer a joint doctor of medicine (MD) and master of business administration (MBA) dual degree program. Students in the Brody School of Medicine may use the school's cooperative educational experience option to enroll in the MBA program in the College of Business, usually between the second and third years of medical school. The MD/MBA dual degree program is also open to medical students who are accepted for, or enrolled in, other accredited medical schools, physicians who are currently in medical residence training programs, and practicing physicians. There is a separate application for the MBA in the MD/MBA dual degree program. The GMAT is waived for applicants with MD degrees or students from accredited medical schools.

Medical students and residents who must complete the MBA program in one year must enter in the second session of summer school and complete 42 s.h. of courses in the first session of summer school twelve months later. Practicing physicians and residents who attend part time may enter in any term. The required courses are ACCT 6241, 6521; DSCI 6123 or 6683; 6143, 6213, 6613; FINA 6144, 6204, 6604; MGMT 6102, 6722, 6802; MKTG 6162, 6822.

BSA/MSA (Five-Year, Combined Degree Program in Accounting)

Applications for direct admission into the MSA program are invited from students with undergraduate degrees in accounting and from students with degrees in areas other than accounting. Required courses and other program requirements for each applicant must be individually determined.

Minimum degree requirement for the five-year combined program is 150 s.h. of credit as follows:

- 1. General education requirements (See Section 4 of undergraduate catalog), including ECON 2113, 2133; MATH 1066; PHIL 2275; PSYC 1000; SPCH 2520; SOCI 2110 ..... 42 s.h.
  - 2. Cognates: ENGL 2730 or 3870; 3880; MATH 2283 ..... 9 s.h.
  - 3. Business core: ACCT 2401, 2521, 6701; DSCI 2223, 3023, 3063, 3123, 4293; FINA 2244, 3724, 6604; MGMT 3202, 4842, 6832; MKTG 3832; one of the following: ACCT 4451; MGMT 3352; MKTG 3852, 4992; FINA 4454 ..... 48 s.h.
  - 4. Area of concentration: ACCT 3551, 3561, 3621, 3731, 4651, 6611, 6801, 6891, 6901, 6951, 6981; 6811 or 6911 or any other accounting course above 6600 ..... 36 s.h.
  - 5. Electives ..... 15 s.h.
- Electives must be undergraduate and a maximum of 9 s.h. may be in business courses not listed above.

A minimum grade of C in accounting courses is required to satisfy any upper-level undergraduate accounting prerequisites.

The Department of Accounting will not accept for credit upper-level courses (those numbered 3000 or above at ECU) taken at a junior college or community college. The departmental chairperson will determine on an individual basis the extent to which upper-level courses taken at senior colleges may be used to meet degree requirements at East Carolina University. All other East Carolina University Graduate School and College of Business requirements must be followed. **Students not completing the entire curriculum will be required to meet the BSBA requirements in order to receive a bachelor's degree. The BSA degree may not be awarded separately from the MSA.**

CERTIFICATE PROGRAMS

The certificate programs are open to students enrolled in the MBA and MSA programs, applicants with graduate business degrees from AACSB accredited schools of business, and applicants with graduate business degrees from schools of business without AACSB accreditation with the approval of the assistant dean for graduate programs. Requirements for the various certificates require from 9-12 s.h. as follows:

**Development and environmental planning (12 s.h.):** PLAN 6301, 6305; choose two from: PLAN 6000, 6009, 6010, 6019, 6020, 6029.

**Electronic commerce (12 s.h.):** DSCI 6863, 6883; MKTG 6662, 6762.

**Health care management (12 s.h.):** COHE 6000, 6600, 6610, 6620.

**Hospitality management (9 s.h.):** NUHM 6400, 6410, 6420.

**International management (12 s.h.):** INTL 6005, 6105, 6500; choose one from: FINA 6876; MGMT 6322; MKTG 6992; complete the foreign language requirement for the master of arts in international studies; and have a minimum of a semester-long international field experience in the area in which the selected foreign language is used, as approved by the assistant dean for graduate programs.

**Management information systems (12 s.h.):** DSCI 6843, 6863, 6873, 6883.

**School business management (12 s.h.):** LEED 6804, 6807, 7408, 7470.

**Tax (9 s.h.):** ACCT 6911, 6921, 6931.

## DEPARTMENT OF ACCOUNTING

*Edwin A. Doty, Chairperson, 3208 Bate Building*

### ACCT: ACCOUNTING

**6241. Financial and Managerial Accounting (3)** May not count toward the BSA or MSA. P: Consent of assistant dean for graduate programs. Generation and flow of financial information through accounting system and its uses by management in decision-making process.

**6521. Accounting for Decision Making (3)** May not count toward the BSA or MSA. P: ACCT 6241. Managerial accounting, cost theories, and applications and their effect on decision making.

**6611. Auditing (3)** P: ACCT 4651 or consent of MSA adviser: Auditing standards and procedures and their relation to principles and systems of internal control of business operations.

**6701. Law for Professional Accountants (3)** P: Candidate for graduation or consent of MSA adviser: Legal issues confronting accountants and AICPA standards for professional responsibility.

**6801. Accounting Theory (3)** P: Consent of MSA adviser: Accounting principles, practices, and procedures of complex business enterprises.

**6811. Cost Accounting Theory (3)** P: Consent of MSA adviser: Basic concepts underlying cost accounting and use of knowledge in studying contemporary business environment.

**6891. Federal Income Taxation (3)** P: ACCT 3561 or consent of MSA adviser: General income tax theory and applications to problems encountered by individuals and businesses. Compliance, planning, and research.

**6901. Advanced Federal Taxation (3)** P: ACCT 3731, 6891; or consent of MSA adviser: Income tax issues encountered by corporations, partnerships, and families. Includes gift and estate taxation, research and compliance procedures, and planning for maximization of after-tax benefits for multiple entities.

**6911. Research in Taxation (3)** P: ACCT 6891; consent of MSA adviser: Federal taxation at research level. Research for individuals and corporations. Introduction to estates and trusts.

**6921. Advanced Taxation of Partnerships (3)** P: ACCT 6901, 6911; or consent of instructor: Federal taxation of partnerships, S-corporations, and limited liability companies.

**6931. Advanced Taxation of Estates (3)** P: ACCT 6901, 6911; or consent of instructor: Federal taxation of estates, trusts, and gifts.

**6951. Auditing Seminar (3)** P: To be taken during final semester or by consent of MSA adviser: Conceptual framework of independent auditing. Emphasis on development of theory, methodology, standards, and practice.

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**6981.The Professional Accounting Environment (3)** Must be taken during the last semester of course work. P: Candidate for graduation. Advanced accounting topics, the audit, and contemporary issues and problems. Emphasis on cost accounting, international accounting, business combinations, taxation, and practical application.

**6991.Advanced Topics in Accounting (3)** P: Consent of assistant dean for graduate programs and dept chair. Investigation of specific problems in accounting.

### ACCT Banked Courses

**6401.Accounting for Public Sector (3)**

**6651.Accounting and Public Interest (3)**

**6831.Taxation and Business Decisions (3)**

**6851. Corporate Mergers (3)**

## DEPARTMENT OF DECISION SCIENCES

*Scott Dellana, Chairperson, 3410 Bate Building*

### DSCI: DECISION SCIENCES

**6123. Quantitative Methods (3)** P: Consent of assistant dean for graduate programs. Basic quantitative concepts and their applications to decision models.

**6143. Management Information Systems I (3)** P: Consent of assistant dean for graduate programs. Emphasis on computer application.

**6213. Operations Management (3)** P: DSCI 6123, 6143. Production/operations function of manufacturing and nonmanufacturing organizations. Topics include production planning, demand management, materials management and control, capacity considerations, and quality control. Examination of domestic and international applications.

**6613. Management Science (3)** P: DSCI 6213. Methods and models used in application of management science to managerial and organizational decision-making. Emphasis on deterministic models. Topics include decision theory, mathematical programming, network models, and deterministic simulation.

**6683. Statistical Methods (3)** P: DSCI 6123. Multiple correlation and regression, forecasting, analysis of variance, and selected nonparametric statistical techniques. Application project.

**6843. Management Information Systems II (3)** P: DSCI 6143. Analysis, design, and implementation of management information systems.

**6853. Seminar in Information Systems (3)** P: DSCI 6143. Current and emerging concepts, tools, and methodologies in information systems.

**6863. Distributed Systems (3)** P: DSCI 6143. In-depth study of business information systems based on evolving communication technology and management problems associated with communication networks.

**6873. Data Management for Decision Making (3)** P: DSCI 6143. Analysis of database theory and practice that support managers in the decision-making process.

**6883. Managerial Applications of Object-Oriented Technology (3)** P: DSCI 6143. Applications of object-oriented technology in business environment. Study of object-oriented language and methodologies for systems development.

**6923. Topics in Decision Sciences (3)** P: Consent of assistant dean for graduate programs and dept chair.

### DSCI Banked Courses

**6803. Stabilization Policy (3)**

**6823. Applied Management Science (3)**

**6833. Advanced Production Management (3)**



## DEPARTMENT OF FINANCE

*Stanley G. Eakins, Chairperson, 3420 Bate Building*

### FINA: FINANCE

**6144. Financial Management I (3)** P:ACCT 6241. Financial manager's role in financial planning, acquisition of funds, and social, ethical, and governmental aspects of national and international financial decision making.

**6204. Analysis of the Business Economic Environment (3)** P: DSCI 6123. Concepts, theories, and analytical tools of micro and macroeconomic theory and their application in understanding the economic, social, and legal environment in which businesses operate.

**6214. Government Regulation of Business (3)** P: Consent of assistant dean for graduate programs. Legal process and government's role played in public regulation of business enterprise. Covers judicial system, contract and sales law, business associations, antitrust, securities regulation, employment law, and trade regulation.

**6604. Financial Management II (3)** P: DSCI 6123; FINA 6144. Financial management decision techniques as applicable to complex domestic and international business.

**6624. Investment Management (3)** P: FINA 6144. Conceptual and analytical framework for formulating investment policies, analyzing investment alternatives, and constructing portfolio strategies for individuals and institutions.

**6654. Commercial Bank Financial Management (3)** P: FINA 6144. Conceptual and analytical framework for management of commercial banks.

**6814. Management of Financial Risk (3)** P: DSCI 6123; FINA 6144. Analysis of risk environment of corporations through advanced analytical tools and models.

**6824. Portfolio Theory, Construction and Management (3)** For students considering careers in portfolio management. P: FINA 6144. Portfolio optimization, asset allocation, performance evaluation, and market efficiency issues from perspective of professional portfolio manager. Extensive use of spreadsheet software.

**6854. Real Estate Analysis (3)** P: FINA 6144. Relationships among real estate, financial, and investor communities. Includes markets, location, financial and investments analysis, and taxation.

**6874. Topics in Finance (3)** P: FINA 6144. Selected topics.

**6876. International Financial Management (3)** P: FINA 6144. Financing of international trade and investments. Topics include international monetary system and banking, exchange rates and money markets, and international long-term investment and financial management.

## DEPARTMENT OF MANAGEMENT

*Joseph M. Tomkiewicz, Chairperson, 3106 Bate Building*

### MGMT: MANAGEMENT

**6102. Comparative Management (3)** P: Consent of assistant dean for graduate programs. Management concepts and manager's responsibilities to stakeholders. Emphasis on impact of international competition.

**6322. International Management (3)** P: Consent of assistant dean for graduate programs. Intensive examination of management of organizations in global economy.

**6500, 6510, 6520. Independent Study (3,3,3)** P: Consent of assistant dean for graduate programs and instructor. Intensive study of selected subject in greater depth than achieved in other courses offered by school.

**6722. Business Policies (3)** P: To be taken during last term or by consent of assistant dean for graduate programs. Concept of policy making and viewpoint of management. Integration of business organization in decision making and formulation of plans to achieve objectives.

## SECTION 7: CURRICULA

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**6802. Organizational Behavior (3)** P: MGMT 6102 or consent of assistant dean for graduate programs. Managing and understanding individuals and groups in organizational environment. Motivation, communication, leadership, group process, and diversity in work place.

**6812. Entrepreneurship (3)** P: FINA 6144; MGMT 6102; MKTG 6162. Conceptualization, initiation, and management of new enterprises with consideration of opportunities and associated risks.

**6822. Business and Society (3)** P: Consent of assistant dean for graduate programs. Implications of management decisions in broader scope of antitrust legislation, regulation by government, value systems, and ethics.

**6832. Human Resources (3)** P: MGMT 6102. Skills and techniques used in building and maintaining an effective work force.

## DEPARTMENT OF MARKETING

*Kenneth Anselmi, Chairperson, 3414 Bate Building*

### MKTG: MARKETING

**6162. Marketing Management (3)** P: Consent of assistant dean for graduate programs. Definitions, concepts, practices, and analytical tools used to market goods and services. Environmental variables, e.g., legal, social, ethical, cultural, ecological, and technological issues and marketing's role within profit and nonprofit organizations.

**6642. Marketing Research (3)** P: DSCI 6123; MKTG 6162. Methods, techniques, and procedures of marketing research. Emphasis on various methods of acquiring information for marketing management decision making. Major group project or case is required.

**6652. Seminar in Marketing (3)** P: MKTG 6162. Selected topics.

**6662. Electronic Markets (3)** P: DSCI 6143; MKTG 6162. Examines processes necessary to integrate a website into an organization's strategic plan and the basics of the Internet. Focuses on strategic application of website to enhance corporate profit, serve customers, and market organization. Considers how various types of hardware, software, and telecommunications enable and support integrated, e-business processes in an organization. Covers improvement, enhancement, and promotion of the site, including registering with search engines and directories.

**6762. Business-to-Business Marketing (3)** P: MKTG 6162. Examines exchange between businesses (B2B) and between businesses and government (B2G). Includes strategic implications of marketing high volume, high cost, or high technology products or services to organizations. Focuses on group buying processes, inter-firm dynamics and relationship building, marketing mix considerations, and effects of the global marketplace. Includes organizational buying process, customer and supply chain relationships, electronic linkages and exchange models, globalization, strategy development, and the marketing mix.

**6822. Marketing Strategy (3)** P: ACCT 6241; MKTG 6162. Market analysis and strategy formulation. Emphasis on application of marketing concepts to variety of organizations.

**6842. Consumer Behavior (3)** P: MKTG 6162 or consent of instructor. Current theory and research in consumer behavior used to develop marketing strategy for profit and nonprofit businesses. Applications of consumer behavior to social marketing.

**6992. Global Marketing (3)** P: MKTG 6162. Marketing decision-making, strategy development, and operational performance of firms involved in international business.

### MKTG Banked Courses

**6832. Public Relations (3)**

# COLLEGE OF EDUCATION

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*Marilyn A. Sheerer, Dean, 154 Speight Building*

The mission of the College of Education is the preparation of professional educators and allied practitioners, including professionals in business information systems, counseling, electronic media, and librarianship. Significant to this mission is a strong commitment to three important, related areas: the encouragement and nurturing of professional growth for educators and allied practitioners at all levels and in all areas of the educational endeavor; a continuing emphasis on and support for scholarship and research/creative activity; and service in all areas of professional education.

The College of Education offers graduate degree programs through the Departments of Business, Career, and Technical Education; Counselor and Adult Education; Curriculum and Instruction; Educational Leadership; Librarianship, Educational Technology, and Distance Instruction; and Mathematics and Science Education.

## Accreditation

Graduate teacher education programs are accredited by the National Council for the Accreditation of Teacher Education (NCATE) and the Public Schools of North Carolina, Department of Public Instruction.

## Distance Education

All programs may be available on campus. Selected programs have been approved for distance education delivery. For a complete listing of programs available partially or entirely through distance education, please refer to section 6, Degrees and Teacher Licensure, or contact individual department offices.

## MASTER'S TEACHING DEGREES

The master of arts in education (MAEd) is offered with teaching areas in science education, mathematics education, history education, elementary education, middle grades education, business education, marketing education, reading education, English education, health education, physical education, behavioral/emotional disabilities, learning disabilities, low incidence disabilities, mental disabilities, and instructional technology. MAEd programs in art, family and consumer sciences education, and music (master of music) are administratively located in the respective departments. These programs may choose to satisfy MAEd competency requirements through the use of the MAEd core or they may utilize their own courses to meet the competencies. The College of Education also offers the master of arts in teaching (MAT) with teaching field options. Please refer to the Department of Curriculum and Instruction for requirements of the MAT.

NOTE: The College of Education also offers an MAEd in adult education, which is not a teaching degree.

## MASTER OF ARTS IN EDUCATION (MAEd)

Master of arts in education (MAEd) degree programs range from a minimum of 36-39 semester hours, depending on the teaching field. All MAEd degree programs require completion of course work in the following competency areas: research, trends, and issues in education; the diverse learner; and, effective communication and leadership. The program is designed so that students and advisers have options in completing these competencies. Additional courses may be added to the following list of core courses as they are approved.

All MAEd teaching degree programs require completion of a final product. Depending on the teaching area selected, the final product may be in the form of a comprehensive examination (written or oral), a thesis, a research project, or a portfolio. See the description of teaching area specific courses (below) for information about how the final product requirement is satisfied in your teaching area.

A student may seek acceptance into the College of Education and one of several teaching areas offered in the MAEd. Minimum requirements for admission to the College of Education's MAEd program include the following:

1. All MAEd applicants (except those applying to the adult education or instructional technology MAEd programs) must currently hold an initial teaching license. Entrance into an MAEd teaching area other than that of the initial licensure area may require prerequisite courses and a passing score on the area specialty PRAXIS exam for licensure.
2. Overall GPA of 2.5 on a 4.0 scale on all undergraduate work from an institution accredited by a regional association.
3. Satisfactory entrance examination scores on either the Graduate Record Examinations or the Miller Analogies Test. This must be completed prior to admission or completion of 9 s.h. of graduate credit.

SECTION 7: CURRICULA

4. A completed Graduate School application packet, including three letters of recommendation from persons who can attest to the applicant's academic competence or ability to do graduate work, the written statement of purpose, and a copy of the initial teaching license.

Upon acceptance into a teaching area, the student is assigned an adviser:

Required core courses .....	12 s.h.
Research, Trends, and Issues Competency Area: EDUC 6480, 6482 or SCIE 6500 .....	3 s.h.
Diverse Learner Competency Area: EDUC 6001; SPED 6002 .....	6 s.h.
Effective Communication and Leadership Competency Area: LEED 6000 or ADED 6550 or ELEM 6550 .....	3 s.h.
Teaching area specific courses (Choose from one of the following areas.) .....	24-27 s.h.
Business education .....	27 s.h.
BVTE 6410, 6426, 6450, 6492, 6750	
Choose 12 s.h. from the following:	
ASIP 5200, 5201; BVTE 5205, 5500, 5503, 6100, 6103, 6104, 6400, 6422, 6423, 6424, 6428, 7000 (May count 6 s.h. of BVTE 7000 toward the degree.); TECH 6430	
Final product requirement: Either the development of a professional portfolio with an oral defense (BVTE 6450) or a thesis with an oral defense (BVTE 7000).	
Elementary education .....	24 s.h.
ELEM 6000, 6001, 6200, 6300, 6400, 6500	
Choose 9 s.h. in an elementary content strand as follows:	
Content Pedagogy: ELEM 6406; 6412 or 6488; MATE 6320; SCIE 6019; READ 5316 or 6421	
Teacher Leadership in the Elementary School: ELEM 6408, 6805, 6408, 6410, 6412	
Thesis: ELEM 7000 (May be repeated. May count 6 s.h. toward the degree. Can be substituted for 3 s.h. in one of the content strands.)	
Final product requirement: A research project with an oral presentation (ELEM 6000 and 6001) or a thesis with an oral thesis defense (ELEM 7000).	
English education .....	27 s.h.
ENED 6510, 6511	
9 s.h. literature, 6 s.h. of which must be at the 6000 level	
Choose 3 s.h. from ENGL 6520, 6527, 6529	
Choose 3 s.h. from ENED 6630; ENGL 6625	
Choose 3 s.h. from ENGL 5360, 6340, 6360	
Choose 3 s.h. from COAD 6358; READ 5317; SPED 6000	
Final product requirement: A research project initiated in ENGL 6510 and completed with an oral presentation in ENGL 6511.	
Health education .....	24 s.h.
HLTH 5310, 6000, 6100, 6200, 6201, 6355, 6400	
Internship: HLTH 6990, 6991	
Final product requirement: A professional portfolio (HLTH 6990 and 6991) is required for completion of the final product requirement.	
History education .....	27 s.h.
HIED 6510; HIST 6900, 6993	
Instructional technology .....	24-27 s.h.
The degree requires a minimum of 39 s.h. of credit as follows: EDTC 6010, 6020, 6025, 6035 or 6037, 6139, 6140 or 6230, 6149, 6992, one elective; and 12 s.h. of the Required core courses for the MAED as listed under the College of Education general information for Master of Arts in Education (MAEd).	
Additional requirements may be appropriate for candidates without a teaching license.	
Students completing the MAEd in instructional technology are eligible for NC licensure 077 - Instructional Technology Specialist Computers or NC licensure 074, Instructional Technology Specialist Telecommunications.	
Final product requirement: the development of a professional portfolio.	

Marketing education .....	27 s.h.
ASIP 5200, 5201	
BVTE 5388 or 6400; 6426, 6450, 6750	
MKTG 6162, 6822, 6842	
Choose a technology elective from ASIP, BVTE, or EDTC	
Final product requirement: The development of a professional portfolio with an oral defense (BVTE 6450).	
Middle grades education .....	24 s.h.
MIDG 6000, 6100, 6200, 6300, 6401	
Concentration Area: Choose 12 s.h. from one concentration area or a minimum of 9 s.h. from one area and 3 s.h. from another:	
English: ENED 6510; ENED 6630 or ENGL 6625; ENGL 5360 or 6340 or 6360; 6488, 6515; 3 s.h. ENGL elective	
Mathematics: MATE 5263, 5264, 6321; MATH 6264; 3 s.h. MATE or MATH elective	
Science: SCIE 6003, 6004, 6020, 6200, 6310, 6506	
Social studies: ELEM 5306; GEOG 5283, 6393; HIED 6510; HIST 5122, 5130, 5135, 5340, 5765	
Thesis: MIDG 7000	
Final product requirement: A research project with a presentation and written documentation (MIDG 6001 and 6401) or a thesis with an oral thesis defense (MIDG 7000).	
Physical education .....	24 s.h.
Choose one concentration area:	
Adapted Physical Education: EXSS 5303, 5305, 5903, 6201, 6300, 6301, 6990, 6991, 6994; 3 s.h. elective	
Physical Education Pedagogy: EXSS 6104, 6105, 6108, 6109, 6201, 6202, 6300, 6301, 6990, 6991	
Final product requirement: In addition to successfully passing a written comprehensive exam, a research project (EXSS 6994) or a professional portfolio (EXSS 6990, 6991).	
Reading education .....	27 s.h.
COAD 6358; READ 6405, 6418, 6430; 6421, 6422 or 6431, 6432	
Choose 9 s.h. from one option as follows:	
Option I. Courses for Related Study: Approved electives from reading and classroom teaching, reading specialist, adult literacy, English as a second language, or a combination of related study courses	
Option II. Non-Thesis: Choose from approved list of electives	
Option III. Thesis (2 required courses and 1 elective from approved list): READ 7000 (May count 6 s.h. toward degree.); 3 s.h. elective	
Final product requirement: A professional portfolio (READ 6405, 6421, 6422, 6430) and successful completion of a written comprehensive exam.	
Science education .....	24 s.h.
SCIE 6020, 6200, 6310, 6600	
Special education .....	27 s.h.
SPED 6010, 6011, 6012, 6013	
Choose 15 s.h. from one specialty area as follows:	
Option I. Mental disabilities: SPED 6020, 6021, 6040, 7000; approved electives	
Option II. Learning disabilities: SPED 6020, 6022, 6040, 7000; approved electives	
Option III. Behavioral/Emotional disabilities: SPED 6020, 6023, 6040, 7000; approved electives	
Option IV. Low Incidence disabilities: SPED 6030, 6031, 6040, 6301, 7000	
Final product requirement: An action-research project (SPED 6040) and either development of a professional product (SPED 5502) or a thesis (SPED 7000). All final products require an oral presentation to faculty and students.	

## ADMISSION TO CANDIDACY

Admission to candidacy for the MAEd will be met when the following have been completed.

1. Unconditionally admitted to graduate standing.
2. Accepted to a program area and assigned an adviser.
3. Completion of 12 s.h. of graduate credit over and above any entrance deficiencies or conditions.

## SECTION 7: CURRICULA

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### TRANSFER CREDIT

Transfer of credit regulations which have been established by the Graduate School apply to this degree program. Transfer of credit is only accepted when it is fulfilling a deficiency or content area of knowledge.

### RESIDENCE REQUIREMENTS

The residence requirement for a nondoctoral degree program is met when a student has earned at least eighty percent of the required graduate degree credit for his or her program through enrollment in courses offered by East Carolina University.

### CONTINUOUS ENROLLMENT (OR REGISTRATION)

Graduate students who have previously registered for all credits in a graduate degree program but who have not completed all requirements (e.g., thesis, professional paper, internship, etc.) must continue to register each semester (except summer terms) until all degree requirements are completed and filed with the registrar. Under special circumstance, exception to continuous registration may be approved by the dean of the Graduate School. Students must be registered for the semester of graduation (except summer if registered for preceding spring semester).

### OTHER REQUIREMENTS FOR THE MAEd

General requirements for the completion of the master's degrees are as follows:

1. 36-39 s.h. of course work, depending upon the teaching area.
2. A cumulative grade point average of 3.0.
3. Meeting specific teaching area requirements.
4. Completion of a culminating project.

Students who do not have at least a 3.0 GPA upon completion of the MAEd program may be allowed to submit up to 6 s.h. additional graduate credit hours in residence on the East Carolina University campus or at an approved graduate center in order to accumulate a 3.0 average. These credits will be in the area(s) evaluated as being weak.

Graduate courses with a final grade of C may be credited toward completion of any part of a nondoctoral degree program, but any student who receives a final grade of C on courses totaling in excess of 6 s.h. will have his or her program terminated. A B average is required for graduation based on semester hours of A-graded work equal to or exceeding semester hours of C-graded work. A student who receives two Fs or two Cs and an additional C or F as final grade is subject to termination.

## DEPARTMENT OF BUSINESS, CAREER, AND TECHNICAL EDUCATION

*Ivan G. Wallace, Chairperson, 2318-A Bate Building*

### MAEd AND MAT IN BUSINESS EDUCATION, MARKETING EDUCATION, AND FAMILY AND CONSUMER SCIENCES

For requirements of the master of arts in education (MAEd), please see above. For requirements of the master of arts in teaching (MAT), please see Department of Curriculum and Instruction, below. Both degree programs lead to advanced licensure. See College of Human Ecology for requirements of the MAEd in family and consumer sciences.

### MS IN VOCATIONAL EDUCATION

Study toward the MS in vocational education presupposes the completion of an undergraduate degree with a strong information technologies/computer technology background. Thirty semester hours of course work are required for the degree as well as a thesis or portfolio. The degree has two components: a 9 s.h. BVTE core and 21 s.h. of information technologies courses.

BVTE core (9 s.h.): BVTE 6426, 6450; 6750 or DTEC 6800.

Information technologies (21 s.h.): ASIP 5200 or BVTE 5503; BVTE 6103; DSCI 6143 or 3 s.h. major area elective; TECH 6430; choose 9 s.h. from BVTE 5500, 6422, 6423, 6424; DTEC 6805, 6820.

**ASIP: ADMINISTRATIVE SERVICES AND INFORMATION PROCESSING**

**5200, 5201. Microcomputer Business Graphics Applications (3,0)** P: ASIP 4200 or consent of instructor: Advanced course in specialized graphics-oriented microcomputer applications software used to produce business documents, reports, brochures, newsletters, pamphlets, and other page-composition publications.

**BVTE: BUSINESS, CAREER, AND TECHNICAL EDUCATION**

**5205. Teaching Special Populations in Career and Technical Education (3)** P: SPED 2000 or equivalent. Emphasis on modification and development of materials, curricula, and programs for special populations in career and technical education.

**5388, 5389, 5390. Seminar in Career and Technical Education (3,3,3)** May be repeated for credit with change of topic. Problem areas of major concern in information technologies, business education, marketing education, or family and consumer sciences education.

**5500. Independent Study in Career and Technical Education (3)** P: Senior or graduate standing in marketing education. Independent study, research, and investigation in career and technical education.

**5503. Integrating Information Processing Technology into Career and Technical Education (3)** P for undergraduate students: Senior or graduate standing; consent of dept chair: Integration of information processing technology into career and technical education curricula.

**6103. Facilities Planning and Management in Career and Technical Education (3)** Planning building facilities for information technologies and career and technical education.

**6400. Foundations and Management of Retailing for Marketing Education (3)** Emphasis on retailing and wholesaling institutions, their development, roles in distribution structure, strategies, and practical technical problems. Basic functions of buying, selling, physical distribution, and risk.

**6410. Social, Legal, and Ethical Environments in Career and Technical Education (3)** Major ideas and institutions that comprise important part of environment within which business and educational transactions occur.

**6422, 6423, 6424. Problems in Career and Technical Education (1,2,3)** May be repeated for credit with change of topic. Special topics in selected areas of career and technical education.

**6426. Supervision in Career and Technical Education (3)** Theory, principles, and procedures in supervision as they relate to improvement of instruction and pupil and teacher growth.

**6428. Instructional Strategies for Career and Technical Education (3)** May require additional lab time. Planning and implementation of effective instructional procedures for information technology courses. Hands-on experience in use of information technology equipment.

**6450. Evaluation in Career and Technical Education (3)** P: Graduate standing in business education, marketing education, family and consumer sciences education, or a related area. Methods and techniques of evaluating career and technical education students, teachers, programs, and facilities.

**6492. Career and Technical Education Curriculum Design (3)** Program development with special emphasis on job analysis as a base for program planning and curriculum construction.

**6750. Contemporary Career and Technical Education Research (3)** Contemporary research and evaluation techniques for career and technical education.

**7000. Thesis (3)** May be repeated. May count maximum of 6 s.h.

**7001. Thesis: Summer Research (1)** May be repeated. No credit may count toward degree. Students conducting thesis research may only register for this course during the summer.

### BVTE Banked Courses

**5301. Middle Grades Career Exploration in Marketing and Business Education (3)**

**6420. Problems in Business Education: Secretarial Science (3)**

### TECH: TECHNOLOGY

**6430. Computer Concepts and Applications for Career and Technical Educators (3)** May require additional lab time. Business-related computer concepts and applications. Hands-on experience using various microcomputers.

## DEPARTMENT OF COUNSELOR AND ADULT EDUCATION

*Vivian Mott, Acting Chairperson, Building #165, 209 E. Third Street*

### MAEd IN ADULT EDUCATION

The College of Education offers a master's degree program in adult education, which is designed to assist teachers, instructional designers, administrators, trainers, and other persons working with adult learners to develop those skills necessary to initiate, design, administer, and implement effective educational programs. The mission of the degree program is to prepare adult educators who are knowledgeable and reflective in their practice and critical in their thinking. Admission to this program does not require an initial teaching license. The program requires a minimum of 36 s.h. with 24 s.h. in adult education and 3 s.h. in educational research. A maximum of 9 s.h. may be taken as electives in related areas. An interview and writing sample may be required for admission.

Required courses: ADED 6445, 6453, 6481, 6484, 6487; educational research course approved by dept.

### MS IN COUNSELOR EDUCATION

Students majoring in counselor education must complete a minimum of 48 s.h., including 30 s.h. of core courses, 3 s.h. in the research area, and 15 s.h. of education, psychology, sociology, human environmental sciences, or health according to the student's needs as approved by the adviser. Individualized programs of course work will be designed to promote the competencies required of counselors. Students seeking licensure as school counselors must be eligible for Class A license or must complete an extended school internship. A departmental interview may be required for admission.

Required courses: COAD 5370, 6401, 6402, 6404, 6405, 6407, 6409, 6482, 6991; choose one from: COAD 6406, 6411, 6415; educational research course approved by dept.

### EdS IN COUNSELOR EDUCATION

Applicants for admission to this sixth-year program must have completed a master's degree in counselor education or allied field of study with a minimum GPA of 3.25; have a minimum of one year of experience as a practicing counselor or its equivalent; make a satisfactory score on an appropriate entrance examination; and be interviewed by members of the counselor education faculty.

The student must satisfactorily complete five of the 7000-level courses taught in the department, including COAD 7480, 7482, for a total of 15 s.h., and 15 s.h. of elective graduate courses chosen in consultation with the departmental adviser. The EdS program totals 30 s.h.

The purpose of the program is to develop breadth and depth in the same areas as the master's program in accordance with professional guidelines.

### ADED: ADULT EDUCATION

**6001, 6002, 6003. Special Topics Seminar (1,2,3)** May be repeated for maximum of 6 s.h. P: Consent of instructor. Focused study in selected topics in adult education.

**6240. Effective College Teaching (3)** Basic principles and practice of effective teaching at college level. Conceptual understanding and experiential skills in planning, implementing, and evaluating college instruction.



**6307. Proposal Writing for Grants and Contracts (3)** Sources of support of sponsored programs. Design of proposals for research, training/education, public service, development, and other types of grants and contracts. Emphasis on practical application of knowledge and techniques for proposal preparation.

**6379. Issues and Strategies in Adult Literacy (3)** Educational, psychological, social, cultural, and political problems that may be present for adults with low levels of literacy. Strategies and practical applications developed for understanding, motivating, and teaching under-educated adult.

**6445. Introduction to Adult and Community Education (3)** P: Baccalaureate degree. Overview of adult education to aid student in conceptualizing social, historical, and philosophical nature of the field.

**6446. Community Education and Community Development (3)** P: ADED 6445. Relationship between community education and community development and agencies and institutions in community. Techniques for assessing, coordinating, and delivering services through persons trained as community education specialists.

**6450. Community, Junior, and Technical Colleges (3)** Philosophy, roles, organization, and historical foundations of community, junior, and technical colleges as specific institutions designed to meet educational needs of a rapidly changing society.

**6453. The Adult Learner (3)** Uniqueness of adult as learner. Development and changes in adulthood that affect learning process.

**6454. Educational Gerontology (3)** Developmental process of aging through sociological, physiological, and psychological aspects. Emphasis on overall educational implications, particularly resources and program planning related to all areas of older adult population.

**6461. Introduction to Training and Development (3)** Current writings and research, models of training and development, and relationship between training and development and other human resource specialty areas.

**6462. Seminar in Training and Development (3)** P: ADED 6461. Advanced understanding of current problems, issues, and trends in training and development in business, industry, health care, and governmental agencies.

**6481. Development of Adult Education Programs (3)** Concepts, theories, processes, and practices essential to developing programs for adult learners.

**6484. Organization and Administration of Adult Education (3)** Organizational practices, principles, and theories as applicable to adult education organizations. Emphasis on specific administrative policies and functions.

**6487. Instructional Strategies in Adult Education (3)** Methods and techniques for effective instruction of adults in a variety of settings. Emphasis on concepts, theories, and principles relevant to the selection, use, and evaluation of instructional strategies.

**6490. Issues and Trends in Adult Education (3)** P: Consent of instructor. Current issues, trends, and controversies that affect adult and continuing education practice, including emerging technological, sociocultural, economic, demographic, and ethical issues.

**6491. Research Problems in Adult Education (3)** Advanced study on use, understanding, and critique of existing educational research, including methodologies, ethics of research, thesis, and manuscript preparation.

**6492, 6493. Directed Readings in Adult and Community Education (1,2)** P: 12 s.h. ADED. Advanced exploration of literature in adult and community education under direction of adult education faculty.

**6550. Leadership and Communication Skills in Education (3) Same as ELEM 6550** Teacher leadership, communication, and reflective practice in schools. Skill development enhances communication and collaboration with families, students, and educational professionals. Addresses organizational challenges and facilitates positive change.

**6989, 6990. Internship in Adult Education (3,3)** Full-time or part-time experience under the supervision of an expert adult education practitioner.

**7000. Thesis (3)** May be repeated. May count maximum of 6 s.h.

## SECTION 7: CURRICULA

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**7001.Thesis:Summer Research (1)** May be repeated.No credit may count toward degree.Students conducting thesis research may only register for this course during the summer.

### COAD: COUNSELOR EDUCATION

**5370.Introduction to Counseling and Human Services (3)** Issues and processes of counseling services and programs.Attention given to history,philosophy,functions, and professional issues.

**6001,6002,6003.Special Topics (1,2,3)** May be repeated for maximum of 6 s.h.Focused study in selected significant and/or contemporary topics in adult education and/or counseling.Title varies with topic.

**6004.Interpersonal Communication Skills (3)** For noncounselor education majors. Overview of communication skills useful in professional settings when assisting people with decisions about relationships and life choices.

**6358.Classroom Assessment and Measurement (3)** Application of measurement techniques to classroom instruction.Preparation of classroom assessment instruments,application of statistical techniques, and use of standardized tests and assessment data to improve instruction and lead curriculum development.

**6370.Counseling Children and Adolescents (3)** Developmental counseling approaches and techniques used with children and adolescents,including individual,group, and family procedures for prevention, development, and treatment as well as consultation processes.

**6401.Analysis of the Individual (3)** P: COAD 5370 or consent of dept chair:Techniques of test and nontest nature for studying individuals. Use of anecdotal records, rating scales, autobiographies, personal data blanks, sociometric devices, and case study.Taking, scoring, and interpreting of mental ability, aptitude, interest, and personality tests useful in counseling work.

**6402.Career Development and Counseling (3)** P: COAD 5370 or consent of dept chair:World of work,types of occupational and educational information, sources of information,methods of disseminating the information, and career development theory.

**6404.Counseling Theory and Techniques (3)** P: COAD 5370.Approaches to counseling, interviewing methods, psychological factors underlying various methods,tools of counseling, and evaluation of counseling.

**6405.Group Procedures (3)** P: COAD 6404.Application of group methods in counseling.Group dynamics,group therapy,group techniques, and applications of these factors to counseling programs.

**6406.Counseling in Schools (3)** P: COAD 6401, 6402, 6404; or consent of dept chair: Development and coordination of comprehensive school counseling program.Planning and management skills, roles of other school personnel, consultation skills, and ethical and professional issues in school counseling.

**6407.Social and Cultural Issues in Counseling (3)** P: COAD 6401, 6402, 6404. Seminar: Contemporary issues and trends in counseling related to cultural aspects of clients and society.Presents ideas about counseling relationships to encourage an expanded view of professional helping.

**6408.Counseling the Exceptional Student (3)** P: COAD 6401, 6404; SPED 5101; or consent of instructor: Counseling theories and techniques relevant with exceptional students and their parents. Reviews characteristics and legislation regarding exceptional students. Emphasis on counseling process in dealing with problems of exceptional students.

**6409.The Helping Relationship (3)** P: COAD 6401, 6404.Fundamental skills development for subsequent professional studies of counseling. Emphasis on development of specific skills in counseling,testing,human relations,design of counseling strategies, and treatment plans.

**6411.Student Development and Counseling in Higher Education (3)** P: COAD 6401, 6402, 6404; or consent of instructor: Sociological, psychological, and historical basis of student services in higher education. Identifies how professional counselors can meet the needs of students in higher education.Procedures for developing, implementing, and managing student services programs.

**6412.Developmental Counseling and Learning:A Life-Span Approach (3)** P: COAD 6409; PSYC 6406 or equivalent.Application of human development theories to selection of appropriate counseling strategies and interventions with clients throughout the life span.

**6415. Agency and Community Counseling (3)** P: COAD 6401, 6402, 6404. Issues, functions, and organization of human service agencies. Focus on helping strategies that promote mental health wellness, personal growth, and development through preventive models of intervention.

**6416. Concepts of Self (3)** P: COAD 6404 or equivalent. Personal frame of reference for students to examine how self-concept relates to human growth, achievement, and developmental change in counseling.

**6482. Supervised Practice Counseling (3)** Students apply for placement in settings compatible with their career interests. Weekly seminar complements the field experience. P: All other courses in counselor education sequence. Individual counseling, interviewing, and group work with clients about issues of vocational choice, educational planning, and social-personal adjustment.

**6483. Counseling Concerns and Counseling Strategies (2)** P: COAD 6409 or consent of instructor. Seminar. Timely concerns of clients and effective strategies for intervention. Examines strategies used to help clients with topical issues.

**6991, 6992. Counseling Internship (3,3)** For advanced counseling student or one who needs the experience in lieu of initial licensure. Each internship may be repeated once. Practical experience in counseling in professional setting under direct supervision. Counselor education faculty evaluate progress.

**7000. Thesis (3)** May be repeated. May count maximum of 6 s.h.

**7001. Thesis: Summer Research (1)** May be repeated. No credit may count toward degree. Students conducting thesis research may only register for this course during the summer.

**7402. Seminar–Career Development (Theory and Program) (3)** P: COAD 6402 or equivalent or consent of instructor. Explores aspects of effective career development, successful career preparation, and life-long career planning. Practical application of career theory concepts to rapidly changing world of work and futuristic trends.

**7404. Advanced Counseling and Consulting Strategies (3)** P: COAD 6404 or equivalent or consent of instructor. In-depth examination of various counseling strategies and approaches for practicing counselors. Study of selected consulting models and approaches.

**7405. Practicum in Group Counseling (3)** P: COAD 6405 or equivalent or consent of instructor. Supervised practicum in group counseling. Emphasis on development of counseling skills through analyzing and leading small groups. Didactic content related to experiences in group work.

**7408. Professional, Legal, and Ethical Issues in Counseling (3)** P: COAD 6409 or equivalent or consent of instructor. For advanced students in counseling.

**7411. Administration and Management of Student Affairs in Higher Education (3)** P: COAD 6411 or consent of instructor. Managing and understanding student affairs agencies, workers in those agencies, and student needs that create those agencies. Considers planning, funding, budgeting, and direction of such agencies.

**7480. Research Methods and Design in Counseling (3)** P: EDUC 6480 or master's in counseling or equivalent or consent of instructor. Review of methodological problems in counseling research. Development and critique of research designs. Emphasis on application of research to work of counselor.

**7482. Counseling Supervision (3)** P: Enrolled in EdS in counselor education; COAD 7404, 7405; or consent of instructor. Practicum experience in supervision of counselor trainees. Establishment of supervisory relationship, critiquing of tapes, and application of supervision principles.

### COAD Banked Courses

**5380. The Adult Education Learning Center (3)**

**6447. Seminar in Community Education (3)**

**6500. Special Fields of Study in Counseling (2)**

**6521. Directed Readings (2)**

**6987, 6988. Internship in Human**

**Resource Education and Training (3,3)**

DEPARTMENT OF CURRICULUM AND INSTRUCTION

David A. Powers, Chairperson, 120 Speight Building

MASTER OF ARTS IN TEACHNG (MAT)

The master of arts in teaching (MAT) includes teaching field options as follows: art education, business education, elementary education, English education, family and consumer sciences education, health education, Hispanic studies, marketing education, middle grades education, music education, physical education, reading education, and science education. The Schools of Art and Design and Music, the Colleges of Health and Human Performance and Human Ecology, and the departments in the Thomas Harriot College of Arts and Sciences offer subject matter courses and content specific methods courses as well as supervise interns in specific teaching areas. The full-time program is designed to be completed in one year, beginning in the summer and finishing the following summer. Successful completion of the MAT leads to advanced teaching licensure.

Minimum requirements for admission to the College of Education's MAT program include the following:

- 1. MAT applicants must hold a bachelor's degree in an appropriate discipline as designated for the MAT teaching areas as follows:
  - Art education: BFA or BA in studio art.
  - Business and marketing education: business administration, management, accounting, decision sciences, marketing, or information processing or an MBA.
  - Elementary education: baccalaureate degree from a regionally accredited institution.
  - English education: English
  - Health education: public education, community health, exercise science, exercise physiology, physical education, nursing, biology, home economics, nutrition, psychology, sociology, or anthropology.
  - Hispanic Studies: undergraduate major in Spanish, Hispanic Studies, or Romance Languages with concentration in Spanish and proficiency level in Spanish: Advanced on the ACTFL scale in reading, listening, and speaking, Advanced-Plus in writing.
  - Middle grades education: English, mathematics, history, economics, geography, biology, geology, physics, chemistry, environmental science, life science, or earth science.
  - Music education: music performance, music business, church music, music theory/composition, or music therapy.
  - Physical education: exercise and sport science, kinesiology, physical education, or recreation.
  - Science education: biology, chemistry, physics, geology, life science, natural science, physical science, or earth science.
- 2. Overall GPA of 2.50 on a 4.0 scale on all undergraduate work from an institution accredited by a regional association.
- 3. Satisfactory entrance examination scores on either the Graduate Record Examinations or the Miller Analogy Test.
- 4. A completed Graduate School application packet, including three letters of recommendation from persons who can attest to the applicant's academic competence or ability to do graduate work and the written statement of purpose.
- 5. MAT applicants are required to complete an interview successfully with the MAT coordinator, program area faculty, and teachers.

Upon acceptance into a teaching area, the student is assigned an adviser:

The master of arts degree in teaching requires 39 s.h. of credit as follows:

Required core courses: TCHR 6010, 6011, 6020, 6024, 6030; SPED 6000 .....	24 s.h.
Teaching area specific courses: (Choose from one of the following areas.) .....	15 s.h.
Art education: ART 5323, 5670, 5851, 5860; additional 6 s.h. in teaching area	
Business or marketing education: ASIP 5200 or BVTE 6410 or 6492 or 6750; BVTE 6424, 6426, 6428; TECH 6430	
Elementary education: ELEM 6010, 6406; MATE 6320 or 6321; READ 5316; SCIE 6019	
English education: ENED 6520 or 6529; 6600, 6630, 6967; 3 s.h. literature	
Family and consumer sciences education: BVTE 6428, 6750; FACS 5007; TECH 6430; AMID 6303 or CDFR 5408 or 6407 or NUHM 5300 or 6400	
Health education: HLTH 5310, 6000, 6100, 6355, 6500	
Hispanic studies: SPAN 6600; 12 s.h. from the following (9 s.h. must be at the 6000 level): SPAN 5340, 5440, 5445, 5550, 5700, 5940, 6000, 6001, 6100, 6101, 6200, 6202, 6400, 6521, 6522, 6523	

Middle grades education: MIDG 6100, 6200; teaching area MIDG methods; 6 s.h. in specialty area

Music education: MUSC 5257 or 2 s.h. MUSC electives; MUSC 5977, 6048; 6217 or 6237; 6287 or 6405; 6323, 6333

Physical education: EXSS 5303, 6001, 6005, 6105, 6108

Science education: SCIE 5000, 6020, 6310, 6500, 6506

### **ADMISSION TO CANDIDACY**

Admission to candidacy for the MAT will be met when the following have been completed.

1. Unconditionally admitted to graduate standing.
2. Accepted to a program area and assigned an adviser.
3. Completion of 12 s.h. of graduate credit over and above any entrance deficiencies or conditions.

### **TRANSFER CREDIT**

Transfer of credit regulations which have been established by the Graduate School apply to this degree program. Transfer of credit is only accepted when it is fulfilling a deficiency or content area of knowledge.

### **RESIDENCE REQUIREMENTS**

The residence requirement for a nondoctoral degree program is met when a student has earned at least one-half of the graduate degree credit for his or her program while in residence, which is defined as taking courses on the campus of East Carolina University or at designated off-campus residence centers.

### **CONTINUOUS ENROLLMENT (OR REGISTRATION)**

Graduate students who have previously registered for all credits in a graduate degree program but who have not completed all requirements (e.g., thesis, professional paper, internship, etc.) must continue to register each semester (except summer terms) until all degree requirements are completed and filed with the registrar. Under special circumstance, exception to continuous registration may be approved by the dean of the Graduate School. Students must be registered for the semester of graduation (except summer if registered for preceding spring semester).

### **OTHER REQUIREMENTS FOR THE MAT**

General requirements for the completion of the master's degree are as follows:

1. 39 s.h. of course work.
2. A cumulative grade point average of 3.0.
3. Meeting specific teaching area requirements.
4. Completion of a culminating project.

Students who do not have at least a 3.0 GPA upon completion of the MAT program may be allowed to submit up to 6 s.h. additional graduate credit hours in residence on the East Carolina University campus or at an approved graduate center in order to accumulate a 3.0 average. These credits will be in the area(s) evaluated as being weak.

Graduate courses with a final grade of C may be credited toward completion of any part of a nondoctoral degree program, but any student who receives a final grade of C on courses totaling in excess of 6 s.h. will have his or her program terminated. A B average is required for graduation based on semester hours of A-graded work equal to or exceeding semester hours of C-graded work. A student who receives two Fs or two Cs and an additional C or F as final grades is subject to termination.

### **MAEd IN HISTORY EDUCATION (Social Studies Licensure) American History, European History**

The MAEd program in history education requires 39 s.h. in history and education. The department offers two areas of concentration: American history and European history. The student is required to take a minimum of 21 s.h. in one of these areas to which the historiography course, the seminar in issues and topics, and the directed research project will contribute 9 s.h. of credit. The student must also take a total of 6 s.h. in a related field of history outside of the major concentration. At least 3 s.h. must be in the area of culturally diverse or multicultural populations. Students must also complete 12 s.h.

SECTION 7: CURRICULA

professional education core.

An oral comprehensive examination will be a component of the directed research project defense. Candidates will be required to demonstrate their knowledge of their field of concentration as well as establish how their research project contributes to that field of study. The College of Education also requires comprehensive examinations in education for all MAEd programs. Minimum degree requirement is 39 s.h. of credit as follows:

- 1. Core Courses ..... 9 s.h.  
HIED 6510;HIST 6900,6993
- 2. Concentration in American or European history ..... 12 s.h.
- 3. Field of history outside the concentration ..... 6 s.h.
- 4. Professional education core ..... 12 s.h.  
EDUC 6001; EDUC 6480, 6482 or SCIE 6500; LEED 6000; ELEM 6550 or ADED 6550; SPED 6002

CERTIFICATE IN ASSISTIVE TECHNOLOGY

The certificate in assistive technology will equip students with specific skills and knowledge in assistive technology. The overall objective of the program is to prepare educational and/or health care professionals in the knowledge and skills needed to utilize assistive technology for the enhancement of a student and/or client’s functional performance. Specifically, candidates who successfully complete the certification will have a broad-based knowledge of assistive technology; the ability to assess assistive technology needs with clients/students and plan implementation based upon that assessment; the ability to work with a collaborative team to implement assistive technology; and the knowledge and skills to effectively manage resources for procurement of assistive technology.

Applicants seeking admission must be graduate students or education or health care professionals working in their respective fields. Professionals can enroll as non-degree seeking students. Admission is based on completion of the certificate application and approval by the program coordinator.

The certificate program requires 12 s.h. of graduate-level course work in assistive technology, emphasizing practical application and collaborative team work. Required courses include SPED/OCCT 6701, 6702, 6703, and an elective.

ACADEMICALLY GIFTED LICENSURE

Licensure in academically gifted is available as an add-on to an existing licensure. The program requires 12 s.h. of graduate study in the academically gifted subject area.

Required courses: SPED 6104, 6401, 6402, 6403. If required courses have been taken for credit for other than the master’s degree in special education, appropriate substitute courses will be recommended.

EDUC: EDUCATION

- 5001. Education in a Global Perspective (3)** Comparative study of selected national educational systems, curricula, teacher preparatory programs, evaluation systems, and current issues within context of global realities, demands, and needs.
- 5002. Foundations of Multicultural Education (3)** Aspects of teaching that view cultural differences as educational assets.
- 6001. Introduction to Differences in Human Learning in Schools (3)** Examines race, ethnicity, socioeconomic class, gender, sexual preference, and exceptionality relative to historical, philosophical, social, cultural, political, and legal issues in schools.
- 6415. Techniques of Teaching in the High School (3)** Effective teaching techniques used to direct learning in American secondary school.
- 6423. History and Philosophy of Education (3)** Institutional development of public education in US with interpretation of political, philosophical, and social forces influencing this development.
- 6424. Action Research and Curriculum Development (3)** Introduces curriculum design, theory, and action research to assist with knowledge, skills, and dispositions in support of reflective practitioners. Foundations, history, and research methods of action research applied to educational settings, including action inquiry as curriculum development tool. Overview of models of curriculum theory and concrete applications of curriculum development and action inquiry.

**6430. Statistics in Education (3)** Frequency distribution, central tendency, measurements of variability, sampling and reliability, correlation, regression, prediction, and methods of applying statistics in measurement and evaluation of instructional programs.

**6454. Foundations of American Education (3)** For students entering education graduate work. Educational history, philosophy, sociology, government, and economics. Introduction of pertinent materials.

**6480. Introduction to Research (3)** Development and use of research, research methods, applied research, basic research, methods of reasoning, fallacies in reasoning, statistical methods, thesis writing, survey research, and evaluation of research.

**6482. Trends and Issues in Educational Research for Practitioners (3)** Recent developments in educational research and implications for educational practitioners as research consumers. Emphasis on identification, analysis, application, and evaluation of developments in literature through field-based research.

**6551, 6552, 6553. Problems and Issues in Education (1,2,3)** May be taken for 1, 2, or 3 s.h., depending upon depth of topics. Class meetings may or may not be required. Hours for courses and requirements for completion arranged with instructor. Courses may be repeated for maximum of 9 s.h. P: Consent of dept chair. Individualized or specialized study of problems or issues in pertinent areas of education. Variable titles and content.

**6950. Global Considerations in Educational Theory and Policy: Economics and Democracy (3)** May not substitute for required EDUC foundations course. Global economic forces responsible for recent educational reforms. Evaluation of impact of those forces on domestic and foreign populations. Consideration of future of public school role in advancing democratic citizenship and social justice.

**7001. Advanced Research and Evaluation (3)** P: EDUC 6480 or equivalent or consent of instructor. Scientific approach to problems in education. Utilizes advanced methodological and statistical techniques leading to design and evaluation of actual projects.

**7420. Advanced Educational Statistics (3)** P: EDUC 7001 or consent of instructor. Major types of quantitative models and their practical application to data analysis in educational research. Emphasis on appropriateness of types of models for different research problems, use of models as a basis for data interpretation, and management of data analysis projects.

**7430. Qualitative Research in Education (3)** Field project required. Major types of research methods and techniques and their applicability to clarification and understanding of educational problems. Field project develops basic and advanced skills for conducting qualitative research in educational settings.

**7440. Applied Educational Research (3)** P: EDUC 6480 or consent of instructor. Instructional systems-based strategies and methodology for identifying and using research findings in school practice. Emphasis on critical evaluation of current educational trends. Use of research information considered an advanced form of behavioral technology.

### EDUC Banked Courses

**6422. History and Philosophy of Education (3)**

**7426. Contemporary Philosophies of Education (3)**

**6900. Supervision of the Novice Teacher (3)**

### ELEM: ELEMENTARY EDUCATION

**5306. Social Studies in the Elementary School (3)** Social studies objectives implemented by study of programs, strategies, and materials.

**5309. Foundation and Curriculum in Early Childhood Education (3)** In-depth study of historical, psychological, and sociological bases of early childhood education; general trends; and current programs and program content.

**5310. Teaching and Evaluation in Early Childhood Education (3)** P: ELEM 6410. Extensive study and practice in translating early childhood curriculum into appropriate learning experiences.

**6000. Professional Development, Issues, and Trends in Elementary Education (2)** Current issues and trends in elementary education. Self-evaluation of professional development within teaching field. Submission of professional development plan for MAEd program.

## SECTION 7: CURRICULA

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**6001.Elementary Product Documentation (1)** Documentation of individual goals accomplished during MAEd program.

**6010.Teaching the Integrated Language Arts in the Elementary School (3)** P: TCHR 6010, 6011; or consent of instructor. Nature and role of language arts and how they are integrated throughout the elementary curriculum. Explores ways to engage elementary students in frequent reading, writing, listening, and speaking throughout all areas of the integrated curriculum.

**6200. Leading Curriculum Revision and Implementation (3)** P: MAEd core courses; ELEM 6000. Structure of elementary school curriculum. Emphasis on philosophy, policy, promotion, design, implementation, and assessment of school curriculum.

**6300. Instructional Response to Diversity in the Elementary School (3)** P: MAEd core courses; ELEM 6000. Characteristics of diverse learners in elementary classrooms. Teaching, assessment, and differentiated instruction for diverse students.

**6400. Advanced Assessment and Teaching in the Elementary Grades (3)** P: MAEd core courses; ELEM 6000. Application of societal, cultural, and educational factors to problems of assessment and teaching. Design, application, and evaluation of teaching models and assessment.

**6406. The Teaching of Social Studies in the Elementary Grades (3)** Examination of current research, standards, curricula and strategies relevant to elementary social studies instruction.

**6408. Collaborating, Teaming, and Leading in the Elementary School (3)** Leadership, team functioning, development, and teaming practices, and collaboration in elementary schools. Role of teacher as member and leader of planning and evaluation teams to improve learning in schools.

**6410. Concepts and Principles of Early Childhood Education (3)** Concepts, principles, trends, and current programs in early childhood content.

**6412. Emerging Literacy (3)** Examination of literacy as an emerging process. Emphasis on critically reviewing sociocultural factors influencing literacy and designing appropriate strategies to enhance young children's literacy education.

**6415. Techniques of Teaching in the Elementary School (3)** Effective teaching techniques used to direct learning in elementary schools. Innovative forms of organization and instruction.

**6416. Problems in the Lower Elementary Grades (3)** Analysis and discussion of significant problems found in lower elementary grades by participants in relationship to their position, interest, and experience.

**6417. Problems in the Upper Elementary Grades (3)** Analysis and discussion of significant problems of upper elementary grades by participants in relationship to their position, interest, and experience.

**6425. Elementary School Curriculum (3)** Close examination of scope and sequence of elementary school curriculum. Emphasis on promoting total growth and development of elementary school child.

**6488. Advanced Language Arts in the Elementary School (3)** Advanced language arts course and systematic presentation of basic ideas and techniques in teaching reading. Emphasis on oral language, major approaches to teaching of reading, skills of comprehension, and interrelatedness of communication arts.

**6500. Management and Problem-Solving in the Elementary School (3)** P: MAEd core courses; ELEM 6000. Recognition of elementary school management problems and formulation of plans to address them. Continuation of individual professional development plan.

**6550. Leadership and Communication Skills in Education (3) Same as ADED 6550** Teacher leadership, communication, and reflective practice in schools. Skills development enhances communication and collaboration with families, students, and educational professionals. Addresses organizational challenges and facilitates positive change.

**7000. Thesis (3)** May be repeated. May count maximum of 6 s.h.

**7001. Thesis: Summer Research (1)** May be repeated. No credit may count toward degree. Students conducting thesis research may only register for this course during the summer.



## ELEM Banked Courses

### 5335.Aerospace Education (3)

#### ENED: ENGLISH EDUCATION

**6500. Literature Study in the Middle Grades (3) Formerly ENGL 6500** Examines role and scope of literature study in middle grades.

**6510. Recent Trends in English Education (3) Formerly ENGL 6510** For in-service teachers. Current developments, issues, and research in teaching English in the secondary schools.

**6511. Directed Research Project (3) Formerly ENGL 6511** May be repeated. May count a maximum of 3 s.h. P: Approval of program director. Directed readings and research program for MAEd candidates in English education.

**6600. Teaching English Studies in the High School (3) Formerly ENGL 6600** Examines role and scope of English studies in secondary classroom.

**6630. Studies in the Process of Composition (3) Formerly ENGL 6630** P: Teaching certification or consent of instructor. Theories and methods for teaching composition in grades 6-12.

**6967. Literature Study in the Secondary School (3) Formerly ENGL 6967** Role and scope of literature study in the secondary school.

#### HIED: HISTORY EDUCATION

**6510. Issues and Topics in Social Studies Education (3)** Designed for in-service teachers. Includes research.

#### MIDG: MIDDLE GRADES EDUCATION

**5991, 5992, 5993. Readings in Middle Grades Education (1,2,3) (WI\*)** Each may be repeated once for a maximum of 6 s.h. P: Upper-level undergraduate or graduate status; consent of adviser. Directed readings on selected topics.

**6000. Professional Development, Issues, and Trends in Middle Grades Education (2)** Current issues and trends. Self-evaluation of professional development within teaching field. Structuring of individual professional development plan for MAEd program.

**6100. Young Adolescents, Schools, and Community (3)** P: MAEd core courses; MIDG 6000. Adolescence as historical and cultural concept. Analysis of research on middle school practices and students' perspectives of schooling. Investigation of adolescents' experiences in school and community.

**6200. Middle Grades Curriculum Development in Public Schools (3)** P: MAEd core courses; MIDG 6000. Theories and practice in middle school curriculum planning. Emphasis on leadership skills in developing, analyzing, and evaluating effective curriculum.

**6240. Advanced Curriculum and Instruction in the Middle Grades (3)** Historical perspective of middle grades education. Organizational structures and patterns. Components of middle grades curriculum development process and their application to instructional programs.

**6245. Education in the Middle and Junior High School: Problems and Issues (3)** For MAEd candidates with experience in middle and junior high school education and for in-service teachers and administrators in middle school programs. P: Experience at middle school or junior high level or consent of instructor. In-depth study of problems and issues in middle school education.

**6300. Advanced Strategies and Assessment for Middle Grades Learners (3)** P: MAEd core courses; MIDG 6000. Strategies and assessment practices to promote success for all students. Emphasis on diverse learners.

**6401. Middle Grades Product Documentation (1)** P: All MAEd course work. Individual documentation of goals established in MIDG 6000 and accomplished during MAEd program.

## SECTION 7: CURRICULA

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**7000.Thesis (3)** May be repeated. May count maximum of 6 s.h.

### MIDG Banked Courses

#### **6990.The Middle Grades Internship (1,2,or 3)**

##### **READ: READING**

**5312.Improvement of Reading Instruction (3)** May not be taken by students who have had READ 3204. Beginning reading process. Understanding of essential skills. Early detection and remediation of possible reading problems.

**5313.Reading Remediation and Practicum (3)** May not be taken by students who have completed READ 3205.P: READ 3204 or 5312. Guidance in designing reading programs on basis of individual and group presentations. Practicum experience in guiding individual and group student activities in reading instructional program.

**5316.Applied Phonics (3)** Skill in phonics as one kind of help in identifying written words. Essentials of phonics and linguistically sound approach in methodology.

**5317.Reading in the Junior and Senior High School (3)** Lecture and lab. May receive credit for only one of READ 3990,5317. Knowledge and skills enable prospective junior high and secondary teachers to assess reading levels of students and use methods and materials in keeping with individual interests and needs. Reading capability enhanced through teaching-learning process in each content area.

**6403.Selected Topics in Reading Education (3)** May be repeated. May count maximum of 6 s.h. P: Consent of instructor. In-depth study of issues and topics.

**6405.Investigations in the Teaching of Reading (3)** Analytical study of research related to reading processes. Emphasis on critical evaluation of research studies. Special reference to psychological principles and educational implications.

**6415,6416,6417.Problems in Reading Methodology (1,2,3)** No class meeting; conference hours with instructor arranged. May be taken concurrently or in any combination for maximum of 3 s.h. P: Consent of instructor and dept chair. Independent study on problem of special interest and value to student.

**6418.Reading:The Learning Bases (3)** P: Admission to graduate school; BS in early childhood education, elementary education, or related areas; consent of dept chair; competencies in foundations of reading. Current body of educational and psychological data concerning nature of reading-learning process as applied to teaching of reading. Problems that arise in learning to read.

**6419.Foundations of Reading (3)** P: Admission to graduate school; BS in early childhood education, elementary education, or related areas; consent of dept chair. Basic information about the reading process - what it is, how the child learns to read, instructional strategies and materials available for teaching reading, and diagnosis and prescription for individual children.

**6421.Clinical Procedures in the Identification and Evaluation of Reading Disabilities (3)** Includes lab. P: Admission to graduate school; BS in early childhood education, elementary education, or related areas; consent of dept chair; EDUC 6480 or 6482; COAD 5358; or consent of instructor. Nature and causes of reading disability and development of clinical skills related to diagnosis and evaluation of reading difficulties.

**6422.Remediation of Reading Disabilities (3)** P: READ 6421. Correction and remediation of reading disabilities. Practicum involves clinical procedures for diagnosis and remediation of reading disabilities.

**6430.Organization and Management of Reading Programs (3)** P: COAD 5358; EDUC 6480 or 6482; READ 6422. Educational leadership necessary to implement developmental reading program K-12. Involves total school district.

**6431.The Teaching of Basic Reading Skills to Adults (3)** P: READ 5312 or 6419. Adult-learner characteristics and basic reading skills instruction for adults unskilled in reading. Methods, resources, programs, and diagnostic and evaluative procedures for teaching reading skills to adults.

**6432.Internship in the Teaching of Reading to Adults (3)** Supervised experience in teaching of reading to adults in adult education settings. P: READ 6431. Knowledge and understanding of teaching of reading to adults beyond teaching of basic reading skills.

**6462. Diagnostic and Remedial Techniques in Reading (3)** Information and workable procedures for classroom teachers to survey, evaluate, group, and remediate needs of children who are poor readers or nonreaders.

**7000. Thesis (3)** May be repeated. May count maximum of 6 s.h.

**7001. Thesis: Summer Research (1)** May be repeated. No credit may count toward degree. Students conducting thesis research may only register for this course during the summer.

**7423. Reading Materials: Selection, Development, and Use (3)** P: READ 6419 or other foundations course or consent of instructor. Commercially prepared and teacher-made materials designed to teach reading. Critical evaluation of material construction, design, and appropriate implementation.

**7445. Reading Comprehension, Theory, and Practice (3)** P: Graduate standing in reading education or consent of instructor. Reading comprehension relating theory and research to practices and procedures employed in teaching of reading comprehension.

## **SPED: SPECIAL EDUCATION**

**5101. Introduction to Exceptional Children (3)** Incidence, nature, causes, rehabilitation, and education of exceptional children.

**5102. Perspectives in Mental Retardation (3)** Incidence, nature, causes, and education of students who have mental retardation.

**5301. Tests and Measurements in Special Education (3)** P: Consent of instructor. Basic testing theory in terms of exceptional children.

**5501, 5502. Minor Problems in Special Education (3,3) (WI)** Each may be repeated for maximum of 6 s.h. P: Consent of instructor. Conference, library, or lab work in area of special education.

**6000. Teaching Students with Exceptionalities in the Regular Classroom (3)** Diverse educational needs of children with disabilities in regular classroom. Identification and placement procedures, academic and behavioral strategies, and curriculum and evaluation modifications.

**6002. Addressing Differences in Human Learning in Schools (3)** P: EDUC 6001. Strategies for assessment, curriculum, and instruction of diverse student populations. Extends and applies information from EDUC 6001.

**6010. Issues, Trends, and Research in Special Education (3)** Current issues, trends, and research in special education. Emphasis on legislation, litigation, definitions, identification, eligibility, inclusion, and placement. Research design and methodology in special education.

**6011. Integrating Technology into Special Education (3)** P: 3 s.h. technology course. Strategies for integration of technology into instruction, record keeping, management, productivity, communication, and professional development of special educators.

**6012. Assessment in Special Education (3)** P: EDUC 6001; SPED 6010. Selection, administration, interpretation, and application to program planning of assessment instruments and strategies in special education. Examines research, legislative mandates, and APA standards.

**6013. Communication and Collaboration in Special Education (3)** P: EDUC 6001; SPED 6010. Culturally responsive communication and collaboration with families, community agencies, and other professionals. Focus on skills that provide effective programs and services for students with exceptionalities.

**6020. Curriculum Development and Program Planning in Special Education for Students with Mild/Moderate Disabilities (3)** P: SPED 6012. Planning, delivering, monitoring, and modifying instructional programs for students with mild to moderate disabilities. Focus on NC Standard Course of Study; issues related to IEPs, ITPs, and IFSPs; lesson and unit planning; program planning; and program evaluation.

**6021. Instructing Students with Mental Retardation (3)** P: SPED 6011, 6020. Planning, delivering, monitoring, and modifying instructional programs. Emphasis on applying research literature to acquire and refine best practices in instruction of students who have mental retardation.

P=Prerequisite(s); C=Corequisite(s); P/C=Prerequisite(s) or Corequisite(s); R=Recommended P,C, or P/C

## SECTION 7: CURRICULA

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**6022. Instructing Students with Learning Disabilities (3)** P: SPED 6011, 6020. Planning, delivering, monitoring, and modifying instructional programs. Emphasis on applying research literature to acquire and refine best practices in instruction of students with learning disabilities.

**6023. Instructing Students with Behavioral/Emotional Disorders (3)** P: SPED 6010, 6011, 6020. Evaluation and modification of instructional and management programs for students and youth with behavioral/emotional disorders. Examines research and demonstration of best practices through classroom teaching.

**6030. Curriculum Development and Program Planning in Special Education for Students with Low-Incidence Disabilities (3)** P: SPED 6012. Planning, delivering, monitoring, and modifying instructional programs for students with low-incidence disabilities. Focus on issues related to IEPs, ITPs, IFSPs; instructional planning; curriculum development; program planning; and evaluation.

**6031. Instructing Students with Low-Incidence Disabilities (3)** P: SPED 6010, 6011, 6030, 6301. Planning, delivering, monitoring, and modifying instructional programs. Emphasis on applying research literature to acquire and refine best practices in instruction of students who have low-incidence disabilities.

**6040. Internship in Special Education (3)** P: EDUC 6001; SPED 6002, 6013; 6021 or 6022 or 6023 or 6031. Individually planned, in-depth field experiences for students in field of mental retardation, learning disabilities, behavioral/emotional disorders, or low-incidence disabilities.

**6101. Introduction to Learning Disabilities (3)** Incidence, nature, causes, and education of students with learning disabilities.

**6104. Introduction to Gifted Education (3)** Definitions, characteristics, theories of intelligence, and theories of teaching used with gifted students.

**6201. Methods and Materials for Teaching Learning-Disabled Children I (3)** P: SPED 6101. Methods, materials, and techniques of diagnosing students with learning disabilities.

**6202. Methods and Materials for Teaching Learning-Disabled Children II (3)** P: SPED 6101. Methods, materials, and techniques of prescriptive teaching of students with learning disabilities.

**6203. Advanced Methods and Materials for Mental Retardation I (3)** Methods, materials, and techniques of teaching students with mild mental retardation. Emphasis on directed observation.

**6204. Advanced Methods and Materials for Mental Retardation II (3)** Methods, materials, and techniques of teaching students with moderate mental retardation. Emphasis on directed observation.

**6301. Seminar in Multiple Disabilities (3)** Orthopedic and other muscle, skeletal, and special health impairments of children. Medical, psychological, and social issues associated with such disabilities described and special education adaptations indicated.

**6302. Research in Special Education (3)** Advanced course for special education majors. Survey and critical analysis of research relating to problems of educating persons who have disabilities.

**6303. Administration and Supervision in Special Education (3)** Principles and practices of administering special education programs and services.

**6401. Methods and Materials in Gifted Education (3)** P: SPED 6104 or consent of instructor. Materials, programs, and theories of educating gifted students.

**6402. Differentiated Curriculum for the Gifted (3)** P: SPED 6104 or consent of instructor. Student and program assessment and development of differentiated curricula for gifted students.

**6403. Practicum in Gifted Education (3)** P: SPED 6104, 6401, 6402; or consent of instructor. Classroom experience with gifted students. Planning and implementation of instructional programs.

**6601. Introduction to Low Incidence Populations (3)** Theory, research, and practices related to education of persons with low-incidence disabilities.

**6602. Methods in Elementary Programming for Low Incidence Disabilities (3)** P: SPED 6601. Methods, materials, and techniques of teaching students with low-incidence disabilities. Emphasis on community-based training and transition programming during school years.

**6603. Methods for Secondary Programming for Low Incidence Disabilities (3)** P: SPED 6602. Methods, materials, and techniques of teaching adults with low-incidence disabilities. Emphasis on community-based training and transition programming for adult years.

**6701. Assistive Technology Devices and Services (3) Same as OCCT 6701** Broad overview of assistive technology, including legal, educational, and discipline specific information. Provides basic information that prepares students for other certificate courses.

**6702. Assessment, Planning, and Implementation of Assistive Technology (3) Same as OCCT 6702** P: SPED 6701 or OCCT 6701. Explores assistive technology assessments and planning and implementation of assistive technology within student/client's environment. Students attain skills in variety of technology using cross-disciplinary team approach.

**6703. Collaborative Resource Management of Assistive Technology (3) Same as OCCT 6703** P: SPED 6701 or OCCT 6701. Human, product, electronic, and funding resources to meet technology needs for individuals with disabilities examined within state and national networks. Practical collaborative skills practiced in cross-disciplinary team assignments.

**6990, 6991. Practicum in Learning Disabilities (3,3)** P: 12-15 s.h. in SPED; consent of instructor. Directed experience with students who have learning disabilities.

**6992, 6993. Internship in Mental Retardation (3,3)** Directed experience with students who have mental retardation.

**6997. Internship: Low Incidence Disabilities (3)** P: SPED 6603. Directed experience with students who have low-incidence disabilities.

**6998. Internship: Low Incidence Disabilities (3)** P: SPED 6997. Directed experience with students who have low-incidence disabilities.

**7000. Thesis/Product Development in Special Education (3)** May be repeated. May count maximum of 6 s.h. P: EDUC 6001; SPED 6002, 6013; 6021 or 6022 or 6023 or 6031.

**7001. Thesis: Summer Research (1)** May be repeated. No credit may count toward degree. Students conducting thesis research may only register for this course during the summer.

## **TCHR: TEACHER EDUCATION**

**6010. The Learner and the Learning Environment (3)** Learning theory, motivational theory, and assessment within school environment. Focus on cognitive, affective, and social development of students.

**6011. The Teacher and the Teaching Experience (3)** Teaching within school environment. Teaching cycle, teaching as a profession, culture of teaching, and general strategies for instruction.

**6020. MAT Classroom Management (3)** Concurrent internship experience required. P: TCHR 6010, 6011. Roles and responsibilities of teacher in organizing and managing classroom setting. Approaches to handling discipline problems.

**6024. MAT Internship (9)** P: TCHR 6010, 6011. Supervised teaching in appropriate subject and level classroom. Emphasis on reflective decision-making.

**6030. Literacy Development in the Content Area Classroom (3)** May receive credit for one of READ 5317; TCHR 6030. Development of literacy abilities in content area classrooms. Identification of literacy requisites, evaluation of content area materials, and assessment of student competencies. Development of strategies and teaching materials to enhance learning.

**6430. Computer Concepts and Applications for Career and Technical Educators (3)** May require additional lab time. Business-related computer concepts and applications. Hands-on experience using various microcomputers.

DEPARTMENT OF EDUCATIONAL LEADERSHIP

Kermit G. Buckner, Chairperson, 102-C Speight Building

MSA

The master of school administration degree program leads to licensure in both administration and supervision (curriculum instructional specialist), level I. The program is designed to produce school leaders who will promote quality learning. Five areas of leadership studies comprise the degree program: strategic, managerial, organizational, political, and instructional.

MBA students interested in pursuing the MBA with the school business management option must take LEED 6804, 6807, 7408, and 7470 as electives in the MBA program. A certificate of completion will be issued by the College of Education. Other graduate students interested in taking these electives must confer with the program director of the respective schools. Ongoing assessment, problem-based learning, and practica experiences are special features of this 42 s.h. program. Principal fellowships for qualified candidates help support full-time study.

EdS IN EDUCATIONAL ADMINISTRATION AND SUPERVISION

The School of Education offers a sixth-year program in educational administration and supervision. For admission to the Graduate School for the purpose of pursuing the educational specialist degree and level II licensure (administration), a master's degree and level I licensure (administration) are required. For admission to the Graduate School for the purpose of pursuing the educational specialist degree and level II licensure (curriculum-instructional specialist), a master's degree and level I licensure (curriculum-instructional specialist) are required.

EdD IN EDUCATIONAL LEADERSHIP

The doctor of education degree (EdD) is offered by the College of Education under the direction of the Department of Educational Leadership. There are four concentration areas in the degree: school upper-level administration (K-12), library science, instructional development, and higher education administration.

A master's degree with a minimum 3.5 GPA in all graduate work is required for admission, along with a successful score on the Graduate Record Examinations or the Miller Analogies Test. For further information, contact the coordinator of the program. An interview is required. The program requires one full year of residency and the completion of a research-based dissertation. Information about fellowships is available from the program office.

The degree requires 60 s.h. of credit as follows:

Core: LEED 8010, 8015, 8035, 8050; 8055 or 8056 .....	15 s.h.
(LEED 8056 is required for higher education administration concentration)	
Research: EDUC 7001, 7420, 7430, 7440 .....	12 s.h.
Concentration areas (Choose one.) .....	21 s.h.
<i>PreK-12 administration:</i>	
LEED 8025; 6 s.h. chosen from LEED 8000 courses; 12 s.h. chosen in consultation with adviser:	
<i>Higher education administration:</i>	
LEED 8020, 8027, 8030, 8040, 8045, 8060; choose 3 s.h. in consultation with adviser:	
<i>Instructional development:</i>	
EDTC 7120, 8130, 8140, 8400; LEED 8045; Choose 6 s.h. from: EDTC 7220, 7310, 7320, 7330, 8020, 8025, 8120.	
<i>Library science:</i>	
LEED 8045; LIBS 7250, 8010, 8014, 8026, 8031; Choose 3 s.h. from: EDTC 7310, 7320; LIBS 7010, 7050, 7060, 7070, 7110, 7150, 7160, 7210, 8100, 8310	
Internship: LEED 8991, 8992 .....	6 s.h.
Dissertation: LEED 9000 .....	6 s.h.

**LEED: EDUCATIONAL LEADERSHIP**

**6000. Leadership and Communication (3)** For teachers providing educational leadership. Importance of effective communication. Skills and knowledge needed to speak, write, and listen effectively.

**6334. Home, School, and Community: The Communication Process (3)** P: Admission to MSA program. Principles, practices, and problems of home, school, and community relations.

**6800. Theory and Application of Technology for Administrators (3)** Introduction to technology that provides greater efficiency and productivity. Theoretical basis and instruction and practice in administrative and managerial software in K-12 educational facilities.

**6801. Strategic Problem Solving (3)** P: Admission to MSA program. Educational problems solved using strategic problem-solving processes. Emphasis on retrieving, evaluating, and synthesizing research as applied to educational programs.

**6802. Reflecting and Communicating About Educational Issues (3)** P: Admission to MSA program. Current educational issues from variety of perspectives. Effective communication of those issues in oral, written, and multi-media modes.

**6803. Ethical and Legal Decision-Making for Teachers (3)** Not open to educational leadership students. Study fundamentals in school law and ethical and moral decision making for school teachers.

**6804. The Law, Policy, and Politics of Education (3)** P: Admission to MSA program. Influence of laws, educational policies, and power structures of communities on goals and operations of schools.

**6805. Ethical and Societal Aspects of Educational Leadership (3)** P: Admission to MSA program. Personal values, understanding of core values of society, and sensitivity to societal dimensions of educational decision making.

**6806. Managing Organizational Change (3)** P: Admission to MSA program. Process of changing and improving complex educational organizations. Application of variety of planning and organizational development processes.

**6807. School-Based Management (3)** P: Admission to MSA program. Essential elements of school quality that impact program operations. Relationships of schools to other agencies. Leadership in securing support for schools.

**6808, 6809. Administration and Supervision Internship: Level I (4,4)** 2-semester internship. P for 6808; admission to MSA; LEED 6810; C for 6809: LEED 6812. Joint supervision of public leaders and university supervisor.

**6810. Introduction to School Leadership (2)** To be taken during first semester of enrollment in MSA program. P: Admission to MSA program. Introduces state and national standards for school leaders and skills required to meet them.

**6812. School Leadership Skills Development (2)** P: Admission to MSA program; C: LEED 6809. Educational problems, cases, and simulations used to evaluate student's leadership skills and plan for skill development during administration and supervision internship.

**6820. Advanced Technology for School Administrators (3)** P: LEED 6800 or equivalent or consent of instructor. Research, theories, and practical use of advanced technology for curriculum, student, and fiscal management. Decision making and other administrative applications.

**6823, 6824. Learning Centered Leadership (3,3)** P: Admission to MSA program. Essential elements of quality learning and school-based visionary leadership. Improvement of curriculum and instruction through application of appropriate leadership styles and models.

**6830. Teacher Leadership (3)** Essential elements of teacher leadership and shared decision making. Application of knowledge to organize teams and solve school problems.

**6993, 6994. Curriculum Instructional Specialist Internship: Level I (3)** Full-time or on-the-job experience. Supervised by instructional leader of recognized capability.

**7000. Thesis (3)** May be repeated. May count maximum of 3 s.h.

## SECTION 7: CURRICULA

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- 7001. Thesis: Summer Research (1)** May be repeated. No credit may count toward degree. Students conducting thesis research may only register for this course during the summer.
- 7408. Public School Administration (3)** P: Admission to EdS program. Advanced course based on administrative principles and techniques encountered by superintendents in NC schools.
- 7410. Staff Personnel Problems (2)** P: Admission to EdS program. Underlying philosophy of personnel administration case studies and problems. Relations to local and state administrative authority. Teacher participation in administration, selection of teachers, and orientation of new teacher. Programs for professional growth in service, teacher's relation to community, merit schedules, salary schedules, and relations within schools.
- 7411. Problems in Educational Administration (2)** P: Admission to EdS program. For advanced school administration students with administrative experience. Research school administration problem and presentation of results for critical analysis and discussion.
- 7415. Introduction to Internal Evaluation in Education (3)** P: Admission to EdS program. Concepts of evaluation research. Emphases on theory and techniques of internal monitoring evaluations.
- 7420. Theories of Educational Administration (3)** P: Admission to EdS program. Theoretical dimensions.
- 7429. Problems in Educational Supervision (3)** P: Admission to EdS program. For practicing administrators and supervisors. Advanced research of selected problem in supervision and presentation of results for critical analysis and discussion.
- 7460. School and Community Cultures (3)** P: Admission to EdS program. Cultures and effective communication.
- 7470. School Business Management (3)** P: Admission to EdS program. For principals and superintendents. Background necessary for efficient school system operation. Based on philosophy that administration must facilitate instruction.
- 7472. Issues, Problems, Research in Education (2)** P: Admission to EdS program. International, national, and state levels. Emphasis on contemporary educational problems. Review of educational research for possible solutions.
- 7483. Advanced School Law (2)** P: Admission to EdS program. In-depth study of current educational problems. Emphasis on legal background.
- 7521, 7522, 7523. Directed Readings in Educational Leadership (2,2,2)** P: Consent of instructor. Selected topics.
- 7991. Educational Leadership: Level I (4)** P: Completion of 50 percent of courses in educational specialist degree; completion of two years' experience in a level-one administrative position; or consent of program coordinator. Observation and analysis of administration and instructional supervision at state and system level under guidance of experienced educational leaders.
- 7993. Educational Leadership Internship: Level II (4)** Directed field study. P: Completion of 50 percent of courses in EdS degree; completion of two years' experience in a level-one administrative position; or consent of program coordinator. Supervised by department member.
- 8010. Organizational Theory and Culture (3)** P: Admission to EdD in educational leadership. Application of organizational theory in educational administration to social systems in education.
- 8015. Doctoral Seminar in Human Resource Development (3)** P: Admission to EdD in educational leadership. Advanced study of theory, research, and exemplary practice in developing human resources in educational organizations.
- 8020. Politics and Power in Education (3)** P: Admission to EdD in educational leadership. Formal process for developing educational policy through federal, state, and local governments. Involvement and power of elected officials, political parties, lobbyists, and media in developing policy, both formally and informally. Impact of social issues, economics, and other forces on educational policy development.
- 8025. Doctoral Seminar in Political and Social Issues in Educational Leadership (3)** P: Admission to EdD in educational leadership. Process through which political and social issues affect education. Analysis of some contemporary issues that affect NC.



**8027. Doctoral Seminar in Higher Education Law and Public Policy (3)** P: Admission to EdD in educational leadership. Legal system and how constitutional and case law impact higher education practices. Analysis of educational policy development at federal, state, and institutional levels.

**8030. Educational Planning (3)** P: Admission to EdD in educational leadership. Concepts, strategies, and practices of educational planning utilized for school and school district leadership.

**8035. Doctoral Seminar in Educational Leadership (3)** P: Admission to EdD in educational leadership. Advanced study of theory, research, and exemplary practice in changing nature of educational leadership.

**8040. Policy Development and Analysis (3)** P: Admission to EdD in educational leadership. Policy making and role of educational leader in policy development and implementation. Emphasis on skills used in policy analysis and policy development in education.

**8045. Cases and Concepts in Educational Leadership (3)** P: Admission to EdD in educational leadership. Key concepts of educational leadership examined primarily through case study analysis.

**8047. Student Development in Higher Education (3)** P: Admission to EdD in educational leadership. Study of historical and philosophical foundations of student development theory. Application of theory to best practices.

**8050. Ethics in Educational Leadership (3)** P: Admission to EdD in educational leadership. Applied ethics.

**8055. Doctoral Seminar in Curriculum and Instruction (3)** P: Admission to EdD in educational leadership. Advanced study of current theory and research in curriculum and instruction and their applications in educational settings.

**8056. Doctoral Seminar in Curriculum Theory and Practice in Higher Education (3)** P: Admission to EdD in educational leadership. Curriculum theory as related to higher education programs and courses. Development of skills and knowledge required to implement higher education curricula.

**8060. Program Evaluation (3)** P: Admission to EdD in educational leadership. Theory and research on program evaluation. Techniques used in designing, implementing, and reporting program evaluations.

**8991. Doctoral Internship: Leadership Practicum (3)** P: Admission to EdD in educational leadership. Advanced internship. Participation in series of structured and supervised field experiences at local, regional, and state levels.

**8992. Doctoral Internship: Research Practicum (3)** P: Admission to EdD in educational leadership; LEED 8991. Advanced internship. In-depth practical experience in educational organization. Completion of field study at site.

**9000. Dissertation (3)** P: Admission to EdD in educational leadership. May be repeated. May count maximum of 6 s.h.

### LEED Banked Courses

**6400. Seminar: Supervision (2)**

**6406. Elementary School Administration (2)**

**6407. Public School Finance (3)**

**6409. Secondary School Administration (3)**

**6428. Principles and Practices of Supervision (3)**

**6483. School Law (3)**

**6500. The Organization and Administration of the Middle School (3)**

**6991. Administrative Internship:**

**Supervised Practicum (3)**

**6992. Administrative Internship: Seminar (3)**

**7400. Seminar—Administration (2)**

**7461. Planning School Buildings (3)**

**7992. Administrative Internship,  
Field Study—Level II (3)**

DEPARTMENT OF LIBRARIANSHIP, EDUCATIONAL TECHNOLOGY,  
AND DISTANCE INSTRUCTION

Plummer A. Jones, Interim Chairperson  
William Sugar, Director of MS in IT Program Area Coordinator  
Carol A. Brown, MAEd in IT Program Area Coordinator

MAEd IN INSTRUCTIONAL TECHNOLOGY

The MAEd in instructional technology is designed for students seeking employment in schools as technology facilitators, coordinators, or program directors. The mission of the program is to prepare professionals in the field of instructional technology to plan, implement, and evaluate technology programs within a collaborative teaching environment.

Professional education core .....	12s.h.
Instructional technology .....	24-27 s.h.
EDTC 6010,6020,6025,6139,6149,6992	
Choose one option from the following:	
Option I. Telecommunications (074) Licensure:EDTC 6035 or 6037; 3 s.h.EDTC electives.	
Option II. Computers (077) Licensure: EDTC 6035 or 6037; 3 s.h.EDTC electives.	
Final Product Requirement: A professional portfolio and an internship (EDTC 6992) or a thesis with an oral defense. (EDTC 6995) and an internship (EDTC 6992)	

MS IN INSTRUCTIONAL TECHNOLOGY

The MS in instructional technology is designed for students seeking employment in institutions of higher education, governmental agencies, businesses, and industry as developers of computer-based instructional materials and other types of instructional materials.

The degree requires a minimum of 39 s.h. of credit as follows: EDTC 6010, 6020, 6025, 6030; 6300, 6040; or 7310; 6991; one research course; and 15 s.h. of electives.

MLS

The master of library science program is designed for students seeking employment as librarians in schools, community colleges, public libraries, and related settings. Six core courses and one research course are required of all students. Additional courses are required for school licensure. The program requires a minimum of 39 s.h. of credit as follows:

Courses required of all students: LIBS 6010, 6014, 6018, 6026, 6031, 6042; and a course in educational research. For students with no library or school library media center experience, an internship is required as well as electives to complete hours for the degree.

Additional courses required for school licensure: LIBS 6135, 6140; EDTC 6035 or 6037; and one educational core competency course to be selected in consultation with an adviser. An early internship (LIBS 6989), following 9 s.h. of program credit is required for students lacking teaching licensure.

MLS graduates are eligible to apply for North Carolina public library licensure.

CAS IN LIBRARY SCIENCE

The certification of advanced study in library science is a specialist program for professionals who wish to upgrade and update their knowledge in library and information science, develop a specialty in a subject discipline or a library function, or redirect their career path. One option in the program leads to licensure as a school media supervisor (078). Applicants must have completed a master's degree in library science, or equivalent, with a minimum GPA of 3.0.

The CAS requires a minimum of 30 s.h., including at least 12 s.h. in library science and a 6 s.h. CAS project (LIBS 7995, 7996). A maximum of 12 s.h. or appropriate graduate-level courses beyond the master's may be transferred from another institution. Each student, working in close cooperation with an adviser, develops a course of study and delineates the general area of the CAS project.

Students seeking school media supervisor licensure (078) must include LIBS 7010, a course in educational curriculum development, and LIBS 7991.

### **CERTIFICATE FOR SPECIAL ENDORSEMENT IN COMPUTER EDUCATION**

The certificate for the special endorsement in computer education provides interested licensed teachers the opportunity to fulfill requirements to apply for the endorsement for the position of Technology Facilitator. Applicants to the certificate program must currently have a NC teaching license and meet graduate school standards for admission.

The certificate program requires 18 s.h. of graduate-level course work in educational technology. Required courses include EDTC 6010, 6020, 6035, 6139, 6140, and 6149.

### **CERTIFICATE IN TELE-LEARNING**

The certificate in tele-learning provides interested persons an opportunity to learn the basic principles of distance delivery of classes, to manage distance-delivered classes, and to evaluate their effectiveness. Applicants to the certificate program must meet the same admission requirements as for the MAEd instructional technology program.

The certificate program requires 18 s.h. of graduate-level course work in distance delivery of courses. Required courses include EDTC 6010, 6050, 6060, 6300, 7310, 7320.

### **CERTIFICATE IN VIRTUAL REALITY IN EDUCATION AND TRAINING**

The certificate in virtual reality in education and training provides interested persons the opportunity to learn to use basic virtual reality software and to apply that knowledge in educational and training settings. Applicants to the certificate program must meet the same admission requirements as for the MAEd instructional technology program.

The certificate program requires 15 s.h. of graduate-level course work in virtual reality, emphasizing educational and training applications. Required courses include EDTC 6240, 6242, 6244, 6848, 6991, 6992.

### **EDTC: EDUCATIONAL TECHNOLOGY**

**5010. Computers in Education (3)** Application of computers in education. Operation of microcomputers and selection, evaluation, and application of educational software.

**6010. Introduction to Instructional Technology (3)** Historical background, theories, instructional design and development, deliverers of instruction, current issues, and trends.

**6020. Principles of Instructional Design (3)** Systematic process for design of instruction. Task analysis and task analysis diagrams, learner and context analysis, and development of instructional strategies.

**6025. Analysis and Evaluation in Instructional Technology (3)** P: EDTC 6020. Introduces development of instructional analyses, strategies, and formative evaluation methods. Practical experiences in traditional and alternative instructional development and evaluation techniques.

**6030. Authoring Systems for Instructional Product Development (3)** P: EDTC 6020; consent of instructor. Use of authoring systems for design, development, and testing of instructional course ware.

**6035. Integrating Technology into the English/Language Arts, Social Studies, and Information Skills Curriculum (3)** Open to other graduate education majors. In-depth study of NC K-12 computer skills curriculum. Emphasis on development of strategies, materials, and staff development to integrate technology into English/language arts, social studies, and information skills curricula.

**6037. Integrating Technology into the Math, Science, and Healthful Living Curriculums (3)** Open to other graduate education majors. In-depth study of NC K-12 computer skills curriculum. Emphasis on developing strategies, materials, and staff development to integrate technology into math, science, and health curricula.

**6040. Multimedia Instructional Product Development (3)** P: EDTC 6030. Process of instructional product development using multimedia technologies. Development of multimedia instructional modules.

## SECTION 7: CURRICULA

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**6045. Human-Computer Interface Design (3) Same as LIBS 6045** P: Basic computer knowledge. Design and evaluation of human-computer interfaces for information and instructional products. Application of human-computer interface principles and user-centered design perspective to project development.

**6050. The Internet: Organization, Design, and Resource Discovery (3)** Organization and design of Internet. Emphasis on tools available for discovering useful resources for instructional and other purposes.

**6060. Using the WorldWideWeb for Research (3)** Identification and evaluation of resources for research available on WorldWideWeb. Examination of issues such as search strategies, copyright, and censorship.

**6110. Media Literacy (3)** Critical examination of mass media in terms of implicit and explicit messages. Strategies and activities to develop cognitive and viewing skills necessary for effective evaluation of media.

**6125. Performance Technology: Principles and Strategies (3)** P: EDTC 6020. Interrelationship of computer technology with instructional technology and its application to corporate training.

**6130. Development of Video Instruction (3)** Design and development of desktop video for instructional applications. Integration of digital video with other media for instruction. Analog video production and principles of instructional television.

**6135. Instructional Graphics for Educational Media (3)** Design and production of graphic and visual elements for instructional applications. Covers emerging technologies and desktop publishing.

**6139. Selection and Integration of Multimedia for PreK-12 Schools (3)** Methods and materials for selecting and using a variety of multimedia formats in PreK-12 classrooms.

**6140. Planning for Technology (3)** Background necessary for school leaders to plan for technology. Development of educational specifications, design, selection, contracts, maintenance, staff development, and evaluation. Open to other graduate education majors.

**6149. Administration of School Technology Programs (3)** Theory and principles of management with relevant application for school technology programs.

**6230. Local Area Networks in Instructional Settings (3)** Planning, designing, implementing, and managing local area networks in instructional settings.

**6240. Virtual Reality: Principles and Applications (3)** Basic principles of virtual reality. Emphasis on applications in education and other fields. Students select special projects according to their interests and build virtual environment.

**6242. Building and Using Graphics-Based Virtual Environments for Education (3)** P: EDTC 6240 or consent of dept chair. Graphics-based environment design, building, application, and evaluation for education.

**6244. Building and Using Text-Based Virtual Reality Environments for Education (3)** P: EDTC 6240 or consent of dept chair. Text-based environment design, building, applications, and evaluation for education.

**6300. Introduction to Distance Learning (3)** Internet connectivity required. Distance learning from administrative and program development standpoint.

**6848. Seminar on Virtual Reality and Education (3)** P: EDTC 6242, 6244; or consent of chair. Exploration of problems and issues affecting building, use, and evaluation of virtual reality environments in educational settings.

**6900. Electronic Portfolio Development (3) Same as LIBS 6900** Practical application of theory, assessment, and reflection addressing state and national standards in professional electronic portfolios.

**6901, 6902, 6903, 6904. Selected Topics in Instructional Technology (1-4)** May be repeated for maximum of 6 s.h. with change of topic for a given course number. Variety of newly developed and special courses.

**6981, 6982, 6983. Directed Independent Study (1-3)** For intermediate or advanced student. P: Minimum of 15 s.h. of credit in MAEd program; consent of dept chair. Study of topic not otherwise offered in curriculum or pursuit of topic beyond or in greater depth than is possible within context of regular course.

**6991, 6992. Internships Seminar (3,3)** 110 hours of observation and practical experience in school or other setting appropriate to student's area of specialization. P: 24 s.h. in MAEd program or consent of chair. Periodic group meetings with internship supervisor.

**7000. Thesis (3)** May be repeated. May count maximum of 3 s.h.

**7001. Thesis: Summer Research (1)** May be repeated. No credit may count toward degree. Students conducting thesis research may only register for this course during the summer.

**7010. Supervision of School Media and Technology Programs (3) Same as LIBS 7010** P: Consent of CAS-LS or MAEd program director. Principles and practices of supervision of media and technology programs for school district and/or region.

**7120. Learning Theories for Instructional Development (3) Formerly EDTC 6120** Advanced examination of learning theories that affect development of instruction.

**7125. Training Systems Engineering (3)** Explores issues associated with building the training systems and subsystems necessary for training and sustaining human performance. Topics include performance analysis and needs assessing, life cycle training concerns, training development, training devices and strategies for use, cost and performance analysis, and technology used in training delivery.

**7220. Instructional Systems Analysis (3)** Advanced examination of instructional systems analysis. Includes conducting needs analysis, performance analysis, task analysis, learner analysis, and environmental analysis in preparation for instructional design.

**7310. Instructional Strategies for Distance Learning (3)** Principles and theories of distance learning including design, delivery, and evaluation.

**7320. Web Teaching: Design and Development (3)** Internet connectivity required. P: EDTC 6300 or 7310. Principles of Internet (web-based) instruction. Use of Internet tools (e-mail, ftp, chat, listserv, and on-line conferencing) for instruction, instructional design components, and designing web pages for delivery of instruction.

**7330. Management of Distance Education (3)** Internet connectivity required. P: EDTC 6300, 7310. Introduces management of distance education programs, covering on-line course management, strategic planning, faculty development and support services, student services, issues, and future trends.

**7400. Doctoral Seminar in Instructional Technology (3)** P: Admission to doctoral program. Advanced seminar focusing on theory, research, models, delivery, and current issues of instructional technology in schools, higher education, and training.

**7901, 7902, 7303. Selected Topics in Instructional Technology (1,2,3)** May be repeated for a maximum of 6 s.h. with change of topic. P: Consent of dept. chair. Variety of newly developed and special courses.

**7981, 7982, 7983. Directed Independent Study (1,2,3)** For advanced or doctoral student. P: Consent of dept. chair. Topics not otherwise offered or offered in greater depth than in the context of a regular course.

**8020. Doctoral Seminar in Models and Theories of Instructional Development (3)** P: Admission to EdD in educational leadership or consent of instructor. Advanced study of established and emerging models of instructional design and development. Includes descriptive and prescriptive theories of instructional development.

**8025. Doctoral Seminar in Educational Evaluation (3)** P: Admission to EdD in educational leadership or consent of instructor. Advanced study of established and emerging methods of educational evaluation. Includes both program evaluation and product evaluation with emphasis on technology programs and products.

**8120. Doctoral Seminar in Foundations of Instructional Systems (3)** P: Admission to EdD in educational leadership or consent of instructor. Advanced study of theoretical foundations of instructional systems.

**8130. Doctoral Seminar in Diffusion and Adoption of Innovations (3)** P: Admission to EdD in educational leadership or consent of instructor. Advanced seminar in diffusion and adoption of innovations, including models of change, research-based practice, adaptation due to contextual constraints, and challenges particular to adoption of technology.

## SECTION 7: CURRICULA

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**8140. Doctoral Seminar in Instructional Development for Higher Education (3)** P: Admission to EdD in educational leadership or consent of instructor: Advanced seminar on instructional development as it relates to organization and faculty development, and instructional change within higher education settings.

### EDTC Banked Courses

**6160. Computer Applications in Educational Administration (3)**

**6220. Telecommunications (3)**

### LIBS: LIBRARY STUDIES

**6010. Foundations of Library and Information Studies (3)** P: Admission to MLS program or consent of dept chair; demonstrated competency in the basic operation of word processing, data bases, and spreadsheets. Development and functions of libraries and information centers, professional practice and ethics, and current issues and trends.

**6014. Introduction to Reference (3)** P/C: LIBS 6010 or consent of dept chair: Major general reference sources used to answer information needs of library users.

**6018. Collection Development (3)** P/C: LIBS 6010 or consent of dept chair: Principles and methods of selecting print and nonprint materials, intellectual freedom, and formulation of selection policies.

**6026. Organization of Information in Libraries (3)** Organization of information resources, including classification, cataloging (MARC), and subject headings.

**6031. Library Administration and Management (3)** P/C: LIBS 6010 or consent of dept chair: Theory and principles of management with relevant application for public, school, and academic libraries.

**6042. Technology for Library Services (3)** P/C: LIBS 6010 or consent of dept chair: Use of technology in effective programs for youth services. Evaluative criteria for hardware and software and methods and strategies to integrate technology into instructional process.

**6045. Human-Computer Interface Design (3) Same as EDTC 6045** P: Basic computer knowledge. Design and evaluation of human-computer interfaces for information and instructional products. Application of human-computer interface principles and user-centered design perspective to project development.

**6060. Using the World Wide Web for Research (3)** Identification and evaluation of research resources found on World Wide Web. Search strategies, copyright, and censorship.

**6135. Books and Other Media for Children and Young Adults (3)** Evaluation, selection, and use of contemporary fiction, informational books, and other media with children and young adults.

**6140. Programs for School Library Media Centers (3)** P: LIBS 6014, 6031, 6042, 6135. Theory and methods of building effective school library programs. Developmental characteristics, styles of teaching and learning, and integrating library skills into curriculum.

**6160. The Art of Storytelling (3)** Storytelling techniques and performance for varied audiences. Historical origins, story memory, and development of storytelling programs for all ages.

**6215. Genealogy for Librarians (3)** One or more field trips. Roles of libraries and librarians as related to genealogical collections and services. Review of genealogical resources in other libraries, archives, and institutions. Emphasis on materials and methods of genealogical research.

**6220. History of Books and Libraries (3)** Origin and development of the book in its various forms from earliest times to twentieth century. Evolution of library as institution.

**6225. Government Publications (3)** Forms, distribution, care, and use of all types of federal government publications.

**6320. Advanced Reference (3)** P: LIBS 6010, 6014, 6018, 6026; or consent of dept chair: Sources of information in major subject areas.

**6345. Library of Congress Classification System (2)** P: LIBS 6014; or consent of dept chair: Construction, use, and notation. Development of subject headings.

**6735. Seminar on Intellectual Freedom (2)** Intellectual freedom principles in library and information studies. Pressure groups, censorship, and strategies for coping with attempts to limit access to information.

**6900. Electronic Portfolio Development (3) Same as EDTC 6900** Practical application of theory, assessment, and reflection addressing state and national standards in professional electronic portfolios.

**6901, 6902, 6903, 6904. Special Topics in Library Studies (1,2,3,4)** May be repeated for credit with change of topic for given course number. P: LIBS 6014, 6018, 6031; or consent of dept chair: Variety of newly developed and special courses offered as sections.

**6972. Research Methods in Library and Information Studies (3)** P: LIBS 6014, 6018, 6031; or consent of dept chair: Various available resources and problems of research in library and information studies.

**6973. Research Paper (3)** Directed by assigned faculty member. P: LIBS 6972. Research project developed in proposal form in LIBS 6972. Select methodology, collect and analyze data, draw conclusions, and present findings in written report.

**6981, 6982, 6983. Directed Independent Study (1,2,3)** May be repeated for credit for maximum of 6 s.h. P: Consent of dept chair: Topic not otherwise offered in curriculum or more in depth than is possible within context of regular course.

**6989. Early Internship (3)** 110 hours of observation and practical experience. For students seeking initial licensure. P: 9 s.h. in LIBS or consent of dept chair: Placement in school library media setting.

**6991, 6992. Internship: Seminar (3,3)** 110 hours of observation and practical experience. P: 30 s.h. in LIBS or consent of dept chair: Placement in library setting appropriate to student's field of concentration.

**7000. Thesis (3)** May be repeated. May count maximum of 3 s.h.

**7001. Thesis: Summer Research (1)** May be repeated. No credit may count toward degree. Students conducting thesis research may only register for this course during the summer.

**7010. Supervision of School Media and Technology Programs (3) Same as EDTC 7010** P: Consent of CAS-LS or MAEd program director: Principles and practices of supervision involved in comprehensive media and technology programs in school district and/or region.

**7050. Seminar on Public Libraries (3)** P: LIBS 6031 or equivalent or consent of dept chair: Characteristics, operations, and problems of public libraries.

**7060. Seminar on Community College Learning Resource Centers (2)** P: LIBS 6031 or equivalent or consent of dept chair: Characteristics, operations, and problems of learning resource centers in technical institutes and community colleges.

**7070. Seminar on Library Automation (2)** P: LIBS 6046 or equivalent or consent of dept chair: Problems of library automation. Emphasis on current trends in design and implementation.

**7110. Advanced Storytelling (3)** For those with some storytelling background. P: LIBS 6160 or equivalent or consent of dept chair: Development and enhancement of storytelling performance. Presentation of self as entrepreneurial storyteller.

**7150. Programs for Youth in Public Libraries (3)** P: LIBS 6014, 6031, 6042, 6135; or consent of dept chair: Theory and methods of building effective public library programs for children and young adults.

**7160. The Adult Reader (3)** Internet connectivity required. P: LIBS 6014, 6031, 6042, 6135; or consent of dept chair: Examines selection of sixteen popular genres for adult readers, including readers' advisory services.

**7210. Computer-Assisted Instruction in Librarianship (3)** Theory, design, application, and evaluation of computer-assisted instruction in librarianship.

**7250. Qualitative Research and Evaluation in Librarianship (3)** Qualitative methods for research and evaluation as applied to information needs of groups, libraries, and similar institutions.

## SECTION 7: CURRICULA

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**7901, 7902, 7903, 7904. Special Topics in Library Studies (1,2,3,4)** May be repeated for credit with change of topic for a given course number. P: Consent of dept chair. Variety of newly developed and special courses offered as sections.

**7981, 7982, 7983. Directed Independent Study (1,2,3)** May be repeated for maximum of 6 s.h. in the CAS-library science program. P: Admission to CAS-library science program; consent of dept chair. Topic not otherwise offered in curriculum or more indepth than is possible within context of regular course.

**7991. CAS Internship: School Media Supervision, Seminar (3)** | 10 hours of observation and practical experience in school media supervisory settings. P: 15 s.h. in CAS-library science program. Supervisory responsibilities and problems of school media centers.

**7992. CAS Internship: Seminar (3)** | 10 hours of observation and practical experience. P: 15 s.h. in CAS-library science program. Placement in setting appropriate to student's specialization area.

**7995, 7996. Seminar: CAS Project (3,3)** P: 18 s.h. in CAS-library science program. Problem in library studies. Report defended before faculty committee.

**8010. Theoretical Bases of Librarianship (3)** P: Admission to EdD in educational leadership or consent of instructor. Advanced study of theories, philosophies, historical roles, fields, and developments that define librarianship.

**8014. Doctoral Seminar in Reference Services (3)** P: Admission to EdD in educational leadership or consent of instructor. Advanced study of characteristics, operations, and problems of reference services in libraries.

**8026. Doctoral Seminar in Technical Services (3)** P: Admission to EdD in educational leadership or consent of instructor. Advanced study of characteristics, operations, and problems of technical services in libraries.

**8031. Doctoral Seminar in Library Management (3)** P: Admission to EdD in educational leadership or consent of instructor. Advanced study of characteristics, operations, and problems of library management.

**8100. Doctoral Seminar in Academic Libraries (3) Formerly LIBS 6100** P: Admission to EdD in educational leadership or consent of instructor. Advanced study of characteristics, operations, and problems of academic libraries.

**8310. Library Services for Distance Learning (3)** P: Admission to EdD in educational leadership or consent of instructor. Addresses student and faculty needs of library services for distance learning students.

**8901, 8902, 8903. Selected Topics in Library Science (1-3)** May be repeated for a maximum of 6 s.h. with change of topic. P: Admission to EdD in educational leadership or consent of instructor. Variety of newly-developed and special topics courses.

### LIBS Banked Courses

**5114. Materials for Children (2)**

**5115. Materials for Young Adults (2)**

**6003. Reference in the Social Sciences (3)**

**6004. Reference in the Humanities (3)**

**6005. Reference in the Pure and Applied Sciences (3)**

**6046. Automation in Libraries (3)**

**6120. Information Storage and Retrieval (2)**

**6340. On-line Cataloging (2)**

**6360. Telecommunications (3)**

**6725. Seminar on Technical Services (2)**

**6730. Seminar on Organization of Special Materials (2)**

## DEPARTMENT OF MATHEMATICS AND SCIENCE EDUCATION

*Ron Preston, Acting Chairperson, 324-A Austin Building*

### MAEd IN MATHEMATICS

The MAEd in mathematics is designed for a teacher whose primary teaching assignment has been in the area of pre-secondary or secondary mathematics. Prior teaching experience is not necessary for admission to this program, but certification to teach is required for admission.



Students holding the equivalent of an undergraduate mathematics major and certified to teach at the secondary level will complete the secondary level concentration. Students who earned the equivalent of an undergraduate concentration in mathematics and are certified to teach at the pre-secondary level will complete the pre-secondary-level concentration. Admission materials must include a letter of recommendation from someone aware of the applicant's performance or potential as a classroom teacher.

### Degree Requirements

Minimum degree requirement is 39 s.h. of credit.

1. Common core ..... 21 s.h.  
 EDUC 6001; 6482 or SCIE 6500; MATE 6200, 6206, 6211  
 6 s.h. of mathematics analysis and algebra as follows:  
*Pre-secondary concentration students take MATH 5521. Readings and Lectures in Mathematics (3) once as analysis and once as algebra.*  
*Secondary concentration students take MATH 5101 or 5102; 5021 or 5064 or 5581 or 6011*
2. Concentration area ..... 18 s.h.  
*Pre-secondary concentration:*  
 Choose 9 s.h. mathematics education electives in consultation with adviser; MATE 6320 or 6321 is normally included unless the student has credit for a similar course  
 Choose 9 s.h. electives from the following: MATE 5263, 5264, 6221, 6222, 6223; MATH 5521, 6263  
*Secondary concentration:*  
 Choose 9 s.h. mathematics education electives in consultation with adviser; MATE 6323 is normally included unless the student has credit for a similar course  
 Choose 9 s.h. from the following: MATH 5021, 5031, 5064, 5101, 5102, 5110, 5121, 5122, 5131, 5132, 5311, 5322, 5521, 5551, 5581, 5601, 5801, 6001, 6011, 6012, 6022, 6111, 6112, 6121, 6122, 6251, 6252, 6401, 6402, 6411, 6412, 6561, 6601, 6611, 6612, 6651, 6802, 6803, 6804, 6805
3. Other requirements  
*Capstone experience:*  
 The capstone experience will consist of either a research project or a portfolio that is modeled on the National Board Professional Teaching Standards or other equivalent project. The graduate student will be able to show knowledge of and skills in the use of appropriate materials, pedagogy, and technology in the construction of a portfolio or research project.  
*School-based experience:*  
 Teaching experience at the K-12 level is not mandatory for admittance to the MAEd program. However, for the graduate student not teaching at the pre-college level, some of the course work will require a practicum with an approved school.

### MA IN SCIENCE EDUCATION

The MA in science education is specifically designed for individuals who intend to teach in a community college or junior college setting or who simply wish to increase their expertise in a science content area. The program is open to those students who hold undergraduate degrees in science education or in a science content area.

Admission requirements: Satisfactory entrance examination score; minimum GPA of 2.5 on all undergraduate work or a minimum GPA of 3.0 for classes taken in the senior year or in the undergraduate major; favorable recommendation from the departmental admission committee.

Course requirements: A minimum of 36 s.h. is required, with at least 18 s.h. at the 6000 level or above. The specific program of courses must meet the requirements below and be approved by the student's adviser.

1. A minimum of 18 s.h. of concentration in either biological, physical, and/or earth science. Appropriate prefixes include BIOL, CHEM, GEOL, or PHYS.
2. Six s.h. of suitable electives taken under advisement.
3. Twelve s.h. of course work in science education, including specified core courses.

A thesis is required. A comprehensive examination in science education must be passed at the completion of the program.

## SECTION 7: CURRICULA

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### MAEd IN SCIENCE EDUCATION

The MAEd program in science education requires 36 s.h. in science and education with at least 18 s.h. at the 6000 level or above. The program has both online and on-campus courses and may be done completely online. The science education program is designed to improve the knowledge and skills of the classroom science teacher. Applicants to the program must hold a current teaching license. Also, an overall undergraduate GPA of 2.5 on a 4.0 scale is required and applicants must have a satisfactory score on either the Graduate Record Examinations or the Miller Analogy Test. The specific program of courses must meet the degree requirements below and be approved by the student's adviser:

1. Common Core. Twelve semester hours of professional education courses make up the MAEd core, including: Research, Trends, and Issues (SCIE 6500); Diverse Learner Competency (EDUC 6001 and SPED 6002); Effective Communication and Leadership (ELEM 6550 or LEED 6000 or ADED 6550).
2. Science Education. Twelve semester hours of science education courses, including: SCIE 6020, 6200 (or 5010), 6310, and 6600.
3. Research Product. Three semester hours of thesis or problems credits. All students will complete a research problem or thesis. Students choosing the research problem option must complete SCIE 6505 OR 6506 OR 6507. Students choosing the thesis option must complete SCIE 7000.
4. Science Content. Nine semester hours of coursework shall be selected from the fields of biological, physical, and earth science. Appropriate prefixes include BIOL, CHEM, GEOL, PHYS, and SCIE.

### MAT IN SCIENCE EDUCATION

Please refer to the beginning of the College of Education section for degree requirements of the master of arts in teaching (MAT), which leads to initial licensure.

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### MATE: MATHEMATICS EDUCATION

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**5251. Modern Mathematics for Elementary Teachers I (3) Formerly MATH 5251** Not open to undergraduate or graduate mathematics majors or minors. A teacher taking this course would receive certificate renewal credit and/or 3 s.h. of graduate elective credit in elementary education. P for undergraduate students: MATE 3223 or consent of instructor; P for graduate students: MATE 2129; MATH 2127; 3219 or 3221; or equivalent; or consent of instructor. Numeration systems and real numbers from axiomatic approach. Topics in geometry, algebra, probability theory, and number theory. Emphasis on relationship between these topics and school mathematics.

**5263, 5264. Modern Mathematics for Junior High School Teachers I, II (3,3) Formerly MATH 5263, 5264** May not count toward MATH or CSCI major or minor. P for 5263: Consent of instructor; P for 5264: MATH 5263 or consent of instructor. Set theory, mathematical systems and proofs, number systems, elementary number theory, applications of mathematics in business, science, and other areas. Basic concepts of geometry, algebra, probability, and statistics.

**5265, 5266. Microcomputers in Secondary Education (3,0) Formerly MATH 5265, 5266** 2 lecture and 2 lab hours per week. May not count toward a MATH or CSCI major or minor. P: MATE 3166 or MATH 1075 or 1085; consent of instructor. Operation and programming of microcomputers in secondary school system.

**5267, 5268. LOGO: A Computer Language for Educators (3,0) Formerly MATH 5267, 5268** 2 lecture and 2 lab hours per week. May not count toward MATH major or minor. P: MATE or MATH 3166 or consent of instructor. LOGO and its uses with students K-12.

**6200. Mathematics Assessment for the Classroom Teacher (3) Formerly MATH 6200** P: Consent of instructor. Theory, methods, and techniques of assessment for improving mathematics learning. Requires assessment and intervention project adapted to local classroom setting.

**6206. Leadership in Mathematics Education (3) Formerly MATH 6206** P: Admission to MAEd program; consent of instructor. Mathematics content and information necessary for service as leader in public school mathematics education.

**6211. Research in Mathematics Education (3) Formerly MATH 6211** Readings, reports, and syntheses of research literature on teaching and learning K-12 mathematics. Projects based on this literature.

**6221, 6222, 6223. Current Topics in Mathematics Education (1,2,3) Formerly MATH 6221, 6222, 6223** May be repeated once with change of topic. May not count toward mathematics requirement for MAEd. P: Consent of instructor. Exhaustive study of current topic in mathematics education.

**6226, 6227, 6228. Leadership in Mathematics (1,2,3) Formerly MATH 6226, 6227, 6228** Each course may be repeated once with change of topic. May not count toward mathematics requirement for MAEd. P: Consent of instructor. Mathematics content and information necessary for service as leader in public school mathematics education.

**6229. Leadership in Mathematics Education (4) Formerly MATH 6229** May not count toward mathematics requirement for MAEd. P: Consent of instructor. Mathematics content and information necessary for service as leader in public school mathematics education.

**6261. Diagnostic Approach to Teaching Elementary Mathematics I (3) Formerly MATH 6261** May not count toward mathematics requirement for MATH MA. May count as elective in other programs. P: MATE 5251 or 5263 or consent of instructor. Methods of diagnosing and prescribing for individual difficulties in mathematics at elementary and secondary school levels. Application of principles and techniques during clinical work.

**6320. Advanced Elementary Mathematics Methods (3) Formerly MATH 6320** May not count toward mathematics requirement for MAEd. P: Certification in elementary education at undergraduate level. Current research, materials, methods, and curricula for teaching and learning elementary school mathematics.

**6321. Advanced Middle-Level Mathematics Methods (3) Formerly MATH 6321** May not count toward mathematics requirement for MAEd. P: Certification in mathematics at middle grades undergraduate level. Current research, materials, methods, and curricula for teaching and learning middle-level mathematics.

**6323. Issues and Trends in Mathematics Education (3) Formerly MATH 6323** May not count toward mathematics requirement for MAEd. P: Graduate standing and certification in secondary mathematics. Current research, materials, methods, and curricula for teaching and learning high school mathematics.

## **SCIE: SCIENCE EDUCATION**

**5000. Contemporary Approaches to Teaching Biological Science (3)** P: BIOL 1100, 1101, 1200, 1201; or equivalent; minimum of 16 s.h. in BIOL. Effective teaching in biology using current curricula materials. Emphasis on investigative nature of biology.

**5010. Applications of Microcomputers in Teaching Physical Science (3)** 2 1-hour lectures and 1 2-hour lab per week. Use of microcomputer to assist in teaching physical science. Topics include operation of microcomputer; review and evaluation of available software, and computer techniques to illustrate physical science concepts.

**5020. Applications of Microcomputers in Teaching Biological Science (3)** Use of microcomputer to assist in teaching biological science. Topics include operation of microcomputer; review and evaluation of available software, and computer techniques to illustrate biological concepts.

**5990. Apprenticeship Science (3)** Direct supervision in lab procedures by members of science staff.

**6000. Science and Society (3)** Selected topics to demonstrate social, historical, and philosophical aspects of science. Emphasis on science-society interaction.

**6003. Selected Topics in Life Science for Middle Grades Teachers (3)**

**6004. Selected Topics in Physical Science for Middle Grades Teachers (3)**

**6006. Chemistry for Middle Grades Teachers (3)** P: Minimum of 1 year teaching experience in grades 6-9 or consent of instructor. Content and instructional methods for chemistry for grades 6-9 teachers. Emphasis on demonstrations and hands-on activities.

**6010. The History and Philosophy of Science (3)** Development of scientific ideas, their origin, growth, and relationship to present.

**6019. Science in Elementary Education (3)** P: Initial Teaching Licensure in elementary or special education. Current trends and issues. Emphasis on contemporary literature and classroom implementation.  
P=Prerequisite(s); C=Corequisite(s); P/C=Prerequisite(s) or Corequisite(s); R=Recommended P, C, or P/C

## SECTION 7: CURRICULA

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**6020. Recent Developments in Science Teaching (3)** Curricular trends and innovations. Emphasis on development of philosophical analyses of science teaching and learning practices reflective of past, current, and future science education reform agendas.

**6050. Developmental Approaches to Science Teaching (2)** P: NC teaching licensure or equivalent; formal acceptance into DASH summer institute. Developmental Approaches in Science and Health (DASH) program is an interdisciplinary science curriculum designed for grades K-2. Focus on methodology and content. Follow-up sessions.

**6081. Astronomy Methods for Teachers (2)** P: PHYS 1080, 1081; or 2 years' teaching of astronomy unit in school; PHYS 1050 or PHYS 1250. Methods of teaching astronomy using activities, experiments, observations, and library/computer resources.

**6200. Environmental Education (3)** Critical examination of issues arising from human interaction with natural environment. Focus on themes such as history of environmental movement, environmental ethics and values, and local, state, and global environmental issues.

**6310. Advanced Methods in Teaching Science (3)** Application of theoretical, philosophical, and research bases for improvement of education practice. Planning, instruction, and evaluation techniques expected of master teacher.

**6420. Marine Education (3)** P: Initial Teaching Licensure in elementary, middle, or secondary education or consent of instructor. Current status of marine education. Emphasis on student involvement and development of classroom instruction materials.

**6500. Understanding and Engaging in Educational Research (3)** Research on human development and learning and pedagogical knowledge and skills expected of master teacher. Current trends and issues in education, skills in data collection, and application of research in classroom.

**6501. Experimental Evaluation in Science (3)** Experimental design, evaluation, and research methods as related to classroom and lab teaching and coordination of various sciences.

**6505. Problems in Science Education (Elementary) (3)** Research in science teaching at elementary school level.

**6506. Problems in Science Education (Secondary) (3)** Research in science teaching at middle and senior high school levels.

**6507. Problems in Science Education (College) (3)** Research in science teaching at college level.

**6522. Readings in Science Education (1)** Special topics to improve student's background selected in collaboration with instructor of student's choice. Readings selected from sources appropriate to any level of science teaching.

**6525. Selected Topics in Biological Science for Elementary Teachers (3)**

**6530. Selected Topics in Physical Science for Elementary Teachers (3)**

**6535. Selected Topics in Earth Science for Elementary Teachers (3)**

**6600. Action Research in Teaching (3)** Development of systematic reflection by teachers through action research strategies to examine issues in learning and teaching.

**7000. Thesis (3)** May be repeated. May count maximum of 3 s.h.

**7001. Thesis: Summer Research (1)** May be repeated. No credit may count toward degree. Students conducting thesis research may only register for this course during the summer.

### SCIE Banked Courses

**6015. Aviation Science Education (3)**  
**6060, 6061, 6062. Foundational Approaches in Science Teaching I, II, III (3,3,2)**  
**6300. Science Methods and Materials for Teaching Handicapped Learners (3)**

**6410. Implementation of High School Marine Science Studies (HMSS) (3)**  
**6980, 6981. Internship in Natural History (3,3)**

# COLLEGE OF FINE ARTS AND COMMUNICATION

Michael Dorsey, Interim Dean, 2000 Jenkins Fine Arts Center

The College of Fine Arts and Communication comprises the Schools of Art and Design, Communication, Music, and Theatre and Dance.

## SCHOOL OF ART AND DESIGN

Arthur J. Haney, Interim Director, 2000 Jenkins Fine Arts Center

Jacquelyn Leebrick, Director of Graduate Studies

Phil Phillips, Associate Director

### ACCREDITATION

Graduate programs are accredited by the National Association of Schools of Art and Design. The MAEd in art is accredited by the North Carolina State Department of Public Instruction and the National Council on Accreditation of Teacher Education.

### ADMISSION REQUIREMENTS

As a prerequisite to graduate study in a degree program, the School of Art and Design requires that the applicant meet the admission requirements of the university Graduate School including a satisfactory score on the Miller Analogy Test or the Graduate Record Examinations. In addition, applicants must meet all admission requirements of the School of Art and Design, including a portfolio showing competence in a studio area or studio areas and sufficient undergraduate preparation in art history. Applicants for the MAEd must possess at least the initial certificate. Applicants with deficiencies in undergraduate course requirements or preparation will be required to remove them. All university and School of Art and Design admission requirements must be satisfied by February 15. This deadline date is the application date for the upcoming summer, fall, and spring semesters. (If special circumstances exist and are deemed acceptable, applicants requesting spring admission and meeting application requirements will be considered on October 1.) Each entering student should consult with the director of graduate studies in art prior to beginning graduate studies. Appointments are required.

### MAEd IN ART EDUCATION

The master of arts in education is the professional degree in art education. Graduate certification requires demonstrated competence and recommendations from the certifying institution. This is a one-year or equivalent degree (33-36 s.h.). The total time limit for completing requirements for this degree is six years. Students interested in applying for admission to this degree program must submit a portfolio of slides of their work to indicate their competence in art.

1. Education: ART 6801, 6898; EDUC 6001; SPED 6002 ..... 12 s.h.  
Art education: ART 6800 ..... 3 s.h.  
Art electives ..... 9 s.h.  
Art history elective ..... 3 s.h.
2. Thesis options (Choose one of the following) ..... 33-36 s.h.  
(33 s.h. minimum) The student may choose to do a thesis for 6 s.h. of credit. The thesis must be conventional research dealing with a significant problem in the field of art education.  
(36 s.h. minimum) The student may choose to take, in place of the thesis, and with the approval of the adviser, an additional 6 s.h. of art courses and 3 s.h. of electives.
3. Students must achieve a passing score on a comprehensive examination in art education and education.

### MFA IN ART

The master of fine arts degree is the terminal professional degree in studio art. This is a two-year or equivalent degree (60 s.h.). Assessments of progress are provided on a regular and periodic basis. Students must present the equivalent of the bachelor of fine arts degree, School of Art and Design program, which is described in the undergraduate catalog. Students interested in applying for the MFA degree must present a portfolio of slides of their work prior to acceptance in the studio area in which they wish to major. Concentrations are offered in all areas represented by course work except art history and video art.

Art: Studio concentration for which candidate is qualified ..... 24 s.h.  
Studio art electives (outside concentration area) ..... 12 s.h.  
Art history ..... 12 s.h.

## SECTION 7: CURRICULA

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ART 6000 or art course approved by area coordinator .....	3 s.h.
ART 7000 .....	6 s.h.
General electives .....	3 s.h.
Thesis: A creative thesis and a written report of the thesis are required	

### ART: ART AND DESIGN

**6000. Readings in Art (3)** P: Graduate standing in the School of Art and Design. Exploration of ideas, theories, emergent issues, and trends in art through selected readings in art and philosophy. Discussion and analysis of reading as applied to the students' personal aesthetic and studio production.

### ART: ART EDUCATION

**5323. Art in the Secondary School (3)** P: Acceptance in MAT program. Art education philosophy, methodology, media, and techniques for teaching junior and senior high school students.

**5810. Arts and Crafts for Elementary Teachers (3)** Workshop course. Not open to ART majors. Drawing, painting, printmaking, sculpture, and craft processes suitable for elementary school classes.

**5851. Art in the Elementary School (3)** P: Acceptance in MAT program. Art education philosophy, methodology, materials, processes, and specific projects for elementary classes.

**5860. Classroom Participation in Art (1)** P: Acceptance in MAT program. Classroom practice in the teaching of art and discussion of procedures used.

**5870. Computers in Art Education (1)** P: Acceptance in MAT program. Entry-level basic computer operations applicable to the K-12 art education classroom.

**6800. History and Philosophy of Art Education (3)** P: Admission to Graduate School and MAEd in art program; consent of instructor. History of art instruction in American schools, philosophies of art education, past and present, the influences on current and past art instruction, and recent trends in art education.

**6801. Supervision of Art Education (3)** P: Admission to Graduate School and MAEd in art program. Duties of the art supervisor; philosophies of supervision as applied to art, curriculum development in art, personnel practices and staff development in art supervision, public relations, preparation of art budgets, and legal aspects of art supervision.

**6898. Research in Art Education (3)** P: Admission to Graduate School and MAEd in art program. History, significant findings, practical applications and implications, recent studies, areas needing further research, and research procedures in art education.

### ART: ART HISTORY

**5900. Art of the United States (3)** P: ART 1906, 1907. Painting, sculpture, architecture, design, and crafts in US from colonial times to present.

**5981. Studies in Contemporary Art (3)** P: ART 1906, 1907. Selected topics in art from 1945 to present.

**6900. History of Prints and Drawings (3)** History of printmaking and drawing from Renaissance to present.

**6901. Northern Renaissance Art (3)** Northern European painting, sculpture, and architecture from 1300-1600.

**6902. Northern Baroque Art (3)** Painting, architecture, and sculpture in Low Countries, Germany, Central Europe, England, Spain, and Portugal during Baroque Period.

**6903. Nineteenth Century Painting (3)** Neo-classicism, romanticism, realism, impressionism, postimpressionism, and related trends of nineteenth century.

**6905. Twentieth-Century Painting and Sculpture: 1900 to 1950 (3)** Art movements from first half of twentieth century. Fauvism, Expressionism, Cubism, Futurism, Dada, and Surrealism.

**6906. Twentieth-Century Architecture (3)** Sources and development of contemporary architecture of the world.

- 6908. Research Methods in Art History (3)** Readings and research in theory and methodology of art history.
- 6909. Seminar in Art History (3)** May be repeated with different instructor: May count for a maximum of 6 s.h. Theory, methodological studies, and reading in history of art.
- 6910. Art of the Middle Ages (3)** Major directions in art and architecture of Europe from Early Christian period to ca. 1300.
- 6911. History of Nineteenth- and Twentieth-Century Design (3)** Major artists and movements in history of textile, ceramic, metal, wood, and graphic design.
- 6912. African Art (3)** Traditional and contemporary art of west and central Africa.
- 6913. Asian Art (3)** Significant traditions in art of India, China, and Japan from antiquity to modern times.
- 6914. Contemporary Art: 1950 to the Present (3)** Art movements from second half of twentieth century.
- 6915. Italian Renaissance Art: 1500 to 1600 (3)** Significant artists and art theories of Renaissance Italy.
- 6916. Art of India (3)** Significant art periods, traditions, and artists of ancient and modern India.
- 6917. Ceramic History of North Carolina and the Southeastern United States (3)** NC ceramics from colonial times to present.
- 6918. Art and Power in Mesoamerica (3)** Chronological survey of major Mesoamerican cultures and how visual arts they produced reflect aspects of religious and political power.
- 6919. Native North American Art and Ritual (3)** Overview of major native North American cultures and how visual arts created by native artists were part of their ritual, religious, and everyday lives. Covers cultural changes attributed to European impact.
- 6925. African American Art (3)** Survey of African American art in North America from Colonial Period through the twentieth century. Examines works of art and craft in different media. Explores various cultural impacts upon art production.
- 6950. Architectural History of the Middle East Before 1600 (3)** Architecture of ancient Babylon, Assyria, Persia, and Egypt and early Christian and Islamic cultures of Middle East.

## ART: CERAMICS

- 5100. Ceramics Studio IX (3)** P for graduate students: May count as an elective with consent of instructor: Senior projects in ceramic art and design. Slide portfolio requirement and senior exhibition.
- 5110. Ceramics Studio X (3)** P for graduate students: May count as an elective with consent of instructor: Advanced projects in ceramic art and design.
- 6100, 6101, 6102, 6103, 6104, 6105, 6106, 6107. Problems in Ceramics (3 each)** To be taken in sequence.

## ART: COMMUNICATION ARTS

- 5210. Advanced Graphic Design (3)** For students specializing in the discipline. P for undergraduate students: ART 4200 or 4210; P for graduate students: ART 4210. Advanced problems in graphic design history. Development of self-promotional materials and professional portfolio.
- 5220. Advanced Photography (3)** P: ART 2220. Advanced photographic techniques, sequential problems, animation, and film.
- 5230. Advanced Illustration (3)** P: ART 4230. Advanced problems in illustration. Emphasis on exploring aesthetic issues related to various forms of image making for illustrators. Development of creative professional illustration portfolio.
- 6200, 6210, 6220, 6230, 6240, 6250, 6260, 6270. Problems in Communication Arts (3 each)** To be taken in sequence.

## SECTION 7: CURRICULA

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### ART: DRAWING

**5550.Advanced Figure Drawing (3)** P:ART 3553. In-depth investigation of the figure for exploring various drawing issues.

**5551.Advanced Drawing (3)** P:ART 4551. In-depth exploration of drawing as depiction, organizational device, metaphor, and object. Drawing for exploring aesthetic issues related to various forms of image making.

**6550,6551,6552,6553. Problems in Drawing (3 each)** To be taken in sequence.

### ART: FABRIC DESIGN

**5306. Fabric Design StudioVIII (3)** P:ART 4326. Original research in nonstructural textile design.

**5316. Fabric Design Studio IX (3)** P:ART 5306. Original research in nonstructural textile design.

**6300,6310,6320,6330,6340,6350,6360,6370. Problems in Design (3 each)** Same as **ART 6300,6310,6320,6330,6340,6350,6360,6370 (Weaving)** To be taken in sequence

**6306,6316,6326,6336,6346,6356,6366,6376. Problems in Fabric and Textile Design (3 each)** To be taken in sequence.

### ART: INTERDISCIPLINARY AND INDEPENDENT STUDY

**5500. Independent Study (3)** P: Consent of instructor; curricular coordinator; and dean.

**6070. Visual Problems in Computer-aided Design (3)** For artists and art educators. P: Minimum of 12 s.h. graduate-level ART courses or consent of instructor. Computer use for solving advanced visual problems related to experiences in specific areas of concentration and professional practice. Develop electronic portfolios and presentations of artwork and resumes.

**6510,6511,6512. Directed Graduate Field Study in Art (1,1,1)** Minimum of 35 hours of instruction at a qualified off-campus institution or program. May count toward studio major. P: Graduate standing; consent of area coordinator and supervising instructor. Studio research supervised by School of Art and Design faculty in conjunction with another structure program or institution. Strengthens competence in areas related to School of Art and Design programs.

**6515. Directed Graduate Field Study in Art (3)** Minimum of 105 hours of instruction at a qualified off-campus institution or program. May count toward studio major. P: Graduate standing; consent of area coordinator and supervising instructor. Studio research supervised by School of Art and Design faculty in conjunction with another structure program or institution. Strengthens competence in areas related to School of Art and Design programs.

**6991,6992,6993,6994. Problems in Interdisciplinary Studies in Art (3 each)**

**7000. Thesis (3)** May be repeated. May count maximum of 6 s.h.

**7001. Thesis: Summer Research (1)** May be repeated. No credit may count toward degree. Students conducting thesis research may only register for this course during the summer.

### ART: METAL DESIGN

**5301. Metal Design StudioVIII (3)** P for undergraduate students:ART 2300 or consent of instructor. Original research in metal design.

**5311. Metal Design Studio IX (3)** P for undergraduate students:ART 2300 or consent of instructor. Original research in metal design.

**6301,6311,6321,6331,6341,6351,6361,6371. Problems in Metal Design (3 each)** To be taken in sequence.

### ART: PAINTING

**5560.Advanced PaintingVI (3)** Personal direction in painting. Individual and group criticism.

**5561.Advanced PaintingVII (3)** Personal direction in painting.

**6560,6561,6562,6563,6564,6565,6566,6567. Problems in Painting (3 each)** To be taken in sequence.



## ART: PRINTMAKING

**5610. Printmaking Studio X (3)** Independent investigation of specific problems in printmaking.

**6600, 6601, 6602, 6603, 6604, 6605, 6606, 6607. Problems in Printmaking (3 each)** To be taken in sequence.

## ART: SCULPTURE

**5700. Sculpture Studio VIII (3)** P for undergraduate students: ART 2705 or consent of instructor. Concentrated studio pursuit and development of strong personal aesthetic sculptural statement.

**5710. Sculpture Studio IX (3)** P for undergraduate students: ART 2705 or consent of instructor. Concentrated studio pursuit and development of strong personal aesthetic sculptural statement (architectural scale).

**6700, 6701, 6702, 6703, 6704, 6705, 6706, 6707. Problems in Sculpture (3 each)** To be taken in sequence.

## ART: WEAVING DESIGN

**5305. Weaving Design Studio VII (3)** P: ART 4315. Original research in weaving and fiber design.

**5315. Weaving Design Studio VIII (3)** P: ART 5305. Original research in weaving and fiber design.

**6300, 6310, 6320, 6330, 6340, 6350, 6360, 6370. Problems in Design (3 each)** Same as ART 6300, 6310, 6320, 6330, 6340, 6350, 6360, 6370 (Fabric) To be taken in sequence.

**6305, 6315, 6325, 6335, 6345, 6355, 6365, 6375. Problems in Weaving and Fiber Design (3 each)** To be taken in sequence.

## ART: WOOD DESIGN

**5302. Wood Design Studio VIII (3)** P for undergraduate students: ART 2304 or consent of instructor. Original research in wood design.

**5312. Wood Design Studio IX (3)** P for undergraduate students: ART 2304 or consent of instructor. Original research in wood design.

**6302, 6312, 6322, 6332, 6342, 6352, 6362, 6372. Problems in Wood Design (3 each)** To be taken in sequence.

## ART AND DESIGN Banked Courses

**5820. Visual Presentations in the Classroom (3)**

**5960. Culture and Art of Mexico (6)**

**5950. Culture and Art of Europe (6)**

## SCHOOL OF COMMUNICATION

*Linner Griffin, Interim Director, 103 Joyner East*

The School of Communication offers the BA in communication with concentrations in journalism and public relations as well as the BS in communication with concentrations in electronic news, media performance, and media production.

SCHOOL OF MUSIC

Rodney Schmidt, Interim Director and Associate Director for Graduate Studies and Technology, A-119, A. J. Fletcher Music Center  
Susan Beck-Frazier, Assistant to the Director for Student Services, A-122 A, A. J. Fletcher Music Center  
Christopher Ulfers, Assistant Director for Administrative Support, A-119B, A. J. Fletcher Music Cneter  
Charles F. Bath, Chairperson, Keyboard Music, A-369, A. J. Fletcher Music Center  
Michelle Hairston, Chairperson, Music Education, A-213, A. J. Fletcher Music Center  
Thomas J. Huener, Chairperson, Theory Composition, and Musicology, A-301, A. J. Fletcher Music Center  
Jeffery W. Jarvis, Chairperson, Instrumental Music, A-314, A. J. Fletcher Music Center  
John B. O'Brien, Chairperson, Vocal Studies, A-268, A. J. Fletcher Music Center

The School of Music offers four master of music degrees: the MM in music education, the MM in music therapy, the MM in performance, and the MM in theory-composition. The MM in music education has two options, one is approved for North Carolina teacher licensure. The MM in performance offers concentrations in accompanying; organ, piano, voice, strings, percussion, or wind instruments; sacred music; woodwind or brass specialist; choral conducting; jazz; instrumental conducting; and pedagogy (piano, string, or vocal). The MM in theory-composition offers concentrations in composition (traditional and electronic), theory, and music technology. Students completing any of these professional degree programs achieve a broad conceptual understanding of their major area through a synthesis of theoretical and historical information. They acquire applied skills in research and performance for meaningful and effective use of this knowledge.

ADMISSION

Applicants must meet the requirements established by the Graduate School and complete its admission process. Applicants must have the equivalent of a bachelor of music degree from an accredited institution, a minimum average grade of B in all previous course work, and demonstrate an acceptable level of musical accomplishment through an audition. Portfolio admission is an option in music education and music therapy. As part of the admission process, all applicants must demonstrate a basic knowledge of music history and theory with an acceptable evaluation on an examination administered at the time of the audition or interview. Students with identified deficiencies may be required to remediate with appropriate courses (MUSC 6206, 6216).

All applicants for the music education master of music program must submit a teaching license. Applicants in theory/ composition must submit examples of their creative and scholarly work (compositions, research, or analytical papers). Students applying for other thesis programs (music therapy, music technology) must submit examples of creative and scholarly work appropriate to those areas. The master of music degree shall be awarded only after candidates pass a comprehensive examination that includes the presentation and defense of a final project.

All candidates for master of music degrees shall participate in conducted or coached ensembles as determined by individual degree area requirements. Additional information detailing specific requirements for the various degree programs can be found in the admission requirements section of the *School of Music Graduate Handbook*.

MM IN MUSIC EDUCATION

Minimum degree requirement is 36-39 s.h. as follows:

One week before the comprehensive examination presentation, the student will be required to complete a written examination of work covered in the degree program. The written examination is to be scheduled with the department chair:

- 1. Core ..... 16 s.h.  
MUSC 6836, 6837, 6838, 6839, 6977
- 2. Option (Choose option A or B.) ..... 20-23 s.h.  
Option A (Approved for North Carolina Graduate Teacher Licensure) ..... 20-23 s.h.  
Teacher education: EDUC 6001 ..... 3 s.h.  
Other studies: MUSC 6006 or 6016; 6300, 6400 or 6403; applied music 2 s.h.; at least one of the following courses selected in consultation with adviser: MUSC 5937, 5957, 5977, 6621; MUSC 7000 (optional, may be repeated for credit) ..... 14-17 s.h.  
Electives ..... 3 s.h.

Option B (Carries No North Carolina Teacher Licensure) .....	20 s.h.
Area of specialization: Music therapy	
Other studies: MUSC 6006 or 6016; 2 s.h. applied music; select others in consultation with adviser .....	17 s.h.
Electives .....	3 s.h.

### MM IN MUSIC THERAPY

Minimum degree requirement is 31 s.h. as follows:

Candidates for the master of music in music therapy must submit an original thesis.

1. Core .....	16 s.h.
MUSC 6257, 6267, 6357, 6367, 6838, 7000	
2. Options (Choose A or B.) .....	15 s.h.
Option A (undergraduate degree in music therapy required for admission)	
Other studies: MUSC 6006 or 6016; others selected in consultation with adviser .....	12 s.h.
Electives .....	3 s.h.
Option B	
Other studies: MUSC 6006 or 6016; 5257, 5265, 5287, 5297; others selected in consultation with adviser .....	14 s.h.
MUSC 6998 (internship) .....	1 s.h.

### MM IN PERFORMANCE

Minimum degree requirement is 30-36 s.h. as follows:

1. Core: MUSC 6006 or 6016; MUSC 6887; 8-9 s.h. applied music; 2 s.h. recital .....	16-17 s.h.
2. Concentration area (Choose one.) .....	13-18 s.h.
Minimum of 6 s.h. in theory and analysis, history and literature, and pedagogy.	

#### **Accompanying (16 s.h. core; 14 s.h. concentration):**

Applied music and recitals: MUSC 6457, 6467, 6557, 6567, 6993, 6994	
Other studies in music: MUSC 6627, 6637, 6639; select others in consultation with adviser .....	10 s.h.
Electives .....	4 s.h.

#### **Choral conducting (16 s.h. core; 14 s.h. concentration):**

An audition is required for admission. Candidates for this degree must participate in at least one large ensemble each semester of residence and conduct a public performance of a major choral composition as a final project.

Applied music and recital: MUSC 5706, 5716, 5906, 6995	
Other studies in music: MUSC 5916, 6706, 6837; select others in consultation with adviser .....	12 s.h.
Electives .....	2 s.h.

#### **Instrumental conducting (17 s.h. core; 13 s.h. concentration):**

An audition is required for admission. Audition repertoire will be chosen from the standard repertoire by the auditioning committee. Graduate students accepted into this degree program must demonstrate keyboard proficiency at an acceptable level. Opportunities for satisfying keyboard proficiency requirements exist through noncredit applied study. Candidates for this degree must participate in at least one large ensemble each semester in residence and conduct a public performance of a major composition as a final project.

Applied music and recitals: MUSC 5706, 5716, 6706, 6995	
Other studies in music: MUSC 5926 or 6226; select others in consultation with adviser .....	10 s.h.
Electives .....	3 s.h.

#### **Jazz (16 s.h. core; 14 s.h. concentration):**

An audition is required for admission. Applicants must demonstrate graduate-level potential in the major performance medium and proficiency on two other woodwind instruments, equivalent to a first-semester junior music major working toward the BM. Candidates for this degree must perform a public recital while in residence

SECTION 7: CURRICULA

at East Carolina University and complete at least one original composition per semester. Students must perform in at least one large and one small ensemble each semester while in residence.

- Applied music and recitals: MUSC 6195, 6196, 6296, 6336, 6995
- Other studies in music: MUSC 6095, 6096, 6295, 6395, 6396 ..... 10 s.h.
- Electives ..... 4 s.h.

**Organ, piano, voice, strings, percussion, or any wind instrument (16 s.h. core; 14 s.h. concentration):**

- A graduate student accepted into the voice performance master of music degree program must show evidence of proficiency in French, German, and Italian diction equivalent to MUSC 1627, 1637, and 1647. This may be done by examination. In the event that the student is not able to demonstrate proficiency, MUSC 1627, 1637, and 1647 will be required as remedial course work without credit.
- Applied music and recitals: MUSC 6\_\_1, 6\_\_2, 6\_\_3, or 6\_\_4; 6995
- Other studies in music: MUSC 6657 (woodwind, brass, percussion) or 6667 (strings) (Piano only: MUSC 6757; Voice only: MUSC 6617; Organ only: MUSC 5657); select others in consultation with adviser ..... 11 s.h.
- Electives ..... 3 s.h.

**Pedagogy (Choose piano, string, or vocal.) (16-17 s.h. core; 13-20 s.h. concentration):**

- Piano (15 s.h.):*
  - Candidates for the master of music in piano pedagogy must fulfill one of the following recital options while in residence at East Carolina University: full solo recital or lecture recital. The performance of recital works and the lecture portion of the lecture recital must be approved by departmental audition. The nature of the lecture recital must be approved by the graduate committee.
  - Applied music and recitals: MUSC 6012 or 6013; 6727, 6995
  - Other studies in music: MUSC 6707, 6717, 6757; accompanying and/or chamber music ..... 12 s.h.
  - Electives ..... 3 s.h.

- String (Suzuki) (20 s.h.):*
  - Candidates for this degree must perform a full solo recital while in residence at East Carolina University. The recital must include advanced repertoire from the Suzuki Violin School and supplementary literature. Also, candidates must exhibit a thorough understanding of the Suzuki approach and its materials through demonstration teaching. A student may qualify for registration with the Suzuki Association of the Americas after completing the degree requirements.
  - Applied music and recitals: MUSC 6\_\_2 or 6\_\_3; 6646, 6648; 6995
  - Other studies in music: MUSC 6645, 6647, 6649, 6650, 6655, 6656; 6745, 6805  
(both may be repeated) ..... 17 s.h.
  - Electives ..... 3 s.h.

- Vocal (17 s.h.):*
  - Candidates for this degree must perform a full recital while in residence.
  - Applied music and recitals: MUSC 6062 (for 6 s.h.); 6618, 6619, 6995
  - Other studies in music: MUSC 5616, 6617, select others in consultation with adviser ..... 10 s.h.
  - Electives ..... 3 s.h.

**Sacred Music (Choose organ or choral conducting.) (16-17 s.h. core; 17-18 s.h. concentration):**

- Prior to enrollment, all graduate students accepted into the sacred music program must take aural and keyboard skills proficiency examinations to determine whether remedial work is necessary. Students may be directed to review aural and/or keyboard skills in undergraduate courses for no credit. All proficiency requirements should be completed by the end of the second semester of degree work.
- Organ (16 s.h. core; 18 s.h. concentration):*
  - Applied music and recitals: MUSC 6022 (8 s.h. total), 6995
  - Other studies in music: MUSC 5706, 6517, 6525, 6526, 6527, 6537, 6988, 6989 ..... 16 s.h.
  - Electives ..... 2 s.h.
- Choral Conducting (17 s.h. core; 17 s.h. concentration):*
  - Applied music and recitals: MUSC 5706, 5716, 6706, 6995
  - Other studies in music: MUSC 5906, 5916, 6061, 6525, 6526, 6527, 6988, 6989 ..... 14 s.h.
  - Electives ..... 3 s.h.

**Woodwind or brass specialist (16 s.h. core; 14 s.h. concentration):**

Applied music and recitals: MUSC 6__1, 6__2, 6__3, or 6__4; 6995	
Other studies in music: .....	12 s.h.
Additional applied study in other instruments in student's instrumental family .....	8 s.h.
MUSC 6657; ensemble participation on one or more minor instruments .....	4 s.h.
Electives .....	2 s.h.

**MM IN THEORY-COMPOSITION**

Candidates for the master of music in composition must submit an original composition-thesis of substantial proportions or present a full concert recital of pieces composed while in residence at East Carolina University. Candidates for the theory option must submit a thesis. Candidates for the music technology option must complete a project that demonstrates a high level of accomplishment in an area of music technology and includes a written document related to the project.

Minimum degree requirement is 32 s.h. as follows:

1. Core .....	18 s.h.
MUSC 6006, 6016, 6327, 6328, 6887, 7000	
2. Concentration area (Choose one.) .....	14 s.h.
<i>Composition:</i>	
Other studies in music: MUSC 6326 or 6336 (may be repeated for credit), 6366 (may be repeated for credit); select others in consultation with adviser .....	10 s.h.
Electives .....	4 s.h.
<i>Music technology:</i>	
Other studies in music: MUSC 6300, 6346, 6366, 6400; select others in consultation with adviser .....	10 s.h.
Electives .....	4 s.h.
<i>Theory:</i>	
Other studies in music: MUSC 6336, 6356, 6536; select others in consultation with adviser .....	10 s.h.
Electives .....	4 s.h.

**CERTIFICATE IN SUZUKI PEDAGOGY**

The educational objective of the graduate certificate in Suzuki pedagogy is to prepare students as teachers proficient in the suzuki pedagogical method. Students who complete the course of study may have course completion registered with the Suzuki Association of the Americas. Admission is according to standards established by the National Association of Schools of Music and requires a bachelor of music degree or its equivalent.

The program requires 18 s.h. of pedagogy course work with a minimum grade of B, a written pedagogical project, a full solo recital, and a final oral exam. The recital must include advanced repertoire from the Suzuki Violin School and supplementary literature. Certificate candidates must exhibit a thorough understanding of the Suzuki approach to pedagogy and its materials through demonstration teaching and the written project.

Minimum certificate requirement is 18 s.h. as follows: MUSC 6645, 6646, 6647, 6648, 6649, 6650, 6655, 6656, 6995.

**MUSC: ACCOMPANYING**

**6457, 6467. Advanced Vocal Accompanying (2,2)** May be repeated for credit. Extensive study of techniques correlated with practical experience of performing with vocal majors. Accompanying of vocal music major in half recital in one of two semesters.

**6557, 6567. Advanced Instrumental Accompanying/Chamber Music (2,2)** May be repeated for credit. Extensive study of techniques correlated with practical experience of performing with instrumental majors. Accompanying of instrumental music major in half recital in one semester.

**6993. Graduate Recital (1)** May be repeated for credit. P: Acceptance in MM degree in accompanying; prior approval by appropriate faculty necessary before recital may be scheduled. Public performance of instrumental musical compositions appropriate to MM degree in accompanying.

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**6994. Graduate Recital (1)** May be repeated for credit. P: Acceptance in MM degree in accompanying; prior approval by appropriate faculty necessary before recital may be scheduled. Public performance of vocal musical compositions appropriate to MM degree in accompanying.

### MUSC: APPLIED MUSIC

**5\_\_1, 5\_\_2. Graduate Applied Music (1,2)** May be repeated for credit. P: Graduate status in music; consent of instructor. Applied music study with appropriate instrument or voice. One thirty-minute lesson weekly (1 s.h.) or one one-hour lesson weekly (2 s.h.).

**6\_\_1, 6\_\_2, 6\_\_3, 6\_\_4. Graduate Applied Music (1,2,3,4)** May be repeated for credit. P: Graduate status in music; consent of instructor. Applied music study with appropriate instrument or voice. One thirty-minute lesson weekly (1 s.h.) or one one-hour lesson weekly (2-4 s.h.).

Instruction is available for the following instruments:

01-Piano	08-Viola	14-Bassoon	19-Trombone
02-Organ	09-Cello	15-Clarinet	20-Euphonium
03-Harpsichord	10-String Bass	16-Saxophone (alto or tenor)	21-Tuba
05-Guitar	11-Flute	17-Trumpet	22-Percussion
06-Voice	13-Oboe	18-Horn	23-Jazz
07-Violin			

**6105, 6115. Guitar Class (1,1)** May be repeated for credit. May count toward graduate minor applied music requirement. P: Graduate status in music; consent of instructor. Fundamentals of beginning (6105) and intermediate (6115) guitar performance, including use of guitar as an accompanying instrument.

**6231, 6232, 6233, 6234. Graduate Jazz (1,2,3,4)** May be repeated for credit. P: Graduate school admission as non-degree or degree student. Technique and repertoire appropriate to jazz performance medium.

**6995. Graduate Recital (2)** May be repeated for credit. P: Acceptance into a degree or certificate program that requires a recital for graduation; prior approval by the requisite applied music faculty committee is necessary before the recital may be scheduled. Public performance of musical compositions appropriate to the student's specific degree or certificate program.

### MUSC: CONDUCTING

**5706, 5716. Advanced Applied Conducting (3,3)** May be repeated for credit. Applied instrumental or choral conducting techniques. Score reading and analytical studies to develop knowledgeable interpretation of compositions for performance.

**6706. Advanced Conducting (3)** May be repeated for credit. Preparation of musical compositions for performance. Development of advanced skills in conducting technique, score reading, and musical analysis.

### MUSC: GENERAL

**6228. Arts Marketing (3)** Key concepts, background, public relations strategies, and arts-specific marketing solutions for teachers, sacred musicians, and community-sponsored arts program directors to promote music, theatre, and art programs effectively.

### MUSC: JAZZ

**6095. Jazz Harmony (2)** P: Consent of instructor. Principles of twentieth-century jazz keyboard harmony, form, and structure from ragtime to present.

**6096. Advanced Jazz Harmony (2)** P: Consent of instructor. Advanced principles of twentieth-century jazz keyboard harmony, form, and structure.

**6097. Jazz Rhythm Concepts (3)** P: Audition or consent of instructor. May be repeated for credit. Study of performance practices and concepts used in performance and rehearsal settings by the traditional, contemporary, and augmented rhythm section.

**6195. Jazz Improvisation (2)** May be repeated for credit. P: Consent of instructor. Techniques.

**6196. Advanced Jazz Improvisation (2)** May be repeated for credit. P: Consent of instructor. Advanced techniques.

**6295. Jazz Theory (2)** P: Consent of instructor. Jazz music theory and analysis of various styles performed in twentieth century.

**6296. Jazz Arranging (2)** May be repeated for credit. P: Consent of instructor. Jazz arranging for various combinations of performance ensembles.

**6395. Jazz Recording Technique (2)** P: Consent of instructor. Studio and recording technique for the jazz musician. Emphasis on performance practice for quality studio recording.

**6396. Jazz History (2)** P: Consent of instructor. Emphasis on major artists and styles of twentieth century.

## **MUSC: MUSIC EDUCATION**

**5937. Teaching Music in the Elementary School (3)** May not count toward general education fine arts requirement. Materials, techniques, and all phases of elementary school music program.

**5947. Choral Problems and Techniques (2)** Seminar in problems pertaining to rehearsal and performance of choral music.

**5957. Instrumental Problems and Techniques (3)** Seminar in problems pertaining to elementary, middle school, and secondary school instrumental music programs.

**5977. General Music in the Secondary Schools (3)** May not count toward general education fine arts requirement. Contemporary concepts in teaching at middle, junior, and senior high school levels. Examination of literature and materials.

**6048. Music for Children with Exceptionalities (2)** Materials, procedures, methods, and activities applicable to teaching music for children with exceptionalities.

**6217. Foundations of Instruction for Instrumental Music (2)** Criteria for selection and use of music and materials in elementary school. Role of beginning instrumental music in schools and its relationship to entire school program.

**6237. Foundations of Instruction for Vocal and General Music Education (2)** Planning and evaluation of instruction for general music classroom. Elements of music and their related components. Voice classification, vocal technique, and role of choral program in elementary school.

**6287. Laboratory Choral Experience in Music Education (2)** Application of conducting skills and refinement of music teaching and rehearsal skills. Teaching approaches and choral rehearsal techniques for middle- and high-school singers.

**6323. Materials and Methods in Music Education (2)** Relevant issues in music education. Development of individual philosophy of music and musical instruction and specific techniques for teaching instrumental music in primary and secondary schools.

**6333. Materials and Methods for Choral and Vocal Music Education (2)** Organization, administration, motivation, discipline, and innovative methodology for choral and vocal teaching in primary and secondary schools.

**6405. Laboratory Instrumental Experience in Music Education (2)** Application of conducting skills and refinement of music teaching and rehearsal skills. Teaching approaches and instrumental rehearsal techniques for middle- and high-school students.

**6836. Foundations, Leadership, and Communication in Music Education (3)** Adaptations and implications for current practices to historical, philosophical, psychological, sociological, and theoretical foundations of music education and how these factors influence music teaching, leadership, communication, and learning.

**6837. History and Philosophy of Music Education (3)** Detailed survey from antiquity to present which lead to advancement of personal philosophy of music education.

**6838. Research for Practitioners in Music Education (4)** Recent developments in music education. Emphasis on research strategies for conducting field-based research.

## SECTION 7: CURRICULA

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**6839. Methods, Materials, and Pedagogy in Music Education (3)** Instructional techniques, methods, materials, pedagogy, and diversity in music education through critical analysis and review of contemporary methods.

**6897. Seminar: Music in Higher Education (2)** Historical development of music offerings at college level. Comparison of curriculum patterns in major divisions of collegiate music offerings. Relationship of music curricula to general education and professional subject areas.

**6927. Seminar: Problems in Music Education (2)** Research into specific problems in some phase of music education.

**6937. Seminar: Problems in Music Education (2)** Research into new problem in music education or continuation of problem first begun in MUSC 6927 that merits additional time and research.

**6977. Curriculum Issues and Trends in Music Education (2)** May be repeated for maximum of 6 s.h. Contemporary philosophies and objectives of music education in public education. Scope and sequence of K-12 music curriculum. Trends and developments of evaluative criteria.

### MUSC: MUSIC HISTORY AND LITERATURE

**5406. Music of the Baroque Era (2)** P: MUSC 2416 or consent of instructor. 1600-1750. All types of music from Monteverdi and Schutz to Bach and Handel in relation to philosophical background of times and the arts.

**5416. Music of Rococo and Classic Periods (2)** P: MUSC 2416 or consent of instructor. 1720-1800. Development of homophony, "style gallant," developments in symphony, sonata, concerto, and opera in relation to social, economic, and political conditions of times. Haydn, Mozart, and Beethoven.

**5426. Music of the Romantic Era (2) (WI)** P: MUSC 2416 or consent of instructor. 1800-1900. All types of music against backdrop of literary revolt and development of humanitarian philosophy. From Schubert to end of century.

**5436. Twentieth-Century Music (2) (WI) (S02)** P: MUSC 2416 or consent of instructor. 1900 to present. All types of music keyed to developments in culture and related arts. Trends and "isms" from Debussy to present.

**5456. Introduction to Ethnomusicology (2)** P: MUSC or ANTH major with consent of instructor. Theories, methods, techniques, and fundamental concepts used in study of non-Western and primitive music.

**5466. Folk and Indigenous Music of Europe and the Americas (2)** P: Area minors and ANTH majors with consent of instructor; undergraduate MUSC course. Ethnic music of the West surveyed with particular attention to society, culture, and tradition.

**5476. African Music (2)** P: Open to area minors and ANTH majors with consent of instructor. Sub-Saharan African music surveyed in the context of African society and culture.

**5506. Early Music in the West: to 1600 (3)** P: MUSC 1406, 2406, 2416; or equivalent. Genres, sources, theoretical literature, and cultural contexts of western art music from Late Antiquity through end of Renaissance. Proseminar format.

**5516. Ibero-American Musics of the Twentieth Century (3)** P: MUSC 2166 or consent of instructor. Comprehensive overview from ethnomusicological perspective. Vernacular musics of Spanish- and Portuguese-speaking cultures and their influence on art-music composers of twentieth century.

**5616. Historical Development of Solo Vocal Literature (3) (WI)** P: Senior/graduate standing; undergraduate survey of music history. History with concentration on literature of major composers.

**5667, 5677. Organ History, Literature, and Design (2,2) Same as MUSC 5667, 5677 (Sacred Music)** P: MUSC 2416 or consent of instructor. Recommended to be taken in sequence. Historical survey of organ literature from earliest manuscripts through music of J. S. Bach in first term. From J. S. Bach to present in second term. Basic principles of organ construction and style. Emphasis on relationship between organ and its repertoire throughout centuries.

**5737. Piano Literature and Advanced Pedagogy (3)** Recommended that MUSC 5737, 5747 be taken in sequence. Literature for piano in relation to contemporary pedagogical use. Intermediate through advanced-level literature from Renaissance through Beethoven and Schubert.



**5747. Piano Literature and Advanced Pedagogy (3)** Recommended that MUSC 5737, 5747 be taken in sequence. Literature for piano in relation to contemporary pedagogical use. Intermediate through advanced-level literature from Chopin and Schumann to present.

**5757. Lute and Guitar Literature (3)** Comprehensive survey of solo literature for lute and guitar from Renaissance to twentieth century.

**5796. Opera History (3) (WI)** History of lyric theatre from late sixteenth century to present. Emphasis on examples from outstanding operas of various periods in music history.

**5887, 5897. Survey of Performance Practice (2,2)** P: MUSC 2416 or consent of instructor. Original and secondary sources on performance practices from Renaissance to present. Development of instruments and comparison of notated music with actual performance practices.

**5906, 5916. Choral Literature (2,2)** Historical and stylistic survey and critical evaluation of choral literature for use with school, community, and sacred choirs.

**5926. Wind Instrument Literature (3)** Chamber music, band, wind, and percussion literature for all phases of instrumental instruction.

**6216. Introduction to Graduate Study in Music History (3)** May not count toward degree. Emphasis on chronological development of musical styles and resources from Gregorian Chant to present.

**6226. Orchestral Literature (3)** Major orchestral compositions. Score analysis and performance practice research. Development of skills for interpretative decisions by conductor.

**6436. Symphonic Music (2)** Growth and development of orchestra from Baroque to present. Emphasis on development of symphony, symphonic poem, and other forms of orchestra composition.

**6466. Special Problems in Music History (3)** May be repeated for maximum of 6 s.h. Proseminar with topics and projects selected according to needs and interests of class.

**6496. History of Lyric Theatre (3)** History of lyric theatre from late sixteenth century to present. Emphasis on examples from outstanding operas of various periods in music history.

**6596. Historical Development of Vocal Literature (3)** Music history with concentration on vocal literature of major composers.

**6757. Seminar: Keyboard Literature (3)** History and development of keyboard music. Emphasis on styles and forms in eighteenth, nineteenth, and twentieth centuries.

## **MUSC: MUSIC RESEARCH**

**6254, 6255, 6256. Music Therapy Research (1,2,3)** P: Consent of instructor. May be repeated for credit. Basic research methodology in music therapy studied through completion of research projects. Emphasis on applying principles and methods of evaluative research by a critical examination of appropriate research studies.

**6507, 6508, 6509. Topics and Issues in Music (1,2,3)** May be taken for 1, 2, or 3 credit hours. May be repeated for credit. Class meetings may or may not be required. Hours and specific course requirements must be arranged prior to enrollment. P: Consent of appropriate instructor and director of graduate studies in music. Research into relevant problems and issues. For each course, student must develop a proposal(s) for independent investigation with support and advice of appropriate professor.

**6600. Music in Contemporary Society (3)** Sociological, philosophical, and educational assumptions that underlie changing functions of music in contemporary society.

**6887. Introduction to Research in Music (3)** Preparation for scholarship in music through development of research and writing skills.

**7000. Thesis (3)** May be repeated. May count maximum of 6 s.h.

## SECTION 7: CURRICULA

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**7001. Thesis: Summer Research (1)** May be repeated. No credit may count toward degree. Students conducting thesis research may only register for this course during the summer.

### MUSC: MUSIC TECHNOLOGY

**6300. Selected Topics in Music Technology (2)** May be repeated for credit. Topics in acoustics, electronic instruments, computer synthesis, computer composition, digital sampling, and editing. Practical experience with audio media and computer music programs.

**6346. Music Notation, Layout, and Printing with Software (2)** P: Graduate status in School of Music or consent of professor. Computer technology and software for music notation, layout, and printing.

**6400. Seminar in Multimedia Software Development (2)** May be repeated for credit. Existing multimedia software and its development.

**6403. Music Multimedia for the Internet (3)** May be repeated for credit. Offered only via the Internet. Creation and implementation of multimedia project for publication on Internet using Hypertext Markup Language, sound, Musical Instrument Digital Interface, Java Script, and graphics.

### MUSC: MUSIC THERAPY

**5257, 5267. Psychological Foundations of Music (3,3)** Nature and extent of scientific investigations into acoustics of music, human responses to music, learning theory, and basic research in music.

**5287. Psychological Foundations of Music Practicum (1)** Lab provides opportunity to develop and carry out research in clinical setting.

**5297. Music Therapy Practicum III (1)** Supervised practicum for music therapy majors. Application of music therapy procedures and techniques with individual clients.

**5997. Clinical Internship (1)** Supervised internship. P: Music therapy major; completion of academic requirements for the degree. Placement in approved music therapy clinical training program with registered music therapist as director.

**6257. Seminar in Music Therapy I (3)** May be repeated for credit. P: Undergraduate music therapy degree; internship; or consent of instructor. Models of music therapy practice in traditional and innovative treatment settings. Current models examined with reference to theory and philosophy, research, assessment procedures, intervention strategies, and approaches to evaluation and documentation.

**6267. Seminar in Music Therapy II (3)** May be repeated for credit. P: Undergraduate music therapy degree; internship; or consent of instructor. Issues affecting the education and clinical training, supervision, certification, and career opportunities of music therapists. Regulatory, fiscal, legal, ethical, administrative, curricular, and accreditation issues will be addressed.

**6357. Advanced Clinical Practicum I (1)** May be repeated for credit. P: Undergraduate music therapy degree; internship; or consent of instructor. Supervised practicum which provides the opportunity to plan and implement advanced music therapy procedures in a clinical setting.

**6367. Advanced Clinical Practicum II (2)** May be repeated for credit. P: Undergraduate music therapy degree; internship; or consent of instructor. Supervised practicum which provides the opportunity to apply advanced music therapy procedures and to develop and evaluate an innovative music therapy program in a clinical setting.

**6998. Music Therapy Internship (1)** May be repeated for credit. Clinical intern experience in professional setting under supervision of qualified music therapist.

### MUSC: PEDAGOGY

**5647. Orchestral and String Pedagogy (3)** P: MUSC 3697 or consent of instructor. Methodology and materials for studio teaching. Orchestral organization, rehearsal, and repertoire, and their practical application. Minor repair.

**5657. Organ Pedagogy (2)** P: Completion of 4 semesters of applied organ. Technical, artistic, and philosophical aspects of teaching organ at all levels of development. Survey of organ methods, appropriate graded repertoire in wide range of styles, and practice teaching.

**5707.Seminar:Topics and Problems of Piano Pedagogy (2)** C:MUSC 5727.Emphasis on teaching the intermediate level pre-college student,including psychology of adolescent student,piano technique,keyboard skills,and working with transfer students.

**5717.Advanced Piano Performance Problems (2)** C:MUSC 5727.Preschool music,the adult beginner;teaching in group settings,and nonmajor and secondary college piano.

**5727. Piano Pedagogy: Observation and Student Teaching (2)** 4 hours per week. May be repeated for credit. C: MUSC 5707 fall semester; MUSC 5717 spring semester. Supervised teaching and observation in the piano pedagogy program and/or through internship in an independent piano teaching studio.

**5967. Choral Practicum (2) Same as MUSC 5967 (Sacred Music)** P:MUSC 5706, 5716; or consent of instructor: Student derives solutions to specific problems encountered in preparing chorus for performance.

**6356. Pedagogy of Theory (2)** Methods of presenting the materials of current freshman and sophomore theory classes. Emphasis on texts used in various colleges. Students will work with selected students in the presentation of materials.

**6617.Vocal Pedagogy (3)** History of vocal pedagogy from seventeenth through twentieth century.Current research and findings about anatomy,physiology,and function of singing voice.

**6618. Studio Vocal Techniques (2)** May be repeated for credit. P:MUSC 6617 or consent of instructor: Study of physical, acoustical, and psychological factors involved in teaching of singing.

**6619. Studio Vocal Internship (1)** May be repeated for credit. P: Admission to vocal pedagogy degree program or consent of instructor; C: MUSC 6617. Internship in studio vocal teaching.

**6620. Teaching Specific Voice Types (3)** P:MUSC 6617, 6618, 6619. Vocal anomalies and their ramifications for applied voice teacher when teaching specific voice types, i.e., tenor or soprano.

**6621. Vocal Pedagogy I (3)** Physiology of the singing voice, physiological phonation, and concepts of vocal pedagogy.

**6627. Italian Lyric Diction (2)** Pronunciation and enunciation of Italian based on principles of Middle (Tuscan) Italian for the lyric and theatrical stage. Transliteration using the International Phonetic Alphabet.

**6637. French Lyric Diction (2)** Pronunciation and enunciation of French based on principles of the Academie Francaise for the lyric and theatrical stage. Transliteration using the International Phonetic Alphabet.

**6639. German Lyric Diction (2)** Pronunciation and enunciation of German based on principles of hochdeutsch for the lyric and theatrical stage. Transliteration using the International Phonetic Alphabet.

**6645, 6647. Suzuki Pedagogy I, II (3,3)** P for 6647: MUSC 6645, 6646; C for 6645: MUSC 6646; C for 6647: MUSC 6648. Philosophy and principles of Suzuki approach to teaching and playing violin. Material presented in volumes 1 and 2 (for 6645) and 3 and 4 (for 6647) of Suzuki Violin School.

**6646, 6648. Suzuki Observation I, II (1,1)** 2-semester sequence. P for 6648: MUSC 6645, 6646; C for 6646: MUSC 6645; C for 6648: MUSC 6647. Field observation of Suzuki approach to teaching and playing violin.

**6649, 6650. Suzuki Observation III, IV (1,1)** 2-semester sequence. P for 6649: MUSC 6646, 6648; C for 6649: MUSC 6655; P for 6650: MUSC 6649; C for 6650: MUSC 6656. Field observation of the Suzuki approach to teaching and playing the violin.

**6655. Suzuki Pedagogy III (3)** P: MUSC 6646, 6648. Philosophy and principles of Suzuki approach to teaching and playing violin as presented in volumes 5 -7 of the Suzuki Violin School. Supervised teaching of material from the Suzuki repertoire.

**6656. Suzuki Pedagogy IV (3)** P: MUSC 6655. Philosophy and principles of Suzuki approach to teaching and playing string instruments from material presented in volumes 8-10 of the Suzuki Violin School. Supervised teaching of material from Suzuki repertoire.

## SECTION 7: CURRICULA

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### **6657, 6667. Directed Study in Instrumental Pedagogy for Woodwinds, Brass, Percussion, or Strings (2,2)**

May be repeated for credit. Professional methodology, concepts, and materials for teaching of applied music at all levels in student's individual area of specialization.

**6707. Seminar: Elementary Piano Pedagogy Literature (3)** Repertoire selection, practice, and presentation techniques; curriculum design and methodology; group musicianship skills; and studio teaching approaches.

**6717. Seminar: Intermediate Piano Pedagogy Literature (3)** Repertoire selection, practice, and presentation techniques; curriculum design; historical foundations of piano instruction; and development of pianist technique and interpretative performance.

**6727. Piano Pedagogy Practicum (2)** May be repeated for credit. Supervised teaching and observation of methods of group and private studio piano lessons.

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### **MUSC: PERFORMANCE GROUPS, LARGE**

**6620. Teaching Specific Voice Types (3)** P: MUSC 6617, 6618, 6619. Vocal anomalies and their ramifications of the applied voice teacher when teaching specific voice types, i.e., tenor or soprano.

**6625. Concert Choir (1)** Open to all graduate students. May be repeated for credit. Study and performance of musical compositions for choral ensemble.

**6635. University Chorale (1)** Open to all graduate students. May be repeated for credit. Study and performance of musical compositions for large mixed voice choral ensemble.

**6665. Chamber Singers (1)** Open to all graduate students by audition. May be repeated for credit. Study and performance of repertoire for small mixed voice vocal ensemble.

**6705. Marching Band (2)** Open to all graduate students. May be repeated for credit. Preparation and performance of selected marching band repertoire.

**6715. Concert Band (1)** Open to all graduate students by audition. May be repeated for credit. Preparation and performance of selected concert band repertoire.

**6735. Wind Ensemble (1)** Open to all graduate students by audition. May be repeated for credit. Preparation and performance of wind ensemble repertoire.

**6745. Symphony Orchestra (1)** Open to all graduate students by audition. May be repeated for credit. Preparation and performance of orchestral repertoire.

**6775. Jazz Ensemble (1)** Open to all graduate students by audition. May be repeated for credit. Preparation and performance of jazz repertoire.

**6785. Symphonic Band (1)** Open to all graduate students by audition. May be repeated for credit. Preparation and performance of selected symphonic band repertoire.

**6925. Men's Glee Club (1)** Open to all male graduate students by audition. May be repeated for credit. Preparation and performance of selected repertoire for men's chorus.

**6935. Women's Glee Club (1)** Open to all women graduate students by audition. May be repeated for credit. Preparation and performance of selected repertoire for all women's chorus.

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### **MUSC: PERFORMANCE GROUPS, SMALL**

**6605. Opera Theatre (1)** Membership by audition only. May be repeated for credit.

**6805. String Chamber Music (1)**

**6815. Woodwind Chamber Music (1)** Membership by audition only. 2 rehearsals per week. May be repeated for credit.

**6825. Percussion Chamber Music (1)** Membership by audition only. 2 rehearsals per week. May be repeated for credit.

**6835. Saxophone Chamber Music (I)** Membership by audition only. 2 rehearsals per week. May be repeated for credit.

**6845. Collegium Musicum (I)** Membership by audition only. 2 rehearsals per week. May be repeated for credit.

**6855. Jazz Chamber Music (I)** Membership by audition only. 2 rehearsals per week. May be repeated for credit.

**6865. Brass Chamber Music (I)** Membership by audition only. 2 rehearsals per week. May be repeated for credit.

**6875. Keyboard Chamber Music (I)** Membership by audition only. 2 rehearsals per week. May be repeated for credit.

**6885. Contemporary Chamber Music (I)** Membership by audition only. 2 rehearsals per week. May be repeated for credit.

**6895. Vocal Chamber Music (I)** Membership by audition only. 2 rehearsals per week. May be repeated for credit.

### MUSC: SACRED MUSIC

**5667, 5677. Organ History, Literature, and Design (2,2) Same as MUSC 5667, 5677 (Music History and Literature)** Recommended to be taken in sequence. Historical survey of organ literature from earliest manuscripts through music of J. S. Bach in first term. From J. S. Bach to present in second term. Basic principles of organ construction and style. Emphasis on relationship between organ and its repertoire throughout centuries.

**5967. Choral Practicum (3) Same as MUSC 5967 (Pedagogy)** P: MUSC 5706, 5716; or consent of instructor: Student derives solutions to specific problems encountered in preparing chorus for performance.

**6476. Introduction to Service Playing (I)** Offered only during spring. I lecture and I studio hour per week. P: I semester of applied organ or consent of instructor: Basic techniques and materials of service playing. Includes hymn playing, registration, and accompanying.

**6517, 6537. Advanced Service Playing I, II (2,2) Formerly MUSC 5517, 5527** Must be taken in sequence. Advanced techniques and repertoire related to service playing. Includes creative hymn playing, composition for service, improvisation, accompanying, and console conducting.

**6525. History of Sacred Music and Worship (3)** Liturgical ritual and worship practices. Special emphasis on music and hymnody related to these practices from pre-Christian roots to modern day.

**6526, 6527. Philosophy and Practice of Sacred Music I, II (2,2)** Must be taken in sequence. Explores philosophical and theological dimensions of music in worship; administration of a sacred music program; direction of handbell choirs; composition and arranging for services; choral techniques and repertoire for children's and youth choirs; and multi-cultural and non-traditional contemporary trends in sacred music.

**6577. Directed Study in Sacred Music (2)** May be repeated for credit. Research and directed study in selected areas of sacred music.

**6988, 6989. Sacred Music Internship (I, I)** Recommended to be taken in sequence. C for 6988: MUSC 6597. 2-semester internship for skill development under direct supervision of site supervisor and university adviser.

### MUSC: THEORY COMPOSITION

**5336. Advanced Orchestration (2)** Scoring for orchestra and symphonic band. Techniques from Classic period through contemporary idioms.

**5346. Modern Instrumental Arranging (2)** P: MUSC 3176 or consent of instructor: Development of arranging skills and techniques as applied to instrumental music (e.g., stage band, marching band, symphonic band, and orchestra).

**5366. Special Studies in Music Theory (3)** May be repeated for credit with consent of dept chair. P: MUSC 2166 or graduate standing in MUSC or consent of instructor: Subject matter determined by needs and interests.

**6006, 6016. Music Structure and Style (3,3)** Selected historical and contemporary musical works using variety of analytical approaches.

## SECTION 7: CURRICULA

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**6206. Introduction to Graduate Study in Music Theory (2)** May not count toward degree. Forms and compositional techniques of music. Emphasis on Baroque, Classic, and Romantic periods.

**6316. Score Analysis (2)** Analysis of choral and instrumental scores. Harmony, rhythm, dynamics, style, form, and interpretation.

**6326, 6336. Composition (2)** May be repeated for credit. Composing in major forms.

**6327. Counterpoint (3) Formerly MUSC 5316** Counterpoint from sixteenth to twentieth century. Emphasis on eighteenth century genres through listening, analysis, and written assignments.

**6328. The Language of Post-tonal Music (3) Formerly MUSC 5326** Materials and techniques used by composers since the beginning of the twentieth century. Stylistic writing and analysis of works by selected composers of the century.

**6366. Special Problems in Electronic Music (2)** 1 seminar and 1 private conference per week. May be repeated for maximum of 6 s.h. P: Consent of instructor. Electronic music composition. Practical experience in studio technique, electronic music synthesis, and real-time performance according to individual level and interest.

**6506. Directed Study in Theory (2)** May be repeated for credit. Research and directed study in selected areas.

**6536. Introduction to Schenkerian Analysis (3)** P: MUSC 2166 or consent of instructor. Tonal music using the graphic analytical techniques of Heinrich Schenker. Includes contemporary extensions of the Schenker approach.

### MUSC Banked Courses

**5446. American Music (2)**

**5496. Electronic Music (2)**

**5537. Music for Children and Youth (2)**

**5547. Hymnology (2)**

**5567. History of Liturgies (2)**

**5587. Introduction to Handbells (1)**

**6306. Editing and Arranging (2)**

**6406. Music of the Middle Ages (2)**

**6416. Music of the Renaissance (2)**

**6456. History and Development of Chamber Music (2)**

**6487. Seminar: Foundations of Music (2)**

**6497. Seminar: Research in Music (2)**

**6597. Philosophy of Sacred Music (2)**

**6615. Varsity Choir (1)**

**6755. Symphony Orchestra Laboratory (0)**

**6797. Problems in Opera Production (2)**

**6807. Seminar: Research in Ethnomusicology (2)**

**6917. Music Administration (2)**

**6947. Student-Teacher Supervision in Music (2)**

**6957. Philosophy of Music Education (2)**

**6967. Seminar: Elementary School Music (2)**

**6987. Critique in Music Education (2)**

## SCHOOL OF THEATRE AND DANCE

*John Shearin, Director, 105 Messick Theatre*

### THEA: THEATRE ARTS

**5000. Dramatic Arts Workshop (3)** Presentation and evaluation of workshop projects in various aspects of theatre arts.

# COLLEGE OF HEALTH AND HUMAN PERFORMANCE

Glen G. Gilbert, Dean, 60 Minges Coliseum

Sharon Knight, Associate Dean, 79 Minges Coliseum

The College of Health and Human Performance offers graduate degree programs in each of its three departments: exercise and sport science, health education and promotion, and recreation and leisure studies. Admission to these programs requires that the applicant meet the admissions requirements of the Graduate School, including a satisfactory score on either the Graduate Record Examinations or the Miller Analogy Test. Admission requirements vary slightly among the programs in health and human performance. Applicants should inquire regarding these requirements for specific degree programs/options. Each prospective student should consult with the director of the degree program to which they seek admission.

## DEPARTMENT OF EXERCISE AND SPORT SCIENCE

Peter Farrell, Chairperson, 176 Minges Coliseum

### PhD IN BIOENERGETICS

The doctoral degree in bioenergetics is an interdisciplinary degree program housed in the Department of Exercise and Sport Science and offered in conjunction with the Departments of Biochemistry and Physiology in the Brody School of Medicine at East Carolina University. This program uses a unique interdisciplinary approach to address the role of energy transportation under varying metabolic and pathological states. Students address research questions that range from the whole body to the gene level as they investigate the mechanisms by which physically active lifestyles influence disease processes, prevention, and treatment. Graduates are prepared for employment in health care, government, and academic and private institutions. The curriculum comprises 69 s.h. as follows:

Required Courses: EXSS 7004, 721 I, 7335 (4 s.h.), 8310, 8330 (6 s.h.), 8333 (6 s.h.); PHLY 7702

Select a 3 or 4 s.h. molecular biology course, and 6 s.h. of approved electives

Minimum of 27 s.h. in dissertation hours: EXSS 9000

Select a 3 s.h. advanced statistics course

### MA IN EXERCISE AND SPORT SCIENCE

The master of arts degree in exercise and sport science prepares students for careers or advanced academic training in the broad realm of exercise and sport science. Students whose undergraduate preparation lacks essential prerequisite course work or whose baccalaureate degree is in a non-related field may have additional requirements. All degree candidates must pass the exercise and sport science comprehensive examination. Students may choose from two options: thesis and non-thesis. The thesis option includes adapted physical education, biomechanics, exercise physiology, physical activity promotion, physical education pedagogy, and sport management. The non-thesis option includes adapted physical education, physical activity promotion, physical education pedagogy, and sport management.

The basic curriculum plan for each option within the MA in exercise and sport science is as follows:

Thesis option:

Adapted physical education: BIOS 602 I; EXSS 5303, 5305, 5903, 6300, 6301, 6990, 6991, 7000 (6 s.h.); select 6 s.h. from the following: EXSS 5020, 5800, 5904, 6102, 6104, 6200, 6201, 6202, 6207, 6445, 6500; 3 s.h. of SPED electives; 3 s.h. of general electives ..... 36 s.h.

Biomechanics: BIOS 602 I; EXSS 6200, 6204, 6207, 6300, 6301, 6990, 6991, 7000 (6 s.h.); 12 s.h. of electives ..... 36 s.h.

Exercise physiology: BIOS 602 I; EXSS 6207, 6208, 6209, 6210, 6300, 6301, 7000 (6 s.h.) 7212; 9 s.h. of electives ..... 36 s.h.

Physical activity promotion: BIOS 602 I; EXSS 6201, 6207, 6300, 6301, 6401, 6440, 6990, 6991, 7000 (6 s.h.); 9 s.h. of electives ..... 36 s.h.

Physical education pedagogy: BIOS 602 I or EDUC 6430; EXSS 6104, 6105, 6108, 6109, 6201, 6202, 6300, 6301, 6990, 6991, 7000 (6 s.h.); select one from the following: EXSS 5020, 5303, 5305, 5903, 6102, 6200, 6207, 6445 ..... 36 s.h.

Sport management: DSCI 6123; EXSS 6102, 6106, 6131, 6132, 6133, 6136, 6300, 6301, 6445, 6990, 6991, 7000 (6 s.h.) ..... 36 s.h.

Non-thesis option:

Adapted physical education: EXSS 5303, 5305, 5903, 6201, 6300, 6301, 6990, 6991, 6994; select 9 s.h. from the following:

EXSS 5020, 5800, 5904, 6102, 6104, 6200, 6202, 6207, 6445; 3 s.h. of SPED electives; 3 s.h. of general electives ..... 36 s.h.

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Physical activity promotion: BIOS 602 I; EXSS 620 I, 6207, 6300, 630 I, 640 I, 6440, 6990, 699 I; select 9 s.h. from the following: BIOS 50 I 0, 6022; EXSS 500 I, 5020, 5800, 6200; HLTH 60 I 3, 6200; MKTG 6 I 62; PSYC 5250, 6333; RCLS 6 I 00; 6 s.h. of general electives ..... 36 s.h.

Physical education pedagogy: EXSS 6 I 04, 6 I 05, 6 I 08, 6 I 09, 620 I, 6202, 6300, 630 I, 6990, 699 I; select 6 s.h. from the following: EXSS 5020, 5303, 5305, 5903, 6 I 02, 6200, 6207, 6445; 3 s.h. of EDUC electives; 3 s.h. of general electives ..... 36 s.h.

Sport management: DSCI 6 I 23; EXSS 6 I 02, 6 I 06, 6 I 3 I, 6 I 32, 6 I 33, 6 I 36, 6300, 630 I, 6445, 6992; 6 s.h. of electives ... 36 s.h.

### MAEd AND MAT IN PHYSICAL EDUCATION

Please refer to Section 7, College of Education, for the degree requirements for the master of arts in teaching and the master of arts in education, both of which lead to advanced certification.

#### EXSS: EXERCISE AND SPORT SCIENCE

**500 I. Nutrition and Exercise (3) (S) Same as NUHM 500 I** P: EXSS 3805; NUHM 2 I 05; or consent of instructor. Relationship of basic nutrition principles to sport and physical activity.

**5020. Exercise Adherence (3)** P: PSYC I 000; P/C: EXSS 4806; HHP major or minor or consent of instructor. Personal and situational factors which result in adherence to an exercise program. Focus on application of strategies for improving adherence.

**5278. Advanced SCUBA Diving (3)** 2 lecture and 3 lab hours per week. P: Satisfactory performance on the NAUI Swimming Test; EXSS 2278 or consent of instructor; a notarized statement releasing the instructor and the university from all liability; a satisfactory medical history and medical examination. Variety of safe diving experiences under controlled conditions beyond basic open water diving levels.

**5303. Physical Activity Programs for Individuals with Developmental, Emotional, and Learning Disabilities (3)** 2 lecture and 3 field work hours per week. P: EXSS 3545 or 3546; SPED 5 I 0 I; or consent of instructor. For physical educators, special educators, therapeutic recreation specialists, and others concerned with providing physical activity programs to individuals with developmental, emotional, or learning disabilities.

**5305. Motor Development (3)** P: EXSS 2800 or equivalent or consent of instructor. Application of motor development theory and techniques to numerous settings. Descriptions of changes in movement patterns and skills and examination of underlying processes which influence these changes.

**5800. Physical Activity and Aging (3)** P: GERO 2400 or consent of instructor. Role of physical activity and exercise in enhancing quality of life and remediating normal aging deficits and age-related disease. Includes physiological, cognitive, and affective perspectives.

**5903. Physical Activity Programs for Individuals with Orthopedic, Neurologic, and Sensory Impairments (3)** 2 lecture and 3 field work hours per week. P: BIOL 2 I 30 or equivalent. For physical educators, special educators, therapeutic recreation specialists, and others concerned with providing physical activity programs to individuals with orthopedic, neurologic, and sensory impairments.

**5904. Methods in Adaptive Aquatics (2)** I classroom and 3 lab hours per week. P: Advanced lifesaving certification. Swimming techniques as adapted for individuals with acute and chronic disabling conditions.

**600 I. Administration of Physical Education and Athletics (3)** Administrative process in physical education and athletics from elementary school through college.

**6005. Intramural and Extramural Activities for Schools and Colleges (3)** Philosophy, organization, and administration of intramural and recreational sports and activities.

**6 I 02. History and Philosophy of Sport (3)** History of ideas that have defined sport from ancient times to present. Emphasis on mind/body relationships, types of knowledge, and right behavior.

**6 I 04. Curriculum in Physical Education (3)** Present state of physical education studied with regard to student needs and future trends in curriculum development.



**6105. Instruction in Physical Education (3)** Pedagogical knowledge and research integrated with motor development and motor learning content for studying effective teaching practices in physical education.

**6106. Contemporary Sport (3)** Intensive study of amateur, educational international and professional sport in the contemporary world.

**6108. Analysis of Teaching in Physical Education (3)** P: EXSS 6105. Observational techniques used for identifying, analyzing, and evaluating teaching behavior: Examines areas of research and varied methodologies currently applied in analysis of teacher effectiveness.

**6109. Developmental Supervision in Physical Education (3)** P: EXSS 6108. Role of mentoring and reflective teaching necessary for supervising preservice and inservice physical education teachers.

**6131. Management and Leadership in Sport (3)** Examines management responsibilities in sport organizations. Topics include organizational effectiveness and organizational behavior theory, personnel management, and facility planning and design.

**6132. Legal Aspects of Sport Management (3)** Tort liability, product liability, contract law, antitrust, and administrative and constitutional claims as they apply to sport.

**6133. Sport Marketing and Public Relations (3)** Consumer behavior trends and contemporary marketing principles related to sporting events of various competitive levels, public and private sport organizations, and sport equipment and products. Historical overview of sport marketing.

**6136. Financial Management in Sport (3)** Financial management, planning, and budgetary components of sports industry.

**6200. Biomechanics (3)** 2 classroom and 2 lab hours per week. P: Admission to HHP graduate program; EXSS 3850 or equivalent. Basic principles of mechanics as applied to human movement. Introduction to measurement of kinematic and kinetic variables inherent in human motion.

**6201. Advanced Measurement and Evaluation in Exercise and Sport Science (3)** Application of measurement theory to assessment techniques in exercise and sport science. Measurement research in exercise and sport science, basic statistical analyses, and practical computer applications and methods to assess test validity and reliability.

**6202. Motor Learning (3)** Indepth study of theories, concepts, and principles of motor skill acquisition applied to teaching, coaching, and therapeutic settings.

**6204. Techniques of Biomechanical Assessment (3)** 1 classroom and 6 lab hours per week. P: EXSS 6200 or consent of instructor. Basic, intermediate, and advanced techniques in measurement of biomechanical variables through use of videography, cinematography, force platforms, transducers, and electromyography (EMG).

**6207. Physiology of Exercise (3)** P: EXSS 4805 or equivalent. Individual and group study and experiences. Physiological responses to exercise. Emphasis on effects of physical training and other factors that affect physical performance.

**6208. Cardiopulmonary Physiology (3)** P: EXSS 6207. Current topics in cardiopulmonary physiology as related to clinical and basic science aspects of exercise science. Topics include cardiopulmonary anatomy and function, ECG basics and interpretation, cardiovascular pharmacology, metabolic evaluation/ assessment/programming during exercise, and other issues related to clinical exercise science.

**6209. Advanced Exercise Prescription (3)** P: EXSS 6208. Application of basic physiological principles in prescription of exercise and administration of training programs for individuals of differing age, health status, and occupational status. Emphasis on design of safe and effective programs of physical activity. Utilizes sound principles of exercise prescription in relation to probable professional and clinical experiences.

**6210. Theory and Techniques in Bioenergetics (3)** Lab and lectures. P: Exercise physiology or physiology course; consent of instructor. Indepth description and theoretical constructs of procedures used in bioenergetics research and clinical settings.

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**6300. Research Techniques in Exercise and Sport Science (2)** C: EXSS 6301. Preparation to design, conduct and report research. Emphasis on planning research, utilizing research methods, and interpreting data.

**6301. Research Seminar in Exercise and Sport Science (1)** C: EXSS 6300. Preparation to develop and write research proposals and reports.

**6401. Assessment of Physical Activity and Fitness (3)** Methods to assess physical activity and fitness, understanding of determinants of physical activity, and relationship of physical activity and fitness to health.

**6440. Physical Activity Psychology (3)** P: EXSS 6300, 6301; or consent of instructor. Examines relationship between psychological processes and physical activity and fitness behaviors. Primary focus on influence of social-psychological factors on physical activity participation and impact of physical activity participation on psychological outcomes.

**6445. Sport Psychology (3) Same as PSYC 6445** P: Consent of instructor. Seminar: Theories and psychological principles that may influence sport involvement and performance. Emphasis on practical application of psychology in order to improve quality of performance and meaningfulness of participation.

**6500, 6501. Independent Study (1-3, 1-3)** May be taken more than once for a maximum of 6 s.h. Current research topics in exercise and sport science.

**6600. Seminar in Physical Activity Instruction (1)** May be repeated. May count a maximum of 3 s.h. P: Admission into EXSS graduate program or consent of instructor. Physical activity instruction in various settings and with diverse learners. Special attention to college and university settings. Emphasis on reflective teaching and improvement of instructional design, implementation, and evaluation.

**6650. Seminar in Exercise and Sport Science (1)** May be repeated. May count a maximum of 3 s.h. P: Consent of instructor. Reviews recent research in EXSS. Emphasis on areas of adapted physical education, biomechanics, exercise physiology, pedagogy, physical activity promotion, and sport management.

**6801, 6802, 6803. Special Topics in Exercise and Sport Science (1,2,3)** May be repeated. May count a maximum of 6 s.h. P: Graduate standing in EXSS. New or advanced topics

**6990, 6991. Practicum in Exercise and Sport Science (1,2)** Visitations and on-the-job training with administrators in physical education and athletics, and agencies, institutions, and schools with exceptional children and adults and other populations in grades K-college.

**6992. Exercise and Sport Science Internship (3,6)** P: Consent of screening committee. Onsite visitation and on-the-job training with fitness/health management leaders/directors in industry/health club and other approved agencies.

**6994. Culminating Research Project (3)** P: EXSS 6300, 6301; or consent of instructor. Independent research culminating with a written report and oral examination.

**7000. Thesis (3)** May be repeated. May count maximum of 6 s.h.

**7001. Thesis: Summer Research (1)** May be repeated. No credit may count toward degree. Students conducting thesis research may only register for this course during the summer.

**7004. Research Ethics for a Complex World (2) Same as GRAD 7004** P: Current enrollment in EXSS master's or bioenergetics doctoral program. Introductory graduate course. Case studies, readings, policy review, assignments, and discussions with guest faculty examine areas of ethical concern for researchers. Areas include scientific misconduct, conflict of interest, abusive mentoring, improper authorship practices, protection of human participants, animal subjects of research, and others.

**7211. Bioenergetics (4) Formerly EXSS 6211** P: Graduate exercise physiology or cell physiology course and consent of instructor. Concise summary of bioenergetics using cellular and subcellular approaches. Focus on metabolic perturbations evident with exercise and disease and interactions between the two.

**7212. Cardiopulmonary Rehabilitation and Diagnostic Procedures (3)** P: EXSS 6208. Clinical experience in cardiopulmonary rehabilitation and exposure to latest theories and rationale behind diagnostic cardiopulmonary procedures. Includes observations and lectures in cardiopulmonary rehabilitation, cardiopulmonary diagnostic procedures, clinical testing, and exercise prescription for special populations.

**7220. Muscle Physiology (3)** P: Graduate cell or systems physiology, graduate exercise physiology, or consent of instructor. Physiology of skeletal, cardiac, and smooth muscle at cellular and whole-organ level. Topics include muscle development, detailed anatomy/physiology, structure-function relationships, nerve-muscle interactions, pathophysiology, and muscle plasticity with exercise training, disuse, aging, and damage/regeneration.

**7335. Seminar in Bioenergetics (1) Formerly EXSS 6335** May be repeated. May count a maximum of 4 s.h. P: Consent of instructor. Critique of current bioenergetics literature.

**8310. Pedagogy in Bioenergetics (3)** P: Master's degree in bioenergetics or related field. Fundamentals in teaching in area of bioenergetics, including instruction in course development, syllabus construction, lecture preparation, examination preparation, and grading. Students involved in teaching lecture and lab for EXSS 3805, Physiology of Exercise.

**8330. Introduction to Research (3) Formerly EXSS 6330** May be repeated. May count a maximum of 6 s.h. P: Consent of instructor. Student assigned to faculty preceptor. Opportunity to learn design of experimental protocols and to collaborate in some aspects of preceptor's program.

**8331, 8332, 8333, 8334, 8335, 8336. Advanced Topics in Bioenergetics (1-6)** May be repeated for a maximum of 12 s.h. P: EXSS 7211 and consent of dept chair.

**9000. Dissertation (3)** May be repeated. May count maximum of 27 s.h.

**9001. Dissertation Summer Research (1)** May be repeated. No credit may count toward degree. Students conducting dissertation research may only register for this course during the summer.

### EXSS Banked Courses

**5400. Activities in Physical Education for Elementary School (3)**  
**6003. Group Dynamics and Community Leadership (3)**

**6007. Safety in Physical Education (3)**

## DEPARTMENT OF HEALTH EDUCATION AND PROMOTION

*David White, Chairperson, 204 Christenbury Gymnasium*

### MS IN ENVIRONMENTAL HEALTH (MSEH)

The master of science in environmental health requires completion of a minimum of 34 s.h. A student who has no experience in environmental health must take EHST 6980 (6 s.h.) in addition to the 34 s.h. minimum.

Students completing a thesis (EHST 7000, 6 s.h.) must include 18 s.h. selected from EHST 5010, 5011, 5020, 6100, 6200, 6400, 6420, 6600, 6700, 6800. Students completing a non-thesis degree must complete a research paper (EHST 6990, 3 s.h.) and 21 s.h. from the preceding list.

A second component of the program requires BIOS 5010, 5021, and a computer science course (DSCI 6143, CSCI 5774, or equivalent). All students must complete EHST 5001. Any remaining credits are to be selected by the student and approved by the adviser.

All students must pass a written, comprehensive examination.

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### EHST: ENVIRONMENTAL HEALTH

**5001. Seminar in Environmental Health (1)** Student, staff, and guest speakers on current research.

**5010, 5011. Principles of Toxicology and Laboratory (3,1)** For EHST majors but other majors accepted. P: Senior or graduate standing; 8 s.h. of general chemistry; 6 s.h. of biology, including BIOL 2130; or consent of instructor: Basics of toxicology such as physiological response and environmental sources as well as specifics of major toxins.

**5020. Environmental Toxicology (3)** P: EHST 5010, 5011; or consent of instructor: Effect of anthropogenic and naturally occurring toxins on environment. Toxin sources, distribution, and bioaccumulation. Covers pesticides, metals, solvents, radioactive isotopes, food additives, air pollutants, and natural plant/animal toxins.

**5164. Radiological Health Field Operation (1)** P: Consent of instructor: Field observation of radiological health physics, practices at nuclear fuel cycle facilities, and government nuclear facilities.

**5165. Advanced Radiological Laboratory (1)** P: Consent of instructor: Intensive radiological lab training at Oak Ridge Associated Universities. Tour of research facilities.

**5800. Solid and Hazardous Waste Management (3)** P: CHEM 1160, 1161. Detailed examination of problems associated with collection, treatment, and disposal of solid and hazardous wastes in US. Development of federal and state legislation and regulation for solid and hazardous waste management. Current technologies for solving waste management problems.

**6010. Fundamentals of Environmental Health (3)** Effects of environment on human health. Focuses on rural environment. Consideration given to water supply and wastewater disposal, water quality, solid and hazardous wastes, air quality, occupational health and safety, food protection, and vector control.

**6100. Elements in Environmental Engineering (3)** Practical application of engineering principles to environmental health.

**6120. Biological Safety (3)** Applications of biological safety principles in community and work place environments. Topics include biohazard identification, evaluation, and control. Includes technical and administrative protocols for routine control and emergency response.

**6201, 6202, 6203. Individual Studies (1,2,3)** May be repeated for maximum of 3 s.h. P: Declared EHST major; consent of major professor. Advanced knowledge in selected areas of environmental health.

**6210, 6220, 6230. Topics in Environmental Health and Safety (1,2,3) Formerly EHST 6200** May be repeated with change of topic. Seminar: Selected environmental health and safety problems considering current studies and efforts at solutions.

**6300. Public Health Pests and Vector Borne Disease (3)** Identification, management, and ecology of arthropods and other disease vectors, and characteristics and epidemiology of diseases they carry.

**6301. Public Health Pests and Vector Borne Disease Laboratory (1)** Concentration on mosquitoes and ticks in North Carolina, testing for West Nile Virus, and application of 3-D imaging techniques.

**6400. Technical Advances in Water Supply and Waste Treatment (3)** State-of-the-art advances in water and waste water treatment. Examination of best practical available technology for coping with special water supply and waste disposal problems. Demonstration of principles upon which real life systems function.

**6420. Sanitary Microbiology and Safety of Foods (3)** P: Consent of instructor: Sanitary microbiology and chemical safety of foods. Topics include natural toxicants, food additives, and regulations for protection of public health.

**6600. Air Quality Control Methods and Devices (3)** Theory, use, evaluation, advantages, and limitations of procedures and methods employed in air quality control.

**6700. Industrial Hygiene Application (3)** Principles of evaluating and controlling work environment. Emphasis on resolving occupational health problems.

**6701. Industrial Hygiene Application Laboratory (1)** C: EHST 6700. Methods of measurement and evaluation used by industrial hygienists.

**6710. Industrial Ventilation (2)** P: Consent of instructor. Principles and basic design of industrial ventilation system.

**6800. Environmental Health Program Management (3)** Knowledge and practice in planning, developing, and managing environmental health programs. Application of current management practices toward solutions of environmental health problems.

**6980. Environmental Health Practicum (3)** Directed work experience in clinical/environmental health agency.

**6990. Directed Graduate Research Project (3)** For non-thesis master's degree students. P: Consent of instructor. Independent study and research.

**7000. Thesis (3)** May be repeated. May count maximum of 6 s.h.

**7001. Thesis: Summer Research (1)** May be repeated. No credit may count toward degree. Students conducting thesis research may only register for this course during the summer.

### EHST Banked Courses

**5710, 5711. Topics in Health Physics I (3,0)**  
**5720, 5721. Topics in Health Physics II (3,0)**

**6501, 6502, 6503. Problems and Research in Environmental Health (2,2,2)**

### MA IN HEALTH EDUCATION AND PROMOTION

The master of arts degrees in health education provide for advanced academic training for individuals employed or planning to seek employment as health educators in academic, clinical, community, and corporate settings. Undergraduate training in health education or the social and biological sciences and teaching methodology is preferred. Applicants with undergraduate preparation deficient in these areas will be required to remove such deficiencies through supplemental course work as designated by the department's graduate faculty.

The basic curriculum plan for the MA in health education requires 36 s.h. of study selected from the three options listed below and approved by the departmental graduate director:

1. Core courses: HLTH 6000, 6100, 6200, 6201, 6400 ..... 12 s.h.
2. Guided electives as approved by adviser ..... 6-12 s.h.
3. Select one of the following options ..... 12-18 s.h.

Thesis option:

HLTH 7000 ..... 6 s.h.

Research skills: BIOS 5010, 6021, 6022; HLTH 6101 ..... 12 s.h.

The student writes and orally defends a thesis. The thesis proposal must be approved by the student's adviser and a committee that comprises three health education faculty and an outside reviewer.

Internship option:

HLTH 6990, 6991 ..... 6 s.h.

Research skills ..... 6 s.h.

The student completes a 240-hour internship experience, writes an internship report, and presents a seminar based on the internship experience. The student also writes and orally defends a six-hour examination covering both core and specialization courses. The graduate director selects the committee to examine the student.

Course work option:

Specialized electives ..... 6 s.h.

Research skills: BIOS 5010; HLTH 6101 ..... 6 s.h.

The student writes and orally defends a six-hour examination covering both core and specialization courses. The graduate director selects the committee to examine the student.

### MAEd IN HEALTH EDUCATION

Please refer to Section 7, College of Education, for the degree requirements for the master of arts in teaching and the master of arts in education, both of which lead to advanced certification.

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### HLTH: HEALTH

**5002. Maternal and Child Health Education (3)** P for undergraduate students: HLTH 3010 or consent of instructor; P for graduate students: BIOL 2130, 2131; HLTH 3010, 3020; or consent of instructor. Theoretical base and appropriate education strategies for delivery of community health education programs including basic population concepts and measures; epidemiological indicators of health and social status of women and children; analysis of prevailing social policies as related to maternal and child health; and federal policies affecting children and families.

**5200. Health Education in the Workplace (3)** (F) P for undergraduate students: Consent of instructor. Focus on design, implementation, and evaluation. On-site health education needs assessment using appropriate instruments and development of health education plan responsive to identified needs and corporate operations of particular industry.

**5310. Education for Human Sexuality (3)** (S) For school and community professionals working in or consulting with schools. P: Health education major or consent of instructor. Comprehensive knowledge and sex education methodology for effective communication with children and youth.

**5345. Alcoholism in Health Education (3)** (F) P: HLTH 1000. Effects of alcohol on human body with sociological, psychological, physiological, and economic implications as applicable to everyday living. Methods, procedures, and resource materials for alcohol education.

**5900. Stress Management (3)** P: Undergraduate course in anatomy and physiology; graduate standing; or consent of instructor. Positive and negative aspects of stress as related to performance and health. Emphasis on sources and positive management of stress, including lifestyle and life skills.

**6000. Foundations of Health Education (3)** P: Admission to a graduate program in health education or consent of instructor. Advanced theory.

**6013. Behavioral Sciences and Health Education (3)** Introduces concepts of role of social factors in health, illness, and health education/promotion. Overview of relationships between various social factors with health outcomes. Introduces theories and approaches of health education/promotion programs.

**6100. Intervention Strategies for Health Education (3)** P: Undergraduate methodology course in health education or consent of instructor. Existing research concerned with methods/strategies utilized by health educators.

**6101. Research Methods in Health Education (3)** P: Admission to a graduate program in health education. Skills required to design, evaluate, and report research. Specific emphasis on most utilized techniques. Experimental, survey, evaluation, and qualitative research methods.

**6200. Program Planning and Evaluation in Health Education and Health Promotion I (3)** P: Admission to graduate program in health education or consent of instructor; P/C: HLTH 6100. Fundamentals. Emphasis on developing skills in needs assessment, instrument construction, and program proposal development.

**6201. Program Planning and Evaluation II (1)** P: Admission to graduate program in health education; HLTH 6200; or consent of instructor. Fundamentals. Emphasis on skills development in formative, outcome, and impact data collection and analysis.

**6355. Alcohol, Tobacco, and Other Drug Education and Prevention (3)** P: Admission to graduate program or consent of instructor. ATOD abuse education and prevention theory and approaches.

**6400. Management of Health Education Programs (3)** P: Acceptance into health education or consent of instructor. Administrative aspects of health education in variety of settings. Program planning, implementation, evaluation, budget and fund raising, and role of government and private agencies for leadership in health education.

**6500, 6501. Independent Study (3,3)** P: Consent of dept chair. Investigation of current research and methodology in health education.

**6990, 6991. Internship in Health Education (3,3)** P: Minimum of 18 s.h. in health education program or consent of graduate director. Supervised observation and practice in health education setting.

**7000.Thesis (3)** May be repeated. May count maximum of 6 s.h.

**7001.Thesis: Summer Research (1)** May be repeated. No credit may count toward degree. Students conducting thesis research may only register for this course during the summer.

**7100. Qualitative Research: Analysis and Interpretation (3) Same as NURS 7100, OCCT 7100** P: Permission of instructor. Application and evaluation of qualitative research design and methods including data collection, management and analysis approaches, and the art and science of interpretation.

### **HLTH Banked Courses**

**5313. School Health Education (3)**

**6035. Therapeutic Modalities and Exercise and Sports Medicine (3)**

**6040, 6041, 6042, 6043. Sports Medicine Practicum (2 each)**

**6045. Organization Administration and Injury Management in Sports Medicine (3)**

**6050, 6051. Sports Injuries and Illness (3,3)**

**6301. Research Seminar in Health Education (1)**

### **DRED Banked Courses**

**5310. Advanced Motorcycle Safety (3)**

**6301. Research Seminar in Driver Education (1)**

**6330. Organization and Administration of Safety Education (3)**

## **DEPARTMENT OF RECREATION AND LEISURE STUDIES**

*Joseph D. Fridgen, Chairperson, 174 Minges Coliseum*

The recreation and leisure studies department offers degrees in recreation and leisure facilities and services administration and recreational therapy administration. The 36-39 semester hour programs are designed for individuals employed in or seeking employment in leisure services, including community parks and recreation, recreation resource management, recreational sports management, travel and tourism; and individuals interested in advanced training in recreational therapy administration. Prior education and experience facilitates timely graduation. Individuals with undergraduate deficiencies will be required to remove such deficiencies through supplemental course work while enrolled in the graduate program.

### **MS IN RECREATION AND LEISURE FACILITIES AND SERVICES ADMINISTRATION (36-39 s.h.)**

1. Core: RCLS 6000, 6100, 6110, 6120, 6210, 6220 ..... 18 s.h.
2. Concentration: ..... 9 s.h.  
     Generalist: MGMT 6102; MKTG 6162, 6642  
     Recreational Sports Management: RCLS 5111, 6005; Choose 3 s.h. from: EXSS 6445; PADM 6120; PSYC 6445;  
     RCLS 5100, 5101.
3. Thesis or non-thesis option ..... 12-15 s.h.  
     Thesis option: DSCI 6123; MKTG 6642; RCLS 7000 ..... 12 s.h.  
     Non-thesis option: DSCI 6123; RCLS 6501; 9 s.h. of approved electives ..... 15 s.h.

### **MS IN RECREATIONAL THERAPY ADMINISTRATION (36-39 s.h.)**

1. Core: RCLS 6000, 6100, 6110, 6120 ..... 12 s.h.
2. Concentration: RCLS 6310, 6320, 6330; COHE 6600 ..... 12 s.h.
3. Thesis or non-thesis option ..... 12-15 s.h.  
     Thesis option: BIOS 6021, 6022; RCLS 7000 ..... 12 s.h.  
     Non-thesis option: BIOS 5021; RCLS 6502; 9 s.h. of approved electives ..... 15 s.h.

RCLS 6990 (Supervised Field Experience) will be required of recreation and leisure facilities and services administration students who do not have approved prior experience, internship, or certification in the recreation and leisure services industry and recreational therapy administration students who are not currently certified as therapeutic recreation specialists. Recreational therapy administration students not currently certified as therapeutic recreation specialists will also be expected to complete prerequisites required by national and state certification boards.

### GRADUATE CERTIFICATE PROGRAMS

#### Certificate in Aquatic Management

The graduate certificate in aquatic management provides students with the knowledge and skills necessary to manage aquatic facilities and programs at a variety of venues including indoor/outdoor pools, spas, water park facilities, marinas, and beaches. The focus is upon acquiring the training and abilities to become an aquatic facilities manager and, thus, be eligible to work in a variety of aquatic settings. This certificate is open to students enrolled in graduate degree programs as well as non-degree applicants holding a baccalaureate degree.

The program requires completion of 12 s.h. in the respective areas as follows: RCLS 5101, RCLS 5100, and 6 s.h. of electives chosen in consultation with certificate coordinator. A list of appropriate electives is available from the certificate coordinator.

#### Certificate in Aquatic Therapy

The graduate certificate in aquatic therapy provides students with the theory, practical skills, and basic techniques for the use of aquatic therapy modalities including but not limited to Halliwick, Bad Ragaz, Watsu, Ai Chi, and Arthritic exercise. This certificate is open to students enrolled in graduate degree programs as well as nondegree applicants holding a baccalaureate degree. The program is designed to provide allied health practitioners the knowledge and skills necessary to use aquatics as an intervention to promote health, rehabilitation, and independence among individuals with disabilities.

The program requires completion of 15 s.h. in the respective areas as follows: RCLS 5000, RCLS 5001, and RCLS 5100; a 3 s.h. elective chosen in consultation with certificate coordinator. A list of appropriate electives is available from the certificate coordinator.

### RCLS: RECREATION AND LEISURE STUDIES

**5000. Theoretical Foundations of Aquatic Rehabilitation (3)** Examines treatment principles in aquatic rehabilitation environment. Develop understanding of benefits, contraindications, and use of aquatic therapy to address needs of participants with specific health conditions.

**5001. Applied Techniques in Aquatic Rehabilitation (3)** P: RCLS 5000 or consent of instructor. Develop fundamental techniques in aquatic therapy. Additional attention to management of aquatic rehabilitation services.

**5100. Aquatic Facility Management (3)** Operation, maintenance, and management of aquatic facilities used for recreation, exercise, therapy, competition, education programs, and other aquatic-related programs.

**5101. Waterfront Facility Operations (3)** Principles and practices of waterfront facility management, maintenance, and operations.

**5111. Recreational Facility Management (3)** P: RCLS 3104 or 3120; or consent of instructor. Principles and practices of parks and recreational facility management, maintenance, operations, and evaluation.

**5130. Biofeedback: Principles and Practices (3) Formerly RCLS 6130** Introduces basics of biofeedback, its history, instrumentation, and intervention techniques, including assessment, treatment, and evaluation processes. Covers clinical (treatment of pathology) and non-clinical (human performance) applications of biofeedback.

**5131. Biofeedback Lab (1)** Develop biofeedback skills by directly applying biofeedback techniques in a variety of health and human performance related situations. Introduces various biofeedback measuring and monitoring systems.

**6000. Philosophical and Social Foundations of Leisure Services (3)** P: Admission to graduate program in RCLS or consent of instructor. Social and philosophical foundations for recreation and leisure services in dynamic society.

**6005. Recreational Sports and Activities Management (3)** P: Consent of instructor. Philosophy, organization, and administration of recreational sports and activities.

**6100. Risk Management and Legal Liability in Recreation, Leisure, and Recreational Sport (3)** P: Consent of instructor. Legal issues related to delivery of recreation, leisure, and recreational sport services, including legal foundations, liability and tort policy, employment laws, disability services, malpractice concerns, insurance, and current issues.



**6110. Research Methods in Recreational Therapy and Recreation and Leisure Services (3)** P: Admission to graduate program in RCLS or consent of instructor: Application of basic forms of research. Historical, qualitative, correlational, descriptive, causal-comparative, and experimental research designs as applied to recreational therapy, leisure services, and tourism.

**6120. Seminar in Recreation, Leisure, and Recreational Therapy Administration (3)** P: Admission to graduate program in RCLS or consent of instructor: In-depth examination and discussion of contemporary topics and issues pertinent to recreation, leisure, and recreational therapy service delivery.

**6210. Management and Program Development in Recreation and Leisure Services (3)** P: Admission to graduate program in RCLS or consent of instructor: Current theory, empirical research, and practical application of leisure service industry programming and administration.

**6220. Managing Commercial and Tourism Industry Leisure Services (3)** P: Admission to graduate program in RCLS or consent of instructor: Focus on commercial recreation and tourism environment, principles and concepts of management and marketing, and systematic techniques of analysis and inquiry.

**6310. Program Development and Management in Recreational Therapy (3)** P: Admission to graduate program in RCLS administration or consent of instructor: Advanced program development for systematic design recreational therapy services.

**6320. Client Assessment, Evaluation, and Documentation in Recreational Therapy (3)** P: Admission to graduate program in RCLS or consent of instructor: Client assessment and documentation. Treatment programming and comprehensive program evaluation.

**6330. Administrative Aspects of Recreational Therapy (3)** P: Admission to graduate program in RCLS or consent of instructor: Service delivery; Personnel management, quality management, financing and budgeting, and health care accreditation.

**6501. Capstone Experience in Recreation and Leisure Services Administration (3)** P: DSCI 6123; RCLS 6110; or consent of graduate program director: Capstone experience involving scientific inquiry of select subject or problem area. Content negotiated between student and the instructor in compliance with departmental guidelines. May be repeated for a maximum of 6 s.h.

**6502. Capstone Experience in Recreational Therapy (3)** P: DSCI 6123; RCLS 6110; or consent of graduate program director: Capstone experience involving scientific inquiry of select subject or problem area. Content negotiated between student and the instructor in compliance with departmental guidelines. May be repeated for a maximum of 6 s.h.

**6600. Graduate Teaching Seminar (1)** May be repeated. May count a maximum of 3 s.h. P: Consent of instructor: Provides a foundation of knowledge and skills for teaching at the college/university level.

**6990. Supervised Field Experience (6)** P: Admission to graduate program in RCLS or consent of instructor: Development of service delivery skills and understanding of administrative concerns.

**7000. Thesis (3)** May be repeated. May count maximum of 6 s.h.

**7001. Thesis: Summer Research (1)** May be repeated. No credit may count toward degree. Students conducting thesis research may only register for this course during the summer.

### RCLS Banked Courses

**5301. Advanced Interpretation (3)**

**5600. Trends and Problems in Development of Avocational Coastal and Oceanic Programs (3)**

**6091, 6092. Seminar in Leisure Systems Management (1,2)**

**6094. Leisure Systems Management Internship (3)**

**6098, 6099. Directed Research (1,2)**

**6301. Research Seminar in Leisure Systems Studies (1)**

# COLLEGE OF HUMAN ECOLOGY

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*Karla Hughes, Dean, 132 Ragsdale Building*

The college comprises the Departments of Child Development and Family Relations, Criminal Justice Studies, Merchandising and Interior Design, Nutrition and Hospitality Management, and the School of Social Work. (The criminal justice studies department and social work were previously listed as the Carolyn Freeze Baynes School of Social Work and Criminal Justice Studies.)

The Carolyn Freeze Baynes Institute for Social Justice, established by the generosity of Charles and Hazel Freeze with the support of Michael Ray Baynes, is located within the College of Human Ecology. The gift has been made by the Freeze family of Mooresville, North Carolina, in memory of their daughter Carolyn, and to promote the issues to which she devoted. The Institute coordinates research, community partnerships, and scholarship aimed at improving the well-being of individuals and the quality of community life. The Institute offers a number of activities for students, including research experiences, scholarship opportunities, and interaction with visiting scholars and alumni.

## **HESC: HUMAN ENVIRONMENTAL SCIENCES**

**5005, 5006, 5007. Special Problems in Human Environmental Sciences (1,2,3)** May be repeated for credit with different titles. P: Consent of instructor. Variable content and special topics in areas of human environmental sciences.

**6100, 6101. Special Topics in Human Environmental Sciences (2,1)** May be repeated for credit with change of topic. P: Consent of instructor. Variable content and current topics in human environmental sciences.

**6488. Research in Human Environmental Sciences (3)** Research methods and development of research proposal.

**6500, 6501, 6502. Independent Study (3,3,3)** P: Consent of instructor. Advanced study of selected subject in small group or independently.

**6900. Review of Current Literature (2)** P: Consent of instructor. Intensive review of current literature in selected topic or discipline. Enrollment during semester that written and oral comprehensive exams for non-thesis program are completed.

**6950. Seminar in Human Environmental Sciences (1)** P: Enrollment in last 2 semesters of program. Review, evaluation, and presentation of current research.

**7000. Thesis (3)** May be repeated. May count maximum of 6 s.h.

**7001. Thesis: Summer Research (1)** May be repeated. No credit may count toward degree. Students conducting thesis research may only register for this course during the summer.

## **DEPARTMENT OF CHILD DEVELOPMENT AND FAMILY RELATIONS**

*Cynthia Johnson, Chairperson, 150 Rivers Building*

The department offers three MS degrees: child development and family relations, marriage and family therapy, and family and consumer sciences; and a PhD in medical family therapy; and two MAEd degrees in birth through kindergarten education (BK) and family and consumer sciences education (FACS). It also offers the family and consumer sciences content option for students interested in pursuing the MAT. All teacher education degrees lead to advanced licensure. See College of Education for additional information about licensure and teaching requirements for the MAT. Course work and training prepare students for professional practice, research, and administrative roles in teaching as well as in agencies and organizations that provide services and support to children and families. Applicants must meet the admissions requirements of the Graduate School. Completion of an undergraduate degree in child development, birth through kindergarten, family studies, family and consumer sciences, the behavioral or social sciences or closely related area from an accredited institution is required for admission. Applicants may be required to take additional courses as part of the degree requirements in order to make up deficiencies. Research and clinical experiences are available through the departments, child development laboratory and the family therapy clinic. For more information, visit our webpage at [www.ecu.edu/che.cdf/CDFR/home.htm](http://www.ecu.edu/che.cdf/CDFR/home.htm).

MS IN CHILD DEVELOPMENT AND FAMILY RELATIONS

The master of science in child development and family relations (CDFR) is designed for students whose career goals are in child and family services. With advanced study in child development and family relations, students are able to fill a variety of professional roles in the administration of programs serving children, families, and older adults; in teaching young children, preadolescents, and young adults; and in specialized clinical roles in child life, early intervention, developmental evaluation, and other mental health and human services programs. Each student's program of study is tailored to fit his or her needs and interests, and students are encouraged to select an area of specialization that will prepare them for in-depth study in a related discipline such as special education, early intervention, child life, gerontology, or adult education. Opportunities for national and international internships are available for CDFR students to expand their study and experience. Students may apply for the National Council on Family Relations' certification in family life education and other certifications.

The MS degree in CDFR requires 36 semester hours. Students may choose one of two options: a thesis option, which includes the building of research skills and the completion of independent research or an internship option, which includes a practicum in the area of the student's concentration and passing the comprehensive examination. Program requirements include the following:

- 1. Core ..... 12 s.h.  
CDFR 6401, 6402, 6404, 6406
- 2. Specialization ..... 12 s.h.  
6 s.h. must be CDFR courses
- 3. Research ..... 6 s.h.  
CDFR 7007, 7400
- 4. Internship (CDFR 6980) or thesis (CDFR 7000) ..... 6 s.h.

MS IN MARRIAGE AND FAMILY THERAPY

The marriage and family therapy program at East Carolina University is accredited by the Commission on Accreditation for Marriage and Family Therapy Education of the American Association for Marriage and Family Therapy. Enrollment in the marriage and family therapy program is limited and admission is competitive. Acceptance into the program is contingent on prior admission to the Graduate School, application to the marriage and family therapy program, a personal interview with the clinical faculty, and a favorable recommendation from the departmental faculty. Decisions regarding acceptance into the program are based on the following criteria: undergraduate and graduate GPA, standardized test scores (MAT or GRE), work or practicum experiences, a statement of professional objectives, and performance during the personal interview. Upon acceptance into the program, students typically begin course work in the fall semester.

A minimum of 51 s.h. is required in the following areas of study:

- 1. Theoretical foundations in marriage and family therapy: CDFR 6407, 6408
- 2. Clinical practice: CDFR 6409, 6410, 6412, 6424, 6425
- 3. Human development and family studies: CDFR 6401 or 6404; 6402 or 6406
- 4. Professional identity and ethics: CDFR 6411
- 5. Research: CDFR 7007, 7400
- 6. Additional learning: 6 s.h. of thesis or adviser-approved electives
- 7. Supervised clinical practice: CDFR 6415, 6416, 6417

The Department of Child Development and Family Relations administers a marriage and family therapy clinic, which serves as a clinical training and research site for the program.

Additional information about graduate programs and application information can be obtained from the Director of Graduate Studies, Department of Child Development and Family Relations, College of Human Ecology, East Carolina University, Greenville, NC 27858-4353.

## GRADUATE TEACHING DEGREES

The department offers two master of arts in education (MAEd) programs, specifically birth through kindergarten teacher education (BK) and family and consumer science education (FACS). The department also offers the family and consumer sciences content option for students interested in pursuing the master of arts in teaching (MAT). This degree leads to advanced licensure. See Section 7, College of Education, Department of Curriculum and Instruction, for degree requirements for the master of arts in teaching.

### MAEd IN BIRTH THROUGH KINDERGARTEN (BK)

This program is designed to prepare individuals beyond the entry level for professional roles as master teachers, consultants, program coordinators, supervisors, and staff development trainers. This program is based on the philosophy, rationale, and competencies established for the initial BK license. Thus, it is open to persons who hold a continuing license in BK or closely related area. Applicants lacking licensure or experience in the BK area must complete an internship and/or course work to make up deficiencies in required BK competencies. A flexible program of study is developed to meet the needs and allow for previously attained competencies of individual students.

The program requires 39 s.h. consisting of 12 s.h. of core courses, 15 s.h. of professional courses, 3 s.h. of statistics, and 9 s.h. from a specialty strand of special education or elementary education as follows:

1. Core courses ..... 12 s.h.  
EDUC 6482 or SCIE 6500, LEED 6000 or ELEM 6550, EDUC 6001, SPED 6002
2. Professional Area ..... 15 s.h.  
CDFR 6402, 6501, 6503, 6990, 6995 or 7000
3. Cognate: Statistics ..... 3 s.h.  
EDUC 6430 or CDFR 7007
4. Specialty Area (Select one strand; choose three courses) ..... 9 s.h.  
*Elementary Education*  
ELEM 6200, 6300, 6400, 6412, 6488  
or  
*Special Education*  
SPED 5101, 5301, 6601, 6602, 6701

### MAEd IN FAMILY AND CONSUMER SCIENCES

This program is designed for individuals who already hold a teaching license. The curriculum is designed to help teachers achieve goals and develop advanced competencies in professional education, family and consumer sciences subject matter, and interpersonal relationships. The desired outcome is to help teachers develop the skills to become leaders in the field of family and consumer sciences. The program requires a minimum of 39 credit hours as specified below.

- Required core courses ..... 12 s.h.  
Research, Trends, and Issues Competency Area: EDUC 6482 or SCIE 6500 ..... 3 s.h.  
Diverse Learner Competency Area: EDUC 6001; SPED 6002 ..... 6 s.h.  
Effective Communication and Leadership Competency Area: LEED 6000 or ADED 6550 or ELEM 6550 ..... 3 s.h.
- Family and consumer sciences education ..... 27 s.h.  
BVTE 5205, 6426, 6450, 6750; FACS 6423, 6984; 3 s.h. in major or related area; 6 s.h. major area electives  
Final product requirement: An internship product (FACS 6984, 6985) or a professional portfolio (FACS 6450) with an oral defense.

### PhD IN MEDICAL FAMILY THERAPY

The objective of the PhD program in medical family therapy is to graduate individuals who will collaborate with health care providers and families to resolve biopsychosocial issues inherent with acute and chronic illness. Students must complete a standard curriculum for doctoral programs as stipulated by the Commission for the Accreditation of Marriage and Family Therapy Education (COAMFTE). The 57 s.h. program includes: research (12 s.h.), theory (12 s.h.), clinical practice (3 s.h.), clinical supervision (3 s.h.), cognates and electives (12 s.h.), dissertation (6 s.h.), and internship (9 s.h.). Full-time students are expected to complete the program in a minimum of three years. Students completing the program will be expected to

## SECTION 7: CURRICULA

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fulfill educational and clinical requirements for marriage and family therapy licensure.

### Admission

Applicants must have a master's degree in marriage and family therapy or a related discipline. Applicants from a related field should have completed a course of studies that demonstrates competencies in basic marriage and family therapy studies and clinical experience. Additional requirements for admission include: acceptable performance on the GRE and a cumulative GPA of 3.5 on a 4.0 scale in graduate work; a sample of scholarly writing which may be a thesis, a published or unpublished reprint, a research paper; a statement of purpose that summarizes the reasons for pursuing doctoral study in medical family therapy; a personal interview with the program faculty; and other requirements included in the Graduate School's application packet.

### Transfer Credit

A maximum of 9 s.h. of course work taken beyond the master's degree may be applied toward the doctoral degree at the discretion of the medical family therapy faculty, the department chair, and the dean of the Graduate School.

### Doctoral Candidacy Requirements

Admission to candidacy for the PhD requires students to pass a preliminary examination testing basic knowledge in medical family therapy. Subsequent to passing the preliminary examination, students will be permitted to complete a dissertation and a nine-month internship.

### EARLY CHILDHOOD STUDIES CERTIFICATE PROGRAM

The certificate program is an interdisciplinary program that offers advanced study and practice in early childhood education. The program requires 15 s.h. as follows:

CDFR 6402, 6501; EDUC 6001; SPED 6002, 6010

Students with deficiencies or students interested in early intervention may take CDFR 5309, 5992, 5993; ELEM 6410; or SPED 5101 in lieu of one of the prescribed courses.

Acceptance into the program is contingent upon having an earned baccalaureate degree in child development, birth through kindergarten teacher education, special education, elementary education, or a closely related area. Other students who meet the criteria for admission into the child development and family relations graduate program are eligible for admission into the program. Each applicant must write a statement of professional objectives.

### CDFR: CHILD DEVELOPMENT AND FAMILY RELATIONS

**5004, 5005, 5006. Special Topics in Child Development and Family Relations (1,2,3)** P: Consent of instructor. Current topics and issues related to child development and family relations.

**5007. Public Policy and Legal Issues Affecting Families (3)** P: CDFR major. Current public policy and legal issues facing professionals who work with children and families.

**5300. Families, Sexuality, and Gender Roles (3)** P: CDFR 1103 or consent of instructor. Biological, cognitive, social, emotional, and cultural influences on human sexuality and gender roles within the context of relationships and families.

**5309. Infancy Intervention (3)** 2 lecture and 2 lab hours per week. P: CDFR major; CDFR 2000; or consent of instructor. Infant and toddler screening techniques for disabilities. Sequential selection and effective use of play materials. Community resources available for working with parents.

**5403. Parent Education (3)** P: Senior standing; CDFR 1103; 2000 or 2001; 3002, 4306. Strategies, skills, and resources that can assist parents and professionals who work directly with them.

**5411. Counseling Elders and Their Families (3)** P: GERO 2400 or consent of instructor. Interventions for age-related problem behaviors in social and family systems of elderly.

**5412. Family Crises and Resources (3)** Individual and family reactions to crises and special problems encountered in family living. Reviews individual and community resources pertinent to such problems.

**5420. Family Intervention Models (3)** P: CDFR major or admission to CDFR graduate program or consent of instructor. Selected family intervention and skill development models with opportunity for indepth study of individual theoretical approach.

**5901, 5902, 5903. Readings in Aging Studies (1, 2, or 3)** Same as **GERO 5901, 5902, 5903; SOCW 5901, 5902, 5903** May count maximum of 3 s.h. toward the baccalaureate minor in gerontology or graduate certificate in gerontology. P: Consent of instructor and chair of instructor's home unit. Selected from monographs or journals. Focus on specialized areas in which student has taken one or more courses in either baccalaureate gerontology minor or graduate gerontology certificate.

**5992, 5993. Advanced Preschool Internship (3, 0)** 1 conference and 8 lab hours per week. P for undergraduate students: Consent of instructor; P for graduate students: CDFR 4306, 4322; or consent of instructor. Advanced internship experiences with preschool children and their parents.

**6022. Perspectives on Death and Dying (3)** Same as **NURS 6022; GERO 6022; SOCW 6022** An interdisciplinary exploration of issues related to death, dying, and bereavement.

**6320. Family Treatment in Substance Abuse Rehabilitation (3)** Same as **REHB 6320** P: Major; REHB 5793 or consent of instructor. Rehabilitation and treatment strategies. Family intervention strategies, family counseling, and treatment of adult children of addicted parents. Emphasis on relationships of family, substance abuse, and major physical and mental disabilities.

**6380. Interdisciplinary Practice: Services for Children with Serious Emotional Disturbances and Their Families (3)** Same as **NURS 6380; PSYC 6380; SOCW 6380** System of care model for use across disciplines in mental health services for children with serious emotional disturbances and their families. Prepares professionals to participate in participate in holistic, interdisciplinary team practice in a variety of settings.

**6401. Family Theories and Issues (3)** Emphasis on major theoretical frameworks used to explain and predict events related to families and family members. Application of these theories to current issues impacting families.

**6402. Theories of Child Development (3)** Major theories and supportive research which contribute to understanding of child behavior and development.

**6404. Human Development and Family Relations (3)** Indepth review of empirical literature of current trends and issues for understanding human development in context of family relationships. Provides foundation for analyzing current status of issues in field of family studies.

**6406. Child Behavior and Development (3)** Scientific study of child development with emphasis on theoretical and research issues.

**6407. Family Systems Theories (3)** Intensive study of family systems theories. Emphasis on family development, interaction, and assessment.

**6408. Family Therapy Theories (3)** Examination of major marital and family therapy theories. Emphasis on systemic applications.

**6409. Family Therapy Seminar I (3)** P: Admission to marriage and family therapy program; CDFR 6407, 6408, 6411. Prepracticum course addressing assessment, diagnosis, goal formulation, and treatment issues, including the identification of an individual therapeutic orientation.

**6410. Family Therapy Seminar II (3)** P: Admission to marriage and family therapy program; CDFR 6409. Intensive examination of major approaches to brief techniques for marriage and family therapy.

**6411. Family Therapy Issues (3)** Historical, ethical, legal, and professional issues in practice of marital and family therapy.

**6412. Family Therapy Seminar III (3)** P: Admission to marriage and family therapy program; CDFR 6409. Dynamics of couple interaction as basis for study of assessment and intervention models for use with premarital and married couples and other dyads within a family systems framework.

## SECTION 7: CURRICULA

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**6413. Exceptional Families (3)** Attitudinal, interactional, and organizational impact of exceptional members on family. Emphasis on professional assistance.

**6415, 6416, 6417. Family Therapy Practicum (3,3,3)** P: CDFR 6409, 6425; consent of dept faculty. Practicum experience in marital and family therapy.

**6418. Seminar in Child Development (3)** May be repeated for maximum of 9 s.h. P: Consent of dept chair. Variable content and titles.

**6419. Seminar in Family Relations (3)** May be repeated for maximum of 9 s.h. P: Consent of dept chair. Variable content and titles.

**6424. Family Therapy Seminar IV (3)** P: CDFR 6409. Introduction to theory and practice of medical family therapy.

**6425. Assessment and Treatment Planning in Family Therapy (3)** Psychodiagnostic categories, psychopharmacology, family assessment, and planning for major mental health issues.

**6501. Trends and Issues in Birth Through Kindergarten Teacher Education (3)** Critical examination of current trends, issues, theories, philosophies, and developments in birth-kindergarten teacher education.

**6502. Family Therapy Supervision Methods and Practice (3)** P: Master's in marriage and family therapy from AAMFT-accredited program. Didactic and interactional supervision. Emphasis on philosophy, application, and interpretation of family therapy skills and concepts of supervision.

**6503. Advanced Methods and Materials in Birth through Kindergarten Teacher Education (3)** Application of theory and research in designing, adapting, and evaluating environments and curricula for typically and atypically developing children under six years of age.

**6980. Internship for Child-Family Specialist I (6)** 1 session per week with supervisors; 8 lab hours; minimum of 240 hours of observation and internship. P: CDFR 7400; consent of adviser. Observation and internship in approved organization, institution, or agency that provides services to children and families. Research or other adviser approved project.

**6990. Practicum in Birth Through Kindergarten Teacher Education (3)** Didactic practicum experiences. Integrates theory and research into early childhood education environment. Requires culminating adviser-approved project.

**6995. Leadership in Birth Through Kindergarten Education (3)** Supervised internship under supervision of public school administration or other approved administrative structure.

**7000. Thesis (3)** May be repeated. May count a maximum of 6 s.h. toward the degree.

**7001. Thesis Summer Research (1)** May be repeated. No credit may count toward degree. Students conducting thesis research may only register for this course during the summer.

**7007. Statistics in Child/Family Studies (3)** Introduces statistics, including analyses and applications.

**7400. Research Methods in Child/Family Studies (3) Formerly CDFR 6400** Critical analysis of research methods and current research relevant to children and families throughout life cycle.

**7401. Introduction to Medical Family Therapy (3)** P: Admission to marriage and family therapy or medical family therapy programs. Theory and practice seminar in medical family therapy.

**7409. Illness and Disability Across the Lifespan (3)** Examines illness and disability interfaces across family lifespan.

**7502. Family Therapy Supervision Methods and Practice (3)** P: Admission to medical family therapy doctoral program or consent of instructor. Didactic and interactional supervision. Emphasis on philosophy, application, and interpretation of family therapy skills and supervision concepts.

**8000. Special Topics in Medical Family Therapy (3)** May be repeated for a maximum of 6 s.h. with change of topic. P: Admission to medical family therapy doctoral program. Indepth study of selected biopsychosocial and spiritual issues affecting individuals and families. Variable content and titles permitted.

**8402. Advanced Family Therapy Theories (3)** P: Admission to medical family therapy program. Advanced family therapy theories and application seminar in healthcare systems.

**8403. Gender and Ethnicity in Medical Family Therapy (3)** P: Admission to medical family therapy program. Gender and ethnicity issues seminar in medical family therapy.

**8404, 8405, 8406, 8407. Medical Family Therapy Practicum (3,3,3,3)** P: Admission to medical family therapy program. Practicum experience in medical family therapy.

**8910, 8911, 8912. Family Therapy Internship (3,3,3)** P: Completion of majority of course work in medical family therapy program. Internship in medical family therapy.

**9000. Dissertation (3)** May be repeated. Minimum of 6 s.h. required.

**9001. Dissertation: Summer Research (1)** May be repeated. No credit may count toward degree. Students conducting dissertation research may only register for this course during the summer.

### CDFR Banked Courses

**5336. Methods of Teaching Personal and Family Living (3)**

**5392. Economic Problems (3)**

**5400. Seminar in Aging Studies (3)**

**5410. Gerontology: Developing the Living Environment (3)**

**6405. Development Evaluation and Family Therapy (3)**

**6480. Consumer Economics and Management Seminar (3)**

**6981. Internship for Child-Family Specialist II**

### FACS: FAMILY AND CONSUMER SCIENCES

**5007. Special Problems in Family and Consumer Sciences Education (3)** May be repeated for credit with change of topic. P: Consent of instructor. Special topics in selected areas of family and consumer sciences. Variable titles and content.

**6423. Advanced Methods and Curriculum (3)** P: FACS 4317. Principles of curriculum development. Organization, method, materials, and evaluation in relation to program type.

**6984, 6985. Internship: Family and Consumer Sciences Education (3,3)** Practicum training for family and consumer sciences majors preparing for professional work in field.

### FACS Banked Courses

**5300. Middle Grades Careers Exploration (3)**

**5301. Middle Grades Career Exploration: Service Clusters (3)**

**5321. Adult Education (2)**

**6424. Evaluation in Home Economics (3)**

**6430. Trends in Home Economics (3)**

**6900. Review of Current Literature (2)**

## DEPARTMENT OF CRIMINAL JUSTICE STUDIES

*Dr. Peter Johnstone, Professor and Chair, 232 Rivers*

### MS IN CRIMINAL JUSTICE

The master's program in criminal justice prepares students to become highly skilled and competent professionals, who are equipped to seek advancements in the criminal justice profession. Students must complete 21 s.h. of core courses and choose either a general concentration in criminal justice or a concentration in security studies. Students must successfully complete 27 s.h. in the criminal justice studies program before enrolling in JUST 6991 (professional paper).

A minimum of 39 s.h. of credit is required as follows:

I. Core: JUST 6000, 6201, 6211, 6300, 6500, 6800, 6991 ..... 21 s.h.



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- 2. Concentration:
  - a. General JUST 6005, 6006, 6007, 6008, 6012, 6202, 6400, 6501, 6502, 6602, 6700, 6990 ..... 18 s.h.
  - b. Security studies: JUST 6502, EHST 6010, PADM 6170, PLAN 6105, POLS 6155 or POLS 6382, and 3 s.h. JUST elective ..... 18 s.h.

ADMISSION REQUIREMENTS

Each applicant is reviewed individually by the admissions committee. One criterion does not determine acceptance or rejection. A bachelor's degree from an accredited academic institution with a minimum overall undergraduate grade point average of 2.5 on a 4.0 scale is required. Satisfactory entrance examination scores on GRE or MAT and TOEFL as established by the Graduate School are required. Transcripts of all undergraduate and graduate work since graduating high school will be required. Three current letters of reference and a written narrative regarding a specific criminal justice issue are also required. A personal interview may be requested.

A student may elect to attend the program on a part-time basis. In order to qualify for part-time status a student must take a minimum of two courses per semester. It is recommended that at least one core course be taken each of the semesters that the student is enrolled in the program.

CERTIFICATE PROGRAMS

Securities Studies

The graduate certificate in security studies provides an understanding of national and international threats posed by non-state actors such as terrorist networks, and the landscape of response coordination required to meet challenges posed by such threats. The goal of the certificate program is to develop new thinking towards security within a changing environment. Countering and responding to the new threats requires integration of traditional military strategies with criminal justice systems and investigation, intelligence gathering, policy development, emergency planning and response, and interagency cooperation at multiple levels of government and between governments.

Applicants seeking admission must be graduate students or non-degree students holding a baccalaureate degree. All applicants must complete the certificate application and have it approved by the program coordinator.

Choose five of the courses (15 s.h.) listed in consultation with the certificate coordinator: JUST 6502, EHST 6010, PADM 6170, PLAN 6105, POLS 6155 or POLS 6382.

Substance Abuse

The certificate in substance abuse will equip select criminal justice and social work graduate students with specific skills and knowledge in the area of alcohol, tobacco, and other drugs. The goal of the certificate program is to increase the number of criminal justice and social work graduate students with the required knowledge and skills to work with clients who are drug users and/or abusers or who are charged with drug-related offenses. In addition, this certificate will allow graduate students an opportunity to become more sensitive to the laws governing drug abuse and drug-related offenses. Students will also learn efficient methods to design and implement effective substance abuse intervention strategies for this population. Applicants seeking admission can be graduate students or professionals working in the fields of criminal justice or social work. Admission is based on completion of the certification application and approval by the program coordinator. Students enrolled in the certificate program must adhere to the program standards of the Department of Criminal Justice. Certificate recipients will receive 45 contact hours (12 s.h.) of substance abuse specific credit approved by the North Carolina Substance Abuse Professional Certification Board.

Required courses (12 s.h.): Choose from JUST 6005, 6007; 6008; SOCW 6804, 6950, 6960.

JUST: CRIMINAL JUSTICE

- 6000. Criminal Justice Principles (3)** Systemic nature of current crime control efforts in criminal justice system.
- 6005. Legal Aspects of Substance Abuse (3)** This distance education (DE) course is designed to allow students an opportunity to understand, explore, and focus on legal aspects of substance abuse. Policy issues, HIV, along with laws and legal sanctions will be an extensive focus

**6006. Seminar in Corrections (3)** Analytical perspective of history, development, current practices, and future of corrections. Detention, institutional, and community-based correctional issues in local, state, and federal systems.

**6007. Supervision: Substance Use, Abuse & Dependence (3)** This distance education (DE) course presents an overview of the field of substance use, abuse, and dependency. Substance abuse from a historical perspective will be explored along with theoretical conceptualizations about drugs and criminal offenders.

**6008. Drugs and Crime as a Community Health Issue (3)** This course is designed to examine drugs and crime in relation to the community health problems and practices that currently exist in communities. There will also be consideration given to issues of the 21<sup>st</sup> century by examining the impact of ATOD on community and correctional facility problems (e.g., HIV/AIDS).

**6012. Seminar in Law Enforcement (3)** Police culture in American society. Emphasis on territorial control, solidarity vs. code of silence, issues of morality, and price of misconduct.

**6201. Criminological Theory (3)** P: Graduate standing in JUST. Theories and systems of criminological thought. Analysis of conceptual foundations of contemporary institutions and policies, formulation of crime prevention strategies, and development of responses to practical problems which arise in delivery of criminal justice.

**6202. Advanced Criminology (3)** P: JUST 6201. Criminological theory applied to crime in NC, US, and other countries.

**6211. Statistics in Criminal Justice (3)** P: Graduate standing in JUST or consent of instructor. Social science statistics for data analysis.

**6300. Principles of Criminal Justice Management (3)** Theoretical and practical analysis of management principles of criminal justice organizations. Organizational structure, leadership strategies, strategic planning, and performance evaluation.

**6400. Contemporary Issues in Juvenile Justice (3)** Violent juvenile and female offenders and juvenile system.

**6500. Legal Aspects of the Criminal Justice System (3)** P: Graduate standing in criminal justice or consent of instructor. Substantive and procedural law. Judicial process, criminal law, constitutional criminal procedure, rights of prisoners, and juvenile law.

**6501. Civil Liability in Criminal Justice (3)** Liability issues of criminal justice personnel in the US. Strategies to reduce risk of exposure to liability. Legal role and responsibilities as a criminal justice practitioner.

**6502. Criminal Justice and Terrorism (3)** The course is built around the issues of (who) the types of individuals and organizations involved in terrorism; (what) the types of activities conducted; (when) examinations of historical, socio-political, and economic forces that facilitate terrorism; (where) temporal and geographic aspects of terrorism; (how) structural, administrative and organizational issues related to terrorism, and official (governmental, law enforcement) responses to terrorism

**6601. Special Topics (2-4)** P: Graduate standing in JUST or consent of instructor. Contemporary criminal justice issues.

**6602. Directed Study in Criminal Justice (3)** For advanced students. May be repeated for a maximum of 6 s.h. with consent of director. C: JUST 6990. Independent Study under faculty supervision.

**6700. Diversity Issues in Criminal Justice (3)** Impact of America's changing demographics. Emphasis on women, elderly, and minorities. Criminal justice professionals and clients.

**6800. Program Evaluation (Applied) (3)** P: Graduate standing in JUST or consent of instructor. Evaluation methods that provide understanding of qualitative research.

**6990. Field Practicum (3)** P: Successful completion of minimum of 30 s.h. in JUST graduate program; C: JUST 6602. Practical application of criminal justice knowledge in community settings.

**6991. Professional Paper (3)** May be repeated. May count maximum of 3 s.h. P: Successful completion of minimum of 27 s.h. in JUST graduate program. Research in student's area of interest. Written report.

JUST Banked Courses

5000. Comparative Criminal Justice (3)

DEPARTMENT OF INTERIOR DESIGN AND MERCHANDISING

Katherine Warsco, Chairperson, 152 Rivers Building

IDMR: INTERIOR DESIGN AND MERCHANDISING

IDMR Banked Courses

5325. Costume and Textile Conservation (3)

5337. Tailoring (3)

5338. Problems in Apparel, Merchandising, and Interior Design (3)

5387. Interior Lighting Design (3)

5389. Contemporary Interpretation of Period Interiors (3)

6301. Issues and Strategies in Apparel/Textile Merchandising (3)
6302. International Production and Trade of Apparel and Textiles (3)

6303. Apparel/Textile Quality Analysis Research (3)

6420. Seminar in Apparel and Textiles (3)

6481. Seminar in Interior Design (3)

6482. Seminar in Interior Furnishings (3)

6486. Advanced Interior Design (3)

6978, 6979. Internship: Interior Design (3,3)

6982, 6983. Internship in Apparel and Textiles (3,3)

DEPARTMENT OF NUTRITION AND HOSPITALITY MANAGEMENT

William Forsythe, Chairperson, 148 Rivers Building

Post-baccalaureate programs offered in the Department of Nutrition and Hospitality Management include a dietetic internship program and an MS in nutrition. These programs can be combined and completed in two full years of study. More information is available for each program on the department homepage, [www.ecu.edu/hes/nuhm/nuhmhome.htm](http://www.ecu.edu/hes/nuhm/nuhmhome.htm).

DIETETIC INTERNSHIP PROGRAM

The dietetic internship is accredited 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. Enrollment is limited and admission is competitive. Admission requires verification of completion of a bachelor's degree that meets Didactic Program in Dietetics requirements of The American Dietetic Association; GRE test scores; the overall GPA or the GPA for the last 60 s.h. of course work; and The American Dietetic Association computer matching. The application deadline is mid-February. Once admitted to the dietetic internship program, students are required to apply for non-degree graduate student status before beginning the program. The dietetic internship program provides supervised dietetic practice in three required areas: clinical nutrition; foodservice management; and community nutrition, which includes a rural health component. The program requires 12 s.h. of supervised dietetic practice (NUHM 4801, 4802, 4803, 4804); 1 s.h. of NUHM 4800, Orientation; and 6 s.h. of approved NUHM courses at the 5000 or 6000 level. Students may apply the 5000- and 6000-level credits toward the MS in nutrition and dietetics. Additional information and an application are available from the dietetics program director.

MS IN NUTRITION

The MS in nutrition provides advanced study in the practice of nutrition and dietetics. Applicants must meet the admission requirements of the Graduate School. Decisions regarding admission to the nutrition and dietetics degree are based on the following criteria: courses required for the undergraduate nutrition minor; GRE test scores; and the overall or last 60 s.h. GPA. Applicants may be required to take additional courses as part of the MS degree in order to make up deficiencies. Students may choose a thesis or a non-thesis option, both of which require a minimum of 33 s.h. credit as follows. The non-thesis option may be taken completely on-line.

- I. Core courses ..... 9 s.h.
- BIOS 6021; NUHM 6105, 6200

2. Research courses (Choose one option.) ..... 6-10 s.h.  
 Non-thesis option (6 s.h.):  
 NUHM 6100, 6900, 6950  
 Thesis option (10 s.h.):  
 BIOS 6022; NUHM 6950, 7000
3. Concentration courses (Choose one option.) ..... 14-18 s.h.  
 Non-thesis option (18 s.h.)  
 Thesis option (14 s.h.)

Many of the graduate courses in nutrition and dietetics are offered on-line. Contact the Department of Nutrition and Hospitality Management for information regarding course availability, hardware, and software requirements.

### **MBA WITH HOSPITALITY MANAGEMENT CONCENTRATION**

MBA students interested in pursuing the MBA with the hospitality management concentration must take NUHM 6400, 6410, 6420 as electives in the MBA program. A certificate of completion will be issued by the College of Human Ecology. Other graduate students interested in taking these electives must confer with the program director of the appropriate school.

### **NUHM: NUTRITION AND HOSPITALITY MANAGEMENT**

**5001. Nutrition and Exercise (3) Same as EXSS 5001** P: EXSS 3805; NUHM 2105; or consent of instructor.

Relationship of sport and physical activity to basic nutrition principles.

**5300. Nutrition for Wellness (3)** P: One course in clinical nutrition and one in nutrition education. Planning, implementing, and evaluating nutrition services and education in wellness programs.

**6100. Independent Research (3)** P: Consent of permanent graduate adviser. Conduct independent research study on a topic related to program concentration.

**6105. Human Nutrition in Physiology and Metabolism (3)** P: NUHM 3105, 3106; or equivalent. Integration of normal nutrition and metabolism at cellular level with physiologic functions of tissues, organs, and systems in humans.

**6120. Advanced Clinical Nutrition (3)** P: NUHM 4312, 4313, 6105. In-depth study of theory. Application of medical nutrition therapy to management of specific diseases.

**6200. Research in Clinical Nutrition (3)** P: Admission to MS in nutrition and dietetics program; C: Graduate-level statistics course. Research methods in clinical nutrition. Development of research topic, planning the study, and reporting results.

**6400. Critical Analysis of Food Service and Beverage Management Systems (3)** P: DSCI 6213; MGMT 6102. Application of analytical models to evaluate food service and beverage management systems.

**6410. Strategic Management of Lodging Operations (3)** P: ACCT 6241; MKTG 6162; MGMT 6102. Focus on critical issues in rooms division, facilities engineering and maintenance, lodging security and safety, convention sales and marketing, lodging systems financial management, and lodging operations staffing.

**6420. Current Issues and Strategies in Hospitality Management (3)** P: NUHM 6400, 6410. In-depth review of empirical literature impacting issues related to hospitality management. Focus on regional, national, and international trends in food service, lodging, and tourism industries.

**6500. Pediatric Nutrition (3)** P: NUHM 6105. Advanced study of nutritional requirements during infancy, childhood, and adolescence. Nutritional support of child with special problems.

**6510. Maternal and Infant Nutrition (3)** P: NUHM 6105. Advanced study of nutritional needs of infants and pregnant and lactating women.

**6520. Geriatric Nutrition (3)** P: NUHM 6105. Advanced study of role of nutrition in aging process. Nutrition-related health problems of the elderly and nutrition advocacy and education for elderly.

## SECTION 7: CURRICULA

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**6600.Advanced Dietetic Practice (3)** P: BIOS 602 I; NUHM 6105, 6200. Principles of dietetic practice and program management.

**6610.Nutrition and Public Health Issues (3)** P: NUHM 6105 or permission of instructor. Examines the science base for community nutrition including problem identification, interpretation of nutritional data and scientific issues, public health policy, societal and health trends, and emerging legislative issues related to nutrition and public health.

**6640. Interdisciplinary Community Rural Health Practicum (3)** P: Admission to dietetic internship or consent of instructor. Prepares health care professionals for community-based practice in rural setting. Provides service to underserved rural citizens.

**6900. Review of Current Literature (2)** P: Consent of permanent graduate adviser. Intensive review of current literature in selected topic. Enrollment during semester in which written and oral comprehensive exams for non-thesis program are completed.

**6950. Seminar in Nutrition (1)** P: Consent of permanent graduate adviser. Review, evaluation, and presentation of current research.

**7000.Thesis (3)** May be repeated. May count a maximum of 6 s.h.

### NUHM Banked Courses

**5050. Nutrition and the Workplace (1)**

**5211, 5212. Advanced Clinical Nutrition (1,2)**

**5351. Food Service Production Systems (2)**

**6102. Current Issues in Clinical Nutrition (1)**

**6110. Nutrition Support (3)**

**6210. Advanced Food Science (3)**

**6211. Nutrition Policies and Communication (3)**

**6212. Food Service Systems Administration (3)**

**6215. International Food and Nutrition Issues (3)**

**6300. Advanced Studies in Carbohydrates and Lipids (3)**

**6301. Advanced Studies in Vitamins and Minerals (3)**

**6302. Advanced Studies in Protein and Amino Acids (3)**

**6440. Seminar in Food and Nutrition (3)**

## SCHOOL OF SOCIAL WORK

*Dr. Mary Jackson, Interim Director, 110 Ragsdale Building*

### MASTER OF SOCIAL WORK (MSW)

The MSW program provides students with knowledge and skills that prepare them for competent social work practice at an advanced level. Using an overall systems perspective, students are encouraged to develop a high standard of personal and professional achievement, while fostering an appreciation for human diversity. The graduate program in social work, accredited by the Council on Social Work Education (CSWE), provides a research and technological base that enables students to appreciate and participate in research that enhances their professional activities.

The MSW curriculum is designed as a minimum 60 s.h. program, or minimum 42 s.h. program in the case of advanced standing students. The curriculum provides students with a foundation for advanced social work practice, which is accented by a chosen area of concentration and specialization. The professional foundation curriculum includes course work in human behavior and the social environment, social welfare policy and services, social work practice, social work research, and a field practicum. In the advanced portion of the curriculum, students select an area of practice concentration and an area of practice specialization. Practice concentrations include what is referred to as direct practice with individuals, families, and groups, or indirect practice with programs, organizations, and communities. Students may also choose a combined concentration, which involves study in both the direct and indirect areas. In addition, the MSW program offers three distinct areas of practice specialization. The three areas of practice specialization include mental health, family and children, and health and aging. Please note that areas of concentration and specialization are offered as student enrollments warrant.

Graduate social work students, who are not advanced standing students, are expected to take the following courses: SOCW 5001, 5900, 5910, 6100, 6200, 6701, 6702, 6711, 6730, 6940, 6950, 6960. In addition, students in the direct practice concentration must take SOCW 6101, 6102 while students in the indirect practice concentration are required to take SOCW 6201, 6202. Graduate social work students are also required to take 6 s.h. in their specialization and 5 s.h. of electives.

Students are expected to demonstrate proficiency on foundation content, concentration areas, and areas of practice by successful completion of a comprehensive examination.

### **ADVANCED STANDING PROGRAM**

Advanced standing is available for qualified graduates of CSWE accredited undergraduate social work programs. Advanced standing students who have satisfactorily completed professional foundation content requirements and liberal arts content within seven years of enrollment in the MSW program, will not be required to repeat the work. Deficiencies may be removed prior to admission to advanced standing and/or during the summer preceding the second year. The concentration and area of specialization must be selected upon admission to the advanced standing program. Advanced standing students must complete the following courses before entering the second year of full-time study: SOCW 6100, 6200, 6701, 6711.

Following the summer courses listed above, advanced standing students are required to complete the requirements of the advanced year curriculum. This includes SOCW 6730, 6940, 6950, in addition to the requirements of the concentration. Students must also complete the direct or the indirect concentration and one area of specialization. Students in the direct practice concentration must take SOCW 6100, 6101, 6102, 6200. Students in the indirect practice concentration are required to take SOCW 6100, 6200, 6201, 6202. The required courses for the specialization areas are listed above.

### **ACADEMIC CERTIFICATIONS AND LICENSURES**

Students pursuing the MSW may complete a certificate program in one of the following areas: child welfare studies, social work with the deaf and hard of hearing, gerontology, or substance abuse. Certification may be secured by focused study associated with the program's three specializations. Students may also complete a licensure in school social work. In addition, the school participates in the North Carolina Child Welfare Collaborative, a grant program. For more information on the gerontology certificate, contact the MSW program office or the ECU Center on Aging.

#### **Child Welfare Studies Certificate Program**

The certificate in child welfare studies provides special skills and knowledge of child welfare practice. Goals of the certificate include enhancing the knowledge, skills, and understanding of child welfare practice for persons involved in the prevention, assessment, or treatment of children and families experiencing, or at-risk of, child abuse, neglect, or dependency. The certificate is housed in the College of Human Ecology, School of Social Work. Courses taken to fulfill the 15 s.h. certificate requirements may be taken as electives in the MSW curriculum.

Graduate students or professionals working in the fields of social work and other child-family focused areas may apply to the certificate program.

Required courses (15 s.h.): SOCW 6006, 6007; CDFR 6406. MSW child and family specialization courses (SOCW 6422, 6426) may substitute for the required social work courses for this certification. 6 s.h. of related electives must be approved by the program coordinator.

#### **Social Work with the Deaf and Hard of Hearing Certificate Program**

The certificate program will equip select MSW graduates with unique skills to work with the deaf and hard of hearing population, enabling sensitivity to the implications of various types of hearing loss in the provision of mental health care. Students will develop assessment and treatment skills with deaf children, adults, and elderly persons who seek services from mental health agencies, mental health units of hospitals, mental retardation facilities, and long-term care facilities. Courses for the 17 s.h. certificate program will be taken as electives in the MSW curriculum. Applicants for this certificate must possess some proficiency in American Sign Language, must be interested in acquiring skills and knowledge about working with the deaf, and must be physically able to use sign language.

Applicants to the certificate program who have completed the ECU sign language studies/pre-interpreting minor with a 3.0 GPA or who have completed courses in American Sign Language at other colleges and universities or who learned sign language in less formal settings are eligible to test out of the Advanced American Sign Language courses required for this certificate. An MSW who is proficient in ASL may be admitted to the program.

Required courses (17 s.h.): SOCW 6030, 6031, 6032, 6033, 6034, 6035.

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### Substance Abuse Certificate Program

The certificate in substance abuse will equip select criminal justice and social work graduate students with specific skills and knowledge in the area of alcohol, tobacco, and other drugs. The goal of the certificate program is to increase the number of criminal justice and social work graduate students with the required knowledge and skills to work with clients who are drug users and/or abusers or who are charged with drug-related offenses. In addition, this certificate will allow graduate students an opportunity to become more sensitive to the laws governing drug abuse and drug-related offenses. Students will also learn efficient methods to design and implement effective substance abuse intervention strategies for this population.

Applicants seeking admission can be graduate students or professionals holding a masters degree working in the fields of criminal justice or social work. Admission is based on completion of the certification application and approval by the program coordinator. Students enrolled in the certificate program must adhere to the program standards of the School of Social Work and the Department of Criminal Justice Studies. Certificate recipients will receive 180 contact hours (12 s.h.) of substance abuse specific credit approved by the North Carolina Substance Abuse Professional Certification Board.

Required courses (12 s.h.): Choose from JUST 6005, 6008, or 6007; SOCW 6804, 6808, 6950, 6960.

### ADMISSION

Applicants for admission as degree candidates in social work must fulfill the general admission requirements of the Graduate School of the university and of the School of Social Work.

#### Admission Requirements

Admission to the MSW program is selective and is determined by the academic preparation and individual qualifications of the applicant. The applicant must have a bachelor's degree from an accredited college or university, a minimum GPA of 2.5 (4.0 scale) on all undergraduate work or a minimum GPA of 3.0 for the senior year and a satisfactory entrance score on either the Graduate Record Examinations or the Miller Analogies Test. It is expected that the applicant will have a sound educational foundation with a liberal arts perspective. Intellectual maturity, emotional stability, motivation, and a capacity to work with people are essential qualifications. Prior work experience is highly valued. A personal interview may be required when requested or deemed helpful.

Students seeking admission to advanced standing status must have earned a baccalaureate degree in social work from a CSWE accredited program. The baccalaureate degree must have been earned within seven years prior to the year the student enrolls in the MSW program. Applicants must possess a minimum GPA of 2.5 (4.0 scale) on all undergraduate work and a minimum GPA of 3.0 in the major and satisfactory entrance scores on either the Miller Analogies Test or Graduate Record Examinations.

#### Transfer Students

It is possible to be accepted as a transfer student from another graduate social work program under the following conditions: social work transfer credit must be graduate-level course work taken after earning a baccalaureate degree; course work must have been completed at a graduate school of social work accredited by the CSWE within five years prior to the application; and the student must have received a minimum grade of B on transferred course work. Transfer students must meet any foundation requirements they have not already completed by taking the required courses or by passing proficiency examinations. They must meet all of the distribution requirements in their concentration and specialization in the advanced curriculum. Courses applied toward another degree cannot be used for credit toward the MSW; likewise, previous experience working in the field of social work or a related field cannot be used as course credit toward the MSW. Transfer students must take a minimum of 30 s.h. in residence at East Carolina University.

### PROGRAM STANDARDS

Students enrolled in the MSW program are expected to adhere to the following program standards.

#### Nonacademic

Students whose behavior does not comply with the Code of Ethics of the National Association of Social Workers (NASW) are subject to termination. Regardless of academic performance, students who do not demonstrate intellectual maturity, emotional maturity, motivation, or a capacity to work effectively with people are subject to termination.

## Academic

Students who earn a grade of F in any course are ineligible to continue in the MSW program. Students may earn only two Cs in the MSW program. A third C in any course makes a student ineligible to continue. A 3.0 GPA is required for graduation.

### **SOCW: SOCIAL WORK**

**5001. Human Behavior and Social Environment for the Human Service Professions (3)** May receive credit for one of SOCW 4800, 5001. P: Consent of dean and graduate standing. Development of social systems concept of bio-psycho-social elements of man's being. Emphasis on deeper self-awareness of one's own behavior; attitudes, beliefs, and values as related to professional practice.

**5007. Women as Clients (3)** Issues and corrective measures to counteract gender bias in delivery of human services. Strengths and vulnerabilities of women as clients.

**5008. Supervision in Social Welfare Agencies (3)** P: Consent of dean. Role of supervision in social welfare system and functions it performs. Process of supervising and problems and issues concerning supervisor. Emphasis on supervision of social work and criminal justice students who are in field placement, beginning supervisors, and supervisors of beginning workers.

**5400. Seminar in Aging Studies (3) Same as CDFR 5400; GERO 5400** Entry point for graduate certificate in gerontology; exit course for undergraduate minor in gerontology. P: Consent of instructor. Topics include historical perspective on aging issues, normal aging and pathology, aging program administration, aging policy development, research in gerontology, rural aging, and aging and ethnicity.

**5900. Foundations of Social Work and Social Welfare (3)** P: Graduate standing in SOCW. Introduction to social work profession and social welfare, policy, and services.

**5901, 5902, 5903. Readings in Aging Studies (1, 2, or 3) Same as CDFR 5901, 5902, 5903; GERO 5901, 5902, 5903** May count maximum of 3 s.h. toward baccalaureate minor in gerontology or graduate certificate in gerontology. P: Consent of instructor and chair of instructor's home unit. Selected from monographs or journals. Focus on specialized areas in which student has taken one or more courses in either baccalaureate gerontology minor or graduate gerontology certificate.

**5910. Foundation Skills in Social Work Practice (3)** P: Graduate standing in SOCW. Basic practice skills. Foundation for internship preparation.

**5940. Research Methodology for Social Workers (3)** P: Graduate standing or consent of dean. Evaluation of published social work research. Interpretation of research articles which employ common statistical measures and identify basic limitations of research methodology. Research methods used by social workers in practice. Defines research and the ethical issues in conducting research.

**6000. Advanced Social Work Methods with Individuals (3)** P: Graduate standing in SOCW. Advanced knowledge and skill-building in clinical social work practice with individuals. Emphasis on generative theoretical approaches.

**6001. Advanced Social Work Methods with Small Groups (3)** Theory and practice interventions used with groups.

**6002. Advanced Social Work Methods with Families (3)** Clinical social work practice with distressed and dysfunctional family systems.

**6003. Social Work Intervention with Dyadic Systems (3)** Contemporary theories of dyadic functioning and social work practice with intimate dyadic relationships, such as marriages and intimate, affectively bonded associations.

**6004. Social Work Services in Schools (3)** P: Graduate standing in SOCW. Introduction and orientation to practice in school settings.



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- 6006. Child Welfare: History and Policy (3)** Explores history of child welfare policy and rights, roles, and responsibilities of children, parents, communities, and government within American social policy for protection of children.
- 6007. Child Welfare Practice (3)** Examines family-centered practice as used in investigating and managing cases of child abuse, neglect, and dependency.
- 6022. Perspectives on Death and Dying (3) Same as GERO 6022 and NURS 6022** Interdisciplinary exploration of issues related to death, dying and bereavement.
- 6029. Advocacy Within Deaf Communities (3)** Introduction to advocacy within the deaf community.
- 6030. Advanced American Sign Language Studies in Human Services I (3)** P: SCPI rating of intermediate or consent of the instructor: Builds on introductory courses in American Sign Language. Emphasis on gestural-visual medium of communication, syntax, and in-depth orientation to deaf culture. Focus on human services vocabulary.
- 6031. Advanced American Sign Language Studies in Human Services II (3)** P: SOCW 6030 or SCPI rating of intermediate plus or consent of the instructor: Continuation of American Sign Language (ASL) study. Development of receptive and expressive signing skills, study of indepth structure and syntax of ASL, and indepth orientation to deaf culture.
- 6032. Deaf Culture and Community for Human Services (3)** Sign language interpreters will be provided. P: SOCW 6030 or consent of instructor:
- 6033. Deaf Culture Immersion (3)** P: SOCW 6030, 6032; or consent of instructor: Everyday life activities in world of the deaf. Attendance at non-verbal weekend retreat to enhance American Sign Language skills, internalize various deaf culture behaviors, and develop respect for diversity.
- 6034. Health Care Perspectives on Deafness (3)** Sign language interpreters will be provided. Pathological/medical perspectives and issues/controversies presented by deaf and hard of hearing communities. Promotes collaborative relationships with deaf and hard of hearing individuals and health care professionals.
- 6035. Law and Deaf Communities (2)** Sign language interpreters will be provided. P: SOCW 6034 or consent of instructor: State and federal laws that empower deaf and hard of hearing in order to eliminate barriers in various aspects of their lives.
- 6050. Ethics in Social Work Practice (2)** P: Graduate standing in SOCW. Values and ethics. Emphasis on ethical decision-making and resolution of ethical dilemmas.
- 6051. Qualitative Evaluation and Research in Social Work (2)** P: Graduate standing in SOCW. Methods used in social work evaluation and research.
- 6053. Specialized Social Work Services for Families and Children (2)** P: Graduate standing in SOCW. Conceptual and practice perspective regarding intensive and specialized services for families and children.
- 6054. Play Therapy with Children: A Social Work Perspective (2)** P: SOCW 6422; graduate standing in SOCW. Play therapy in social work with children. Approaches, techniques, and materials used for assessment and intervention. Case studies.
- 6100. Social Work Practice with Individuals (3)** P: Graduate standing in SOCW. Contemporary theories of practice in clinical treatment of individuals.
- 6101. Social Work Practice with Groups (2)** P: Graduate standing in SOCW. Integration of theory and practice in small group treatment from social work perspective. Advanced knowledge and skills in group development, approaches to intervention, and leadership.
- 6102. Social Work Practice with Families (2)** P: Graduate standing in SOCW. Contemporary theories of clinical practice with families in social environment.
- 6200. Social Work Practice with Organizations and Communities (3)** P: Graduate standing in SOCW. Concepts, methods, and theories related to practice with communities or organizations.

**6201. Program Management in Social Work (2)** P: Graduate standing in SOCW. Concepts, methods, and theories related to management of social work programs.

**6202. Program Development in Social Work (2)** P: Graduate standing in SOCW. Concept, tools, and methods for development of social work programs.

**6222. Group Work with the Aged (3) Same as GERO 6222** P: Graduate School admission. Case management, group work, and other techniques and approaches in working with older people.

**6322. Practice in Health and Aging (3)** Social work intervention skills and application of theoretical concepts to practice in health settings.

**6324. Social Work Practice with Developmental Disabilities (3)** Practice from social work perspective.

**6326. Advanced Policy in Health and Aging Settings (3)** P: Graduate standing in SOCW. Health care and aging systems policies and organizational structures. Problems and issues of social work service delivery in health and aging.

**6380. Interdisciplinary Practice: Services for Children with Serious Emotional Disturbances and Their Families (3) Same as CDFR 6380, NURS 6380, PSYC 6380.** Overview of a system of care model to be used across disciplines in mental health services for children with serious emotional disturbances and their families. Prepares professionals to participate in holistic, interdisciplinary team practice in a variety of settings.

**6392. Social Work Practice in Mental Health (3)** Knowledge and skills needed to practice social work in range of mental health settings.

**6394. Advanced Policy in Mental Health: A Social Work Perspective (3)** P: Graduate standing in SOCW. Advanced understanding of federal, state, and local policies related to social work practice in mental health settings. Emphasis on professional's role as client advocate in policy decision making and program development.

**6422. Social Work Practice in Family and Children Services (3)** Theory and modalities of intervention with children and families in various child welfare settings.

**6426. Advanced Policy in Family and Children's Services (3)** P: Graduate standing in SOCW. Current status of families in American society, social welfare policies, and practices. Family needs and means of advocating for needed changes.

**6701. Psychopathology: A Social Work Perspective (3)** Bio-psycho-social theoretical and social work perspective on psychopathology.

**6702. Social Work's Response to Human Differences (3)** P: Graduate standing in SOCW. Incorporates knowledge of human difference and variation into strategies for social work practice. Integrates knowledge of cultures, race, gender, class, rural living, ethnicity, disabilities, human variation, and sexual orientation.

**6711. Introduction to Evaluation Research (3)** Introduces scientific, analytic approach to building knowledge for social work practice with specific reference to principles and methods of evaluative research as applied to critical examination of evaluative research studies.

**6730. Conducting Evaluation Research (3)** Evaluation of social work practice, including development of a research question, study design, analysis of both quantitative and qualitative data, and interpretation of results.

**6732, 6734. Professional Paper (3,3)** Formulation of social work case study. Historic or field work-related research project of professional importance to social work.

**6802. Law and Social Work (3)** Prelegislative and legislative development and major provisions of laws. Interpretation of laws examined from perspective of significant court opinion related to constitutional rights.

**6803. Selected Topics in Human Behavior: A Social Work Perspective (2-4)** P: Graduate standing in SOCW. New or advanced topics in human difference.

**6804. Selected Topics in Direct Practice in Social Work (2-4)** P: Graduate standing in SOCW. New or advanced topics.

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**6805. Selected Topics in Indirect Practice in Social Work (2-4)** P: Graduate standing in SOCW. New or advanced topics.

**6806. Selected Topics in Social Work with Families and Children (2-4)** P: Graduate standing in SOCW. New or advanced topics.

**6807. Selected Topics in Health and Aging (2-4)** P: Graduate standing in SOCW. New or advanced topics.

**6808. Selected Topics in Mental Health: A Social Work Perspective (2-4)** P: Graduate standing in SOCW. New or advanced topics.

**6809. Selected Topics in Social Work Research (2-4)** P: Graduate standing in SOCW. New or advanced topics.

**6810. Selected Topics in Social Welfare Policy (2-4)** P: Graduate standing in SOCW. New or advanced topics.

**6824. Social Service Policy and Delivery Strategies for Rural and Small Communities (3)** Social problems and processes and manner in which social services are delivered in rural setting.

**6901, 6902, 6903. Independent Study (1,2,3)** Faculty conferences arranged. Student-faculty contract must be approved by MSW program chair. Selected readings, research, or studies related to professional practice.

**6940. Field Instruction I (6)** Application of social work knowledge and skills to foundation social work practice for three days per week under social work supervision.

**6950. Field Instruction II (6)** Application of social work knowledge and skills to advanced social work practice for three days per week under social work supervision.

**6960. Field Instruction III (6)** Application of social work knowledge and skills to advanced social work practice for three days per week under social work supervision.

**7000. Thesis (3)** May be repeated. May count maximum of 6 s.h.

### SOCW Banked Courses

**5000. Organization and Management of Social Service Agencies (3)**  
**5003. Processes of Group Intervention (3)**  
**5005. Community Programming and Development in Social Welfare (3)**  
**5006. Planning Within Social Welfare Agencies and Institutions (3)**

**6424. Children's Rights and Social Work (3)**  
**6522. Social Work Practice with the Aging (3)**  
**6524. Social Work Perspectives on Aging (3)**  
**6622. Social Work Practice in Criminal Justice (3)**  
**6624. The Criminal Justice System (3)**  
**6736. Information Processing Models for Social Work Practice (3)**

# BRODY SCHOOL OF MEDICINE

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*Cynda Johnson, Dean of the Brody School of Medicine*

*John Lehman, Associate Dean for Research and Graduate Studies*

*George J. Kasperek, Assistant Dean for Graduate Studies*

The Departments of Anatomy and Cell Biology, Biochemistry and Molecular Biology, Microbiology and Immunology, Pharmacology and Toxicology, and Physiology offer graduate programs for the degree of doctor of philosophy. The Brody School of Medicine and the Department of Biology offer the degree of doctor of philosophy in interdisciplinary biological sciences. The educational objectives of these programs are to foster scholarship, critical analysis, and creative research activity in a particular field of study. In selecting candidates for admission, the departments give careful attention to individual aptitudes and career goals and design their curricula to complement the students' baccalaureate experiences. Each candidate is encouraged to acquire a broad understanding of human biology in both health and disease and to gain authoritative knowledge in a specific area.

Doctoral studies in the Brody School of Medicine provide opportunities for students to have frequent contact with a wide variety of health science professionals who are concerned with problems relating to human biology.

All of the departments are excellently equipped with state-of-the-art instrumentation necessary for preparative and analytical procedures. Specialized facilities are also available for cell and tissue culture, virological studies, and for the handling of pathogenic and recombinant agents.

Each department considers the laboratory as the major setting for the education of its doctoral candidates. Students are encouraged to begin research activity immediately upon entering the program and are assigned to staff members who supervise them in aspects of a research problem compatible with part-time laboratory work. Students are provided the opportunity to rotate among several faculty, within and outside of a department, before selecting a thesis preceptor:

## PROGRAM REQUIREMENTS AND CURRICULUM

A minimum of 58 s.h. of course work is required for the doctoral program, of which 15-18 s.h. may be in a cognate minor area. If fewer than 58 s.h. of course work and cognates to the major field are required in a plan, a specific statement to justify this plan should be submitted to and approved by the departmental chairperson and the dean of the Graduate School.

A doctoral student may minor in an area acceptable to the graduate faculty of the major department. When a minor is declared, the minor department(s) will be represented on the student's advisory committee. A formal minor consists of a minimum of 15 s.h. earned in course work or 24 s.h. of combined course work and research approved by the graduate faculty of the department(s) of the minor field.

If the candidate meets all admission requirements, most courses required of him or her will be available in the areas of anatomy and cell biology, biochemistry and molecular biology, microbiology and immunology, pathology, pharmacology and toxicology, and physiology in the School of Medicine. Upon approval of the departments concerned, individual needs of students may be met by appropriate graduate courses offered by East Carolina University and by other doctoral programs in the state of North Carolina. All doctoral students must complete HUMS 7004: Ethics and Research: Humanities and Basic Medical Sciences.

Graduate work completed prior to admission to doctoral candidacy will be evaluated by the advisory committee when the individual program of study is developed. Transfer of credit from another university is subject to further approval by the chairperson of the major department and the dean of the Graduate School.

A student whose undergraduate transcript indicates a deficiency in departmental prerequisites may be required to undergo examination to verify competency before admission to graduate study. If a student is admitted deficient in analytical and communicative skills necessary for his or her anticipated program, specific remediation will be prescribed in the student's individual program plan. All such deficiencies must be removed before the doctoral candidacy examination is administered.

## INDIVIDUAL PROGRAM PLANS

**Student Advisory Committee.** The departmental graduate committee will be responsible for designing tentative program plans for all entering students and for evaluating their performance until the individual advisory committee is established.

At the appropriate time, a four-member advisory committee for each student will be appointed by the chairperson of the department. The committee will be chaired by the student's dissertation director. The individual advisory committee will

## SECTION 7: CURRICULA

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formulate the student's program of study and submit it for review through the departmental chairperson to the dean of the Graduate School. In addition to formulating, administering, and evaluating the doctoral candidacy examination, the committee will have advisory responsibilities in the subsequent development of the dissertation. This advisory committee will administer and evaluate the final dissertation examination. The committee's evaluations and certification that the degree requirements have been fulfilled will be forwarded through the departmental chairperson to the dean of the Graduate School and the associate dean for research and graduate studies at the Brody School of Medicine.

**Doctoral Candidacy Examination.** This examination is normally taken after the major course requirements have been completed. Upon passing this examination, the student is admitted to candidacy for the degree, doctor of philosophy. Each candidate is examined for his or her understanding and mastery of a broad field of knowledge, not merely the formal course work completed. The student must demonstrate abilities for critical analysis and synthesis as well as a familiarity with scholarly methods of research. The examination of scientific material shall consist of written and oral components. At the option of the departmental graduate studies committee, a major part of the examination format may be the defense of one or more original propositions developed by the student.

The student's advisory committee, following the administration and evaluation of the candidacy examination, will forward to the dean, through the chairperson of the department, one of the following recommendations.

The responses are satisfactory and the student is recommended to candidacy for the doctoral degree.

Some responses are unsatisfactory and the student is to be re-examined at a specific time. Subjects and time are to be set by the advisory committee.

The responses are unsatisfactory, but a full re-examination will be administered during the subsequent semester.

The responses are unsatisfactory and termination of the program is recommended.

**Doctoral Dissertation.** The dissertation must reflect independent, self-motivated research which contributes significant new knowledge to the candidate's major field. The dissertation should demonstrate the candidate's skills in experimental design and technique. It must be effectively written and demonstrate understanding of the historical foundations of the work as well as a thorough analysis of the strengths, weaknesses, and significance of the results.

Before the candidate begins dissertation research, the candidate's advisory committee must approve a proposal containing the following:

1. A brief review of the pertinent literature.
2. A short statement on the nature of the problem and the objectives of the proposed study.
3. An outline of a feasible research program.

It is the responsibility of the advisory committee to counsel the student in his or her research program, criticize the dissertation, and conduct the final examination. Upon the satisfactory completion of all requirements, the committee and departmental chairperson will recommend to the dean of the Graduate School through the associate dean for research and graduate studies at the Brody School of Medicine, the award of the doctoral degree.

The basic form of the dissertation manuscript will follow the East Carolina University Manual of Style or a standard manual acceptable in the major field. The East Carolina University library will bind the final copies. The original and four copies of the final approved manuscript must be deposited in the Graduate School office. Joyner Library will microfilm the dissertation and list the title and abstract in Dissertation Abstracts. The charges for binding the original and four copies of the manuscript and listing the title and abstract will be covered by the Brody School of Medicine graduate office and Joyner Library. Copy and binding charges for additional copies will be the student's responsibility.

**Enrichment.** In addition to course requirements, students are encouraged to participate in scholarly activities, such as experience as teaching assistants and involvement in university-wide seminars. Such activities should be considered as components of the overall program of study.

As part of their predissertation course requirements, students are assigned various periods of rotation in research laboratories of individual faculty members to gain perspectives and laboratory experience in areas outside their fields of major interest. As appropriate, assistance will also be sought from other departments of the university to meet special needs of students. Assignment of students to individual faculty members for pre-dissertation rotations may be made by the chairperson or by the student's advisory committee.

## TIME LIMITS FOR COMPLETION OF DEGREE REQUIREMENTS

A doctoral degree program must be completed before the end of the twelfth semester, excluding summers, following initial enrollment. With endorsement of the student's advisory committee and the departmental chairperson, a student may request one extension of not more than two semesters, summers included.

## PROGRAM COURSES

The courses indicated by an asterisk are required of all candidates. Some courses carry variable hours of credit.

## DEPARTMENT OF ANATOMY AND CELL BIOLOGY

*Charles Hodson, Interim Chairperson*

### ANAT: ANATOMY AND CELL BIOLOGY

**6290, 6291, 6292. Current Topics in Anatomy and Cell Biology (1,2,3)** May be repeated more than once. P: Consent of chair: Reading and discussion of literature in selected fields relevant to anatomy. Format and subject matter may be tailored to needs of individual student or small group of students at discretion of chair; student's advisory committee, and faculty member willing to direct readings.

**7200. Gross Anatomy and Embryology (8) Formerly ANAT 6200** P: Consent of chair: Human anatomy based on systematic dissection of human body with emphasis on structure-function relationships. Pertinent human embryology and radiologic anatomy integrated topically with area of body being dissected. Relevance of different areas of anatomy and embryology to clinical procedures and/or disease processes presented by practicing clinicians.

**7202. Molecular Cell Biology (4) Formerly ANAT 6202. Same as MCB1 7410** P: Consent of course director: Foundation cornerstone course for students interested in contemporary research career: Principles of modern molecular biology as applied to study of cell structure and function. Fundamentals of molecular and cellular biology of both prokaryotes and eukaryotes, and techniques used to study these problems included. Emphasis on critical analysis of experimental data and the experimental basis of current knowledge of cellular processes.

**7210. Histology and Cell Biology (4) Formerly ANAT 6210** P: Consent of chair: Emphasis on light microscopic features of cells, tissue, and organs. Electron microscopic features of cell organelles studied to highlight functions basic to all cells. Both histological and cell biological features integrated with physiological function, pathological abnormalities, and pharmacological treatment.

**7215. Medical Neuroscience (5) Formerly ANAT 6215 Same as PHL 7730** P: Consent of chair: Comprehensive survey and function of human nervous system, including introduction to clinical neuroscience. Lab sessions include dissection of human brain and study of prospecting specimens.

**7230. Developmental Biology (2-4) Formerly ANAT 6230** Not offered every year. P: Consent of chair: Discussion of contemporary concepts in developmental biology. Human embryological formation clearly traced to various cell and molecular biological mechanisms for clear understanding of their role, which is crucial in understanding normal, abnormal, and oncogenic development in humans.

**7240. Research Problems in Cell Biology\* (1-3) Formerly ANAT 6240** P: Consent of chair: Register for course for 3 semesters. Allow student to begin research activity and explore thesis research topics under guidance of scientist with ongoing research project. Student carefully guided to formulate hypothesis, design experiments, collect data, analyze data, and make conclusions so that research efforts will have high likelihood for seminar presentation, abstract/poster presentation at a national meeting, or journal publication.

**7250. Seminar in Cell Biology\* (1) Formerly ANAT 6250** P: Consent of dept chair: Register for course for 4 semesters. Student will attend dept seminar series comprised of well-respect scientists describing their recent methodology and research results in current and exciting cell biological problems as related to clinical issues. Students present formal seminar in chosen cell biological area under guidance of faculty. Faculty will instruct the students in scientific content, proper slide preparation, organization, basic public-speaking skills, handling of audience questions, audience awareness, and stage presence.

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**7345. Cell Motility (2) Formerly ANAT 6345. Same as BIOC 7345; BIOL 7345** P: General chemistry, organic chemistry, general biology, and general physics; or consent of instructor. Multidisciplinary exploration of mechanism, structure, and function of motile systems essential for eukaryotic life.

**9000. Dissertation\* (3)** May be repeated. May count maximum of 18 s.h.

**9001. Dissertation: Summer Research (1)** May be repeated. No credit may count toward degree. Students conducting dissertation research may only register for this course during the summer.

## DEPARTMENT OF BIOCHEMISTRY AND MOLECULAR BIOLOGY

*Joseph G. Cory, Chairperson*

### BIOC: BIOCHEMISTRY

**7300. General Biochemistry\* (6) Formerly BIOC 6300** P: General chemistry; organic chemistry; general biology; calculus; consent of dept chair. Emphasis on human biochemistry in chemistry and function of enzymes and other proteins; mechanisms of energy transduction; metabolism of carbohydrates, lipids, amino acids, and proteins; biochemistry of the gene and gene expression; tissues and organ metabolism; regulation of metabolism; biochemical aspects of nutrition; and metabolism of abnormal cells.

**7301. Biomolecular Structure\* (4) Formerly BIOC 6301** P: General chemistry; organic chemistry; consent of dept chair. Explores relationship of structure, chemical, and physical properties of biomolecules to their biological function. Includes introduction to intermediary metabolism and role of thermodynamics and kinetics in biological systems.

**7310. Molecular Biochemistry\* (3) Formerly BIOC 6310** P: General chemistry; organic chemistry; general biology; consent of dept chair. Replication, translation, and expression of genetic information and its regulation.

**7330. Introduction to Research (1-6) Formerly BIOC 6330** May be repeated. May count a maximum of 12 s.h. P: Consent of instructor. Assignment to faculty preceptor. May work with more than one preceptor. Design experimental protocols and collaborate in some aspect of the preceptor's research program.

**7335. Seminar in Biochemistry\* (1) Formerly BIOC 6335** Registration for fall and spring semesters required. P: Consent of dept chair. Formal seminars and student critiques of current literature in biochemistry, concentrating on one topic each semester.

**7345. Cell Motility (2) Formerly BIOC 6345 Same as ANTH 7345; BIOL 7345** P: General chemistry, organic chemistry, general biology, and general physics; or consent of instructor. Multidisciplinary exploration of mechanism, structure, and function of motile systems essential for eukaryotic life.

**7355. Current Topics (1-3) Formerly BIOC 6355** May be repeated with change of topic. P: Consent of chair. Topics of current importance not covered thoroughly in other courses. Lectures, special reports, or lab work.

**8305. Physical Biochemistry\* (4) Formerly BIOC 6305** P: BIOC 7301; calculus; consent of dept chair. Application of thermodynamics and kinetics to biochemical systems.

**8320. Regulation of Metabolism\* (4) Formerly BIOC 6320** P: BIOC 7301 and consent of dept chair. Regulation of metabolism of carbohydrates, lipids, nucleic acids, and amino acids. Focuses on integration of metabolism and its regulations in humans.

**9000. Dissertation\* (3)** May be repeated. May count for a maximum of 18 s.h.

**9001. Dissertation: Summer Research (1)** May be repeated. No credit may count toward degree. Students conducting dissertation research may only register for this course during the summer.

### BIOC Banked Courses

**6350. Biochemistry of Disease (2)**

## DEPARTMENT OF COMPARATIVE MEDICINE

*John F. Bradfield, Chairperson*

### **CMED: COMPARATIVE MEDICINE**

**8100. Animal Research Methods (2) Formerly CMED 6100** P: Consent of instructor. Use of mammalian subjects in biomedical research. Emphasis on rationale for species and strain selection, ethics of animal use, regulation of animal experimentation, diseases affecting research results, surgical technique, and experimental procedures.

## DEPARTMENT OF MEDICAL HUMANITIES

*Loretta C. Kopelman, Chairperson*

### **HUMS: MEDICAL HUMANITIES**

**7004. Ethics and Research: Humanities and Basic Medical Sciences (2)** May not receive credit for both GRAD 7004 and HUMS 7004. Identifies some philosophical, moral, political, legal, and social issues associated with scientific research. Explores relationship between moral, legal, professional, social, and institutional responsibilities of working scientist. Develops critical skills for understanding and evaluating arguments, claims, and policies pertaining to moral, political, legal, and social aspects of research.

## DEPARTMENT OF MICROBIOLOGY AND IMMUNOLOGY

*C. Jeffrey Smith, Chairperson*

### **MCBI: MICROBIOLOGY AND IMMUNOLOGY**

**7400. Medical Microbiology and Immunology I (4) Formerly MCBI 6400** P: BIOC 7300 or equivalent; consent of chair. Basic concepts and principles of immunology, genetics, and virology as they pertain to medical microbiology and medicine. Introduction to cellular and humoral aspects of the immune system and to mechanisms of host resistance to infectious disease. Survey of medically important viruses. Emphasis on biochemical anatomy, mechanisms of pathogenesis, lab diagnosis, and methods of control and prevention of infection.

**7401. Medical Microbiology and Immunology II (4) Formerly MCBI 6401** P: BIOC 7300 or equivalent; MCBI 7400; consent of chair. Basic principles of medical bacteriology, mycology, and parasitology. Emphasis on mechanisms of pathogenesis, methods of laboratory diagnosis, and methods of control and prevention of diseases caused by these organisms. Content includes anatomy, physiology and genetics of medically important species of bacteria, fungi, animal parasites, and lab exercises.

**7410. Molecular Cell Biology (4) Formerly MCBI 6410 Same as ANAT 7202** P: Consent of course director. Foundational cornerstone for students interested in a contemporary research career. Principles of modern molecular biology as applied to study of cell structure and function. Includes fundamentals of molecular and cellular biology of both prokaryotes and eukaryotes, and techniques used to study these problems. Emphasis on critical analysis of experimental data and experimental basis of current knowledge of cellular processes.

**7420. Physiology and Ultrastructure of Microorganisms I (4) Formerly MCBI 6420** P: General microbiology and general biochemistry or consent of instructor. Advanced topics in molecular genetics and biochemical and physical organization of prokaryotic organism. Focuses on relationships of structure to function, growth, and metabolism and genetic mechanisms that regulate these activities in environment. Offered in spring semester of odd-numbered years.

**7440. Advanced Molecular Genetics (4) Formerly MCBI 6440** P: MCBI 7410 or consent of course director. Detailed, critical presentation of molecular structure-function relationship in stability, dynamics, and expression of genetic information of both prokaryotic and eukaryotic cells. State-of-the-art analytical and synthetic approaches to molecular genetic problems.



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**7450. Immunology (4) Formerly MCBI 6450** P: BIOC 7300 or equivalent; MCBI 7400 or equivalent; consent of course director: Concise presentation of immunology; immunity; and immunopathology. Immunology includes principles of induction and expression of specific immune responses. Immunochemical and cellular principles of immune responses. Immunity includes role of immune reactions in infections and cancer. Immunopathology emphasizes roles of immune system in tissue damage and disease.

**7460. Animal Virology (3) Formerly MCBI 6460** P: MCBI 7401 or consent of course director: Topics covered include basic viral structure and classification, replication, genetics, pathogenesis, viral vectors, emerging viruses, and antiviral strategies and vaccines. Current and emerging issues in virology covered by reading and discussing most recent scientific literature.

**7480. Seminars in Microbiology and Immunology\* (1) Formerly MCBI 6480** May be repeated. May count maximum of 5 s.h. Microbiology and immunology students required to register each fall and spring semester while pre-candidates. P: Consent of course director: Program of formal seminars and student journal club presentations focused on current topics in microbiology and immunology.

**7490. Topics in Microbiology and Immunology (1-4) Formerly MCBI 6490** May be repeated. May count maximum of 5 s.h. P: MCBI 7400 or equivalent; consent of dept chair: Critical presentation of topics of current importance in microbiology and immunology and focusing on a particular subdiscipline, problem, or group of organisms.

**7498. Problems in Microbiology and Immunology\* (1-8) Formerly MCBI 6498** May be repeated. May count maximum of 8 s.h. P: Consent of dept chair: Supervised nondissertation research in microbiology or immunology. For the first two semesters registered, the student ordinarily is assigned to a different faculty preceptor. Two preceptorships will ordinarily be required of each doctoral student.

**9000. Dissertation\* (3)** May be repeated. May count maximum of 18 s.h.

**9001. Dissertation: Summer Research (1)** May be repeated. No credit may count toward degree. Students conducting dissertation research may only register for this course during the summer.

MCBI Banked Courses

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|---|---|
| <b>6405. Contemporary Problems in Microbiology and Immunology (2)</b> | <b>6452. The Lymphocyte (3)</b>                               |
| <b>6421. Physiology and Ultrastructure of Microorganisms II (4)</b>   | <b>6453. Hybridoma Technology (2)</b>                         |
| <b>6425. Microbial Systematics (3)</b>                                | <b>6461. Diagnostic Virology (2)</b>                          |
| <b>6426. Anaerobic Bacteriology (1-3)</b>                             | <b>6462. Molecular Virology Laboratory (3-5)</b>              |
| <b>6451. Immunological Techniques (3)</b>                             | <b>6470. Internships in Microbiology and Immunology (2-6)</b> |

DEPARTMENT OF PATHOLOGY

Peter Kragel, Chairperson  
Donald R. Hoffman, Program Director

INTERDISCIPLINARY DOCTORAL PROGRAM IN BIOLOGICAL SCIENCES

A minimum of 58 s.h. are required. The core curriculum which includes molecular biology, cell biology, and research skills is required of all students. Students will complete a concentration in biomedical sciences, biology, or neuroscience, and a dissertation.

- I. Core courses ..... 22 s.h.
- Molecular Biology:*  
        BIOC 7301 and 7310 or BIOL 7870
- Cell Biology:*  
        ANAT 7202 or MCBI 7410; or BIOL 7480, 7481
- Research Skills:*  
        BIOS 6022 or PSYC 6431 or PHAR 7777; BISC 8810 or BIOL 8810; BISC 8815; HUMS 7004

2. Concentration ..... 18 s.h.  
Biomedical Sciences, Biology, Neuroscience
3. Dissertation ..... 18 s.h.

### **BISC: BIOLOGICAL SCIENCES**

**8810. Methods and Techniques in Experimental Biological Sciences (3) Formerly PATH 6810** May be repeated. P: Consent of course director. One semester rotation through research laboratories supervised by program faculty members.

**8815. Seminar in Biological Sciences (1)** May be repeated for credit. P: Consent of course director. Presentations on research or critical review of current literature topics by students in IDPBS program. Seminar presentation.

**8820. Current Topics in Biomedical Research (2) Formerly PATH 6820** May be repeated. P: Consent of course director. Topics reflect new scientific developments.

**8830. Introduction to Research (5) Formerly PATH 6830** May be repeated. P: Consent of course director. Assignment to faculty preceptor during second year of graduate school. Design of experimental protocols and participation in preceptor's research program.

### **PATH: PATHOLOGY**

**8800. Principles of Pathology (4) Formerly PATH 6800** P: Consent of course director. Cell injury, cell death, acute inflammation, chronic inflammation, regeneration and repair; pigments and mineralization, thrombosis and infarction, teratogenesis and oncogenesis, etiogenesis of cancer; genetic disease, auto-immune disease, bacterial disease, and nutritional disease.

**8801. Systemic Pathology (8) Formerly PATH 6801** P: PATH 8800; consent of course director. Cardiovascular system, hematopathology, respiratory system, gastrointestinal system, including liver and pancreas, kidney, reproductive pathology, endocrinology, nervous system, skin and musculoskeletal system.

**8805. Contemporary Pathobiology (2) Formerly PATH 6805** May be repeated. P/C: PATH 8800; consent of instructor. Disease processes from ultrastructural, developmental, immunological, cellular, and molecular points of view. Illustrative examples of experimental models and molecular aspects of disease processes.

**8815. Seminar in Pathology (1) Formerly PATH 6815** May be repeated. May count a maximum of 6 s.h. P: Consent of course director. Critique of current literature in pathology, concentrating on one topic each semester. Seminar presentation.

**9000. Dissertation (3)** May be repeated. May count for a maximum of 18 s.h.

**9001. Dissertation: Summer Research (1)** May be repeated. No credit may count toward degree. Students conducting dissertation research may only register for this course during the summer.

## **DEPARTMENT OF PHARMACOLOGY AND TOXICOLOGY**

*David A. Taylor, Chairperson*

### **PHAR: PHARMACOLOGY**

**6605. Seminar\* (1)** May be repeated. P: Consent of chair. Formal presentation and exchange of research ideas by faculty, distinguished guest speakers, and students.

**6609. Introduction to Pharmacology\* (3)** P: Previous admission to graduate program in biomedical sciences in School of Medicine and concurrent registration in graduate biochemistry and physiology; consent of chair. History and scope of pharmacology; quantitative principles of uptake, distribution, biotransformation and elimination of drugs; and dose and time-response relationships, pharmacokinetics, and factors modifying drug actions.

## SECTION 7: CURRICULA

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**6610. Basic Mechanisms of Drug Action\* (3)** P: BIOC 7300 or equivalent; PHLY 7702; or equivalent; consent of chair. Fundamental mechanisms by which drugs affect physiology and biochemistry of living systems at macromolecular, cellular, organ, systemic, and multisystemic levels.

**6615. Research Procedures\* (2)** Assigned to faculty preceptors. May precede beginning of thesis research. May be repeated. P: Consent of chair. Design of experimental protocol and collaboration in some aspect of preceptor's program.

**6640. Pharmacology of the Central Nervous System (3)** P: BIOC 7300; PHLY 7702; consent of chair. Basic neuropharmacological principles. Theories dealing with mechanisms of action of CNS drugs. Psychological and sociological basis of drug abuse.

**6660. Cardiovascular Pharmacology (3)** Thorough exploration of drug effects on heart and blood vessels through lab work, directed readings, and seminars.

**6670. Research Techniques (3)** P: PHAR 6609 or equivalent; or consent of course director. Advanced lab techniques in biomedical research. Molecular cloning, protein methods, equilibrium binding analysis, enzyme assays, microscopy, isolated tissue preparations, anesthesia, stereotaxic surgery, and behavioral paradigms. Each lab preceded by lecture covering relevant material.

**7601. Medical Pharmacology for Health Sciences I (3)** Lectures only. P: Bachelor's or master's degree in science or health profession; consent of dept chair. Survey of pharmacodynamics, pharmacokinetics, adverse effects, and pharmacotherapeutic principles of drugs affecting autonomic, cardiovascular, respiratory, renal, and central nervous systems.

**7602. Medical Pharmacology for Health Sciences II (3)** Lectures only. P: Bachelor's or master's degree in science or health profession; consent of dept chair. Survey of pharmacodynamics, pharmacokinetics, adverse effects, and pharmacotherapeutic principles of anesthetic, antimicrobial, antineoplastic, endocrine, and other therapeutic agents. Includes toxicology and treatment of poisonings.

**7665. Pedagogy in Pharmacology (2)** P: Successful completion of doctoral candidacy exam in Dept. of Pharmacology; consent of dept chair. Instruction, mentoring, and supervision in teaching of topics in pharmacology to health science, doctoral, and/or medical students.

**8601. Medical Pharmacology I\* (5) Formerly PHAR 6600** Lectures, small-group conferences, and computer-assisted labs. P: BIOC 7300; PHLY 7702; consent of chair. Survey of pharmacodynamics, pharmacokinetics, adverse effects, and pharmacotherapeutic principles of drugs affecting autonomic, cardiovascular, respiratory, renal, and central nervous systems.

**8602. Medical Pharmacology II (5) Formerly PHAR 6600** Lectures, small-group conferences, and clinical practicum. P: BIOC 7300; PHLY 7702; consent of dept chair. Survey of pharmacodynamics, pharmacokinetics, adverse effects, and pharmacotherapeutic principles of anesthetic, antimicrobial, antineoplastic, endocrine, and other therapeutic agents. Includes toxicology and treatment of poisonings.

**9000. Dissertation (3)** May be repeated. May count maximum of 18 s.h.

**9001. Dissertation: Summer Research (1)** May be repeated. No credit may count toward degree. Students conducting dissertation research may only register for this course during the summer.

### PHAR Banked Courses

**6650. Advanced Topics in Pharmacology (2)**

**6655. Pharmacological Regulation and Identification of Receptors (3)**

## DEPARTMENT OF PHYSIOLOGY

*Robert M. Lust, Chairperson, 6N-98 Brody*

### PHLY: PHYSIOLOGY

**6330. Human Physiology (5)** P: BIOL 1050, 1051; CHEM 1120. Physiological principles fundamental to living tissue. All body systems studied as they relate to normal and pathological conditions in humans.

**6700. Medical Physiology\* (8)** P: Consent of chair. Foundation in principles of normal function of human body. Emphasis on human physiology. Basic physiological processes in health covered through lectures, conferences, demonstrations, and experimental lab sessions, with special emphasis to integrated nature of organ system function.

**6725. Membrane Transport Processes (2)** P: Calculus; physical chemistry; consent of chair. Current theories of electrolyte and non-electrolyte transport processes at cellular and organ levels.

**6730. Cellular Neurophysiology\* (3)** P: Calculus; physical chemistry; consent of chair. Development of theoretical and experimental evidence underlying modern concepts of bioelectric phenomena. Current concepts of membrane structure, metabolism, resting and action potentials, ionic fluxes, and techniques used in electrophysiological research. Seminars with emphasis on critical evaluation of pertinent original research papers.

**6735. Renal, Acid-Base Physiology (2)** P: PHL 6700; or 7701, 7702; BIOC 7300; consent of chair. Selected topics.

**6738. Special Topics in Endocrinology (2)** May be repeated. P: PHL 6700; or 6701, 6702; BIOC 6300; consent of chair. Selected topics may include adrenal, reproductive, pituitary or thyroid physiology. Lectures and formal seminar presentation.

**7701. Graduate Cellular Physiology (3) Formerly PHL 6701** P: BIOC 7300 or equivalent; PHL 7702 or equivalent. Advanced study of eukaryotic cell function. Emphasis on membrane biophysics, signal transduction, and control of proliferation and differentiation.

**7702. Graduate Organ Systems Physiology (5) Formerly PHL 6702** P: BIOC 7300 or equivalent; consent of dept chair. Advanced survey of physiological principles underlying cardiovascular, respiratory, renal, and endocrine systems.

**7704. Physiological Proteogenomics (4) Formerly PHL 6704** P: BIOC 7300; ANAT 7202 or MCBI 7410; PHL 7701, 7702; or equivalent level course; consent of course director. Advanced study of Proteogenomics as tool for elucidating functional mechanisms in whole organism. Bioinformatics as an approach to understanding genome/proteome data, and animal models for testing hypotheses on functions of specific gene products. State-of-the-art analytical and synthetic approaches to biomedical problems presented.

**7705. Translational Physiology (3) Formerly PHL 6705** P: PHL 6700; or 7701, 7702; consent of dept chair. Translational research bridges gap from research laboratory to clinic. Physiological basis of diseases of cardiovascular, respiratory, and renal systems. Examines integrated function of organ systems and how current research hopes to delay or completely prevent the progression of disease.

**7710. Advanced Topics in Physiology\* (3) Formerly PHL 6710** May be repeated. P: PHL 7702; consent of dept. chair. Selected research topics.

**7715. Seminar in Physiology\* (1) Formerly PHL 6715** May be repeated. P: PHL 7701, 7702; consent of dept. chair. Selected topics of current interest.

**7740. Introduction to Research\* (3) Formerly PHL 6740** May be repeated. P: Consent of chair. Collaborative or independent research in variety of physiology specialty areas, including research in preparation for doctoral dissertation.

**7730. Medical Neuroscience (5) Same as ANAT 7215** P: Consent of chair. Comprehensive survey of structure and function of human nervous system, including introduction to clinical neuroscience. Lab includes dissection of human brain and study of prosected specimens.

**7733. Sensory Systems Neurophysiology (3) Formerly PHL 6733** P: PHL 6700; or 7701, 7702; consent of chair. Basic principles of functional organization of somatic and special sensory systems. Emphasis on synaptic processing of sensory information.

**8710. Advanced Topics in Physiology (2) Formerly PHL 6710** May be repeated. P: PHL 7702; consent of dept. chair. Selected research topics.

**8720. Respiratory Physiology (2) Formerly PHL 6720** P: PHL 7701, 7702, 7704, 7705; consent of chair. Selected topics in lung mechanics, pulmonary function testing, pathophysiology, and pathogenesis.

**9000. Dissertation (3)** May be repeated. May count maximum of 18 s.h.

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**9001. Dissertation: Summer Research (1)** May be repeated. No credit may count toward degree. Students conducting dissertation research may only register for this course during the summer.

### PHLY Banked Courses

#### **6050. Human Physiology for Advanced Nursing Practice (3)**

### DEPARTMENT OF RADIATION ONCOLOGY

*Ron Allison, Chairperson, 167 Leo W. Jenkins Cancer Center*

#### **RONC: RADIATION ONCOLOGY**

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**6718. Therapeutic Radiological Physics (3) Same as PHYS 6718** P: Consent of dept chair: Production, application, and measurement of electromagnetic radiation and high energy particle beams in therapeutic practice. Emphasis on conceptual, instrumental, and methodological aspects of therapeutic radiology.

**6992. Radiation Therapy Physics (3) Same as PHYS 6992** P: PHYS 6718 or RONC 6718. Radiation dose calculation and measurement of high energy photon and electron beams, high and low dose rate brachytherapy sources in clinical radiation therapy, cavity theory in ion chamber calibrations of photon and electron beams. Quality assurance, acceptance testing and commissioning of equipment for clinical radiation therapy (linear accelerators, HDR, TLD, simulator; CT scanner).

**6993. Clinical and Medical Dosimetry (2) Same as PHYS 6993** P: PHYS 6992 or RONC 6992. Practical patient dosimetry problems in radiation oncology. Irregular field calculations, two- and three-dimensional treatment planning, isodose distribution, high and low dose rate brachytherapy planning for intracavitary, and interstitial radioactive sources.

**7370. Biological Effects of Radiation (3) Formerly RONC 5370. Same as BIOL 7370** P: BIOL 1100, 1101, 1200, 1201; or consent of instructor: Biological effects resulting from interactions of radiation and matter for scientifically, technically, and medically oriented students.

### INTERDISCIPLINARY HEALTH SCIENCES EDUCATION

#### **IHRE: INTERDISCIPLINARY HEALTH SCIENCES EDUCATION**

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**6000. Introduction to Interdisciplinary Virtual Team Work (2)** Provides a foundation for the acquisition of knowledge and skills in interdisciplinary virtual health care team communications and functions within clinical and community environments.

**6100. The Clinical Consulting Team (2)** Employs health care professionals knowledge and skills of health care team function. Prepares health care professionals to examine models for clinical consultation, formulate, and serve as a clinical consultant team within rural environments.

### INTERDEPARTMENTAL

#### **INTE: INTERDEPARTMENTAL**

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**6200. Statistics and Computing for Biomedical Research (3,3)** 2 1-hour lectures and 1 3-hour lab per week. P: BS in a science discipline or consent of instructor: Key statistical methods. Hands-on experience utilizing computer-based tools. Topics such as lab data acquisition, data summarization, graphical display, computer interfacing, and use of SAS, SPSS, BMDP, and STATPAK for data management and statistical analysis.

### NEUROSCIENCE

#### **NEUR: NEUROSCIENCE**

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**6900. Cellular and Molecular Neuroscience (3) Formerly NEUR 5000** P: Consent of instructor: Introduction to cellular mechanisms and molecular basis of neuron and glial function and interaction. Topics include membrane trafficking, action potentials, receptors, and signal transduction, gene transcription factors, neuroimmunology, and developmental neuroscience.

**6901. Behavioral and Integrative Neuroscience (3) Formerly NEUR 5001** P: Consent of instructor. Introduction to neural systems and neural basis of behavior. Topics include basic neuroanatomy; computational neuroscience, learning and memory; sensory and motor systems, neural basis of affective behavior; consciousness and cognitive neuroscience, neural plasticity, and brain lateralization and language.

# SCHOOL OF NURSING

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*Phyllis Horns, Dean, 133 Rivers Building*

*Sylvia Brown, Associate Dean for Graduate Programs, 130 Rivers Building*

*Martha Engelke, Associate Dean for Research and Scholarship, 216 Rivers Building*

*Josie Bowman, Chairperson, Department of Adult Health Nursing, 247 Rivers Building*

*Alta Andrews, Chairperson, Department of Family and Community Nursing, 239 Rivers Building*

## MASTER OF SCIENCE IN NURSING

The master of science in nursing program prepares graduates for advanced practice nursing and for leadership roles in a variety of community based or acute care provider agencies. The MSN program offers nine concentrations:

Adult Health	Neonatal Nurse Practitioner (online)
Clinical Nurse Specialist	Nurse Midwifery (online)
Clinical Services Administration	Nurse Anesthesia
Community Health	Nurse Education (online)
Family Nurse Practitioner (online)	

Part-time study is available. Certificate programs are available for post-master's study in selected areas. The program is accredited by the National League for Nursing Accrediting Commission, 61 Broadway, New York, NY 10006; 212-363-5555.

The nurse midwifery concentration is also accredited by the American College of Nurse-Midwives, Division of Accreditation, 818 Connecticut Avenue, NW, Suite 900, Washington, DC 20006; telephone 202-728-9860.

The nurse anesthesia concentration is accredited by the Council on Accreditation of Nurse Anesthesia Educational Programs, 222 South Prospect Avenue, Park Ridge, IL 60068.

A RN/MSN option is available for registered nurses who do not have a baccalaureate degree in nursing.

The Alternate Entry (AE) MSN option is a plan of study leading to the MSN degree for individuals who have earned a baccalaureate degree in another field. The program is divided into 2 phases: Phase I (Pre-licensure) includes graduate courses that include content and experiences that are required to take the Registered Nurse Licensure examination (NCLEX-RN) and preparation for advanced study in nursing. Phase I only begins in fall semesters and full-time enrollment is required. Successful completion of the NCLEX-RN and licensure as a Registered Nurse is required prior to entering Phase II clinical concentration courses. Students may enroll in core classes during the first semester of Phase II, while obtaining credentials. Phase II will include courses in a selected clinical concentration.

## ADMISSION

Admission to the master of science in nursing degree program requires the student to meet the minimum admission requirements for graduate study as established by the university and the following requirements established by the School of Nursing.

- a baccalaureate degree in nursing from an NLNAC- or CCNE-accredited program
- a minimum GPA of 2.5 in undergraduate studies and a minimum GPA of 3.0 in nursing major
- acceptable score on the Graduate Record Examinations (GRE) or Miller Analog Test (MAT) within the past five years (GRE score preferred for Nurse Anesthesia concentration applicants)
- currently hold a nonrestricted license to practice as a registered nurse (RN) in North Carolina or a NCSBN compact state (The out-of-state student must procure a North Carolina RN license before enrolling in clinical courses.)
- a statement describing the applicant's interest in graduate study, career goals, and the MSN degree's relationship to those goals
- three professional references
- a personal interview with a member of the graduate faculty

Applicants for the nurse-midwifery concentration, in addition to the general admission criteria, must have one year RN experience (labor and delivery preferred), demonstrate a commitment to practice with under served populations, and a third reference from a health care provider knowledgeable about the applicant's nursing practice.

Applicants for the family nurse practitioner concentration, in addition to the general admission criteria, must have one year RN experience and provide a third reference from a health care provider knowledgeable about the applicant's nursing practice.

P=Prerequisite(s); C=Corequisite(s); P/C=Prerequisite(s) or Corequisite(s); R=Recommended P, C, or P/C

## SECTION 7: CURRICULA

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Applicants for the nurse anesthesia concentration, in addition to the general admission criteria, must have one-year adult critical care experience, completion of a supplemental nurse anesthesia admissions packet, a total of four professional references (two on forms provided in nurse anesthesia admissions packet), and an interview with the Nurse Anesthesia Admissions Committee. Application deadline is April 30 for this option.

Applicants may take core courses while gaining the required RN experience for admission into selected concentrations.

Applicants for admission to the (AE) MSN option must meet general admission requirements. Additional requirements include:

- Completion of prerequisite courses – Chemistry, Human Anatomy & Physiology, Microbiology, Human Growth & Development, Nutrition, Ethics, and Statistics.
- A minimum 3.0 GPA in undergraduate major
- Current nonrestricted license to practice as a RN in N.C. or a NCSBN compact state prior to entering Phase II clinical concentration courses.

Application deadline for the (AE) MSN option is February 1.

Completed applications will be considered as they are received, with the exception of Nurse Anesthesia, and the (AE) MSN option.

Applicants for admission to the RN/MSN option will be evaluated using the following criteria.

- a minimum 3.0 GPA in undergraduate studies and a minimum 3.0 GPA in the nursing major in the previous nursing program
- one year RN experience
- an acceptable score on the GRE or the MAT within the past five years
- current nonrestricted license to practice as a RN in North Carolina or a NCSBN compact state
- a statement describing the applicant's interest in graduate study, career goals, and the MSN degree's relationship to those goals
- three professional references
- a personal interview with the director of RN/BSN studies and a member of the School of Nursing graduate faculty

### PROGRAM PREREQUISITES

A course in statistics with a grade of C or higher and basic computer skills with both applications software and the Internet are prerequisites for all concentrations. A course in basic accounting is a prerequisite for the clinical services administration concentration.

Students in the (AE) MSN option must complete all cognate requirements prior to beginning the program. Admission to the (AE) MSN option does not guarantee entry into a specific graduate concentration.

Students in the RN/MSN option must complete all general education and cognate requirements prior to beginning undergraduate nursing courses. Separate application is made to the graduate program in the first or second semester of study in the RN/MSN option. Students enrolled in the RN/MSN option must maintain a 3.0 GPA in the 15 s.h. of undergraduate nursing courses to be eligible to continue in this option. Admission to the RN/MSN option does not guarantee entry into a specific graduate concentration.

### DEGREE REQUIREMENTS

Depending upon the concentration area chosen within the degree program, the master of science in nursing requires 39-71 s.h. credit as follows. Concentrations are clustered as administrative, clinical, and education.

Administrative:

Clinical Services Administration: 44 s.h.

Community Health-Leadership: 41 s.h.



## Clinical:

Adult Health Nursing: 46 s.h.  
 Clinical Nurse Specialist: 45 s.h.  
 Community Health-Direct Care: 45 s.h.  
 Family Nurse Practitioner: 59 s.h.  
 Neonatal Nurse Practitioner: 49 s.h.  
 Nurse Anesthesia: 71 s.h.  
 Nurse Midwifery: 48 s.h.

## Education:

Nursing Education: 39 s.h.

## Requirements:

1. Common core: NURS 6020, 6025, 6045, 6994, 6998 ..... 15 s.h.
2. Cluster core (Choose appropriate cluster for concentration.) ..... 8-20 s.h.  
*Administrative (8 s.h.):* NURS 6971, 6973, 6974  
*Clinical (12 s.h.):* NURS 6050 or 6110\*; 6112\* or 6208; 6610, 6611 (\*6110, 6112 acceptable for midwifery concentration only; \*6417, \*6418, \*6419 acceptable for neonatal concentration only)  
*Clinical for Nurse Anesthesia (20 s.h.):* HPRO 5011, 5012; NURS 6610, 6810, 6811, 6813  
*Education (9 s.h.):* NURS 6050; 6 s.h. clinical nursing courses
3. Concentration area (Choose one area.) ..... 15-32 s.h.  
*Administrative (18-21 s.h.):*  
     Clinical Services Administration (21 s.h.): NURS 6977, 6978, 6979; 9 s.h. electives  
     Community Health-Leadership (18 s.h.): NURS 6310, 6311, 6330, 6331; 6 s.h. electives  
*Clinical (18-36 s.h.):*  
     Adult Health (19 s.h.): NURS 6209, 6214, 6215, 6224, 6225; 9 s.h. electives  
     Clinical Nurse Specialist (18 s.h.): NURS 6959, 6960, 6961, 6962; 6 s.h. clinical speciality courses  
     Community Health-Direct Care (18 s.h.): NURS 6310, 6311, 6330, 6331; 6 s.h. electives or cognates  
     Family Nurse Practitioner (32 s.h.): NURS 6035, 6612, 6613, 6614, 6615, 6616, 6617, 6618, 6619, 6620  
     Neonatal Nurse Practitioner (22 s.h.): NURS 6420, 6421, 6422, 6423, 6424, 6425; 2 s.h. electives  
     Nurse Anesthesia (36 s.h.): NURS 6805, 6806, 6812, 6814, 6815, 6816, 6817, 6818, 6819, 6820, 6821, 6822, 6823, 6824  
     Nurse Midwifery (21 s.h.): NURS 6113, 6114, 6115, 6116, 6117, 6118  
*Education (15 s.h.):*  
     Nursing education (15 s.h.): NURS 6903, 6904, 6905; 6909; 3 s.h. elective or cognate
4. Students in the nursing education concentration who have limited teaching experience may be required to take NURS 6908.

Enrollment is necessary for continued research advisement. A comprehensive examination is required for graduation for all MSN degree-seeking students.

Students in the RN/MSN option must complete the following undergraduate courses prior to enrolling in any graduate nursing courses—NURS 3510, 3900, 3901, 4210, 4211.

### CERTIFICATE PROGRAMS

Five post-MSN certificate options (family nurse practitioner; neonatal nurse practitioner; nurse-anesthesia; nurse-midwife; and nursing education) offer advanced practice education, qualifying those who complete the clinical options to take national certification exams. In addition, the nursing education post-master's certificate prepares nurses for beginning teaching roles in nursing education.

**Nurse Practitioner:** NURS 6035, 6611, 6612, 6613, 6614, 6615, 6616, 6617, 6618, 6619, 6620 ..... 35 s.h.  
 Depending on student's needs and past education, additional course work from the following may be required: NURS 6050, 6208, 6610, 6611.

**Neonatal Nurse Practitioner:** NURS 6417, 6418, 6419, 6420, 6421, 6422, 6423, 6424, 6425 ..... 29 s.h.

SECTION 7: CURRICULA

<b>Nurse Anesthesia:</b> NURS 6610,6805,6806,6810,6811,6812,6813,6814,6815,6816,6817,6818,6819,6820,6821,6822,6823,6824;HPRO 5011,5012 .....	56 s.h.
<b>Nurse Midwifery:</b> NURS 6110,6112,6113,6114,6115,6116,6117,6118,6610,6611 .....	33 s.h.
Depending on student's needs and past education, additional course work related to NURS 6611 may be required.	
<b>Nursing Education:</b> NURS 6903,6904,6905,6909 .....	12 s.h.
Depending on student's needs and teaching experience, additional course work in NURS 6908 may be required.	

DOCTOR OF PHILOSOPHY IN NURSING

The doctor of philosophy in nursing prepares nurse researchers and scholars to explore, develop, and move forward the scientific bases of nursing practice and education. Students are prepared to conduct research in the domains of nursing science. The curriculum is enriched through cognate study in the social, behavioral, and biological sciences; interdisciplinary research; and the integration of technology in program delivery. Dissertation research prepares graduates to contribute discoveries to the body of nursing and health care knowledge. The location and mission of the school as well as the expertise of the faculty provide a unique opportunity for the discovery of knowledge related to nursing and health issues in rural underserved areas. Upon graduation, students are prepared to assume leadership positions as researchers, administrators in public and private health care organizations, policy makers and analysts, and university faculty.

ADMISSION REQUIREMENTS

- Satisfactory performance on the Graduate Record Exam (GRE) within five years prior to admission.
- Written statement of personal career, educational, and scholarship goals.
- Three written professional references from individuals with expertise to comment on the applicant's capability for research and scholarship (for example, university professors, employers). At least one of the references must be from a doctorally-prepared nurse.
- A master's degree in nursing from an accredited school. (Applicants without a MSN must have a BSN from an accredited program and a master's degree in a related field. If admitted, these students will be required to complete selected prerequisite course work in nursing.)
- Grade-point average of 3.2 on a 4.0 scale on all graduate work.
- Evidence of current unrestricted license to practice as a nurse in North Carolina or a NCSBN Compact State. Students on foreign student visas must present evidence of professional standing in their respective countries.
- Satisfactory performance on Test of English as a Foreign Language (TOEFL) where English is not the first language.
- Computer competency, with proficiency in basic software. The school requires that all students use e-mail and World Wide Web access for communication and course work.
- A graduate statistics course which included inferential statistics.
- A current curriculum vita.
- A representative example of scholarly work done by the applicant.
- A personal interview with two members of the Graduate Faculty to include a discussion of congruence between the students research interests/career goals and the expertise and research of faculty.

APPLICATION

The PhD in nursing program will admit students each year. Applications for study to begin in the fall semester will be accepted until all seats are filled or until June 30<sup>th</sup>, whichever comes first. Applicants are expected to ensure that the Graduate School and the School of Nursing receive all supporting credentials by the final filing date. Completed applications will be considered as they are received; applications will not be held for a pool. However, all completed applications that are received by the final filing date will be given careful consideration. Each applicant will be notified in writing of the admission decision after the admission process is completed.

Preference will be given to those who demonstrate a capacity for creative inquiry, critical thinking, scholarship, and leadership. In the case of equally qualified applicants, preference will be given to individuals who intend to pursue doctoral study on a full-time basis. Students will be assigned an academic adviser at the time of admission. All admitted PhD students are required to attend a School of Nursing orientation session.

## DEGREE REQUIREMENTS

Students are required to complete a minimum of 54 semester hours beyond the master's degree (includes a minimum of 6 s.h. for dissertation). As in other research-focused programs of doctoral study, students in this program may expect to enroll in more than the minimum required credit hours and to be aware that study opportunities that focus on particular areas of study are in addition to the basic program requirements. Additional study is individualized and depends on the student's background and graduate preparation as well as the employment role identified as a career focus. This program of study enrolls both full- and part-time students. Since enrollments in doctoral programs tend to be small, students need to closely adhere to the plan of study, as courses are not offered every semester. To deviate from the plan of study may mean a delay of one or more semesters before course enrollment is again possible.

Graduate credits earned at other institutions may be accepted in partial fulfillment of the requirements for the doctoral program. Courses offered for transfer credit will be evaluated individually relative to Graduate School requirements, program requirements, and the student's plan of study. Transfer of more than 9 s.h. credit from another institution must be approved prior to admission.

PhD students must complete at least five semesters in residence. Residency requirement must be completed prior to admission to candidacy.

Students must maintain a grade point average of 3.0 (on a 4.0 scale) throughout the program. Academic progress will be evaluated at the end of each semester by the academic adviser, who is responsible for notifying the associate dean for graduate programs if a student's academic status is in jeopardy.

PhD students take a candidacy examination upon completion of all required nursing courses with the exception of the dissertation. This examination must be successfully completed within five years of matriculation.

Students are required to conduct an original research project, which adds to the body of knowledge in nursing, and to communicate the research in a written dissertation and an oral defense of the dissertation within six years of admission to candidacy.

The doctoral degree program must be completed before the end of the twelfth semester, excluding summers, following initial enrollment. With endorsement of the dissertation committee and the associate dean for graduate programs, students may request one extension of not more than two semesters, summers included.

### NURS: NURSING

**5000. Nursing Care for Families: A Systems Perspective (3)** P: Graduate status or consent of instructor. Interpretation of family responses useful in formulating nursing assessments and diagnoses and for defining basic nursing therapeutic interventions for families in variety of health care settings. Nursing process used to explore state of the art concept of family nursing science. Current and predicted changes in health care delivery and their affect on family.

**5025. Computer Applications in Nursing (2)** P: Graduate student status; undergraduate seniors by consent of instructor. Computer applications in nursing service, education, research, and clinical practice.

**5327. Women's Health (3)** Health care issues and changes affecting delivery of care.

**5620. International Health Care (3)** P: Graduate status or senior by consent of instructor. Issues, philosophy, and cultural differences in health care from international perspective. Compares US health care to that in other nations.

**5900. School Nursing Practice (3)** Complexity of school nurse role in coordinated school health programs. Emphasis on case management and interdisciplinary practice in school setting.

**6006. Selected Topics (1,2,3)** May be repeated for a maximum of 6 s.h. P: Consent of instructor. Current issues and trends in nursing and health care.

**6007. Health Appraisal of Individuals, Families, and Communities (6)** P: Admission to alternate entry MSN: Phase I pre-licensure. Provides the knowledge and skills to conduct a comprehensive, holistic, and theory-based health appraisal of individuals within the context of families and communities.

## SECTION 7: CURRICULA

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**6008. Professional Nursing Foundations (6)** P: Admission to alternate entry MSN: Phase I pre-licensure program in nursing. Provides knowledge and skills related to physiological challenges including principles of pharmacological and nursing interventions.

**6009. Health Assessment of School Age Children and Adolescents (3)** Knowledge and skills of physical, developmental, and psychosocial assessment of school age children and adolescents.

**6011. School Health Program Management (3)** Examines interdependent relationship between leadership and management in context of school health program management.

**6012. Vulnerable School-Age and Adolescent Populations (3)** Prevention and intervention for youth with emotional and physical disorders that place them at risk.

**6013. Dimensions of Professional Nursing Practice (3)** P: Admission to the alternate entry MSN: Phase I, or permission of the instructor: Considers historical and contemporary issues affecting the theoretical, philosophical and scientific basis of professional nursing practice.

**6016. Comprehensive Care of Individuals Experiencing Alterations In Health I (7)** P: NURS 6007, 6008, 6013 or permission of instructor: Provides theoretical foundations and clinical experiences in providing nursing care to individuals experiencing selected alterations in health throughout the life span.

**6017. Comprehensive Care of Individuals Experiencing Alteration In Health II (7)** P: NURS 6016 or permission of instructor: Provides theoretical foundations and clinical experiences in providing nursing care to individuals experiencing selected alterations in health throughout the life span.

**6018. Clinical Capstone (5)** P: NURS 6017. Directed nursing practice in an identified area of interest based on application of previous learning.

**6019. Leadership & Community Service Learning (5)** P: NURS 6018 or permission of the instructor: Integrates principles of nursing leadership/management and population focused community health nursing including a service learning experience.

**6020. Theoretical Foundations for Advanced Nursing (3)** Meaning and significance of nursing theories. Critique of current nursing theories and their relevance to advanced nursing.

**6021. Concepts of Palliative Care (3)** Interdisciplinary examination of the theoretical and empirical evidence on palliative care.

**6022. Perspectives on Death and Dying for Professionals (3) Formerly NURS 5011. Same as GERO 6022 and SOCW 6022.** Interdisciplinary exploration of issues related to death, dying and bereavement.

**6023. Ethnogeriatrics and Health Care (3)** An interdisciplinary overview of culturally competent care for elders.

**6025. Issues in Advanced Nursing Practice (3)** Emerging roles of advanced practice nursing in dynamic health care environment. Ethical, legal, financial, political, human diversity, and other social issues related to role implementation.

**6035. Interdisciplinary Rural Health (3)** Theoretical base and skills for interdisciplinary rural health practice.

**6045. Data Management for Advanced Nursing Practice (3)** P: Admission to NURS graduate program or consent of instructor: Computer-based approach to teach application and interpretation of data analysis procedures used in nursing and health care.

**6050. Human Physiology for Advanced Nursing Practice (3) Same as PHL 6050** P: Admission to NURS graduate program or consent of instructor: In-depth analysis of normal physiological processes across life span. Focus on pathophysiology and critical analysis for student's area of study. Emphasis on correlation of concepts with clinical manifestations.

**6060. Nursing Informatics (3)** P: Graduate standing; NURS 6045 or consent of instructor: Critically analyzes use of computer technology as it supports nursing practice, administration, education, and/or research.

- 6110. Reproductive Physiology (3)** P: Admission to NURS graduate program or consent of instructor: Underlying biologic principles and concepts related to human reproductive cycle, genetics, maternal-fetal-placental unit, and neonate.
- 6112. Nurse-Midwifery Management: Well Woman Health Care (3)** P: Admission to nurse-midwifery program. Development of competencies for promoting health for essentially well women. Clinical nurse-midwifery management of essentially well women seeking gynecologic and contraceptive health services.
- 6113. Nurse-Midwifery Management: Antepartal Care (4)** P: NURS 6020, 6110, 6112 Competencies for promoting health for essentially well women and their families during antepartal period. Clinical nurse-midwifery management of women and families during pregnancy.
- 6114. Complications of Pregnancy and the Puerperium (2)** P: NURS 6113. Theoretical and clinical bases for management of clients with obstetrical and medical alterations during pregnancy, labor, and puerperium. Nurse-midwifery role functions in collaborative care and referral. Risk identification and reduction modalities.
- 6115. Nurse-Midwifery Management: Intrapartal Care (3)** P: NURS 6114; C: NURS 6116. Competencies for promoting health for essentially well women during labor and birth. Clinical nurse-midwifery management of essentially well women during all stages of labor. Development of theory and skill base for management of intrapartal emergencies.
- 6116. Nurse-Midwifery Management: Postpartal Care and Neonatal Care (3)** C: NURS 6115. Competencies for promoting health for essentially well neonates and women during puerperium. Clinical nurse-midwifery management of essentially well neonates and women during puerperium and health maintenance needs of infants through first year of life.
- 6117. Nurse-Midwifery Integration Practicum (7)** P: NURS 6115, 6116; C: NURS 6118. Integration of theoretical and clinical practice bases from prior clinical courses into comprehensive nurse-midwifery management of women and families. Exploration and implementation of alternatives in client care management and in health care settings.
- 6118. Nurse-Midwifery Professional Roles and Issues (2)** P: NURS 6115, 6116; C: NURS 6117. Historical development of nurse-midwifery and current state of nurse-midwifery and women's health services in US. Essential documents of ACNM. Professional role functions, issues, and responsibilities of nurse-midwifery.
- 6208. Concepts of Health Promotion and Disease Prevention for Advanced Nursing Practice (3)** P: Admission to nursing graduate program or consent of instructor: Role of advanced practice nurse in health promotion and primary prevention.
- 6209. Management of Health Promotion and Disease Prevention in Adult Health Nursing (2)** P: NURS 6208 or consent of instructor: Clinical experiences in health promotion, disease prevention, and maintenance of function across health-illness continuum.
- 6214. Problems and Issues of the Chronically Ill (2)** P: NURS 6209; or consent of instructor: Nursing management of clients and experiencing chronic illness from social, psychological, physical, spiritual, and economic perspectives.
- 6215. Management of Chronic Adult Health Problems (2)** P/C: NURS 6214 or consent of instructor: Clinical experiences in managing client care problems experienced by chronically ill.
- 6224. Problems and Issues of the Acutely Ill (2)** P: NURS 6215 or consent of instructor; C: NURS 6225 or consent of the instructor: Nursing management of acutely ill client from social, psychological, physical, spiritual, and economic perspectives.
- 6225. Management of Acute Adult Health Problems (2)** P/C: NURS 6224 or consent of instructor: Clinical experiences in managing patient care problems experienced by acutely ill.
- 6310. Advanced Community Health Nursing I (3)** P: NURS 6025, 6045, 6994; or consent of instructor: Epidemiological framework for examining characteristics of health community. Emphasis on use of biostatistical data for assessment of risk factors for specific community aggregates. Role of community health nurse specialist.
- 6311. Advanced Community Health Nursing II (3)** P: NURS 6025, 6045, 6994. Developmental, physical, psychosocial, and environmental dimensions that affect learning process for children with special needs in school setting.

## SECTION 7: CURRICULA

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**6321. School Health Nursing: Principles and Practice (3)** P: NURS 6025, 6045, 6994. Concepts, theories, processes, and practices of promoting and providing health care to aggregates within school setting using a primary, secondary, and tertiary prevention model.

**6330. Advanced Community Health Nursing Practicum I (3)** 9 lab hours per week. P/C: NURS 6310 or consent of instructor. Application of community health nursing concepts and clinical and/or leadership skills in community settings. Individualized practicum based on student's learning needs and career goals.

**6331. Advanced Community Health Nursing Practicum II (3)** 9 lab hours per week. P: Community health theory courses; NURS 6025, 6045, 6330, 6994; P/C: NURS 6311. Application of community health nursing concepts and clinical and/or leadership skills in community settings. Individualized practicum based on student's learning needs and career goals.

**6380. Interdisciplinary Practice: Services for Children with Serious Emotional Disturbances and Their Families (3)** Same as CDFR 6380; PSYC 6380; SOCW 6380 System of care model for use across disciplines in mental health services for children with serious emotional disturbances and their families. Preparation for participation in holistic, interdisciplinary team practice in a variety of settings.

**6405. Seminars in Issues in Nursing Education (2)** P: NURS 6400. Current and practical issues.

**6417. Development Physiology for Advanced Neonatal and Pediatric (3)** P: Admission to NURS graduate program or consent of instructor. Developmental changes in morphological processes and normal and abnormal physiology in humans from conception through adolescence.

**6418. Health Assessment for Advanced Nursing Practice of Neonatal and Pediatric Patients (3)** For advanced practice nurse. P: Admission to NURS graduate program or consent of instructor. Comprehensive assessment of neonatal and pediatric clients using diagnostic reasoning process.

**6419. Clinical Pharmacology for Advanced Neonatal and Pediatric Nursing Practice (3)** P: Admission to NURS graduate program or consent of instructor. Pharmacological knowledge basic to assessment and management skills for advanced clinical nursing practice related to newborns and pediatric patients with common acute and chronic health problems.

**6420. Advanced Neonatal Nursing: Research and Theory I (3)** P: NURS 6417, 6418. Focuses on management of the prenatal and postnatal environments, anticipated health problems experienced by infants and implications for the infants and their families.

**6421. Advanced Neonatal Nursing Practicum I (2)** P/C: NURS 6420. Provides intensive neonatal clinical experiences for neonatal nurse practitioner students.

**6422. Advanced Neonatal Nursing: Research and Theory II (3)** P: NURS 6420. Focuses on neonatal nurse practitioner management of disorders of organ systems.

**6423. Advanced Neonatal Nursing Practicum II (4)** P/C: NURS 6422. Provides intensive clinical experiences for neonatal nurse practitioner students.

**6424. Advanced Neonatal Nursing: Research and Theory III (3)** P: NURS 6422. Focuses on the integration of advanced knowledge to care for the infant and the family.

**6425. Advanced Neonatal Nursing Practicum III (5)** P/C: NURS 6424. Provides intensive clinical experiences for neonatal nurse practitioner students.

**6500. Independent Study in Nursing (1,2,3)** May be repeated for a maximum of 9 s.h. P: Consent of adviser. Nontraditional, faculty-approved projects relating to clinical and functional areas of study.

**6521. Readings and Research in Nursing (1,2,3)** May be repeated for a maximum of 6 s.h. P: Completion of core NURS courses or consent of instructor. Research and concepts in nursing practice, education, and management. Based on student's area of specialization, interests, and needs.

**6610. Health Assessment for Advanced Nursing Practice (3)** P: Admission to NURS graduate program or consent of instructor: Advanced assessment, critical thinking, and decision-making skills essential to evaluation of health status, health risks, illnesses, and functional/dysfunctional health patterns of individuals and family members throughout life span.

**6611. Clinical Pharmacology for Advanced Nursing Practice (3)** P: Admission to NURS graduate program or consent of instructor: In-depth presentation of pharmacologic principles to manage pharmacologic agents safely and effectively. Specialty labs address specific applications.

**6612. Advanced Nursing Practice with Families in Primary Health Care (3)** P: Admission to FNP concentration or consent of instructor: Advanced practice psycho social/cultural context for interpretation of family patterns and processes. Emphasis on utilization and application of family systems theory and techniques within nurse practitioner's scope of practice.

**6613. Advanced Nurse Practitioner Role Development (2)** P: Admission to FNP concentration; NURS 6614, 6615, 6616, 6617, 6618, or consent of instructor: Leadership role within the health care delivery system, nursing profession, and society.

**6614. Primary Health Care of the Young and Middle-Aged Adult Client (3)** P: Admission to FNP concentration; NURS 6035, 6610, 6611, or consent of instructor: Advanced theory and management related to health promotion, prevention of illness, and common acute episodic and stable chronic illnesses of culturally diverse young and middle-aged adults.

**6615. Primary Health Care of the Older Adult Client (3)** P: Admission to FNP concentration; NURS 6035, 6610, 6611, C: NURS 6614 or consent of instructor: Advanced theory and management related to health promotion, prevention of illness, and common acute episodic and stable chronic illnesses of culturally diverse older adults.

**6616. Primary Health Care for Sexuality and Reproduction Across the Life Span (4)** P: Admission to FNP concentration; NURS 6614, 6615, or consent of instructor: Advanced theory and management related to health promotion, prevention of illness, and common acute episodic and stable chronic illnesses of culturally diverse clients, infancy through adolescence.

**6617. Primary Health Care of the Young Client, Infancy Through Adolescence (4)** P: Admission to FNP concentration; NURS 6614, 6615, or consent of instructor: Advanced theory and management related to health promotion, prevention of illness, and common acute episodic and stable chronic illnesses of culturally diverse clients, infancy through adolescence.

**6618. Primary Health Care: Clinical Practicum I (2)** P: Admission to FNP concentration; C: NURS 6614, 6615, or consent of instructor: Intensive clinical experiences and in-depth study of theory and research related to clinical practice for family nurse practitioner. Direct supervision by on-site clinical preceptors.

**6619. Primary Health Care: Clinical Practicum II (3)** P: Admission to FNP concentration; NURS 6618 or consent of instructor: Continued intensive clinical experiences and in-depth study of theory and research related to clinical practice for family nurse practitioner students with increasing independence. Supervised by on-site clinical preceptors.

**6620. Primary Health Care: Clinical Practicum III (5)** P: Admission to FNP concentration. Third and final intensive clinical experiences and in-depth study of theory and research related to clinical practice for family nurse practitioner students. Consultation and collaboration with on-site clinical preceptors.

**6805. Advanced Pharmacology for Nurse Anesthesia I (3)** P: Admission to nurse anesthesia concentration; C: NURS 6813. Survey of pharmacodynamics, pharmacokinetics, adverse effects and pharmacotherapeutic principles of anesthesia, antimicrobial, antieoplastic, endocrine, and other therapeutic agents.

**6806. Advanced Pharmacology for Nurse Anesthetists II (4)** P: ANAT 5011, 5012; NURS 6814, 6817; C: NURS 6811, 6819. Surveys pharmacodynamics, pharmacokinetics, adverse effects, and pharmacotherapeutic principles of drugs affecting the autonomic, cardiovascular, respiratory, renal, and central nervous systems.

**6810. Human Physiology for Nurse Anesthetists (5)** P: Admission to nurse anesthesia concentration; C: NURS 6805, 6813. In-depth analysis of normal processes across the lifespan. Provides physiological basis for practice with emphasis on correlation of these concepts with clinical manifestations.

**6811. Anesthesia Pharmacology (3)** P: NURS 6814, 6817; HPRO 5011, 5012; C: NURS 6806. Chemical and physical principles involved in administration of anesthesia, including uptake and distribution, and toxicology of anesthetic drugs and agents.

## SECTION 7: CURRICULA

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- 6812. Professional Aspects of Nurse Anesthesia (2)** P: NURS 6822, 6824; C: NURS 6823. Historic, legal, ethical, and international issues important to contemporary nurse anesthesia practice.
- 6813. Chemistry and Physics of Anesthesia (4)** P: Admission to nurse anesthesia concentration; C: NURS 6805. Aspects of chemistry, biochemistry, and physics applicable to human and mechanical systems involved in delivering safe anesthesia care.
- 6814. Basic Principles of Nurse Anesthesia (3)** P: Admission to nurse anesthesia concentration; NURS 6805, 6810; C: NURS 6717; HPRO 5011, 5012. Fundamentals of anesthesia practice, including basic techniques, procedures for administering anesthesia, assessment of patient status, and case management.
- 6815. Advanced Principles of Nurse Anesthesia I (2)** P: Admission to nurse anesthesia concentration; NURS 6806, 6811, 6819; C: NURS 6820. Anesthesia concepts for increasingly complex patients with alterations in one or more organ system. Includes principles of increasingly advanced surgical and radiological procedures.
- 6816. Advanced Principles of Nurse Anesthesia II (2)** P: Admission to nurse anesthesia concentration; NURS 6815, 6820; C: NURS 6818, 6821. Advanced principles of cardiothoracic and vascular anesthesia, infection control, trauma anesthesia, and management of the patient with acute and chronic endocrine disease.
- 6817. Clinical Correlations I (1)** P: Admission to nurse anesthesia concentration; NURS 6805, 6810, 6813; C: HPRO 5011, 5012; NURS 6814. Links anesthesia-related information with specific topics in anatomy. Explores regional anesthesia.
- 6818. Clinical Correlations II (1)** P: Admission to the nurse anesthesia concentration, NURS 6815, 6820. Links research and advanced principles courses examining research in obstetrics, pediatrics, cardiothoracic and neurosurgical anesthesia.
- 6819. Clinical Practicum in Nurse Anesthesia I (1)** P: Admission to nurse anesthesia concentration; NURS 6814, 6817; C: NURS 6806, 6811. Introduces clinical practice in the operating room environment, including basic skills such as monitoring, preoperative assessment, positioning, induction agents, and sequence and airway management.
- 6820. Clinical Practicum in Nurse Anesthesia II (3)** P: Admission to nurse anesthesia concentration; NURS 6806, 6811, 6819; C: NURS 6815. Defines physiological, pharmacological, and biochemical concepts in beginning application of anesthesia principles.
- 6821. Clinical Practicum in Nurse Anesthesia III (4)** P: Admission to nurse anesthesia concentration; NURS 6820; C: NURS 6816, 6818. Explores physiological, pharmacological, and biochemical concepts in complex clinical application of anesthesia principles.
- 6822. Clinical Practicum in Nurse Anesthesia IV (4)** P: Admission to nurse anesthesia concentration; NURS 6818, 6821; C: NURS 6824. Advanced clinical applications regarding anesthetic preparation, anesthesia equipment setup, airway management, anesthetic management, patient monitoring, and regional anesthesia.
- 6823. Clinical Practicum in Nurse Anesthesia V (4)** P: Admission to nurse anesthesia concentration; NURS 6822; C: NURS 6812. Advanced clinical practice utilizing all anesthesia principles to provide independent responsibility for patient care.
- 6824. Advanced Principles of Nurse Anesthesia III (2)** P: Admission to nurse anesthesia concentration; NURS 6816, 6818, 6821; C: NURS 6822. Advanced concepts of anesthetic management. Emphasis on renal, endocrine, pediatric, and obstetric cases, regional anesthesia, and chronic pain management.
- 6903. Curriculum Development in Nursing (3) Formerly NURS 6400** Foundations, principles, and contemporary issues related to curriculum development in nursing education.
- 6904. Educational Concepts, Theories, and Strategies in Nursing (3)** P/C: NURS 6903 or consent of instructor. Explores learning theories and educational strategies used by nurse educators.
- 6905. Nursing Education Role Practicum I (3)** P: NURS 6904 or consent of instructor; P/C NURS 6909 or consent of instructor. Guided practicum with nurse educators in academic and health care settings.
- 6908. Nursing Education Role Practicum II (3)** P: NURS 6905 or consent of instructor. Collaborative implementation and evaluation of a comprehensive educational project.



**6909. Evaluation in Nursing Education (3)** P: NURS 6903 or consent of instructor; P/C: NURS 6904 or consent of instructor. Focuses on evaluation of students, faculty, curricula, and programs in nursing education.

**6959. Clinical Nurse Specialist Theory and Role Development (3)** Focuses on the core competencies, essential characteristics, and the conceptual model guiding CNS practice.

**6960. Clinical Nurse Specialist Practicum I (3)** P: NURS 6959; subspecialty course (ie: education, oncology, etc.) Application of CNS knowledge and skills to specialty clinical practice. Students will function under the direct supervision of on-site clinical preceptors.

**6961. Clinical Nurse Specialist Practicum II (3)** P: NURS 6959, 6960; by permission of faculty. Application of CNS knowledge and skills to specialty clinical practice. Students will practice with increasing independence under the supervision of on-site clinical preceptors.

**6962. Clinical Nurse Specialist Practicum III (3)** P: NURS 6959, 6960, 6961; by permission of faculty. Application of CNS knowledge and skills to specialty clinical practice. Students will practice with increasing independence and with minimal consultation and collaboration with preceptor.

**6968. Oncology Nursing Practice I (3)** Provides a scientific base for the provision of research/theory-based care in oncology nursing.

**6969. Oncology Nursing Practice II (3)** P: NURS 6968. Prepares student to provide advanced oncology nursing care based on research/theory.

**6970. Quality and Cost Management of Nursing (3)** P: NURS 6020, 6025; or consent of instructor. Relationship of cost and quality in the delivery of nursing care to clients in variety of settings. Concepts of managed care, critical path analysis, and data base management.

**6971. Health Policy (3) Same as COHE 6971** Overview of health policy and legal issues related to delivery of health care. Emphasis on action, theory, and roles; strategies of power politics; legal foundations; and trends in policy formation with implications for health care administrators.

**6973. Human Resource Management in Clinical Services Administration (2)** Theoretical and pragmatic approaches to human resource management by nurses in health organizations. Emphasis on organization of resources to achieve goals.

**6974. Financial Management in Clinical Services Administration (3)** P: ACCT course or consent of instructor. Theoretical and practical framework for understanding impact of cost and reimbursement mechanisms on delivery of clinical services in health care organizations. Emphasis on analysis of cost, budgeting variance, and role of clinical services administrator.

**6977. Clinical Services Administration I (4)** P: NURS 6970, 6973; or consent of instructor. Clinical systems within health care organizations from individual, group, and organizational perspectives. Experiential learning for observation and analysis of theories of administration within a health care organization, preferably serving a rural population.

**6978. Clinical Services Administration II (4)** P: NURS 6977 or consent of instructor. Theories and concepts related to leadership and management used to evaluate role of the nurse executive within clinical and institutional administration. Experiential learning for implementation of specific aspects of role of clinical services administrator.

**6979. Clinical Services Administration III (4)** P: NURS 6978; all electives or consent of instructor. Application of all theories and concepts studied to actual role of nurse executive in clinical services administration. Develop plan of action to analyze, synthesize, and apply knowledge gained from course work to real life work situation.

**6981. Qualitative Methods and Data Analysis in Health Research (3)** Open to graduate students in other disciplines. P: NURS 6994 or equivalent research course. Various data analysis techniques for qualitative research. Data collection, organization, and first-level analysis.

**6998. Nursing Research Practicum (3)** P: NURS 6994. Focus on student's ability to participate in research project, use scientific inquiry, and solve problems related to nursing practice. Participate with faculty mentor in research endeavor consistent with student's career goals.

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**7000.Thesis (3)** May be repeated. May count maximum of 3 s.h.

**7001.Thesis:Summer Research (1)** May be repeated. No credit may count toward degree. Students conducting thesis research may only register for this course during the summer.

**7004. Research Ethics for a Complex World (2) Same as HUMS 7004 and GRAD 7004** Concerned with issues associated with scientific research, institutional responsibilities of scientists and critical skills for evaluation of ethical aspects of research.

**7100. Qualitative Research:Analysis and Interpretation (3) Same as HLTH 7100, OCCT 7100** P: 7235 or consent of instructor: Application and evaluation of qualitative research design and methods including data collection, management, and analysis approaches, and the art and science of interpretation.

**7220. Philosophy of Science (3)** Examines nature and evolution of philosophic bases of nursing science and practice.

**7225. Development of Nursing Knowledge (3)** Considers inductive and deductive approaches to theory development. Integrates relationships among research, theory, and knowledge development.

**7230. Instrumentation and Measurement (3)** Examines processes involved in designing, testing, and selecting instruments and other devices for measurement of nursing phenomena.

**7235. Qualitative Methods (3)** Considers assumptions, principles, methods, and outcomes through analysis of variety of qualitative approaches to research.

**7240. Quantitative Methods (3)** Examines traditional and nontraditional research designs, outcomes research and evidence-based practice, intervention research, data collection and management, and statistical analysis.

**7245. Statistical Methods for Nursing Research (3)** Examines use of statistics for descriptive purposes, testing proposed relationships, prediction, and determining causality.

**7250. Advanced Collaborative Processes (3)** In-depth analysis of models and processes of interdisciplinary collaboration. Considers outcome measures for interdisciplinary practice and research.

**7255. Directed Research (1,2,3)** May be repeated. Minimum 6 s.h. is required; maximum 12 s.h. may count. P: NURS 7220, 7240. Mentorship and interdisciplinary research experience under guidance of nursing faculty member.

**7260. State of Clinical Nursing Science (3)** Focuses on selected domains of knowledge relevant to clinical nursing science.

**7265. Evolving Clinical Nursing Science (3)** P: NURS 7260. Formulate approaches to implement identified directions for knowledge development in clinical nursing science.

**7500. Independent Study (1-3)** May be repeated. May count a maximum of 6 s.h. P: Consent of instructor: Independent exploration of an area(s) of interest in nursing science.

**9000. Dissertation Research (3)** May be repeated. Minimum of 6 s.h. required; maximum of 12 s.h. may count. P: Successful completion of candidacy examination. Original research investigation on a significant aspect of nursing science.

**9001. Dissertation: Summer Research (1)** May be repeated. No credit may count toward degree. Students conducting dissertation research may only register for this course during the summer.

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**NURS Banked Courses**

**5460,5461. Patient Education for Interdisciplinary Health Care Providers (3,0)**

**6111. Health Assessment of the Adult Female (1)**

**6216. Clinical Nursing II: Parent-Child Nursing (2)**

**6217. Clinical Nursing II Practicum: Parent-Child Nursing (2)**

**6218. Clinical Nursing II: Psychiatric/Mental Health Nursing (2)**

**6219. Clinical Nursing II Practicum: Psychiatric/Mental Health Nursing (2)**

**6226. Clinical Nursing III: Parent-Child Nursing (2)**

**6227. Clinical Nursing III Practicum: Parent-Child Nursing (2)**

**6228. Clinical Nursing III: Psychiatric/Mental Health Nursing (2)**

**6229. Clinical Nursing III Practicum: Psychiatric/Mental Health Nursing (2)**

**6410. Methods of Evaluation in Nursing (3)**

**6906. Nursing Management (3)**

**6907. Practicum in Nursing Management (3)**

**6972. Organizational Behavior in Nursing Administration (2)**

# COLLEGE OF TECHNOLOGY AND COMPUTER SCIENCE

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*Ralph V. Rodgers, Jr., Dean, Suite 100, Science and Technology Building*

*William McPherson, Associate Dean, Science and Technology Building*

The college comprises the Departments of Computer Science, Construction Management, Industrial Technology, and Planning.

## DEPARTMENT OF COMPUTER SCIENCE

*Robert Bernhardt, Interim Chairperson, Suite 124-C, Science and Technology Building*

### MS IN COMPUTER SCIENCE

Applicants to the master of science degree in computer science must meet the admission requirements of the Graduate School, have an undergraduate degree in computer science or a related field, be able to demonstrate significant study in computer science, including a study of computer architecture and software design, be proficient programmers in at least one high-level programming language, submit three letters of recommendation, and have satisfactory scores on the general portion of the Graduate Record Examinations. Applicants whose native language is not English must additionally submit a satisfactory score on the Test of English as a Second Language (TOEFL).

Each applicant's credentials will be reviewed by the director of graduate studies, who will determine if undergraduate deficiencies are present and, if so, will prescribe a method for their removal and determine a precondition for admission.

Requirements for completing the master of science in computer science are as follows:

1. Core courses: CSCI 5210, 5220, 6120, 6420; an additional 18 s.h. of CSCI courses numbered 5000 or above, including 6 s.h. in a concentration and 3-6 s.h. of thesis or research project. At least 15 s.h. must be in courses numbered 6000 or above.
2. Concentration area consisting of at least one of the following two-course sequences:  
Software design and development: CSCI 6230, 6410  
Computer architecture: CSCI 6120, 6130  
Artificial intelligence: CSCI 5800, 6810
3. Satisfactory score on a comprehensive examination covering 12 s.h. of course work.
4. Following successful completion of the comprehensive examination, the student must design and complete CSCI 6995 or 7000 under the direction of an adviser. The project or thesis must be successfully defended before the student's examination committee.
5. Students must attend at least five research seminars and present at least one research seminar during the course of study.
6. A minimum cumulative GPA of 3.0 must be submitted for all graduate courses. No more than 6 s.h. of course work evaluated as C may be counted toward the degree.

### CSCI: COMPUTER SCIENCE

**5002. Logic for Mathematics and Computer Science (3) Same as MATH 5002** P: CSCI 3510 or MATE 3223 or 2775 or MATH 2427 or 2775 or 3256 or PHIL 3580 or equivalent. Methods of mathematical logic important in mathematics and computer science applications.

**5210. Operating Systems II (3)** P: CSCI 4630 or consent of instructor. Theory and practice of concurrent processes in computer operating systems. Process scheduling. Memory and auxiliary storage management.

**5220. Program Translation (3)** P: CSCI 4627 or consent of instructor. Formal language specification for programming languages. Advanced parsing techniques. Code generation and optimization.

**5501, 5502, 5503. Independent Study (1,2,3)** Minimum of 3-6 hours per week depending on the nature of the work assigned. P: CSCI 3601 or equivalent or consent of instructor. Advanced computer science students study topics that supplement the regular curriculum.

**5774. Programming for Research (3) Same as MATH 5774** For graduate student who wishes to use computer science to meet required research skills in his or her dept. May not count toward MATH major or minor. P: General statistics course or consent of instructor. Emphasis on minimum-level programming skill and use of statistical packages.

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**5800. Artificial Intelligence (3)** P: CSCI 3510 or consent of instructor: Fundamental problems and techniques of artificial intelligence. Heuristic search. Concepts of expert systems.

**6120. Computer Systems Architecture (3)** P: CSCI 4520 or consent of instructor: Sequential architectures, instruction sets, addressing modes, and control structures. Introduction to parallel architectures.

**6130. Networking and Telecommunication (3)** P: CSCI 6120 or consent of instructor: Theory and case studies of modern networking protocols and telecommunication methods. Local area and long-haul networks.

**6220. Topics in Language Design (3)** P: CSCI 3675 or consent of instructor: Semantics and implementation characteristics of languages supporting modern computing paradigms such as functional programming, logic programming, constraint programming, and object-oriented programming.

**6230. Software Development (3)** P: CSCI 4200 or consent of instructor: Study of management techniques for development of software systems. Project scheduling, cost estimation, personnel management. Practical experience in high-level system integration.

**6410. Design and Analysis of Algorithms (3)** P: CSCI 3650 or consent of instructor: Methods of designing efficient algorithms, case studies. Analysis of complexity of an algorithm.

**6420. Computability and Complexity (3)** P: CSCI 4602 or consent of instructor: Computability, Church's thesis, formal models of computation. Introduction to complexity theory.

**6600. Data Base Management Systems (3)** P: CSCI 3700 or consent of instructor: Theory and techniques of data base management systems. Examines implementations of DBMS.

**6710. Developing e-Commerce Systems (3)** P: Consent of instructor: Introduces the use of concepts, technologies, and building blocks from computer science, practical software engineering, and business development in building e-Commerce systems. Systematic life-cycle approach to developing successful e-Commerce systems essential to a wide range of organization and software developers.

**6810. Topics in Artificial Intelligence (3)** P: CSCI 5800 or consent of instructor: Study of state of the art in selected topic on artificial intelligence.

**6820. Computer Graphics (3)** P: CSCI 3800 or consent of instructor: Principles and techniques of image rendering. Use of image rendering software.

**6905. Topics in Computer Science (3)** May be repeated once with change of topic. P: Consent of instructor: Current topic in computer science.

**6995. Research Project (3)** P: Approval of director of graduate studies. Student selects, investigates, and reports to faculty on a challenging research project.

**7000. Thesis (3)** May be repeated. May count maximum of 3 s.h.

**7001. Thesis: Summer Research (1)** May be repeated. No credit may count toward degree. Students conducting thesis research may only register for this course during the summer.

### CSCI Banked Courses

**5726. Scientific Programming (1)**

**6603. Microcomputer Programming (3)**

**6605. Data Structure and Algorithm Design (3)**

## DEPARTMENT OF CONSTRUCTION MANAGEMENT

*Douglas W. Kruger, Chairperson, 325 Rawl Building*

### CMGT: CONSTRUCTION MANAGEMENT

**5503. Independent Study: Construction (3)** May be repeated for credit with consent of dept chair: Research-oriented. Problem solving with tools, materials, and processes of construction industry.

**6660. Construction Control Systems (3)** P: ITEC 6200 or consent of instructor: Comprehensive systems used to control construction projects. Business, financial, managerial, and legal systems used to control construction process.

**6662. Construction Contracting (3)** P: ITEC 6200 or consent of instructor: Theory and case studies related to management of construction business practices. Emphasis on legal aspects of performance of construction contracts.

**6664. Advanced Cost Estimating/Cost Analysis (3)** Incorporation of emerging estimating and cost control measures in construction industry. Conceptual and definitive estimating, cost developing, cost analysis methods, project delivery implications, international work implications, international work implications, and computer applications and modeling.

## DEPARTMENT OF INDUSTRIAL TECHNOLOGY

*Paul J. Kauffmann, Chairperson, Suite 200, Science and Technology Building*

The Department of Industrial Technology offers graduate programs leading to the graduate certificate, the master of science, and a consortium-based doctor of philosophy. The department is a leading proponent of collaborative network-based learning and offers many of its graduate programs on-line. Graduate certificates for computer network professional and website developer and Information Assurance are offered. Master's degree programs include study in digital communications, computer networking management, industrial distribution and logistics, information security, environmental planning and development, manufacturing systems, occupational safety, and performance improvement. A five-university consortium offers a PhD in technology management. Graduates from all of these programs are prepared to manage rapidly changing technologies and technical systems. Students are expected to be proficient in use of a personal computer and have access to high speed internet service.

### ADMISSION REQUIREMENTS

Applicants must meet the admission requirements of the Graduate School. Acceptance to the master of science degree in industrial systems is based on satisfactory undergraduate grades, scores on a graduate test such as the Miller Analogy Test or the Graduate Record Examinations (GRE), and letters of reference. Completion of an undergraduate degree in a field related to the desired concentration or significant related technical experience are required for admission. Students with limited technical expertise or a non related baccalaureate degree are evaluated on a case-by-case basis by the Department Graduate Admissions Committee. In some cases, remedial undergraduate courses or additional graduate courses are required to complement the graduate program.

### MS IN OCCUPATIONAL SAFETY

The master of science in occupational safety requires 30 s.h. credit and is comprised of courses that build both expertise in essential technical areas of occupational safety and technology management skills. Required courses include: ITEC 6000, 6001, 6050, 6200, 6406; EHST 6700; SAFT 6290, 6292, 6320, 6402. Students who are deficient in undergraduate background may be required to take additional courses.

A thesis option is also available for students interested in pursuing doctoral studies.

### MS IN INDUSTRIAL TECHNOLOGY

Minimum degree requirement is 30 s.h. of credit as follows:

1. Common core: ITEC 6000, 6200, 6050, 6406 ..... 12 s.h.
  2. Concentration area (Choose one) ..... 18 s.h.
- Digital communications technology:*  
DTEC 6810, 6820, 6823, 6830, 6840, 6850

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### *Computer networking management:*

DTEC 6823, 6850, 6865, 6875, 6880, 6885

### *Manufacturing systems:*

ITEC 6001, 6002; 6110, 6407, IDIS 6535, SAFT 6292

### *Environmental planning and development:*

PLAN 5025, 5065, 6020, 6029, 6301, 6305

### *Industrial Distribution and Logistics:*

DTEC 6855; IDIS 6500, 6535, 6545, ITEC 6002, 6110

### *Information Security:*

DTEC 6823, 6865, 6870, 6873, 6878, 6883

### *Performance Improvement*

ITEC 6001, EDTC 6010, 6020, 6045, 7125, approved elective from DTEC, EDTC, ITEC, IDIS, PSYC, MGMT

The master of science degree program is designed to serve the needs of students who possess a baccalaureate degree in industrial technology and related technology oriented disciplines. The program of study includes course work composed of four core courses, and six in the area of specialization. All students are required to apply theory to practice through analytical projects and research papers involving industry problems and applications. Concentrations are currently available in computer networking management, digital communication technology, industrial distribution and logistics, information security, performance improvement, environmental planning, and manufacturing systems. The emphasis of the master of science degree program is on technology management, application to practice, and creative problem solving in technology driven industry and business.

The core consists of courses which emphasize the fundamental skills and knowledge deemed important by industrial employers and technology managers. Graduates must be able to use information processing systems to more effectively communicate, process information, access data, and solve problems in industry; evaluate the performance of technical systems and interpret the significance of data pertaining to product quality and reliability; be familiar with contemporary issues relating to people and technology in competitive, world-class markets; identify and apply techniques for organizing resources to enhance productivity and accomplish objectives in a cost-efficient and timely manner; and serve as effective leaders and managers.

Students with limited technical expertise are evaluated on a case-by-case basis. In some instances, remedial undergraduate courses or additional graduate courses are required to complement the graduate program. All courses are offered in an on-line format for all concentrations. Students must have access to current computing technology and full Internet access. Additional details regarding platforms and connectivity are available by contacting the Department of Industrial Technology.

### **Computer Networking Management**

Courses in this concentration emphasize the advanced technology in design, implementation, and management of data communication and computer networking systems in industry.

### **Digital Communications Technology**

Courses in this concentration emphasize information processing systems used to effectively communicate, process information, access data, and solve problems in industry.

### **Industrial Distribution and Logistics**

This concentration prepares students for the evolving and changing technology management techniques and theories in the area of distribution and logistics. Focus is on understanding, modeling, analyzing, and improving the supply chain and its related elements.

### **Information Security**

Courses in this concentration prepare students to design and manage a system for securing and protecting the integrity of information in governmental, private, and non-profit data network systems.

### **Environmental Planning and Development**

Courses serving the needs of students to provide training that will equip the student to work in the coastal regions across the nation, developing sustainable building and hazard mitigation codes as well as maximizing the recreational opportunities while minimizing the impact on the environment.

### **Manufacturing Systems**

Courses in this concentration emphasize the design, management, and control of human and technological operations systems primarily applied to manufacturing systems.

### **Performance Improvement**

This concentration serves students with a human resource and organizational performance improvement career interest. Courses focus on a systems view of how to develop and implement significant improvement in organizational performance in a technology driven organization.

### **Thesis Option**

For students interested in a research focus, the MS in technology systems provides a thesis option with six credit hours of the required thirty hours dedicated to the development of independent research. Students should identify a thesis advisor early and develop an abstract of the research topic and the contribution. The MS thesis option committee will consist of three members.

## **PhD IN TECHNOLOGY MANAGEMENT**

The School of Industry and Technology is one of five universities collaborating to provide an online PhD program in technology management. The degree is awarded through Indiana State University and is designed to prepare scholars for leadership positions in education, industry, government, and business. The program consists of a minimum of 90 s.h. beyond the baccalaureate. Students are required to successfully complete preliminary and comprehensive examinations, design and conduct original research, and defend a doctoral dissertation. An individualized program of study and applied research internship is also required.

The program involves five areas of required study: technical core (15 s.h.), research core (27 s.h.), technical specialization (30 s.h.), internship (6 s.h.), and cognates (12 s.h.). Additional courses may be required to address deficiencies. DTEC 6800 is a prerequisite to all distance learning programs. Design of each candidate's program of study is dependent on their goals and background experiences.

Four technical specializations are currently available: digital communication systems, construction management, manufacturing systems, quality systems, and human resource development. ECU provides the lead on specializations in digital communication and manufacturing systems. Students identify a "home university" based on their technical specialization and/or geographic location.

## **CERTIFICATE PROGRAMS**

### **Computer Network Professional Certificate Program**

The computer network professional certificate program prepares graduates for employment in the computer networking industry. The skills developed in the course work lead to successful careers as network administrator, data communication manager, communication specialist, etc.

The program is structured to achieve this objective through 15 s.h. of advanced course work. Information in the courses is cumulative; therefore the program requires 18 months to complete.

The computer network professional certificate program is offered on-line via the Internet. Students in the program are required to have fully functional computer hardware and full Internet connectivity. Additional details regarding platforms are available by contacting the Department of Industrial Technology, College of Technology and Computer Science.

Required courses: DTEC 6800, 6810, 6820, 6823, 6830.



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### Information Assurance Certificate Program

The information assurance certificate program prepares graduates for employment in various levels of information technology industry. The skills included in the course work are required to be successful in such positions as information security specialist, network security analyst, and information security manager.

The program is structured to achieve this objective through 15 s.h. of advanced course work. Information in the course is cumulative; therefore the program requires three semesters to complete.

The information assurance certificate program is offered on-line via the Internet. Students in the program are required to have fully functional computer hardware and full Internet connectivity.

Due to the nature of the advanced skills, the prerequisites of this program include the knowledge of basic data communication, computer networking, and computer operation as evidenced by one of the following: COMPTIA Network+ certification or Cisco CCNA certification or equivalent course work. The prerequisite requirement can also be achieved by taking several ECU courses.

Required courses: DTEC 6800, 6815, 6825, 6835, 6845.

### Performance Improvement Certificate Program

Applicants to the Certificate in Performance Improvement must currently have a bachelors degree. Students may transfer up to 9 semester hours as a non degree student toward the graduate MS in Instructional Technology or an MS in Performance Systems Improvement. Graduate School retention standards will apply. Required courses: EDTC 6010, 6020, 6125, ITEC 6001, 6200, 6050

### Website Developer Certificate Program

The website developer certificate program prepares graduates for employment as website developers and managers. The skills learned in this certificate program are required to be successful in jobs with titles such as web master, web designer, etc.

The program is structured to achieve this objective through 15 s.h. of advanced course work. Information in the courses is cumulative; therefore the program requires eighteen months to complete.

The website developer certificate program is offered on-line via the Internet. Students in the program are required to have fully functional computer hardware and full Internet connectivity. Additional details regarding platforms are available by contacting Department of Industrial Technology in the College of Technology and Computer Science.

Required courses: DTEC 6800, 6823, 6865, 6873, 6878.

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## DTEC: DIGITAL COMMUNICATIONS TECHNOLOGY

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**6800. Internet Research Methods (3)** Collaboration methods which emphasize problem-solving in industry and other technical environments.

**6805. Computer Networking Hardware (3)** Hardware components used in modern networking environment. Emphasis on operational characteristics and specification of each component used in computer network.

**6810. Communication Technology (3)** P/C: DTEC 6800 or ITEC 6050, 6805 or equivalent experience. Analysis of design, development, and operation of contemporary technical systems used by industry to transmit, process, retrieve, preserve, and store information.

**6815. Network Media Services (3)** Internet connectivity required. P/C: DTEC 6800. Study of design and implementation of multimedia technology applied to enterprise website strategy. Topics include design of multimedia objects and technology for deploying a media rich environment.

**6820. Networking Technology for Industry (3)** P: DTEC 6810. Design, implementation, and maintenance of industrial computer networks.

**6823. Information Security Management (3)** P/C: DTEC 6800, 6810 or consent of instructor; ITEC 6050. Survey of information security terms, concepts, principles, and applications in data networking environment.

**6825. Dynamic Web Services (3)** P: DTEC 6815. Modern technologies for providing dynamic contents with enterprise websites. Topics include creation and management of dynamics web services.

**6830. Advanced Networking Technology (3)** P: DTEC 6810. Advanced topics in computer networking technology used in industry. Problem-solving activities dealing with installation, configuration, and security of internet and intranet services.

**6835. Enterprise Web Services (3)** P: DTEC 6825. Study of integrated web services to a successful enterprise web presence. Topics include development of web site with multiple integrated services, website performance, and security consideration.

**6840. Communication Strategies for Industry (3)** P: DTEC 6830. Models and techniques advocated by leaders in field of communications to provide basis for improving exchange of information at all levels of industrial organization.

**6845. Web Site Development (3)** P: DTEC 6835. Latest technology in developing successful web sites on Internet as related to industry and business applications, including protocols, standards, and programming tools.

**6850. Managing Technological Change (3)** P/C: ITEC 6050. Operational policies and related legal issues for information technology systems in organizations. Topics cover government and industry regulations, policies applied to information technology, industry, development of enterprise polices on effective and legal use of information technology, and other polices related to information technology environment.

**6853. Cryptography Algorithms and Applications (3)** P/C: ITEC 6050. Study of key cryptographic terms, concepts, principles, and applications in networked environment.

**6855. Networked Commerce Systems (3)** P/C: DTEC 6800 or ITEC 6050. Study of design and implementation of network-based commerce systems. Considers infrastructure support issues.

**6860, 6861, 6862. Special Topic in Technology (1,2,3)** May be repeated for credit with consent of director of graduate studies. Research in trends, problems, and issues related to field of industrial technology.

**6865. Fundamental Network Security (3)** P: ITEC 6050. Survey of security challenge to data communication and computer network. Topics include evaluation of network security threats, fundamental configuration of enterprise network devices, and enterprise network security policy development.

**6870. Advanced Network Security (3)** P: DTEC 6865. Advanced technology for providing secure access to enterprise information network and resources. Topics include Virtual Private Network (VPN) implementation, intrusion detection system implementation and configuration, and organizational security models.

**6873. Network Intrusion Detection and Incident Response (3)** P: DTEC. 6865 Study of state-of-art intrusion detection technology for protecting data network from malicious attack.

**6875. Emerging Technology (3)** Internet connectivity required. P: DTEC 6865. State-of-art technologies for accessing enterprise data communication network infrastructure. Topics include wireless, WLAN, broadband Internet access, web application on mobile units, and Storage Area Network.

**6878. Legal and Ethical Issues in Information Technology (3)** P: DTEC 6823 Survey of legal environment of information technology and issues relating to privacy, policy, and unauthorized computer and network intrusion, as covered by federal, state, and local regulations.

**6880. Advanced Topics in Information Infrastructure Design (3)** P: DTEC 6865. Advanced features in providing reliable information infrastructure for organizations. Topics include current and future development of dynamic routing and switching protocols, such as OSPF, BGP, MLS, etc. Covers issues on IPv6 and its deployment.

**6883. System Integrity for Information Technology (3)** P: DTEC 6873. Capstone to provide systematic approaches to design and deployment of comprehensive information integrity measures for data network systems.

## SECTION 7: CURRICULA

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**6885. Network Management Technology (3)** P: DTEC 6880. Current technologies to address enterprise-wide data communication network management. Topics include planning and deploying hardware and software solution for enterprise network management.

**7001. Thesis: Summer Research (1)** May be repeated. No credit may count toward degree. Students conducting thesis research may only register for this course during the summer.

**9001. Dissertation: Summer Research (1)** May be repeated. No credit may count toward degree. Students conducting dissertation research may only register for this course during the summer.

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### IDIS: INDUSTRIAL DISTRIBUTION

**6500. Distribution Sales and Customer Relations Management (3)** P/C: ITEC 6050. Explores issues related to managing a sales force in industrial distribution and the task of capturing and keeping distribution customers.

**6515. Logistical Security and Safety Management (3)** P/C: ITEC 6050. Covers logistical issues involved with laws and regulations internationally and in US. Includes safety issues involved in logistics such as container security as well as new laws that have affected logistics since inception of Homeland Security.

**6525. Transportation Logistics Management (3)** P/C: ITEC 6050. Comprehensive examination of critical issues involved in domestic and international transportation management. Provides insight into most important laws, rules, regulations, treaties, and practices remaining in today's deregulated transportation environment.

**6535. Supply Chain Logistics Management (3)** P/C: ITEC 6050. Examination of critical issues involved in supply chain logistics management. Issues such as e-business, procurement and outsourcing, supply chain distribution strategies, and latest technology trends in supply chain logistics management are discussed.

**6545. Global Logistics Management (3)** P/C: ITEC 6050. Examination of critical issues involved in global logistics management. Customs, global trading documentation, security issues, NAFTA and free trade, risk management, homeland security issues, and strategic global trade and business options are discussed.

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### ITEC: INDUSTRIAL TECHNOLOGY

**5100. Internship in Industrial Technology (3)** Supervised internship. P: Consent of graduate director. Placement in industrial or technical firm. Requires journal of related activities and final report.

**6000. Statistical Applications in Industry (3)** P/C: ITEC 6050. Application of statistical quality control and assurance systems in a technology context including manufacturing, construction, and electronics.

**6001. Work Design and Measurement (3)** P/C: ITEC 6050. Examination of tools and methods employed to analyze and design a productive work place using a system approach.

**6002. Production Planning and Control Systems (3)** P/C: ITEC 6050. Industrial planning models and tools used in designing, building and operating a manufacturing system that can be applied to any operations.

**6010. Readings in Industry (3)** P/C: ITEC 6050. Consent of director of graduate studies. Comprehensive study of contemporary topics of importance. Reading, seminar discussion, written critiques, and conferencing between student and instructor.

**6050. Strategies for Technical Management and Communications (3)** Collaborative learning methods which emphasize problem-based learning, heuristics devices and critical thinking to solve engineering and engineering related problems.

**6100. Practicum in Industrial Technology (3)** P/C: ITEC 6050. Consent of director of graduate studies. May be repeated for maximum of 12 s.h. May count maximum of 3 s.h. P: ITEC 6400. Capstone industry-based project. Supervised by committee of ITEC graduate faculty. Final report with formal electronic presentation.

**6101. Tools and Materials of Industry (3)** P/C: ITEC 6050. Production of consumer goods in modern industry. Includes processes.

**6110. Technology Assessment and Forecasting (3)** P/C: ITEC 6050. Assessment and forecasting tools used by contemporary industry. Emphasis on strategies to control undesirable or unanticipated consequences associated with technological change.

**6112. Analytical Studies and Planned Experimentation in Industry (3)** P/C: ITEC 6050. Statistical techniques used to monitor and assess performance of organizational processes. Emphasis on experimentation to discover, explain, and provide opportunities for process improvement.

**6200. Technology Project Management (3)** P/C: ITEC 6050. Comprehensive systems used to control projects to achieve technical, managerial, and economic objectives. Emphasis on management controls, computer applications, human factors, and productivity.

**6295. Digital Communications for Technology (3)** Investigation and utilization of tools, techniques, and technical systems for transmitting information related to problems and issues of contemporary industry using digital technologies.

**6400. Research in Industrial Technology (3)** P/C: ITEC 6050. Applications-oriented study of nature of research in industry and selected strategies of research methodology. Focuses on interpreting engineering data, information retrieval systems, evaluation of industrial research reports, and preparation of industrial-type research proposal.

**6406. Capital Project and Cost Analysis for Technology (3)** P/C: ITEC 6050. Methods employed by technical managers to develop a business case for capital projects.

**6407. Computer Integrated Manufacturing and Automation (3)** P/C: ITEC 6050. Design, preparation, programming, and evaluation of systems with emphasis on contemporary and emerging applications of various technologies.

**7000. Thesis (3)** May be repeated. May count maximum of 6 s.h.

**8100, 8101. Research Internship (3,3)** P: Enrollment in ISU Consortium PhD in technology management offered by Indiana State University. Pre dissertation project(s) addressing technology systems.

**9000. Dissertation (3)** May be repeated. May count maximum of 9 s.h.

#### ITEC Banked Courses

**6300. Applications of Vibration Analysis (3)**  
**6404. Materials Selection and Application (3)**

**6408, 6409. Automated Systems and Laboratory (3,0)**

#### MANF: MANUFACTURING

**5504. Independent Study: Manufacturing (3)** May be repeated for credit with consent of dept chair: P: Consent of instructor. Research-oriented problem solving with tools, materials, and processes of manufacturing industries.

#### MANF Banked Courses

**5060. Organic Matrix Composite Materials (3)**

**5090, 5091. Fluid Power Circuits (3,0)**

#### SAFT: OCCUPATIONAL SAFETY

**6250. Occupational Ergonomics (3) Formerly EHST 6250** P/C: ITEC 6050. Course in biology, physiology, anatomy, or relevant experience. Focus on dimensions of occupational ergonomics practice and applications intended to reduce worker/hardware/ environmental interface problems in order to enhance worker performance while minimizing adverse physiological effects.

**6260. Occupational Safety and Health Law (3) Formerly EHST 6260** P/C: ITEC 6050. Major legislation impacting occupational safety and health profession. Includes major acts, contracts, liability, and organizational law.

**6280. Technical Aspects of Occupational Safety and Health (3)** P/C: ITEC 6050. Study of engineering of safety into design, construction, and maintenance of industrial facilities. Specific engineering practices and techniques with emphasis on compliance to specific standards, codes, and regulations.

## SECTION 7: CURRICULA

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**6290. Fire Protection and Prevention (3) Formerly EHST 6290** P/C: ITEC 6050. Prevention and control of fires through building construction, life safety code compliance, detection and alarm, and extinguishing methods. Examines occupancy types and fuels.

**6292. Industrial Safety (3) Formerly EHST 6292** P/C: ITEC 6050. Causes and prevention of occupational accidents and health hazards. Emphasis on organization and operation of safety programs and development of safety awareness.

**6320. Environmental Operations and Hazardous Materials (3) Formerly EHST 6320** P/C: ITEC 6050. Measures applicable to handling, storage, and transportation of hazardous materials and disposal of waste. Examination of emergency and disaster preparedness models.

**6402. Applied Safety Management (3) Formerly EHST 6402** P/C: ITEC 6050. Practical application of principles of supervisory safety management as related to supervision at various levels in line organization of manufacturing, construction, and service industries.

**6410. Systems Safety Analysis (3) Formerly EHST 6410** P/C: ITEC 6050; ITEC 6000. Applications-oriented study of recognition and evaluation of hazards in industrial environment. Formulation of control systems for alleviation of work related accidents and injuries.

**6500. Field Audits in Occupational Safety (3) Formerly EHST 6500** P/C: ITEC 6050. Review and critique of safety operations in factories, construction sites, and/or government agencies.

**6805. Occupational Safety Monitoring and Control (4) Formerly EHST 6805** P/C: ITEC 6050. Discovery, recognition, monitoring, and control of harmful agents in work place.

### DEPARTMENT OF PLANNING

*Mulatu Wubneh, Chairperson, 119 Rawl Building*

#### MA WITH PLANNING CONCENTRATION

For requirements of the master of arts in geography with a planning concentration, see the Department of Geography.

#### MBA WITH DEVELOPMENT AND ENVIRONMENTAL PLANNING CONCENTRATION

MBA students interested in pursuing the MBA with the development and environmental planning concentration must choose PLAN 6301, 6305 and two from the following: PLAN 6000, 6009, 6010, 6019, 6020, 6029 as electives in the MBA program. A certificate of completion will be issued by the Department of Planning.

#### MPA WITH PLANNING CONCENTRATION

For the requirements of the master of public administration with a planning concentration, see the Department of Political Science.

#### MS IN INDUSTRIAL TECHNOLOGY WITH ENVIRONMENTAL PLANNING AND DEVELOPMENT CONCENTRATION

For the requirements of the master of science in industrial technology with an environmental planning and development concentration, see MS in industrial technology at the beginning of College of Technology and Computer Science portion of Section 7.

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#### PLAN: PLANNING

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**5025. Coastal Area Planning and Management (3)** 2 classroom and 3 studio hours per week. P: Consent of instructor. Conceptual approach to planning and management problems, policies, and practices in coastal area.

**5035. Community Planning for Health Facilities (3)** Theories, methodologies, and principles essential to establishing an effective community planning process for health facilities.

**5045. Environmental Resources Planning and Management (3)** P: PLAN 3010 or equivalent or consent of instructor. Frame of reference for studying natural resources for purpose of development.

**5065. Land Use Planning (3)** 2 lecture and 2 lab hours per week. Social, economic, physical, and environmental aspects of urban land use and planning. Other tools for effective planning.

**5121, 5131. Problems in Planning (2,3) (5131:WI)** 3 hours per week per credit hour: P: Consent of instructor: Analysis of specific problem in planning to be approved prior to registration.

**5985. Historic Preservation Planning (3) Same as HIST 5985** Historic preservation planning. Examination of theoretical, legal, historical, and design bases of preservation planning.

**6000. Seminar in Urban Planning (3)** Critical analysis of urban planning process as related to future development of urban areas.

**6009. Research in Urban Planning (3)** Advanced course involves research problems of increasing complexity.

**6010. Seminar in Regional Planning (3)** Detailed analysis and discussion of advanced regional planning concepts and methods.

**6015. Emergency/Disaster Planning (3)** Integrate techniques of emergency management planning for technological and natural disasters. Special emphasis will be placed on vulnerability assessment and risk management for terrorism and other disaster threats.

**6018, 6028, 6038. Internship in Planning (1,2,3)** May count maximum of 3 s.h. P: Undergraduate degree in PLAN or equivalent; 6 s.h. of graduate PLAN courses; undergraduate planning degree or its equivalent or a minimum of 12 s.h. of graduate work in planning prior to registering for an internship. Supervised internship experience with professional planning personnel in approved agency/organization.

**6019. Research in Regional Planning (3)** Advanced course in regional planning involving research problems of increasing complexity.

**6020. Seminar in Environmental Planning (3)** P: Consent of adviser and instructor: Environmental concepts and their relationship to various planning and management scenarios. Environmental issues, policies, strategies, tasks, and plans.

**6029. Research in Environmental Planning (3)** P: PLAN 6020; consent of instructor: Specific problem in environmental planning and management under direct supervision of planning graduate faculty member.

**6301. GIS and CAD Application for Planning (3)** P: Consent of instructor: Theories, models, and techniques for spatial data management, decision support, and design. CAD, GIS, and spatial quantitative methods for effective development and environmental planning.

**6305. Developmental Planning and the Environment (3)** P: PLAN 6301 or consent of instructor: Process of planning for development of sites. Environmental limitations and constraints, environmental regulations, and site design standards.

**Thomas Harriot College of Arts and Sciences*****Department of Anthropology***

Linda D. Wolfe, Professor and Chairperson (PhD, University of Oregon)  
Christine Avenarius, Assistant Professor (PhD, University of Cologne)  
John R. Bort, Associate Professor (PhD, University of Oregon)  
Charles R. Ewen, Professor (PhD, University of Florida)  
Hal Jefferson Daniel III, Adjunct Professor (PhD, University of Southern Mississippi)  
I. Randolph Daniel, Jr., Associate Professor (PhD, University of North Carolina, Chapel Hill)  
David C. Griffith, Professor (PhD, University of Florida)  
Jeffrey Johnson, Adjunct Professor (PhD, University of California, Irvine)  
Holly F. Mathews, Professor (PhD, Duke University)  
Megan Perry, Assistant Professor (PhD, University of New Mexico)

***Department of Biology***

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Charles E. Boklage, Adjunct Professor (PhD, University of California, San Diego)  
Jason E. Bond, Assistant Professor (PhD, Virginia Polytechnic Institute and State University)  
Mark M. Brinson, Professor (PhD, University of Florida)  
Anthony A. Capehart, Assistant Professor (PhD, Wake Forest University, Winston-Salem)  
David R. Chalcraft, Assistant Professor (PhD, University of Illinois, Urbana-Champaign)  
Robert R. Christian, Professor (PhD, University of Georgia)  
Lisa M. Clough, Assistant Professor (PhD, State University of New York, Stony Brook)  
Hal J. Daniel III, Professor (PhD, University of Southern Mississippi)  
Mary A. Farwell, Associate Professor (PhD, University of California, Berkeley)  
Thomas L. Feldbush, Professor (PhD, Ohio State University)  
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Carol Goodwillie, Assistant Professor (PhD, University of Washington, Seattle)  
Paul W. Hager, Visiting Assistant Professor (PhD, University of California, Berkeley)  
Claudia L. Jolls, Associate Professor (PhD, University of Colorado)  
Elizabeth A. Jones, Visiting Assistant Professor (PhD, East Carolina University)  
Gerhard W. Kalmus, Professor (PhD, Rutgers University)  
Alfred C. Lamb III, Professor (PhD, University of Georgia)  
Joseph J. Luczkovich, Associate Professor (PhD, Florida State University)  
Thomas J. McConnell, Associate Professor (PhD, University of Florida Medical Center)  
Susan B. McRae, Visiting Assistant Professor (PhD, University of Cambridge)  
Anthony S. Overton, Assistant Professor (PhD, University of Maryland, Eastern Shores)  
Cindy Putnam-Evans, Associate Professor (PhD, University of Georgia)  
Roger E. Robbins, Visiting Assisting Professor (PhD, Duke University)  
Roger A. Rulifson, Professor (PhD, North Carolina State University)  
Jean-Luc Scemama, Assistant Professor (PhD, University of Toulouse)  
Margit Schmidt, Visiting Assistant Professor (PhD, Ruprecht Karls University)  
Charles A. Singhas, Assistant Professor (PhD, University of Virginia)  
Donald W. Stanley, Associate Professor (PhD, North Carolina State University)  
Edmund J. Stellwag, Associate Professor (PhD, Medical College of Virginia)  
John W. Stiller, Assistant Professor (PhD, University of Washington, Seattle)  
Kyle G. Summers, Associate Professor (PhD, University of Michigan)  
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Terry L. West, Associate Professor (PhD, Duke University)  
Yong Zhu, Assistant Professor (PhD, Tokyo University)

## SECTION 8: GRADUATE FACULTY

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### *Department of Chemistry*

Chia-yu Li, Professor and Chairperson (PhD, Wayne State University)  
Paul J. Gemperline, Professor (PhD, Cleveland State University)  
Brian Love, Associate Professor (PhD, Princeton University)  
Robert C. Morrison, Professor (PhD, University of Nebraska)  
Art A. Rodriguez, Associate Professor (PhD, North Texas State University)  
Andrew L. Sargent, Associate Professor (PhD, Texas A & M University)  
Yu Yang, Associate Professor (PhD, University of Mainz)

### **Associate Graduate Faculty**

William E. Allen, Assistant Professor (PhD, University of North Carolina, Chapel Hill)  
Colin Burns, Assistant Professor (University of North Carolina, Chapel Hill)  
Anthony Hayford, Assistant Professor (PhD, University of Maryland, College Park)  
Kwang Hun Lim, Assistant Professor (State University of New York, Stony Brook)  
Robert A. McIntyre, Assistant Professor (PhD, University of New Orleans)  
Andrew T. Morehead, Assistant Professor (Duke University)  
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### *Department of Economics*

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### *Department of English*

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Margaret Bauer, Associate Professor (PhD, University of Tennessee)  
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Seodjal Deena, Associate Professor (PhD, Indiana University of Pennsylvania)  
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James C. Holte, Professor (PhD, University of Cincinnati)  
James W. Kirkland, Professor (PhD, University of Tennessee)  
Peter Makuck, Professor (PhD, Kent State University)  
Roberta Martin, Associate Professor (PhD, University Colorado)  
Alfred P. Muller, Professor (PhD, Florida State University)  
Donald E. Palumbo, Professor (PhD, University of Michigan)  
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W. Keats Sparrow, Dean of the College of Arts and Sciences and Professor (PhD, University of Kentucky)  
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McKay Sundwall, Associate Professor (PhD, Harvard University)  
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Gay Wilentz, Professor (PhD, University of Texas)



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## SECTION 8: GRADUATE FACULTY

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### *Department of Geology*

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Catherine A. Rigsby, Associate Professor (PhD, University of California, Santa Cruz)  
Scott W. Snyder, Professor (PhD, Tulane University)  
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Charles W. Calhoun, Professor (PhD, Columbia University)  
David C. Dennard, Associate Professor (PhD, Northwestern University)  
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Bradley A. Rodgers, Associate Professor (PhD, The Union Institute)  
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Todd L. Savitt, Professor (PhD, University of Virginia)  
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Kenneth E. Wilburn, Assistant Professor (DPhil, Oxford University)

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Victoria S. Frede, Assistant Professor (PhD, University of California, Berkeley)  
Timothy Jenks, Assistant Professor (PhD, University of Toronto)  
Gerald J. Prokopowicz, Assistant Professor (PhD, Harvard University)  
Jonathan A. Reid, Assistant Professor (PhD, University of Arizona)  
Nathan T. Richards, Assistant Professor (PhD, University of Flinders)  
Anoush F. Terjanian, Assistant Professor (PhD, Johns Hopkins University)  
Karin L. Zipf, Assistant Professor (PhD, University of Georgia)

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Sunday Ajose, Associate Professor (PhD, University of South Carolina)  
Chal Benson, Professor (PhD, Yale University)  
Robert L. Bernhardt, Professor (PhD, University of Oregon)

Christopher Carolan, Assistant Professor (PhD, University of Iowa)  
John Person Daughtry, Jr., Professor (PhD, University of Virginia)  
Timothy Hudson, Associate Professor (PhD, Texas A & M University)  
Robert J. Hursey, Jr., Associate Professor (PhD, University of Alberta)  
Chris Jantzen, Assistant Professor (PhD, University of Chicago)  
Elias Katsoulis, Professor (PhD, University of Athens, Greece)  
Pangiota Kitsanta, Assistant Professor (PhD, Florida State University)  
Soumaya M. Khuri, Professor (PhD, Yale University)  
David Pravica, Associate Professor (PhD, University of Toronto)  
Ronald Preston, Assistant Professor (PhD, Indiana University)  
M. S. Ravi, Associate Professor (PhD, University of Rochester)  
Heather Ries, Associate Professor (PhD, State University of New York, Binghamton)  
Zachary Robinson, Associate Professor (PhD, Harvard University)  
Said Elmahdy Said, Associate Professor (PhD, North Carolina State University)  
Alexandra Shlapentokh, Professor (PhD, New York University)  
Rose Sinicrope, Assistant Professor (PhD, Virginia Polytechnic and State University)  
Michael Spurr, Associate Professor (PhD, Tulane University)

### ***Department of Philosophy***

George W. S. Bailey, Associate Professor and Chairperson (PhD, University of Miami)  
Calvin Mercer, Associate Professor (PhD, Florida State University)  
James LeRoy Smith, Professor (PhD, Tulane University)

### ***Department of Physics***

John C. Sutherland, Professor and Chairperson (PhD, Georgia Institute of Technology)  
Martin Bier, Assistant Professor (PhD, Clarkson University)  
George Bissinger, Professor (PhD, University of Notre Dame)  
Orville Day, Associate Professor (PhD, Brigham Young University)  
Michael Dingfelder, Assistant Professor (PhD, Eberhard-Karls University, Tübingen, Germany)  
Mumtaz A. Dinno, Professor (PhD, University of Louisville)  
Kenneth Flurchick, Assistant Professor (PhD, Colorado State University)  
Xin-Hua Hu, Associate Professor (PhD, University of California, Irvine)  
James M. Joyce, Professor (PhD, University of Pennsylvania)  
Edson Luiz B. Justiniano, Associate Professor (PhD, Kansas State University)  
Ruth Kempf, Professor (PhD, Rensselaer Polytechnic Institute)  
John Kenney, Assistant Professor (PhD, State University of New York, Stony Brook)  
Gregory Lapicki, Professor (PhD, New York University)  
Yong-Qing Li, Assistant Professor (PhD, Chinese Academy of Science, Shanghai)  
Jun Qing Lu, Assistant Professor (PhD, University of California, Irvine)  
Edward J. Seykora, Professor (PhD, North Carolina State University)  
Jefferson L. Shipnauth, Associate Professor (PhD, Kansas State University)  
Mark W. Sprague, Associate Professor (PhD, University of Mississippi)  
Larry H. Toburen, Professor (PhD, Vanderbilt University)

### ***Department of Political Science***

Richard Kearney, Professor and Chairperson (PhD, University of Oklahoma)  
Steve Ballard, Chancellor and Professor (PhD, Ohio State University)  
David P. Conradt, Professor (PhD, Brown University)  
Thomas F. Eamon, Associate Professor (PhD, University of North Carolina, Chapel Hill)  
Lauriston King, Associate Professor (PhD, University of Connecticut)  
William R. Mangun, Professor (PhD, Indiana University)  
Bonnie G. Mani, Associate Professor (PhD, Virginia Commonwealth University)  
Carmine P. Scavo, Associate Professor (PhD, University of Michigan)

## SECTION 8: GRADUATE FACULTY

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Maurice D. Simon, Professor (PhD, Stanford University)  
Nancy J. Spalding (PhD, State University of New York, Binghamton)  
Robert J. Thompson, Associate Professor (PhD, University of Oklahoma)  
Tinsley E. Yarbrough, Arts and Sciences Distinguished Professor (PhD, University of Alabama)

### ***Associate Graduate Faculty***

Jane Patricia Mitchell, Assistant Professor (DPA, University of Georgia)  
Jonathan Morris, Assistant Professor (PhD, Purdue University)  
Leslie Omoruyi, Assistant Professor (PhD, University of Connecticut)  
John H. P. Williams, Assistant Professor (PhD, University of North Carolina, Chapel Hill)

### ***Department of Psychology***

Michael B. Brown, Associate Professor and Interim Chairperson (PhD, Virginia Polytechnic Institute and State University)  
Linda J. Allred, Associate Professor (PhD, Johns Hopkins University)  
Larry M. Bolen, Professor (EdD, University of Georgia)  
Rosina C. Chia, Professor (PhD, University of Michigan)  
John S. Childers, Associate Professor (EdD, North Carolina State University)  
John G. Cope, Professor (PhD, Virginia Polytechnic Institute and State University)  
Thomas W. Durham, Associate Professor (PhD, Florida State University)  
Marion A. Eppler, Associate Professor (PhD, Emory University)  
D. Erik Everhart, Assistant Professor (PhD, Virginia Polytechnic Institute and State University)  
Rand B. Evans, Professor (PhD, University of Texas, Austin)  
Jeannie A. Golden, Assistant Professor (PhD, Florida State University)  
Cathy W. Hall, Professor (PhD, University of Georgia)  
Beverly Harju, Associate Professor (PhD, California School of Professional Psychology)  
E. Marsha Ironsmith, Associate Professor (PhD, State University of New York, Stony Brook)  
Larry W. Means, Professor (PhD, Claremont Graduate School)  
Susan M. McCammon, Professor (PhD, University of South Carolina)  
Ronald Nowaczyk, Professor (PhD, Miami University of Ohio)  
Margaret O'Neal, Visiting Assistant Professor (PhD, Virginia Commonwealth University)  
G. Michael Poteat, Associate Professor (PhD, University of Tennessee)  
Jonathan M. Reed, Associate Professor (PhD, University of New Mexico)  
Raymond E. Webster, Professor (PhD, University of Connecticut)  
Karl L. Wuensch, Professor (PhD, Miami University of Ohio)

### ***Associate Graduate Faculty***

Dennis E. Chestnut, Assistant Professor (PhD, New York University)

### ***Department of Sociology***

Robert Lee Maril, Professor and Chairperson (PhD, University of Washington)  
Don E. Bradley, Assistant Professor (PhD, University of Texas, Austin)  
Richard J. Caston, Professor (PhD, Duke University)  
Mamadi K. Corra, Assistant Professor (PhD, University of South Carolina)  
Bob Edwards, Associate Professor (PhD, Catholic University of America)  
Charles E. Garrison, Professor (PhD, University of Kentucky)  
Jeffrey C. Johnson, Professor (PhD, University of California, Irvine)  
Arunas Juska, Assistant Professor (PhD, Lithuanian Academy of Sciences; PhD, Michigan State University)  
Sitawa Kimuna, Assistant Professor (PhD, Kansas State University)  
David Knox, Professor (PhD, Florida State University)  
James P. Mitchell, Professor (PhD, Oklahoma State University)  
Linda Mooney, Associate Professor (PhD, University of Akron)  
Rebecca Powers, Assistant Professor (PhD, Louisiana State University)  
Christa Reiser, Associate Professor (PhD, North Carolina State University)

Paul Tschetter, Interim Dean of the Graduate School and Associate Professor (PhD, Michigan State University)  
 Martin Schultz, Associate Professor (PhD, Southern Illinois University)  
 Marieke Van Willigen, Associate Professor (PhD, The Ohio State University)  
 Kenneth R. Wilson, Associate Professor (PhD, Purdue University)

### ***Associate Graduate Faculty***

Christopher Mansfield, Assistant Professor (PhD, Florida State University)

## **Professional Schools**

### ***School of Allied Health Sciences***

Stephen W. Thomas, Professor and Dean (EdD, University of Arizona)  
 Bruce C. Albright, Professor (PhD, Virginia Commonwealth University)  
 Rose Allen, Assistant Professor (PhD, Wichita State University)  
 Paul P. Alston, Professor (PhD, University of Georgia)  
 William Richard Bamberg, Professor (PhD, Florida State University)  
 Dennis Brunt, Professor (EdD, University of Oregon)  
 Martha H. Chapin, Assistant Professor (PhD, Michigan State University)  
 Deborah Culbertson, Associate Professor (PhD, University of Iowa)  
 Kathleen Treole Cox, Assistant Professor (PhD, The Ohio State University)  
 Anne E. Dickerson, Professor (PhD, Florida International University)  
 Meta Downes, Associate Professor (MA, MS, East Carolina University)  
 Gregg D. Givens, Professor (PhD, Florida State University)  
 Lloyd R. Goodwin, Jr., Professor (PhD, Florida State University)  
 Donald Holbert, Professor (PhD, Oklahoma State University)  
 Monica Hough, Professor (PhD, Kent State University)  
 Suzanne Hudson, Associate Professor (PhD, University of Oregon)  
 Sherri Jones, Associate Professor (PhD, University of Nebraska)  
 Joseph Kalinowski, Associate Professor (PhD, University of Connecticut)  
 Elizabeth Layman, Professor (PhD, Georgia State University)  
 Carol Lust, Assistant Professor (EdD, North Carolina State University)  
 Kevin F. O'Brien, Professor (PhD, University of North Carolina, Chapel Hill)  
 Jane Painter, Associate Professor (EdD, North Carolina State University)  
 Michael P. Rastatter, Professor (PhD, Bowling Green State University)  
 Shari Sias, Assistant Professor (PhD, The College of William and Mary)  
 Mark A. Stebnicki, Associate Professor (PhD, Southern Illinois University)  
 Andrew Stuart, Associate Professor (PhD, Dalhousie University)  
 Patricia Karen Sullivan, Associate Professor (PhD, Virginia Commonwealth University)  
 Leonard Trujillo, Assistant Professor (PhD, Texas A & M University)  
 Beth Velde, Associate Professor (PhD, University of Calgary)  
 Paul W. Vos, Professor (PhD, University of Chicago)  
 Margaret Wittman, Professor (EdD, North Carolina State University)

### ***Associate Graduate Faculty***

Deborah Bengala, Clinical Associate Professor (MS, Western Michigan University)  
 Mary Susan Templeton, Professor (MPH, University of North Carolina, Chapel Hill)  
 Marianna Walker, Clinical Professor (PhD, North Carolina State University)

## ***College of Business***

Ernest B. Uhr, W. Howard Rooks Distinguished Professor and Dean (PhD, Rensselaer Polytechnic Institute)  
 Tope Adeyemi-Bello, Professor (PhD, University of Arkansas)  
 Kenneth Anselmi, Associate Professor (PhD, University of Nebraska, Lincoln)  
 Kenneth E. Bass, Professor (DBA, Louisiana Technical University)

## SECTION 8: GRADUATE FACULTY

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Scott Below, Associate Professor (PhD, University of Kentucky)  
John H. Bradley, Associate Professor (PhD, University of Texas, Arlington)  
James F. Buck, Associate Professor (DBA, Florida State University)  
Margaret M. Capen, Professor (PhD, University of South Carolina)  
Reid Claxton, Associate Professor (PhD, University of Arkansas)  
Scott Dellana, Associate Professor (PhD, University of Missouri)  
Edwin A. Doty, Jr., Associate Professor (PhD, University of Massachusetts)  
Stanley G. Eakins, Professor (PhD, Arizona State University)  
Donald C. Guy, Professor (PhD, University of Illinois)  
Joseph Hagan, Associate Professor (PhD, Georgia State University)  
J. Larry Hagler, Professor (DBA, University of Colorado)  
Richard D. Hauser, Jr., Associate Professor (PhD, Florida State University)  
Frederic J. Hebert III, Associate Professor (DBA, Louisiana Technical University)  
James E. Holloway, Professor (JD, University of North Carolina, Chapel Hill)  
R. Eugene Hughes, Professor (DBA, University of Kentucky)  
Jerry G. Hunt, Professor (PhD, University of Colorado)  
Judith R. Hunt, Associate Professor (PhD, University of Tennessee)  
Jack E. Karns, Professor (JD, Tulane University)  
Richard L. Kerns, Professor (PhD, University of Virginia)  
Brenda L. Killingsworth, Associate Professor (PhD, University of South Carolina)  
Kenneth R. MacLeod, Associate Professor (PhD, University of South Carolina)  
Mark G. McCarthy, Professor (PhD, University of South Carolina)  
Roger P. McIntyre, Professor (PhD, Arizona State University)  
Havva J. Meric, Associate Professor (PhD, University of North Carolina, Chapel Hill)  
Frederick Niswander, Associate Professor (PhD, Texas A & M University)  
Dan Schisler, Professor (PhD, Memphis State University)  
Douglas Schneider, Professor (PhD, University of Georgia)  
Roy L. Simerly, Professor (PhD, Virginia Polytechnic Institute and State University)  
Stanley R. Stansell, Robert Dillard Teer, Jr. Distinguished Professor (PhD, University of Georgia)  
William Swart, Professor (PhD, Georgia Institute of Technology)  
Joseph M. Tomkiewicz, Professor (PhD, Temple University)  
David A. West, Associate Professor (PhD, University of Rhode Island)  
L. H. Zincone, Jr., Professor (PhD, University of Virginia)  
James Zemanek, Associate Professor (PhD, Texas A & M University)

### *College of Education*

Marilyn Sheerer, Professor and Dean (PhD, Ohio University)  
Sunday Ajoie, Associate Professor (PhD, University of South Carolina)  
Patricia J. Anderson, Associate Professor (EdD, University of Georgia)  
Lynn K. Bradshaw, Professor (EdD, North Carolina State University)  
Kermit G. Buckner, Professor (EdD, University of North Carolina, Greensboro)  
Ann Bullock, Associate Professor (PhD, Virginia Commonwealth University)  
Joseph C. Ciechalski, Professor (EdD, North Carolina State University)  
Frank E. Crawley, Professor (EdD, University of Georgia)  
Elizabeth C. Doster-Taft, Associate Professor (PhD, University of Georgia)  
Charles S. Duncan, Professor (PhD, University of Arizona)  
Richard R. Eakin, Professor (PhD, Washington State University)  
Melissa Engelman, Professor (EdD, University of Kansas)  
Christine Fitch, Assistant Professor (EdD, University of Massachusetts at Amherst)  
David A. Gabbard, Associate Professor (EdD, University of Cincinnati)  
Harold Griffin, Associate Professor (PhD, University of Texas)  
Parmalee P. Hawk, Professor (EdD, Auburn University)  
Lilla G. Holsey, Associate Professor (PhD, Florida State University)

Robert Hunting, Professor (PhD, University of Georgia)  
 Plummer Alston Jones, Associate Professor (PhD, University of North Carolina, Chapel Hill)  
 Randy L. Joyner, Professor (EdD, Virginia Polytechnic Institute and State University)  
 Diane D. Kester, Associate Professor (PhD, University of North Carolina, Chapel Hill)  
 Elizabeth S. Knott, Associate Professor (EdD, North Carolina State University)  
 Mark L'Esperance, Associate Professor (PhD, University of North Carolina, Greensboro)  
 Carolyn Ledford, Associate Professor (EdD, University of Pittsburgh)  
 James O. McDowelle, Professor (EdD, University of Virginia)  
 James A. McKernan, Professor (PhD, Ulster University)  
 Constance A. Mellon, Professor (PhD, Syracuse University)  
 Katherine E. Misulis, Associate Professor (PhD, Syracuse University)  
 Vivian W. Mott, Associate Professor (PhD, University of Georgia)  
 Alfred P. Muller, Professor (PhD, Florida State University)  
 Dorothy H. Muller, Associate Professor (PhD, Florida State University)  
 Veronica S. Pantelidis, Professor (PhD, Florida State University)  
 Betty Peel, Associate Professor (PhD, Virginia Polytechnic Institute and State University)  
 Henry A. Peel, Wachovia Distinguished Professor (EdD, University of North Carolina, Chapel Hill)  
 James W. Pinkney, Professor (PhD, University of Iowa)  
 David A. Powers, Professor (EdD, University of Alabama)  
 Ronald Preston, Associate Professor (PhD, Indiana University)  
 Sidney Rachlin, Professor (EdD, University of Georgia)  
 John J. Schmidt, Professor (EdD, University of North Carolina, Greensboro)  
 Mary W. Schmidt, Professor (PhD, The Pennsylvania State University)  
 Christine Shea, Associate Professor (PhD, University of Illinois, Urbana-Champaign)  
 Rose Sinicrope, Associate Professor (Virginia Polytechnic Institute and State University)  
 John Swope, Associate Professor (EdD, University of Kentucky)  
 Charles Thompson, Professor (PhD, Harvard University)  
 W. Scott Thomson, Professor (PhD, Florida State University)  
 Michael R. Vitale, Professor (PhD, Florida State University)  
 Ivan G. Wallace, Professor (EdD, University of Georgia)  
 Louis Warren, Associate Professor (PhD, University of Georgia)  
 Scott B. Watson, Associate Professor (PhD, University of South Florida)  
 Florence S. Weaver, Professor (PhD, Florida State University)  
 Nancy Zeller, Associate Professor (PhD, Indiana University)

### ***Associate Graduate Faculty***

Terry Atkinson, Assistant Professor (PhD, University of North Carolina, Greensboro)  
 Carol A. Brown, Assistant Professor (EdD, University of Memphis)  
 John Carter, (PhD, University of North Carolina, Chapel Hill)  
 Thomas Kevin Cherry, Assistant Professor (MLS, University of North Carolina, Chapel Hill)  
 Susan Colaric, Assistant Professor (PhD, Pennsylvania State University)  
 Mary Lynne Davis, Assistant Professor (PhD, University of Pittsburgh)  
 Sharon M. deBeck, Assistant Professor (EdD, East Carolina University)  
 Alice Feret, Assistant Professor (EdD, Virginia Polytechnic Institute and State University)  
 Todd Finley, Associate Professor (PhD, University of Minnesota)  
 Emmett M. Floyd, Associate Professor (EdD, Duke University)  
 Gwen Guy, Assistant Professor (PhD, University of North Carolina, Greensboro)  
 Tara Jeffs, Assistant Professor (PhD, George Mason University)  
 Anna Lyon, Assistant Professor (EdD, Virginia Polytechnic Institute and State University)  
 Barbara Marson, Assistant Professor (PhD, University of North Carolina)  
 Emery Martindale, Assistant Professor (EdD, Texas Tech University)  
 Charles Neufeld, Assistant Professor (PhD, University of North Carolina, Chapel Hill)  
 Joy Stapleton, Assistant Professor (PhD, University of Tennessee, Knoxville)

## SECTION 8: GRADUATE FACULTY

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William A. Sugar, Assistant Professor (PhD, Indiana University)  
Barr W. Taylor, Associate Professor (EdD, University of Alabama)  
Sandra Warren, Assistant Professor (PhD, University of Maryland College Park)  
Kathi Wilhite, Assistant Professor (EdD, Ball State University)  
Sarah Williams, Assistant Professor (PhD, University of North Carolina, Chapel Hill)

### ***Graduate Teaching Faculty***

Amy Good, Assistant Professor (PhD, University of Virginia)  
Carol Greene, Assistant Professor (PhD, Virginia Polytechnic Institute and State University)  
Elizabeth Hardman, Visiting Instructor (PhD, University of Florida)  
Elizabeth M. Hodge, Assistant Professor (PhD, University of Florida)  
Michael Medland, Visiting Assistant Professor (PhD, Michigan State University)  
Barbara Mize, Visiting Associate Professor (EdD, East Carolina University)  
Katherine O'Connor, Assistant Professor (EdD, University of North Carolina, Chapel Hill)  
Lon O'Neill Pierce, Visiting Assistant Professor (EdD, Nova Southeastern University)  
Shelia Tucker, Associate Professor (PhD, Virginia Polytechnic Institute and State University)

### ***College of Fine Arts and Communication***

#### **School of Art and Design**

Arthur J. Haney, Professor and Interim Director (MFA, Alfred University)  
Michael A. Dorsey, Professor (MFA, Bowling Green University)  
Alice Arnold, Associate Professor (EdD, University of Illinois)  
Cynthia A. Bickley-Green, Assistant Professor (PhD, University of Georgia)  
Carl R. Billingsley, Associate Professor (MFA, University of Wisconsin, Milwaukee)  
Charles F. Chamberlain, Professor (MFA, Alfred University)  
Jessica Christie, Assistant Professor (PhD, University of Texas, Austin)  
Linda Darty, Professor (MFA, East Carolina University)  
Michael H. Duffy, Associate Professor (PhD, University of Illinois)  
Michael W. Ehlbeck, Professor (MFA, University of Florida)  
Ray E. Elmore, Jr., Associate Professor (MFA, University of Michigan)  
Seo Eo, Assistant Professor (MFA, Indiana University)  
Abdul-Shakoor Farhadi, Professor (MFA, North Carolina State University)  
Janet E. Fischer, Professor (MFA, Bowling Green State University)  
Ronald S. Graziani, Associate Professor (PhD, University of California, Los Angeles)  
Paul J. Hartley, Professor (MFA, East Carolina University)  
Hanna Jubran, Professor (MFA, University of Wisconsin, Milwaukee)  
Gilbert W. Leebrick, Assistant Professor (MFA, Clemson University)  
Jacquelyn Leebrick, Assistant Professor (MFA, Clemson University)  
Punam Madhok, Associate Professor (PhD, University of Illinois, Urbana Champaign)  
Craig D. Malmrose, Associate Professor (MFA, Rochester Institute of Technology)  
Joan Mansfield, Associate Professor (MFA, East Carolina University)  
Phil Phillips, Professor (EdD, University of Illinois)  
Sharon Pruitt, Associate Professor (PhD, Ohio State University)  
A. Robert Rasch, Professor (MA, University of Maryland)  
Eva Roberts, Associate Professor (MPD, North Carolina State University)  
Terry Smith, Professor (MFA, Cranbrook Academy of Art)  
Carl Twarog, Associate Professor (MFA, Massachusetts College of Art)  
Michael Voors, Professor (MFA, Eastern Michigan University)  
Catherine C.E. Walker, Associate Professor (MFA, East Carolina University)  
Leland D. Wallin, Professor (MFA, University of Cincinnati)  
Christine Zollar, Associate Professor (MFA, University of Georgia)



***Associate Graduate Faculty***

Robert Ebendorf, Professor (MFA, University of Kansas, Lawrence)

Nancy House, Assistant Professor (PhD, Ohio State University)

***School of Communication***

Rebecca J. Dumlao, Associate Professor (PhD, University of Wisconsin-Madison)

Linda G. Kean, Associate Professor (PhD, University of Wisconsin-Madison)

***School of Music***

Charles F. Bath, Professor (DMA, University of Michigan)

Janna K. Brendell, Associate Professor (PhD, Florida State University)

Mary A. Burroughs, Associate Professor (DMA, University of Illinois)

Amy Carr-Richardson, Associate Professor (PhD, Florida State University)

Robert Scott Carter, Associate Professor (DMA, University of Cincinnati)

Carroll V. Dashiell, Jr., Associate Professor (MM, Howard University)

Henry C. Doskey, Associate Professor (DM, Indiana University)

Janette Fishell-Andrews, Distinguished Research Professor (DM, Northwestern University)

Elliot P. Frank, Associate Professor (DM, Florida State University)

Ara Gregorian, Associate Professor (MM, Juilliard School of Music)

Christine Gustafson, Associate Professor (DM, University of Texas)

Michelle Hairston, Professor (EdD, University of Georgia)

Robert L. Hause, Professor (MM, University of Michigan)

Thomas J. Huener, Associate Professor (PhD, University of Iowa)

C. Gregory Hurley, Associate Professor (PhD, University of Wisconsin)

Edward Jacobs, Associate Professor (DMA, Columbia University)

Christopher B. Knighten, Associate Professor (DMA, University of Colorado)

John Kramar, Associate Professor (MM, Curtis Institute of Music)

Barbara C. Memory, Associate Professor (PhD, Michigan State University)

Kevin N. Moll, Associate Professor (PhD, Stanford University)

Sharon Munden, Associate Professor (MM, University of Illinois)

John B. O'Brien, Professor (DMA, University of Southern California)

Mario Rey, Assistant Professor (PhD, Florida State University)

Rodney Schmidt, Professor (DMA, University of Colorado)

Perry Smith, Associate Professor (DMA, University of Kentucky)

Paul J. Tardif, Distinguished Research Professor (DMA, Peabody Conservatory)

Britton E. Theurer, Associate Professor (DMA, Florida State University)

A. Louise Toppin, Professor (DMA, University of Michigan)

J. Christopher Ulfers, Associate Professor (MM, Indiana University)

Jonathan Wacker, Associate Professor (DM, Indiana University)

***College of Health and Human Performance***

Glen G. Gilbert, Professor and Dean (PhD, The Ohio State University)

Robert C. Barnes, Associate Professor (EdD, University of Tennessee)

Boni B. Boswell, Associate Professor (PhD, Texas Women's University)

David H. Chenoweth, Professor (PhD, Ohio State University)

Ronald Cortright, Associate Professor (PhD, Kent State University)

James T. Decker, Associate Professor (PhD, Ohio State University)

Paul DeVita, Associate Professor (PhD, University of Oregon)

Patricia C. Dunn, Professor (PhD, Ohio State University)

Steven Estes, Associate Professor (PhD, The Ohio State University)

Peter Farrell, Professor (PhD, University of Arizona)

W. Michael Felts, Professor (PhD, University of Maryland)

## SECTION 8: GRADUATE FACULTY

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Joseph Fridgen, Professor (PhD, University of California)  
Mary A. Glascoff, Associate Professor (EdD, West Virginia University)  
Robert Hickner, Associate Professor (PhD, Karolinska Institute)  
Tibor Hortobagyi, Associate Professor (PhD, University of Massachusetts, Amherst)  
Joseph A. Houmard, Professor (PhD, Ball State University)  
Anthony Laker, Associate Professor (PhD, University of Northern Colorado)  
Sharon M. Knight, Professor and Associate Dean (PhD, University of Florida)  
Matthew Mahar, Associate Professor (EdD, University of Houston)  
Susan A. McGhee, Associate Professor (PhD, University of Maryland)  
Suzanne T. Orr, Associate Professor (PhD, University of North Carolina, Chapel Hill)  
Robert Pfister, Associate Professor (PhD, Oregon State University)  
Thomas S. Raedeke, Associate Professor (PhD, University of Oregon)  
Thomas K. Skalko, Professor (PhD, University of Maryland)  
Daniel D. Sprau, Associate Professor (DPH, University of Michigan)  
Kathleen (Katie) Walsh, Associate Professor (EdD, University of Southern California)  
David White, Professor (EdD, University of Tennessee)

### ***Associate Graduate Faculty***

Victor Aeby, Assistant Professor (EdD, University of Georgia)  
Stacey Altman, Assistant Professor (JD, University of Alabama)  
Alice Anderson, Assistant Professor (PhD, Bowling Green University)  
Craig Becker, Assistant Professor (PhD, Arizona State University)  
Nelson Cooper, Assistant Professor (PhD, Clemson University)  
Dana Espinosa, Associate Professor (PhD, Texas Woman's University)  
Cheryl Estes, Assistant Professor (PhD, The Ohio State University)  
Joseph P. Flood, Assistant Professor (PhD, University of Minnesota)  
Brian Focht, Assistant Professor (PhD, University of Florida)  
Timothy Gavin, Assistant Professor (PhD, Indiana University)  
Scott E. Gordon, Assistant Professor (PhD, The Pennsylvania State University)  
Hans H. Johnson, Assistant Professor (EdD, Montana State University)  
David Loy, Assistant Professor (PhD, University of Georgia)  
Michael McCammon, Lecturer (MA, East Carolina University)  
Nicholas Murray, Assistant Professor (PhD, University of Florida)  
David Rowe, Assistant Professor (PhD, University of Georgia)  
Carmen Russoniello, Assistant Professor (PhD, Gonzaga University)  
Terry A. Senne, Assistant Professor (PhD, North Carolina State University)  
Hans Vogelsong, Assistant Professor (PhD, The Pennsylvania State University)  
Robert C. Wendling, Associate Professor (PhD, Texas A & M University)  
Richard S.T. Williams, Assistant Professor (EdD, University of Georgia)

### ***College of Human Ecology***

Karla Hughes, Professor and Dean (PhD, University of Tennessee, Knoxville)  
Lessie Bass, Associate Professor (DSW, Howard University)  
Madhava Bodapati, Associate Professor (PhD, Sam Houston State)  
N. Yolanda Burwell, Associate Professor (PhD, Cornell University)  
Vickie D. Causby, Associate Professor (PhD, Florida State University)  
Runying Chen, Associate Professor (PhD, Ohio State University)  
David A. Dosser, Jr., Professor (PhD, University of Georgia)  
David Edgell, Professor (PhD, University of Cincinnati)  
Evelyn S. Farrior, RD, Professor (PhD, University of Tennessee, Knoxville)  
Bertus Ferreira, Associate Professor (EdD, Oklahoma State University)  
Dori Finley, RD, Professor (PhD, University of Missouri, Columbia)  
William Forsythe, Professor (PhD, Michigan State University)

Margie L. Gallagher, RD, Professor (PhD, University of California, Davis)  
 Linner Ward Griffin, Professor (EdD, University of Houston)  
 Jennifer L. Hodgson, Assistant Professor (PhD, Iowa State University)  
 David Harrison, Professor (PhD, University of Minnesota)  
 Mary S. Jackson, Professor (PhD, Case Western Reserve University)  
 Cynthia E. Johnson, Associate Professor (PhD, Ohio State University)  
 Peter Johnstone, Professor (PhD, London, Guildhall University)  
 Gerald M. Jones, Associate Professor (PhD, Sam Houston State University)  
 Paul Knepper, Professor (PhD, Arizona State University)  
 Angela Lamson, Assistant Professor (PhD, Iowa State University)  
 Patricia Lindsey, Associate Professor (PhD, Virginia Polytechnic Institute and State University)  
 Gary R. Lowe, Professor (PhD, University of Iowa)  
 Edward W. Markowski, Professor (PhD, Florida State University)  
 Elizabeth Markowski, Associate Professor (MFA, East Carolina University)  
 John Pierpont, Associate Professor (PhD, University of Kansas)  
 Joyce G. Reed, Associate Professor (LLM, Emory University)  
 Linda Robinson, Associate Professor (PhD, University of Tennessee)  
 Glenn E. Rohrer, Professor (PhD, Ohio State University)  
 Darrell Ross, Associate Professor (PhD, Michigan State University)  
 Elizabeth Gail Sharpe, Assistant Professor (PhD, Walden University)  
 Jane King Teleki, Professor (PhD, Oklahoma State University)  
 Sandra L. Triebenbacher, Associate Professor (PhD, University of Tennessee)  
 Ginger Woodard, Associate Professor (PhD, University of North Carolina, Greensboro)  
 Reginald O. York, Professor (DSW, Tulane University)

### ***Associate Graduate Faculty***

Sharon Ballard, Assistant Professor (PhD, University of Tennessee)  
 Srikanth Beldona, Assistant Professor (PhD, Purdue University)  
 Tracy Carpenter-Aeby, Associate Professor (PhD, University of Georgia)  
 Elizabeth Carroll, Assistant Professor (JD, Mississippi College School of Law)  
 James A. Chandler, Assistant Professor (PhD, University of Tennessee)  
 Richard Donnelly, Assistant Professor (PhD, Colorado State University)  
 Kevin Gross, Assistant Professor (PhD, University of Tennessee)  
 Richard Pozzuto, Associate Professor (University of Oregon)  
 Brenda Malinauskas, Assistant Professor (PhD, Auburn University)  
 Laura McArthur, Assistant Professor (PhD, RD, University of California, Davis)  
 Susan Reichelt, Assistant Professor (PhD, Iowa State University)  
 Mel Weber, Assistant Professor (PhD, University of Missouri)

### ***Brody School of Medicine***

Cynda A. Johnson, Professor and Dean (MD, University of California, Los Angeles)  
 Abdel Abdel-Rahman, Adjunct Professor (PhD, Leeds University, England)  
 Shaw M. Akula, Assistant Professor (PhD, South Dakota State University)  
 Hisham A. Barakat, Adjunct Professor (PhD, University of Massachusetts)  
 Donald W. Barnes, Professor (PhD, Medical College of Virginia)  
 David L. Beckman, Professor (PhD, Ohio State University)  
 Fred (Ted) E. Betrand, Assistant Professor (PhD, University of Alabama)  
 Arthur Bode, Professor (PhD, University of North Carolina, Chapel Hill)  
 John Bradfield, Chairperson (DVM, Ross University)  
 Jack E. Brinn, Jr., Professor (PhD, University of Wyoming)  
 Hubert W. Burden, Professor (PhD, Tulane University)  
 Robert G. Carroll, Professor (PhD, University of Medicine and Dentistry of New Jersey)  
 Joseph M. Chalovich, Professor (PhD, University of Illinois School of Medicine)  
 James P. Coleman, Assistant Professor (PhD, North Carolina State University)

## SECTION 8: GRADUATE FACULTY

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Joseph G. Cory, Professor (PhD, Florida State University)  
Nicholas Cozzi, Associate Professor (PhD, University of Wisconsin)  
Doyle M. Cummings, Professor (PhD, Philadelphia of Pharmacy and Science)  
M. Saeed Dar, Professor (PhD, Medical College of Virginia)  
Larry Dobbs, Associate Professor (MD, PhD, University of Kansas)  
G. Lynis Dohm, Professor (PhD, Kansas State University)  
Jeannette Dolezal, Associate Professor (PhD, University of Iowa)  
Ronald W. Dudek, Professor (PhD, University of Minnesota)  
Thomas L. Feldbush, Professor (PhD, Ohio State University)  
Yuanming Feng, Associate Professor (PhD, Tianjin University)  
Donald J. Fletcher, Professor (PhD, Vanderbilt University)  
Paul L. Fletcher, Jr., Associate Professor (PhD, Vanderbilt University)  
Richard A. Franklin, Assistant Professor (PhD, University of Illinois)  
James E. Gibson, Research Professor (PhD, University of Iowa)  
Carl E. Haisch, Professor (MD, University of Washington School of Medicine)  
Charles A. Hodson, Professor (PhD, Iowa State University)  
Donald R. Hoffman, Professor (PhD, California Institute of Technology)  
S. Gregory Iams, Professor (PhD, Ohio State University)  
Tatyana Ivanova-Nikolova, Assistant Professor (PhD, USSR Academy of Sciences in Moscow)  
Roberta M. Johnke, Associate Professor (PhD, Duke University)  
Ronald S. Johnson, Professor (PhD, Northwestern University)  
George J. Kasparek, Professor (PhD, Kansas State University)  
Laxmansa C. Katwa, Assistant Professor (PhD, University of Mysore, India)  
Brett D. Keiper, Assistant Professor (PhD, Brandeis University)  
Anne E. Kellogg, Associate Professor (MD, University of Louisville)  
Prabhaker G. Khazanie, Associate Professor (PhD, York University, Canada)  
Kathryn M. Kolasa, Professor (PhD, University of Tennessee)  
Loretta Criden Kopelman, Professor (PhD, University of Rochester)  
Charles J. Kovacs, Professor (PhD, St. John University)  
Peter Kragel, Professor (MD, Georgetown University)  
Heung-Rae Lee, Assistant Professor (PhD, University of California)  
John Lehman, Vice Chancellor for Research and Graduate Studies and Professor (PhD, University of Pennsylvania and The Wistar Institute)  
Michael Lewis, Vice Chancellor for Health Sciences and Professor (MD, West Virginia University; PhD, Virginia Polytechnic Institute and State University)  
Edward M. Lieberman, Professor (PhD, University of Florida)  
Thomas M. Louis, Professor (PhD, University of Kansas)  
Robert M. Lust, Professor (PhD, Texas Tech University Health Sciences Center)  
Mark D. Mannie, Adjunct Professor (PhD, Northwestern University)  
Christopher Mansfield, Professor (PhD, Florida State University)  
Richard H. L. Marks, Professor (PhD, Indiana University)  
Daniel W. Martin, Assistant Professor (PhD, University of Texas Health Sciences Center, San Antonio)  
James A. McCubrey, Professor (PhD, University of Wisconsin)  
Brian A. McMillen, Professor (PhD, University of Illinois at the Medical Center, Chicago)  
John C. Moskop, Professor (PhD, University of Texas, Austin)  
Alexander Murashov, Assistant Professor (MD, Moscow 2<sup>nd</sup> and Medical Institute, Moscow; PhD, Academy of Medical Sciences, Moscow, Russia)  
S. Jamal Mustafa, Professor (PhD, Lucknow University, India)  
Naim Ozturk, Assistant Clinical Professor (PhD, University of Toledo)  
Phillip H. Pekala, Professor (PhD, Virginia Polytechnic Institute and State University)  
Everett C. Pesci, Assistant Professor (PhD, University of Kentucky)  
Paul V. Phibbs, Jr., Professor (PhD, University of Georgia)  
Max C. Poole, Associate Dean of the Graduate School and Associate Professor (PhD, Medical College of Georgia)  
Richard H. Ray, (PhD, Medical College of Georgia)

Lorita Rebellato-deVente, Assistant Professor (PhD, East Carolina University)  
 Randall H. Renegar, Associate Professor (PhD, University of Florida)  
 David Resnik, Associate Professor (PhD, University of North Carolina, Chapel Hill)  
 Roy Martin Roop, Associate Professor (PhD, Virginia Polytechnic Institute and State University)  
 Todd L. Savitt, Professor (PhD, University of Virginia)  
 Ruth A. Schwalbe, Assistant Professor (PhD, University of Minnesota)  
 Edward R. Seidel, Professor (PhD, University of Alabama, Birmingham School of Medicine)  
 Claudio H. Sibata, Professor (PhD, University of Wisconsin)  
 C. Jeffrey Smith, Professor (PhD, University of Illinois)  
 John P. Smith, Assistant Clinical Professor (PhD, Medical College of Virginia)  
 Ken Soderstrom, Assistant Professor (PhD, Oregon State University, College of Pharmacy)  
 Ann O. Sperry, Associate Professor (PhD, Rice University)  
 Paul H. Strausbauch, Professor (MD, University of Miami; PhD, University of Washington, Seattle)  
 David A. Taylor, Professor (PhD, West Virginia University, Morgantown)  
 Jan K. Teller, Assistant Professor (PhD, Adam Mickiewicz University, Poland)  
 David M. Terrian, Professor (PhD, Wayne State University)  
 Michael R. Van Scott, Professor (PhD, West Virginia University)  
 Kathryn M. Verbanac, Adjunct Professor (PhD, University of Iowa)  
 Stephen Vore, Associate Professor (DVM, Michigan State University; PhD, University of North Carolina, Chapel Hill)  
 William H. Vaughn, Professor (MD, Tufts University School of Medicine)  
 David G. Weismiller, Associate Professor (MD, Thomas Jefferson University)  
 John Edwin Wiley, Professor (PhD, North Carolina State University)  
 Daqing Wu, Research Associate (PhD, Peking University, China)

### ***Associate Graduate Faculty***

Paul Bolin, Associate Professor (MD, University of North Carolina, Chapel Hill)  
 Kori L. Brewer, Research Instructor (PhD, East Carolina University)  
 Yan-Hua Chen, Assistant Research Professor (PhD, Emory University School of Medicine)  
 John D. Christie, Professor (PhD, Rutgers University)  
 Ruth Ann Henriksen, Associate Professor (PhD, University of Iowa)  
 L. Robert Hanrahan, Jr., Associate Professor (MD, State University of New York Upstate Medical Center)  
 Qun Lu, Assistant Professor (PhD, Emory University)  
 Mona M. McConaughy, Associate Professor (PhD, Indiana University)  
 R. Ray Morrison, Assistant Professor (MD, University of Nebraska College of Medicine)

### ***School of Nursing***

Phyllis N. Horns, Professor and Dean (DSN, University of Alabama, Birmingham)  
 Alta Andrews, Professor (DrPH, University of North Carolina, Chapel Hill)  
 Rebecca Benfield, Assistant Professor (PhD, University of South Carolina, Columbia)  
 Judy H. Bernhardt, Professor (PhD, University of Illinois)  
 Josie M. Bowman, Associate Professor (DNS, University of Alabama, Birmingham)  
 Sylvia T. Brown, Professor (EdD, North Carolina State University)  
 Garriss Conner, Associate Professor (DSN, University of Alabama, Birmingham)  
 Nellie S. Droe, Associate Professor (DNSc, University of California, San Francisco)  
 Georgene Eakes, Professor (EdD, North Carolina State University)  
 Frances R. Eason, Professor (EdD, North Carolina State University)  
 Martha K. Engelke, Professor (PhD, North Carolina State University)  
 Lou Whichard Everett, Professor (EdD, North Carolina State University)  
 Dorothea S. Handron, Associate Professor (EdD, Columbia University, Teachers College)  
 Mary Kirkpatrick, Professor (EdD, North Carolina State University)  
 Therese Lawler, Clinical Professor (EdD, North Carolina State University)  
 Maura McAuliffe, Professor (PhD, University of Texas, Austin)  
 Marie E. Pokorny, Professor (PhD, University of Virginia)

## SECTION 8: GRADUATE FACULTY

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Iona Poston, Associate Professor (PhD, University of Florida)  
Mary Ann Rose, Professor (EdD, North Carolina State University)  
Melvin S. Swanson, Professor (PhD, University of Pittsburgh)

### ***Associate Graduate Faculty***

Robin W. Corbett, Associate Professor (PhD, University of South Carolina)  
Kathleen B. Cox, Assistant Professor (PhD, Virginia Commonwealth University Medical College of Virginia)  
Carol Ferreira, Clinical Assistant Professor (PhD, Kent State University)  
Darlene E. Jesse, Assistant Professor (PhD, University of Tennessee)  
Linda Mayne, Associate Professor (PhD, University of North Carolina, Chapel Hill)  
Janice A. Neil, Associate Professor (PhD, Virginia Commonwealth University)  
Ann M. Schreier, Assistant Professor (PhD, Stanford University)  
Nancy N. Stephenson, Assistant Professor (PhD, University of South Carolina, Columbia)  
Susan Williams, Associate Professor (DNS, Louisiana State University)

### ***College of Technology and Computer Science***

Ralph V. Rogers, Professor and Dean (PhD, University of Virginia)  
Karl Abrahamson, Associate Professor (PhD, University of Washington, Seattle)  
David L. Batie, Associate Professor (PhD, Texas A & M University)  
Robert L. Bernhardt, Professor (PhD, University of Oregon)  
Robert A. Chin, Professor (PhD, University of Maryland)  
Constantine A. Ciesielski, Associate Professor (PhD, The Ohio State University)  
Charles E. Coddington, Professor (PhD, University of Maryland)  
A. Darryl Davis, Associate Vice Chancellor for Academic Affairs and for Distributive Education and Academic Technology and Professor (EdD, North Carolina State University)  
K. Gopalakrishnan, Associate Professor (PhD, University of Nebraska, Lincoln)  
Robert Hochberg, Assistant Professor (PhD, Rutgers University)  
Paul Kauffmann, Professor (PhD, Pennsylvania State University)  
Masao Kishore, Associate Professor (PhD, Princeton University)  
Douglas W. Kruger, Jr., Professor (EdD, North Carolina State University)  
William H. McPherson, Associate Professor (EdD, University of Maryland)  
Elmer C. Poe, Professor (PhD, University of Maryland)  
Rita R. Reaves, Associate Vice Chancellor for Academic Program Development and Associate Professor (EdD, North Carolina State University)  
Ronnie W. Smith, Associate Professor (PhD, Duke University)  
Mohammad H. N. Tabrizi, Professor (PhD, Sheffield University)  
James F. Wirth, Associate Professor (PhD, University of Notre Dame)  
Mulatu Wubneh, Professor (PhD, Florida State University)  
Biwu Yang, Professor, (PhD, University of Rhode Island)

### ***Associate Graduate Faculty***

Tarek Abdel-Salam, Assistant Professor (PhD, Old Dominion University)  
Kai Li, Assistant Professor (PhD, University of North Carolina-Charlotte)  
Philip J. Lunsford, Assistant Professor (PhD, North Carolina State University)  
Tijani Mohammed, Assistant Professor (PhD, Texas A&M University)  
Ihab Mohammad Hamdi Saad, Assistant Professor (PhD, University of Kentucky)  
Craig Sanders, Assistant Professor (EdD, North Carolina State University)  
Xin Tang, Associate Professor (PhD, New Jersey Institute of Technology)  
James Toppen, Assistant Professor (PhD, Arizona State University)  
Erol Ozan, Assistant Professor (PhD, Old Dominion University))

SIGNIFICANCE OF COURSE NUMBERS AND NAME ABBREVIATIONS

SIGNIFICANCE OF COURSE NUMBERS

<b>0001-0999 Remedial</b>	<b>3000-3999 Junior</b>	<b>6000-6999 Master's</b>
<b>1000-1999 Freshman</b>	<b>4000-4999 Senior</b>	<b>7000-7999 Doctoral</b>
<b>2000-2999 Sophomore</b>	<b>5000-5999 Master's</b>	<b>8000-9000 Doctoral</b>

Five-thousand-level (5000-5999) courses are master's courses. Undergraduate students may be admitted to five-thousand-level courses if they have completed the stated prerequisite(s) or with the written permission of the instructor; chairperson of the department, director of the school, or the dean of the college in which the course is offered. Seven-thousand-level (7000-7999) courses are doctoral courses. Qualified masters' students may enroll in seven-thousand-level courses if they have completed the stated prerequisite(s) or with the written permission of the instructor; chairperson of the department, director of the school, or the dean of the college in which the course is offered.

NAME ABBREVIATIONS

ACCT	Accounting	College of Business
ADED	Adult Education	College of Education
AERO	Aerospace Studies	College of Technology and Computer Science
AMID	Apparel Merchandising and Interior Design	College of Human Ecology
ANAT	Anatomy	Brody School of Medicine
ANTH	Anthropology	Department of Anthropology
ART	Art	School of Art and Design
ASAS	Area Studies-Asian Studies	Thomas Harriot College of Arts and Sciences
ASEU	Area Studies-European Studies	Thomas Harriot College of Arts and Sciences
ASIP	Administrative Services and Information Processing	College of Education
ASLS	American Sign Language Studies	School of Allied Health Sciences
BIOC	Biochemistry	Brody School of Medicine
BIOL	Biology	Department of Biology
BIOS	Biostatistics	School of Allied Health Sciences
BISC	Biological Sciences	Brody School of Medicine
BVTE	Business, Vocational, and Technical Education	College of Education
CDFR	Child Development and Family Relations	College of Human Ecology
CHEM	Chemistry	Department of Chemistry
CHIN	Chinese	Department of Foreign Languages and Literatures
CLAS	Classical Studies	Thomas Harriot College of Arts and Sciences
CLSC	Clinical Lab Science	School of Allied Health Sciences
CMED	Comparative Medicine	Brody School of Medicine
CMGT	Construction Management	College of Technology and Computer Science
COAD	Counselor and Adult Education	College of Education
COAS	Coastal Studies	Thomas Harriot College of Arts and Sciences
COHE	Community Health	School of Allied Health Sciences
COMM	Communication	and College of Health and Human Performance
CRM	Coastal Resources Management	College of Technology and Computer Science
CSCI	Computer Science	Graduate School
CSDI	Speech and Hearing Sciences	College of Technology and Computer Science
DESN	Design and Drafting	School of Allied Health Sciences
DNCE	Dance	College of Technology and Computer Science
DRED	Driver Education	School of Theatre and Dance
DSCI	Decision Sciences	School of Health and Human Performance
DTEC	Digital Communications Technology	College of Business
ECON	Economics	College of Technology and Computer Science
EDTC	Educational Technology	Department of Economics
EDUC	Education	College of Education
EHST	Environmental Health	College of Education
		College of Health and Human Performance

## APPENDIX A

ELEM	Elementary Education	College of Education
ELET	Electronics Engineering Technology	College of Technology and Computer Science
ENED	English Education	College of Education
ENET	Environmental Engineering Technology	College of Technology and Computer Science
ENGL	English	Department of English
ETHN	Ethnic Studies	Thomas Harriot College of Arts and Sciences
EXSS	Exercise and Sport Science	College of Health and Human Performance
FACS	Family and Consumer Sciences	College of Human Ecology
FINA	Finance	College of Business
FLGC	Foreign Languages, Generic	Department of Foreign Languages and Literatures
FORL	Foreign Languages	Department of Foreign Languages and Literatures
FREN	French	Department of Foreign Languages and Literatures
GEOG	Geography	Department of Geography
GEOL	Geology	Department of Geology
GERM	German	Department of Foreign Languages and Literatures
GERO	Gerontology	Interdisciplinary Programs
GRAD	Graduate Studies	Graduate School
GRBK	Great Books	Thomas Harriot College of Arts and Sciences
GRK	Greek	Department of Foreign Languages and Literatures
HESC	Human Environmental Sciences	College of Human Ecology
HIED	History Education	College of Education
HIMA	Health Information Management	School of Allied Health Sciences
HIST	History	Department of History
HLTH	Health	School of Health and Human Performance
HNRS	Honors	Honors Program
HPRO	Health Professions	School of Allied Health Sciences
HSMA	Health Services Management	School of Allied Health Sciences
HUMS	Medical Humanities	Brody School of Medicine
IDIS	Industrial Distribution	College of Technology and Computer Science
INTE	Interdepartmental	Brody School of Medicine
INTL	International Studies	Thomas Harriot College of Arts and Sciences
IRHE	Interdisciplinary Rural Health Education	Brody School of Medicine
ITAL	Italian	Department of Foreign Languages and Literatures
ITEC	Industrial Technology	College of Technology and Computer Science
JAPN	Japanese	Department of Foreign Languages and Literatures
JUST	Criminal Justice	Department of Criminal Justice Studies
LATN	Latin	Department of Foreign Languages and Literatures
LDVP	Leadership Development	Center for Leadership Development
LEED	Educational Leadership	College of Education
LIBS	Library Studies	College of Education
MANF	Manufacturing	College of Technology and Computer Science
MAST	Maritime Studies	Coastal Resources Management
MATE	Mathematics Education	College of Education
MATH	Mathematics	Department of Mathematics
MCBI	Microbiology	Brody School of Medicine
MGMT	Management	College of Business
MIDG	Middle Grades Education	College of Education
MKTG	Marketing	College of Business
MLSC	Military Science	College of Technology and Computer Science
MPH	Master of Public Health	Interdisciplinary Programs
MRST	Medieval and Renaissance Studies	Thomas Harriot College of Arts and Sciences
MULT	Multidisciplinary Studies	Thomas Harriot College of Arts and Sciences
MUSC	Music	School of Music
NCST	North Carolina Studies	Thomas Harriot College of Arts and Sciences
NEUR	Neuroscience	Thomas Harriot College of Arts and Sciences and Brody School of Medicine
NUHM	Nutrition and Hospitality Management	College of Human Ecology



## SIGNIFICANCE OF COURSE NUMBERS AND NAME ABBREVIATIONS

NURS	Nursing	School of Nursing
OCCT	Occupational Therapy	School of Allied Health Sciences
PADM	Public Administration	Department of Political Science
PADP	Physician Assistant	School of Allied Health Sciences
PATH	Pathology	Brody School of Medicine
PHAR	Pharmacology	Brody School of Medicine
PHIL	Philosophy	Department of Philosophy
PHLY	Physiology	Brody School of Medicine
PHYS	Physics	Department of Physics
PLAN	Planning	College of Technology and Computer Science
POLS	Political Science	Department of Political Science
PSYC	Psychology	Department of Psychology
PTHE	Physical Therapy	School of Allied Health Sciences
RCLS	Recreation and Leisure Studies	College of Health and Human Performance
READ	Reading	College of Education
REHB	Rehabilitation Studies	School of Allied Health Sciences
RELI	Religious Studies	Thomas Harriot College of Arts and Sciences
RONC	Radiation Oncology	Brody School of Medicine
RUSS	Russian	Department of Foreign Languages and Literatures
SCIE	Science Education	College of Education
SOCI	Sociology	Department of Sociology
SOCW	Social Work	School of Social Work
SPAN	Spanish	Department of Foreign Languages and Literatures
SPED	Special Education	College of Education
TCHR	Teacher Education	College of Education
TECH	Technology	College of Education
THEA	Theatre Arts	School of Theatre and Dance
WOST	Women's Studies	Thomas Harriot College of Arts and Sciences

### COURSE DESCRIPTION KEY

Courses normally meet one hour per week for each semester hour credit. The numbers in parentheses following the title for each course listed under the various programs, departments, schools, and colleges of the university indicate the semester hours credit. Exceptions to the rule, such as labs, are printed under course titles.

P=Prerequisite(s); C=Corequisite(s); P/C=Prerequisite(s) or Corequisite(s); R=Recommended P, C, or P/C

## SUBSTANCE ABUSE POLICY

East Carolina University is dedicated to the pursuit and dissemination of knowledge and, as such, expects all members of the academic community to behave in a manner conducive to that end. The highest standards of personal and professional conduct must be maintained by faculty, staff, and students. Illegal or abusive use of drugs or alcohol, referred to in this policy as substance abuse, by members of the university community adversely affects the mission of the university and is prohibited.

Accordingly, the East Carolina University Board of Trustees adopts the following policy, consistent with The UNC Board of Governors' Policy on Illegal Drugs. The policy is intended to accomplish the following:

- (1) Prevent substance abuse through a strong educational effort;
- (2) Encourage and facilitate the use of counseling services and rehabilitation programs by those members of the academic community who require their assistance in stopping substance abuse; and
- (3) Discipline appropriately those members of the academic community who engage in illegal drug or alcohol-related behaviors.

### **Educational Efforts to Prevent Substance Abuse**

In keeping with its primary mission of education, East Carolina University will conduct a strong educational program aimed at preventing substance abuse and illegal drug or alcohol use. Educational efforts shall be directed toward all members of the academic community and will include information about the incompatibility of the use or sale of illegal substances with the goals of East Carolina University; the health hazards associated with illegal drug or alcohol use; the incompatibility of substance abuse with the maximum achievement of educational, career, and other personal goals; and the potential legal consequences of involvement with illegal drugs or alcohol.

### **Counseling and Rehabilitation Services to Prevent Substance Abuse**

Those faculty, staff, or students who seek assistance with a substance-related problem shall be provided with information about drug counseling and rehabilitation services available through East Carolina University and also through community organizations. Those who voluntarily avail themselves of university services shall be assured that applicable professional standards of confidentiality will be observed.

### **Disciplinary Actions to Prevent Substance Abuse**

Students, faculty members, administrators, and other employees are responsible, as citizens, for knowing about and complying with the provisions of North Carolina law that make it a crime to possess, sell, deliver, or manufacture those drugs designated collectively as "controlled substances" in Article 5 of Chapter 90 of the North Carolina General Statutes. Any member of the university community who violates that law is subject both to prosecution and punishment by the civil authorities and to disciplinary proceedings by the university.

It is expected that East Carolina University students, faculty members, administrators, and other employees who use or possess alcoholic beverages will do so as legally prescribed by the laws of the State of North Carolina, within the regulations of East Carolina University, and in a manner which does not disrupt the lives of others. A person whose conduct is outside these parameters will be subject to the judicial rules and procedures of the university.

It is not double jeopardy for both the civil authorities and the university to proceed against and punish a person for the same specified conduct. The university will initiate its own disciplinary proceedings against a student, faculty member, administrator, or other employee when the alleged conduct is deemed to affect the interests of the university.

Penalties will be imposed by the university in accordance with procedural safeguards applicable to disciplinary actions against students, faculty members, administrators, and other employees, as required by Sections V and VI of Appendix D of the East Carolina University Faculty Manual, by board of governors' policies applicable to the employees exempt from the State Personnel Act, by the East Carolina University Student Judicial System, and by regulations of the State Personnel Commission.

## APPENDIX B

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The penalties to be imposed by the university may range from written warnings with probationary status to expulsions from enrollment and discharges from employment\*. However, the following minimum penalties shall be imposed for the particular offenses described.

- (1) Trafficking in Illegal Drugs
  - (a) For the illegal manufacture, sale or delivery, or possession with intent to manufacture, sell or deliver, of any controlled substance identified in Schedule I, NC General Statutes 90-89, or Schedule II, NC General Statutes 90-90 (including, but not limited to, heroin, mescaline, lysergic acid diethylamide, opium, cocaine, amphetamine, methaqualone), any student shall be expelled and any faculty member, administrator, or other employee shall be discharged.
  - (b) For a first offense involving the illegal manufacture, sale, or delivery, or possession with intent to manufacture, sell or deliver, of any controlled substance identified in Schedules III through VI, NC 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, administrator, or other employee shall be discharged.
- (2) Illegal Possession of Drugs
  - (a) For a first offense involving the illegal possession of any controlled substance identified in Schedule I, NC General Statutes 90-89, or Schedule II, NC 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.
  - (b) For a first offense involving the illegal possession of any controlled substance identified in Schedules III through VI, NC 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, 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.
  - (c) 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, administrators, or other employees.
- (3) Possession and Use of Alcohol
  - (a) For offenses involving the illegal possession, use, sale and/or distribution of alcohol in violation of NC General Statutes 18B-300 & 18B-301 & 302; 18B-1006 (a); or Greenville Ordinance No. 812-1-2, a student will be subjected to a progressive penalty system based on the type of infraction and the circumstances involved. Penalties may be a warning, probation, fine, volunteer community service, and/or removal from the residence system or the university.
  - (b) In certain circumstances, involvement in an alcohol education and/or counseling program may be offered to a student in lieu of being referred to the honor board with a recommendation for suspension. Specifically, a student given this option will be required to participate in a program of assessment, education and counseling; pay a fee of sixty dollars (\$60), and be placed on university probation. A student may participate in this program only once in lieu of disciplinary action.
  - (c) University employees subject to the State Personnel Act may be disciplined in accordance with the rules and regulation for personal misconduct, i.e., final written warning, which may include a three (3) day suspension without pay, or dismissal.

When a student, faculty member, administrator, or other employee has been charged by the university with a violation of policies concerning illegal drugs or alcohol, he or 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, in the chancellor's absence, 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.

In the case of employees, anyone convicted of a criminal drug statute violation occurring in the workplace shall notify the university no later than five days after such a conviction. The university will commence disciplinary action against such an individual within thirty (30) days of notice of the conviction.

**Responsibilities Under This Policy**

Authority to implement the policy shall reside in the chancellor:

The chancellor shall designate a coordinator of drug and alcohol education who shall, acting under the authority of the chancellor, be responsible for overseeing all actions and programs relating to this policy.

All employees and students shall be responsible for abiding by the provisions of this policy. In the case of employees, adherence with the provisions of the policy shall be a condition of employment.

The chancellor will render an annual report to the board of trustees on the effectiveness of this policy.

**Dissemination of This Policy**

A copy of this policy shall be given annually to each employee and to all new employees at the beginning of their employment. Each student shall receive a copy and new students shall be given a copy during orientation.

The policy shall be printed on appropriate student documents and posted on official bulletin boards of the university.

Amended October, 1990

The Board of Trustees of East Carolina University

## **EAST CAROLINA UNIVERSITY AFFIRMATIVE ACTION/EQUAL OPPORTUNITY POLICY**

East Carolina University is committed to equality of opportunity and does not discriminate against applicants, students, or employees based on race, religion, color, creed, national origin, sex, age, sexual orientation, or disability.

All employment decisions will be made so as to further the principle of equal employment opportunity. The university will recruit, hire, train, and promote persons in all positions without regard to race, religion, color, creed, national origin, sex, age, or disability. Consistent with this principle, all promotion decisions will be made using valid requirements and all personnel actions (such as compensation, benefits, transfers, layoffs, return from layoff, university sponsored training, education, tuition assistance, and social and recreational programs) will be administered without regard to race, religion, color, creed, sex, national origin, age, sexual orientation, or disability.

This policy on nondiscrimination and the Affirmative Action Program of East Carolina University are consistent with and pursuant to the guidelines set forth in Executive Order 11246 and its implementing regulations. The Affirmative Action Program implements guidelines set forth under Title VII of the Civil Rights Act of 1964, the Rehabilitation Act of 1973, the Age Discrimination In Employment Act of 1976, the Vietnam Veterans Readjustment Assistance Act of 1974 as amended, and the Americans with Disabilities Act of 1992.

The university's policy is consistent with NCGS 126-16: "All State ... agencies ... of North Carolina shall give equal opportunity for employment without regard to race, religion, color, creed, national origin, sex, age, or handicapping condition to all persons qualified, except where specific age, sex, or physical requirements constitute bona fide occupational qualifications necessary to proper and efficient administration. This section with respect to equal opportunity as to age shall be limited to individuals who are at least forty years of age but less than seventy years of age." It is also consistent with *The Code of The University of North Carolina*, Section 103: "Admission to, employment by, and promotion in The University of North Carolina and all of its constituent institutions shall be on the basis of merit and there shall be no discrimination on the basis of race, color, creed, religion, sex, national origin, age, or disability."

The responsibility for implementation of this plan rests with the chancellor. The vice chancellors, dean of the College of Arts and Sciences, deans of professional schools, and colleges, departmental chairpersons, and principal administrative directors are responsible for assisting him in implementing these policies. These responsibilities also include coordination of the university's efforts to comply with all applicable aspects of the Americans with Disabilities Act of 1992. They will assure that decisions involving recruitment, selection, appointment, and promotion of faculty and staff at all levels are made in a nondiscriminatory manner and in accordance with the goals of the ECU Affirmative Action Plan.

The chancellor has also appointed the EEO officer to coordinate all aspects of the Affirmative Action Plan, initiate programs to assist in reaching the goals of the Affirmative Action Plan, maintain a record system, identify problem areas, monitor progress, and assist faculty, staff, and students to resolve problems. These responsibilities also include coordination of the university's efforts to comply with all applicable aspects of the Americans with Disabilities Act of 1992.

## APPENDIX B

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Any student of East Carolina University who has a complaint of discrimination should follow the procedure outlined in the student handbook, *The Clue Book*. Current, former, or prospective faculty or staff who have a complaint should follow the procedures outlined in the *Faculty Manual* or the *East Carolina University Business Manual*. The EEO officers will provide information to any individual concerning the appropriate grievance procedures.

Copies of the Affirmative Action Plan are available in the Office of Institutional Equity and via the Internet at [www.ecu.edu/eoo](http://www.ecu.edu/eoo).

This Affirmative Action Plan will be evaluated annually and a report prepared by the EEO officer for review by the chancellor. The EEO officer is Taffye Benson Clayton. The associate EEO officer is Amy Waters. The Office of Institutional Equity is located in 107 Whichard; telephone 252-328-6804.

### NOTICE OF NONDISCRIMINATION

East Carolina University is committed to equality of educational opportunity and does not discriminate against applicants, students, or employees based on race, color; national origin, religion, gender; sexual orientation, age, or disability.

East Carolina University supports the protections available to members of its community under all applicable federal laws, including Titles VI and VII of the Civil Rights Act of 1964; Title IX of the Education Amendments of 1972; Section 799A and 845 of the Public Health Service Act; the Equal Pay Act; the Age Discrimination Act of 1975; the Rehabilitation Act of 1973, as amended by the Rehabilitation Act Amendments of 1974; the Vietnam Era Veteran's Readjustment Assistance Act of 1974; the Americans with Disabilities Act of 1992; and Executive Order 11246, as amended by Executive Order 11375.

In compliance with Section 504 of the Rehabilitation Act of 1973, as amended, and the Americans with Disabilities Act of 1992, accommodations of the disabled extend to student programs, employment practices, elimination of physical barriers, and special assistance to disabled students and employees within the university.

This nondiscrimination policy covers admission, readmission, access to, and treatment and employment in university programs and activities, including, but not limited to, academic admissions, financial aid, any services, and employment.

Any student who believes that he or she has been discriminated against by the university because of his or her race, color, national origin, religion, gender, age, sexual orientation, or disability may speak with the director of the Office of Student Conflict Resolution, Mary Louise Antieau, 210 Mendenhall Student Center, East Carolina University. Following that discussion, a student who wishes to file a formal or informal grievance will be directed to the appropriate office. Any member of the university community desiring information or having a complaint or grievance in regard to these provisions should contact the assistant to the chancellor and EEO/ADA compliance officer, Taffye Benson Clayton, 107 Whichard Building, East Carolina University, Greenville, NC 27858-4353; telephone 252-328-6804 or the associate EEO officer.

### SEXUAL HARASSMENT PREVENTION PLAN, POLICY, AND GRIEVANCE PROCEDURE FOR COMPLAINTS OF SEXUAL HARASSMENT

Sexual harassment and discrimination are illegal and endanger the environment of tolerance, civility, and mutual respect that must prevail if the university is to fulfill its mission. East Carolina University is committed to providing and promoting an atmosphere in which employees can realize their maximum potential in the work place and students can engage fully in the learning process. Further, amorous relations between a student and a university employee who is responsible for supervising or evaluating the student, or between an employee and the person supervising that employee may derogate the merit principle of supervision and evaluation. This policy is the university's statement of its intent to prohibit sexual harassment and discrimination and to prohibit amorous relations between the university's employees and students, and employees and supervisors when these relations create a risk of favoritism.

The following constitute sexual harassment: making verbal remarks or committing physical actions that propose to people of either sex that they engage in or tolerate activities of a sexual nature in order to avoid some punishment or to receive some reward; singling out people of either sex and creating or attempting to create a hostile university or working environment or otherwise attempting to harm or harming people because of their sex; and continuing verbal or physical conduct of a sexual nature when the person the conduct is directed toward has indicated clearly, by word or action, that this conduct is unwanted.

Sexual discrimination consists of actions that subject employees or students to unequal treatment on the basis of their sex.

## RACIAL AND ETHNIC HARASSMENT POLICY

It is the responsibility of members of the university community to strive to create an environment free of sexual harassment and discrimination and free of unprofessional bias in the supervision and evaluation of students and employees. It is against the policies of East Carolina University for its employees or students to propose to other employees or students that they engage in or tolerate activities of a sexual nature in order to avoid some punishment or to receive some reward; to create a hostile university or work place environment for an individual or group because of the individual's or the group's sex; to continue verbal or physical conduct of a sexual nature when the employees or students of the university such conduct is directed toward have indicated clearly, by word or action, that such conduct is unwanted; to engage in consensual amorous relationships with students or other university employees whom the employee is or will be supervising or evaluating; and to subject other employees or students to unequal treatment on the basis of their sex.

Complaints brought against East Carolina University students by East Carolina University students, faculty, staff, administrators, or visitors are governed by the grievance procedures presented in *The Clue Book*.

Complaints brought against East Carolina University staff by East Carolina University students, faculty, staff, administrators, or visitors are governed by the grievance procedures stated in the East Carolina University Business Manual, Policy Statement 7: Employee Relations in the Human Resources Section.

Complaints brought against East Carolina University faculty members or administrators holding faculty status by East Carolina University students, faculty, staff, administrators, or visitors are governed by the grievance procedures presented in the East Carolina University Faculty Manual.

Any person having a complaint of sexual harassment should contact Taffye Benson Clayton, Assistant to the Chancellor and EEO/ADA Compliance Officer; 107 Whichard Building; telephone 252-328-6804. The associate EEO officer is Amy Waters, whose office is located 107 Whichard Building; telephone 252-328-1957.

## RACIAL AND ETHNIC HARASSMENT POLICY

### Section I. Rationale

The faculty, staff, administration, and students of East Carolina University maintain that it is important to create an atmosphere in which instances of racial and ethnic harassment are discouraged. Well-publicized policies and procedures such as these will help to create an atmosphere in which individuals who believe that they are the victims of racism or ethnic harassment are assured that their grievances will be dealt with in a timely, confidential, fair, and effective manner. Toward this end, all members of the university community should understand that racial and ethnic harassment violates university policy and will not be condoned. Members of the university community are encouraged to express freely, responsibly, and in an orderly way their opinions and feelings about any problem or complaint of harassment prohibited under these policies. Any act by a university employee or student of reprisal, interference, restraint, penalty, discrimination, coercion, or harassment against a student or an employee for using these policies responsibly interferes with free expression and openness and violates this policy. Accordingly, members of the university community are prohibited from acts of reprisal against those who bring charges or are involved as witnesses or otherwise try to responsibly use this policy.

### Section II. Racial and Ethnic Harassment Policy

**A. Introduction.** Racial and/or ethnic harassment endangers the environment of tolerance, civility, and mutual respect that must prevail if the university is to fulfill its mission. Such harassment will not be condoned by members of the university community. This policy is the university's statement of its intent to protect its educational environment by prohibiting specific forms of racial and/or ethnic harassment. The university recognizes that the free and unfettered interchange of competing views is essential to the institution's educational mission, and that the peoples' right to express opinions is guaranteed by the United States Constitution.

**B. Definitions.** The following constitute racial and/or ethnic harassment:

- a. Singling out people because of their race or ethnic affiliation and subjecting them to unequal or unfair treatment.
- b. Harming, attempting to harm, or threatening to harm people because of their race and/or ethnic affiliation.

**C. Policy.** It is the responsibility of members of the university community to strive to create an environment free of racial and/or ethnic harassment.

- C-1. It is against the policies of East Carolina University for its employees or students to single out employees or students of the university because of their race or ethnic affiliation and subject them to unequal or unfair treatment.

C-2. It is against the policies of East Carolina University for its employees or students to single out employees or students of the university or visitors to the university because of their race or ethnic affiliation and subject them to conduct which causes severe emotional disturbance.

### **Section III. Grievances Against East Carolina University Students**

Complaints brought against East Carolina University students by East Carolina University students, faculty, staff, administrators, or visitors are governed by the grievance procedures presented in the Clue Book.

### **Section IV. Grievances Against East Carolina University Staff**

Complaints brought against East Carolina University staff by East Carolina University students, faculty, staff, administrators, or visitors are governed by the grievance procedures stated in the East Carolina University Business Manual, Volume 2, Section VIII.

### **Section V. Grievances Against East Carolina University Faculty Members or Administrators Holding Faculty Status**

Complaints brought against East Carolina University faculty members or administrators holding faculty status by East Carolina University students, faculty, staff, administrators, or visitors ordinarily are governed by the grievance procedures stated in the East Carolina University Faculty Manual, Appendix X. However, if a faculty member raises allegations of racial or ethnic harassment or discrimination during a hearing he or she requested before the Due Process Committee, the Reconsideration Committee, or the Faculty Hearing Committee (in accordance with the policies and procedures set forth in the East Carolina University Faculty Manual, Appendix D), the relevant committee shall determine the merits and bearing, if any, of the allegations raised by the faculty member on the matter before the committee. Such actions by the Due Process Committee, the Reconsideration Committee, or the Faculty Hearing Committee shall not preclude a faculty member from independently bringing a complaint of racial or ethnic harassment or discrimination in accordance with the grievance procedures stated in the East Carolina University Faculty Manual, Appendix X. The outcome of an Appendix X grievance brought by a faculty member against other faculty members or administrators holding faculty status either may be appealed in accordance with the provisions for appeal set forth in section J of Appendix X or may be appealed before the Faculty Affairs Committee in accordance with the policies and procedures set forth in Appendix D of the East Carolina University Faculty Manual, but not both.

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# BUILDING ABBREVIATIONS

## USED ON STUDENT SCHEDULES KEYED TO MAP

A	6	Austin Building
AH	13	Allied Health (Belk Building)
B	5	Biology (Howell Science Complex)
BA	8	Brewster (Wing A)
BB	8	Brewster (Wing B)
BC	8	Brewster (Wing C)
BD	8	Brewster (Wing D)
BN	5	Biology North (Howell Science Complex)
BS	5	Biology South (Howell Science Complex)
C		Clinic
CH	7	Christenbury Memorial Gym
CL	123	Developmental Evaluation Clinic (Irons Building)
EL	58	Eller (formerly Maritime History)
F	2	Flanagan Building
GC	95	Bate Building
GR	3	Graham Building
H	91	Pitt County Memorial Hospital
HE	10	Human Environmental Sciences (Rivers Building)
J	14	Jenkins Fine Arts Center
L	1	Library (Joyner)
LA	1	Library (Joyner) Basement
MB	9	Music Building (Fletcher)
MC	37	Minges Coliseum
MS	15	Brody Medical Science Building
MT	33	McGinnis Auditorium
NB	10	Nursing (Rivers Building)
NC	47	Old Cafeteria Building
PE	5	Physics (Howell Science Complex)
R	4	Rawl Building
RG	85	Ragsdale Hall
SM	97	Sports Medicine Building (Ward)
SP	12	Speight Building
TA	34	Messick Theatre Arts Center
TL		Industry and Technology Annex
WA	32	Wright Annex
WB	31	Whichard Building