Graduate Curriculum Committee (GCC)
Meeting Minutes
Wednesday, October 19, 2011

Regular Members Present:
    Rose Allen (Chair)
    Jim Decker (Vice-Chair)
    Carol Brown
    Hamid Fonooni
    Will Forsythe
    Ravi Paul

Regular Members Absent/Excused:
    Bob Thompson

Ex-Officio Members Present:
    Linner Griffin

Ex-Officio Members Absent/Excused:
    Marc Stevens

Academic Program Planning and Development:
    Kimberly Nicholson and Karen Summey

Guests:
    College of Allied Health Sciences: Laura Ball, Sonja Bareiss, and Blaise Williams
    College of Education: Carolyn Ledford, Jane Manner, and Diane Rodriguez-Luterbach
    College of Nursing: Susan Williams
    College of Technology and Computer Science: Evelyn Brown, Hayden Griffin, Phil
    Lunsford, Barbara Muller-Borer, Tijjani Mohammed, and Erol Ozan

Actions of Committee:

I. Call to Order

1. Report on GSAB Actions
The final GSAB meeting was held on 10-13-11. The 09-21-11 GCC minutes were
approved. The Graduate Council will have their organizational meeting on 10-24-11.
Vice Chair Decker shared that he is on the committee that is drafting documents for the
Graduate Council, and they are working on composition of the GCC, the GCC charge,
and the GCC minutes approval process. The Graduate Council meeting schedule was
discussed, with concerns regarding the proposed monthly meeting schedule with no
meetings over the summer months. The GSAB met twice per month and through the
summer in order to continue work on graduate matters.

2. **The 10-05-11 GCC minutes will be distributed via e-mail for an electronic vote then forwarded to the Graduate Council for agenda placement.**
   The minutes were approved by the GCC electronically and reviewed by the Graduate Council at their 10-24-11 organizational meeting.

3. **10-19-11 Agenda**
   Chair Allen shared that there is considerable work being done behind the scenes during agenda preparation in an effort to keep the agendas on time and improve the quality of the packages that are placed. Three packages were pulled from the 10-19-11 agenda prior to notification; one was submitted 17 minutes after the submission deadline and two were due to quality issues. Meetings between Chair Allen and/or Diane Coltraine and the units are ongoing in an effort to improve package quality prior to agenda placement. The committee determined that packages would either need to be in better shape when placed on the agenda, or potentially "postponed" or "tabled" during the meeting if too many issues are identified in order to keep the meetings on time and within three hours. The meeting start time this year was changed to 2:00 pm in an effort to complete the meetings by 5:00 pm. Members are encouraged to provide suggestions to reduce the amount of work by the chair to "screen" package content prior to meetings and to find an improved method of encouraging units to submit better quality packages. Additional discussions took place regarding the following topics: packages on the current agenda, justification requirements, role in program development package review, UNC System Funding Matrix, and questions regarding the need for objectives to be supported by assignments and tools that measure them.

II. College of Education, Department of Curriculum and Instruction

Unit requests revision of the 01-19-11 GCC minutes to delay the implementation of the banking of SPED 6302 and SPED 6999 until fall of 2012
   Approved
   (1.) Chair Allen will communicate with Dean Gemperline to confirm that he is fine with proceeding with the revision of the 01-19-11 GCC minutes as an editorial change (adding the effective date for the banking of the two courses identified)
   (2.) The revised 01-19-11 GCC minutes will be posted to the GCC Web site
   (3.) All interested parties will be notified of this change
   (4.) If considered editorial, the revision will be effective immediately
   (5.) Received confirmation from Dean Gemperline to proceed with change

III. College of Nursing

Proposal of New Course: NURS 6958
   Approved as amended
   (1.) This is a required course
   (2.) Revise justification

(3.) Revise course description
(4.) Revise textbooks
(5.) Revise grading scale
(6.) Revise marked catalog copy

Prerequisite Revision of Existing Courses: NURS 6959, 6960
    Approved as amended

Editorial Revision of Existing Courses: NURS 6959 - ADDED
    Approved as amended
        (1.) Replace "Focuses on the core competencies, essential characteristics, and the conceptual model guiding CNS practice" with "Core competencies, essential characteristics, and the conceptual model guiding CNS practice"
        (2.) GCC recommended the condensed descriptive text and confirmed the change would be considered editorial and would not require the submission of a course proposal form

Revision of Existing Degree: Master of Science in Nursing
    Approved as amended
        (1.) Add "(CNS)" to first reference of Clinical Nurse Specialist in degree text

Revision of Post MSN Certificate Program: Clinical Nurse Specialist
    Approved as amended

IV. College of Education, Department of Curriculum and Instruction

Revision of Existing Degree: Master of Arts in Education (MAEd)
    Approved as amended
        (1.) Underline blue text

V. College of Education, Department of Curriculum and Instruction

Revision of Existing Degree: Master of Arts in Education (MAEd)
    Approved as amended
        (1.) Delete section on reading education completely from the marked catalog copy, as this text was revised in the previous package submission (Item IV)

VI. College of Allied Health Sciences, Department of Physical Therapy

Proposal of New Course: PTHE 8912
    Approved as amended
        (1.) Revise memorandum of request
        (2.) Revise justification

(3.) Revise course credit

(4.) Revise changes in degree hours of your programs

Revision of Existing Degree: Doctor of Physical Therapy
Approved as amended

(1.) Revise memorandum of request

(2.) Replace "4 s.h. from PTHE 8900, 8901," with "Choose 4 s.h. from PTHE 8900, 8901,"

VII. College of Technology and Computer Science, Department of Technology Systems

Request for Authorization to Establish a New Degree Program: MS in Network Technology
Approved as amended; Dr. Fonooni abstained from the vote.

(1.) Revise Appendix C to include:

a. Remove bold from title "College of Technology" on pg. 15

b. Revise grades section on pg. 17 to coincide with text in graduate catalog

c. Add e-mail address for Christine Russell on pg. 18

d. In Attachment B replace ""th MSNT" with "the MSNT"

e. In Attachment D remove parentheses (unit also fixed the "TOTAL Libraries" figures during the revision process)

(2.) Zero out graduate assistants and tuition remissions in budget template

(3.) Remove extra period on first page of marked catalog copy

VIII. College of Technology and Computer Science, Department of Engineering

Notification of Intent to Plan a New Baccalaureate or Master's Program: MS in Biomedical Engineering
Approved

(1.) Unit provided additional supporting documentation at the meeting, which was added to the posted agenda

(2.) Format issue in posted budget template identified that arose as a result of converting to PDF (text running off pages); EXCEL version posted to agenda resolve issue

VI. Old Business

1. **Proposal justifications – draft text for manual and/or proposal form.**
E-mail from Chair Allen dated 10-04-11 with recommended revisions for the proposal form and manual text will be resent to the committee. Committee members are charged with developing recommendations for new text. All recommendations, to include those developed by Chair Allen, will be posted to the 11-02-11 agenda for discussion.

2. **Implement any actions recommended by the Academic Council relative to 5000-level courses.**
   Dean Gemperline is awaiting feedback from IPAR (Rita Reeves and David Weismiller) on the proposed 5000-level policy created by the GCC at the 12-15-10 meeting.

3. **Focus on deleting or banking courses not in use when adding new courses.**
   When units present at the GCC they are encouraged to go back to their faculty and review their course lists for consideration of deleting and/or banking courses that have not been offered for a significant amount of time. Provost Sheerer, at Assessment Day, also touched on this topic.

4. **Send forward a motion to the GSAB/Graduate Council for a policy on deleting courses that have not been offered, or had no enrollment, for a specific time period.**
   A report identifying 431 active graduate-level courses that have not been taught in 10+ years will be posted to the 11-02-11 GCC agenda for discussion regarding the creation of a policy that addresses this issue.

5. **Vice Chair Decker recommended the GCC continue their work with the Graduate Working Group on 3.6.2 Graduate Curriculum.**
   The Graduate Working Group continues to meet regarding assessment, narratives, and other issues.

6. **Develop training modules utilizing Media site technology with topics to include: Pieces in a Curriculum Development Package, Completion of the Course Proposal Form, and Tips for Certificate Planners. Recordings will be posted on the GCC Web site.**
   A video recording identifying the steps involved in correctly completing a course proposal form has been developed by Chair Allen. It has been identified that the video would be improved by incorporating a completed proposal form example. Diane Coltraine created a Camtasia presentation for the development of marked catalog copy. Positive feedback has been received regarding this presentation, along with the Mediasite recordings of recent workshops, which have been posted to the GCC Web site. Especially helpful has been the 09-14-11 Repeatable Course Action Planning Workshop video. Faculty did identify that there are differences how certain items, such as course terms, are represented in graduate and undergraduate catalog copy. It was suggested that these items be identified in future posted presentations.

7. **SACS Principle 4.9 – awaiting definition of credit hour from GA.**
   Dr. Griffin will be meeting with Rita Reeves on Friday and expects an update on this item in the near future.

8. **Initiate annual graduate banked courses process**
   A report obtained from the registrar's office identified 82 banked graduate-level courses that have not been taught in 5+ years. This report has been sent to the units by Dean Gemperline. If a college/school/department decides to make a request to preserve any of the courses on the list, they will need to submit a memorandum of request to the GCC

mailbox (gcc@ecu.edu) by close of business Tuesday, 11-15-11. The memorandum must include a clear justification as to why they are requesting that the banked courses not be deleted. The memoranda will be posted to a GCC agenda and the committee members will consider each request. Units will be notified via e-mail when the GCC minutes identifying the action taken have been approved.

VII. New Business

1. **Appendix F**
   Dr. Decker shared that the revised Appendix F will be available soon. A series of forums will be held following its initial distribution. This item will be incorporated into the faculty manual.

Marked Catalog Copy:

III. College of Nursing

http://www.ecu.edu/cs-acad/grcat/programNURS.cfm

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 eight concentrations:

> Adult Nursing Practitioner (online)
> Clinical Nurse Specialist in Adult Health (online)
> Family Nurse Practitioner (online)
> Neonatal Nurse Practitioner (online)
> Nurse Anesthesia
> Nursing Education (online)
> Nursing Leadership (online)
> Nurse Midwifery (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; telephone   212-363-5555   .
The nurse midwifery concentration is also accredited by the Accreditation Commission for Midwifery Education (ACME) formerly called the American College of Nurse-Midwives, Division of Accreditation, 8403 Colesville Road, Suite 1550, Silver Spring, MD 20910; phone   240-485-1802   , fax 240-485-1818.

The nurse anesthesia program is accredited by the Council on Accreditation of Nurse Anesthesia Educational Programs, 222 South Prospect Avenue, Park Ridge, IL 60068; telephone   847-692-7050   .

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 College of Nursing.

- a baccalaureate degree in nursing from an accredited program
- a minimum GPA of 2.7 in undergraduate studies and a minimum GPA of 3.0 in nursing major
- acceptable score on the Graduate Record Examinations (GRE) or Miller Analogies Test (MAT) within the past five years (GRE score required for nurse anesthesia and nurse midwifery 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

Due to the high demand of courses by our enrolled MSN students, the College of Nursing will not enroll nondegree graduate students at this time. Prospective students are encouraged to apply for full admission as soon as possible in order to be eligible for all College of Nursing course offerings.

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 one of the references should be from a health care provider knowledgeable about the applicant's nursing practice.

Applicants for the family nurse practitioner and adult nurse practitioner concentrations, 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. The application deadline for both concentrations is January 2.

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 five professional references (two on forms provided in nurse anesthesia admissions packet), and an interview with the Nurse Anesthesia Admissions Committee. The application deadline for the nurse anesthesia concentration is May 31.

Applicants for the clinical nurse specialist concentration, in addition to the general admission criteria, must have one year of current practice experience and provide a third reference from a health care provider knowledgeable about the applicant's nursing practice.

Completed applications for the clinical nurse specialist concentration will be considered for fall and spring admission. Applications must be received by October 1 for spring, June 1 for fall.

Applicants for the neonatal nurse practitioner concentration, in addition to the general admission criteria, must have two years of current practice experience in a critical-care environment for high risk neonatal care RN experience and provide a third reference from a health care provider knowledgeable about the applicant's nursing practice.

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 with the exception of a valid RN license and baccalaureate degree in nursing. Applicants must have a baccalaureate degree in another field. Additional requirements include:

- Completion of prerequisite courses – chemistry, human anatomy and physiology, microbiology, human growth and development, nutrition, ethics, and statistics.
- A minimum 3.0 GPA in undergraduate major
- Current nonrestricted license to practice as a RN in NC or a NCSBN compact state prior to entering Phase II clinical concentration courses.

Application deadline for the (AE) MSN option is December 1.

Completed applications will be considered as they are received, with the exception of nurse anesthesia, family nurse practitioner, adult nurse practitioner, clinical nurse specialist, and the alternate entry master of science in nursing option.

Applicants for the nursing education, nursing leadership, and clinical nurse specialist concentrations must have a minimum of one year RN experience prior to enrolling in specialty courses.

Applicants for the nursing leadership concentration, in addition to the general admission criteria, must provide a third reference from a health care provider knowledgeable about the applicant's nursing practice.

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 College 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 nursing leadership 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 36-68 s.h. credit as follows. Concentrations are clustered as administrative, clinical, and education.

Administrative:
Nursing Leadership – Acute Care Health Systems, 41 s.h.
Nursing Leadership – Community Based Health Systems, 41 s.h.
Nursing Leadership – Educational Systems, 41 s.h.

Clinical:
Adult Nurse Practitioner, 46 s.h.
Clinical Nurse Specialist in Adult Health, 42 s.h.
Family Nurse Practitioner, 50 s.h.
Neonatal Nurse Practitioner, 41 s.h.
Nurse Anesthesia, 68 s.h.
Nurse Midwifery, 50 s.h.

Education:
Nursing Education, 36 s.h.

Requirements:

1. Common core: NURS 6001, 6002, 6991, 6992, 6993 - 12 s.h.

2. Cluster core (Choose appropriate cluster for concentration.) - 9-20 s.h.

Adult Nurse Practitioner (9 s.h.): NURS 6050, 6610, 6611
Clinical Nurse Specialist in Adult Health (12 s.h.): NURS 6050, 6208, 6610, 6611
Family Nurse Practitioner (9 s.h.): NURS 6050, 6610, 6611
Neonatal Nurse Practitioner (9 s.h.): NURS 6417, 6418, 6419
Nurse Anesthesia (20 s.h.): NURS 6610, 6810, 6811, 6813; PTHE 8008
Nurse Midwifery (9 s.h.): NURS 6050, 6610, 6611
Nursing Education (9 s.h.): Select 9 s.h. of course work in consultation with advisor from such courses as: NURS 6050, 6110, 6611, 6035, 6208, 6214, 6224, 6984, 7271
Nursing Leadership: NURS (10 s.h.) NURS 6971, 6973, 6974, 6986

3. Concentration area (Choose one area.) - 15-36 s.h.

Administrative (19 s.h.):
Nursing Leadership – Acute Care Health Systems (19 s.h.): NURS 6977, 6978, 6983, 6984, 6985, 3 s.h. electives
Nursing Leadership – Community Based Health Systems (19 s.h.): NURS 6310, 6311, 6977, 6978, 6983, 6984
Nursing Leadership – Educational Health Systems (19 s.h.): NURS 6903, 6904, 6909, 6977, 6978, 6983
Clinical (18-36 s.h.):
Adult Nurse Practitioner (25 s.h.) 6612, 6613, 6614, 6615, 6618, 6621, 6622, 6623
Clinical Nurse Specialist in Adult Health (18s.h.): NURS 6958, 6959, 6960, 6961, 6962; 6 3 s.h. elective course
Family Nurse Practitioner (29 s.h.): NURS 6612, 6613, 6614, 6615, 6616, 6617, 6618, 6619, 6620
Neonatal Nurse Practitioner (20 s.h.): NURS 6420, 6421, 6422, 6423, 6424, 6425
Nurse Anesthesia (36 s.h.): NURS 6805, 6806, 6812, 6814, 6815, 6816, 6817, 6818, 6819, 6820, 6821, 6822, 6823, 6824
Nurse Midwifery (29 s.h.): NURS 6109, 6110, 6112, 6113, 6115, 6116, 6117, 6118, 6119
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.
5. Students in the Nursing Leadership concentration who have limited finance experience may be required to take NURS 6987.

Enrollment is necessary for continued research advisement. A comprehensive assessment 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 3020, 3021, 3510, 3900, 4210, 4211.

Post MSN Certificate Programs

Eight post-MSN certificate options (adult nurse practitioner, clinical nurse specialist, family nurse practitioner, neonatal nurse practitioner, nurse-anesthesia, nurse midwifery, nursing leadership 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.

Admission Requirements

- A master's degree in nursing from an accredited program
- A current non-restricted license to practice as a registered nurse (RN) in North Carolina or an NCSBN compact state. Individual advisement will be necessary for licensure regulations for online out-of-state students.
- A personal statement describing the applicant's interest in graduate study, career goals, and the certificate's relationship to those goals.
- Three professional references with one reference from an individual who is knowledgeable of the applicant's nursing practice
- One year clinical experience as an RN
- A personal interview with a member of the graduate faculty

Applicants for the nurse midwifery post-master's certificate, in addition to the general admission criteria, must have one year RN experience (labor and delivery preferred).

Applicants for the nurse anesthesia post-master's certificate, in addition to the general admission criteria, must have one year adult critical care experience as a RN, completion of a supplemental nurse anesthesia admission packet, a total of five professional references (two on forms provided in the nurse anesthesia admissions packet) and an interview with Nurse Anesthesia Admissions Committee. Courses in physiology and chemistry/biochemistry within five years are highly recommended. Acceptable score on GRE within past 5 years (GRE required).

Applicants for the neonatal post-master's certificate, in addition to the general admission criteria, must have two years of current practice experience as a RN in a critical care environment for high-risk neonatal care.

Applicants for the clinical nurse specialist post master's certificate, in addition to the general admission criteria, must have one year RN experience.

Applicants for the post-master's certificate options in adult nurse practitioner, clinical nurse specialist, family nurse practitioner, neonatal nurse practitioner, and nurse midwifery must have had graduate level courses in pathophysiology (reproductive physiology is an additional requirement for nurse midwifery), health assessment and pharmacology within the past five years or approval by the concentration director; otherwise, students will be required to take these courses as part of the post-master's certificate requirement.

Adult Nurse Practitioner: - 10-33 s.h.
NURS 6621,6622,6623. Depending on student's needs and past education, additional course work from the following may be required: NURS 6050, 6610, 6611, 6612, 6613, 6614, 6615, 6618, or equivalent clinical courses.

Clinical nurse specialist: - 15-30 s.h.
NURS 6958, 6959, 6960, 6961, 6962. Depending on student's needs and past education, additional course work from the following may be required: NURS 6208, 6050, 6610, 6611, 6214, 6224 or equivalent clinical courses

Family Nurse Practitioner: - 15-38 s.h.
NURS 6616, 6617, 6619, 6620. Depending on student's needs and past education, additional course work from the following may be required: NURS 6050, 6610, 6611, 6612, 6613, 6614, 6615, 6618.

Neonatal Nurse Practitioner: - 20-29 s.h.
NURS 6420, 6421, 6422, 6423, 6424, 6425. Depending on student's needs and past education, additional course work from the following may be required: NURS 6417, 6418, 6419.

Nurse Anesthesia: - 56 s.h.
NURS 6610, 6805, 6806, 6810, 6811, 6812, 6813, 6814, 6815, 6816, 6817, 6818, 6819, 6820, 6821, 6822, 6823, 6824; PTHE 7002.

Nurse Leadership: - 19-25 s.h.
Acute Care Health Systems: NURS 6971, 6984, 6973, 6974*, 6977**, 6983, 6985, 6986, 6987**
Community Based Health Systems: NURS 6310, 6311, 6971, 6973, 6974*, 6977**, 6983, 6986, 6987**
Educational Health Systems: NURS 6903, 6904, 6909, 6973, 6974*, 6977**, 6983, 6986, 6987**

*If less than two years leadership experience in the focus area NURS 6977 will be required.
**If less than 2 years of financial experience NURS 6987 will be required.

Nurse Midwifery: - 22-38 s.h. Post Master's Certificate
NURS 6109, 6113, 6115, 6116, 6117, 6118. Depending on student's needs and past education, additional course work from the following may be required: NURS 6050, 6110, 6112, 6119, 6610, 6611.

Nursing Education: - 12-15 s.h.
NURS 6903, 6904, 6905, 6909. Depending on student's needs, past education, and teaching experience, additional course work from the following may be required: NURS 6908.

http://www.ecu.edu/cs-acad/grcat/coursesNURS.cfm

NURS: Nursing

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.

6958. Clinical Practice for the CNS Across the Adult Lifespan (3)
>   P: NURS 6001 or 6002 and at least one of the following: NURS 6050, 6610, 6611 or 6208; or consent of director of clinical nurse specialist concentration. Role of the CNS in adult through geriatric practice in various care settings.

6959. Clinical Nurse Specialist Theory and Role Development (3)
>   P: NURS 6001, 6002 6958. and at least one of the following: NURS 6050, 6610, 6611, or 6208; or consent of Director of Clinical Nurse Specialist Concentration. Focuses on the cCore competencies, essential characteristics, and the conceptual model guiding CNS practice.

6960. Clinical Nurse Specialist Practicum I (3)
>   P: NURS 6958, 6959 or consent of D director of C clinical N nurse S specialist C concentration. Applies CNS knowledge and skills to specialty clinical practice. Students under direct supervision of on-site clinical preceptors.

6961. Clinical Nurse Specialist Practicum II (3)
>   P: NURS 6959, 6960; by consent of faculty. Applies CNS knowledge and skills to specialty clinical practice. Students practice with increasing independence under supervision of on-site clinical preceptors.

6962. Clinical Nurse Specialist Practicum III (3)
>   P: NURS 6959, 6960, 6961; by consent of faculty. Applies CNS knowledge and sills to specialty clinical practice. Students practice with increasing independence and with minimal consultation and collaboration with preceptor.

IV. College of Education

Department of Curriculum and Instruction

http://www.ecu.edu/cs-acad/grcat/COE.cfm

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 advisors 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 each 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 MAEd program) must currently hold or be eligible for 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 2.7 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 Examination or the Miller Analogies Test. This must be completed prior to admission or completion of 9 s.h. of graduate credit.
4. A completed Graduate School application packet, including the written statement of purpose, a copy of the initial teaching license, and three letters of recommendation from persons who can attest to the applicant's academic competence or ability to do graduate work.

Upon acceptance into a teaching area, the student is assigned an advisor.

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.
> Required core courses - 15 s.h.
> BITE 6410, 6426, 6450, 6492, 6750
> Choose 12 s.h. from the following:
> BITE 5200, or 5503; Choose from 6100, 6103, 6420, 6424, 6428, 6430, 6435, 6700, 7000. Students selecting the thesis option must register for BITE 7000 and may count 6 s.h. of BITE 7000 toward the degree.

Elementary education - 24 s.h.
> ELEM 6000, 6001, 6200, 6400, 6500
> Choose 9 s.h. in an elementary content strand as follows:
> Academically Gifted: SPED 6104, 6401, 6402 (SPED 6403 is a requirement for add-on licensure in gifted education)
> Content Pedagogy: ELEM 6406; 6412 or 6488; MATE 6320; SCIE 6019; READ 5316 or 6421
> Teacher Leadership in the Elementary School: ELEM 6408; LEED 6805, 6830
> Early Childhood: ELEM 6412, 6408, and 6410
> Teachers of English as a Second Language: TESL 6100, 6200, 6300, or 6500
> 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 - 27 s.h.

ENED 6510, 6511 (IRB research approval procedures are required for all students in this research series)

18 s.h. of English or English Education courses, 6 s.h. of which must be at the 6000 or 7000-level.

Choose 3 s.h. from COAD 6358; READ 5317; SPED 6000

Final product requirement: A research project initiated in ENED 6510 and completed with an oral presentation in ENED 6511.

Health education - 24 s.h.

HLTH 5310, 6100, 6200, 6300, 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

Concentration: Choose American History or European History

Choose 21 s.h. in the area, including 9 s.h. from the historiography course, the seminar in issues and topics, and a directed research project.

6 s.h. in a related field outside the concentration.

At least 3 s.h. of coursework must be in the area of culturally diverse or multicultural populations.

Final product requirement: A research project with an oral defense and comprehensive oral examination.

Instructional Technology - 24-27 s.h.

EDTC 6010, 6020, 6025; 6035 or 6037; 6139; 6149, 6992, two elective

Final product requirement: Either the development of a professional portfolio and an internship (EDTC 6992) or a thesis with an oral defense (EDTC 6995) and an internship (EDTC 6992).

Marketing education - 27 s.h.

BITE 5200, 5201

BITE 6400 or 6700; 6426, 6450, 6750

MKTG 6162, 6822, 6842

Choose a technology elective from BITE, or EDTC

Final product requirement: The development of a professional portfolio with an oral defense or a thesis with an oral defense (BITE 7000).

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 6340 or 6360 or 6460; ELEM 6488, 6515; 3 s.h. ENGL or ENED 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 or 6406; 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 6101, 6104, 6108, 6109, 6110, 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) is required.

Reading education - 27 s.h.

COAD 6358; READ 6406, 6407, 6418, 6430; 6421, 6422; or 6431, 6432

Choose 6 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 teaching English as a second language (TESL), or a combination of related study courses

Option II. Non-Thesis: Choose from approved list of electives

Option III. Thesis (2 required courses): READ 7000 (May count 6 s.h. toward degree)
Final product requirement: A professional electronic portfolio (READ 6406, 6407, 6418, 6421, 6422, 6430) and presentation.

V. College of Education

Department of Curriculum and Instruction

http://www.ecu.edu/cs-acad/grcat/COE.cfm

Master of Arts in Education (MA.Ed. – Elementary Education)

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 advisors 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 each 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 MAEd program) must currently hold or be eligible for 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 2.7 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 Examination or the Miller Analogies Test. This must be completed prior to admission or completion of 9 s.h. of graduate credit.
4. A completed Graduate School application packet, including the written statement of purpose, a copy of the initial teaching license, and three letters of recommendation from persons who can attest to the applicant's academic competence or ability to do graduate work.

Upon acceptance into a teaching area, the student is assigned an advisor.

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.
    Required core courses - 15 s.h.
    BITE 6410, 6426, 6450, 6492, 6750
    Choose 12 s.h. from the following:
    BITE 5200, or 5503; Choose from 6100, 6103, 6420, 6424, 6428, 6430, 6435, 6700, 7000. Students selecting the thesis option must register for BITE 7000 and may count 6 s.h. of BITE 7000 toward the degree.

Elementary education - 24 s.h.
    ELEM 6000, 6001, 6200, 6400, 6500
    Choose 9 s.h. in an elementary content strand as follows:
    Academically Gifted: SPED 6104, 6401, 6402 (SPED 6403 is a requirement for add-on licensure in gifted education)
    Content Pedagogy: ELEM 6406; 6412 or 6488; MATE 6320; SCIE 6019; READ 5316 or 6421
    Teacher Leadership in the Elementary School: ELEM 6408; LEED 6805, 6830
    Early Childhood: ELEM 6412, 6408, and 6410
    Teaching English as a Second Language: TESL 6100, 6200, 6300, or 6500 (Additional coursework or Praxis is needed for North Carolina add-on licensure in ESL)
    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 - 27 s.h.
    ENED 6510, 6511 (IRB research approval procedures are required for all students in this research series)
    18 s.h. of English or English Education courses, 6 s.h. of which must be at the 6000 or 7000-level.
    Choose 3 s.h. from COAD 6358; READ 5317; SPED 6000
    Final product requirement: A research project initiated in ENED 6510 and completed with an oral presentation in ENED 6511.
    Health education - 24 s.h.
    HLTH 5310, 6100, 6200, 6300, 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
    Concentration: Choose American History or European History
    Choose 21 s.h. in the area, including 9 s.h. from the historiography course, the seminar in issues and topics, and a directed research project.
    6 s.h. in a related field outside the concentration.
    At least 3 s.h. of coursework must be in the area of culturally diverse or multicultural populations.
    Final product requirement: A research project with an oral defense and comprehensive oral examination.
    Instructional Technology - 24-27 s.h.
    EDTC 6010, 6020, 6025; 6035 or 6037; 6139; 6149, 6992, two elective
    Final product requirement: Either the development of a professional portfolio and an internship (EDTC 6992) or a thesis with an oral defense (EDTC 6995) and an internship (EDTC 6992).
    Marketing education - 27 s.h.
    BITE 5200, 5201
    BITE 6400 or 6700; 6426, 6450, 6750
    MKTG 6162, 6822, 6842
    Choose a technology elective from BITE, or EDTC

Final product requirement: The development of a professional portfolio with an oral defense or a thesis with an oral defense (BITE 7000).

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 6340 or 6360 or 6460; ELEM 6488, 6515; 3 s.h. ENGL or ENED 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 or 6406; 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 6101, 6104, 6108, 6109, 6110, 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) is required.

VI. College of Allied Health Sciences

Department of Physical Therapy

http://www.ecu.edu/cs-acad/grcat/programPTHE.cfm

College of Allied Health Sciences
Department of Physical Therapy

Walter L. Jenkins, Chair, 2410B Health Sciences Building
Blaise Williams, Director of Graduate Studies, 1425A Health Sciences Building

Doctor of Physical Therapy

Degree Requirements

The doctor of physical therapy (DPT) provides the scope, depth, breadth, and rigor of scholarly activity to prepare an entry-level physical therapy practitioner for current and future practice trends. The program comprises 106 s.h., including 80 s.h. of didactic course work, 10 s.h. of clinical specialty and research experience, and 32 weeks of clinical education (16 s.h.). Students begin the program in the first term of the summer and continue for nine continuous semesters. At the end of the final semester, the student will take a written comprehensive examination and provide both an oral defense and written documentation related to clinical specialty and research concentration. 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. Admission guidelines to the Department of Physical Therapy are available at www.ecu.edu/pt/.

> Required courses: PTHE 8007, 8008, 8100, 8101, 8102, 8103, 8104, 8105, 8200, 8201, 8203, 8300, 8301, 8302, 8401, 8402, 8403, 8500, 8501, 8502, 8603, 8700, 8701, 8702, 8703, 8801, 8803, 8906, 8907, REHB 6200.
> Choose 4 s.h. from PTHE 8900, 8901, 8902, 8904, 8905, 8908, 8909, 8911, 8912.
> Only 1 course of PTHE 8203, PTHE 8403, PTHE 8603 or PTHE 8803 may be repeated once.

Integrated Physical Therapy/Exercise Physiology (DPT/BS) Degree

The integrated program provides a means by which undergraduate students at East Carolina University enroll in the program of exercise physiology with the intention of preparing for a professional doctoral degree path in physical therapy (DPT). The student in this program will count 15 s.h. of graduate physical therapy course work towards the BS in exercise physiology. The student will complete the DPT in six years for a total of 217 s.h. Course work includes all foundations curriculum courses, core requirements for the undergraduate degree, and prerequisites and core requirements for the DPT. A student may be granted provisional acceptance to the DPT program after their second year of study at ECU based on competitive academic qualifications.

http://www.ecu.edu/cs-acad/grcat/coursesPTHE.cfm

PTHE: Physical Therapy

8007. Functional Anatomy (3)
    P: Consent of instructor. Principles of kinesiology, joint anatomy, and tissue function. Emphasis on human movement at joint and system level.
8008. Gross Anatomy (5,0)
    P: Enrolled in PTHE program. Structure of human body. Lab dissection.
8100. Musculoskeletal Physical Therapy I (4)
    P: PTHE 8008. Acquisition of knowledge and skills related to care of patients with musculoskeletal problems. Focus on examination.
8101. Neuroscience (5)
    P: Consent of instructor. Neuroanatomy, neurophysiology, and neurology of nervous system. Introduces normal and dysfunctional motor control mechanisms.
8102. Physical Therapy Modalities and Instrumentation (2)
    P: PTHE 8007. Physiological basis, indications, contraindications, and utilization of instrumentation for thermal treatment procedures and physics of sound. Emphasis on evidence-based practice regarding selection of modalities for specific medical conditions.
8103. Introduction to Patient Care I (1)

P: PTHE 8007. Roles and responsibilities of the physical therapist including medical, legal, ethical and cultural dimensions, therapist-patient interaction, medical terminology, diagnostic interviewing strategies and professional issues.

8104. Pharmacological Agents and Pathological Processes (3)

P: PTHE 8007. Overview of general pathology and pharmacology. Emphasis on etiology, symptoms, and pharmacological management of selected disease processes and implications.

8105. Introduction to Patient Care II (2)

P: PTHE 8103. Roles and responsibilities of the physical therapist and basic patient care skills.

8200. Clinical Biomechanics (3)

P: PTHE 8100 or consent of instructor. Evidence-based integration of mechanical principles into physical therapy practice utilizing quantitative and qualitative approaches.

8201. Electrotherapeutic Diagnosis and Treatment (3)

P: PTHE 8007. Physics of electricity and physiological basis, indications, contraindications, and utilization of instrumentation for electrophysiological treatment procedures.

8203. Clinical Education I (3)

May be repeated. 40 hours per week for 6 weeks. P: PTHE 8100, 8101, 8102, 8103, 8104. Introduces clinical practice through observation and supervised activity in acute care, orthopedic clinics or similar settings.

8300. Musculoskeletal Physical Therapy II (3)

P: PTHE 8100. Acquires knowledge and skills related to care of patients with musculoskeletal problems. Focus on treatment.

8301. Motor Control and Movement Disorders (3)

P: PTHE 8101 or consent of instructor. Neuroscience principles and mechanisms of normal and impaired movement, learning, emphasizing research and practice.

8302. Adult Therapeutic Intervention I (4)

P: PTHE 8101. Applies examination, therapeutic intervention and neuromuscular integration methods effective in identifying and treating motor control dysfunctions in adults with neurological and spinal cord injuries.

8401. Pediatric Therapeutic Intervention (3)

P: PTHE 8302. Evaluation and treatment of children, emphasizing development of functional movement, clinical decision making, management of impairments, and practice in various settings.

8402. Adult Therapeutic Intervention II (4)

P: PTHE 8302. Applies advanced examination and therapeutic intervention methods effective in identifying and treating motor control dysfunctions in the neurological client, including CNS disorders, neuromuscular diseases, and vestibular disorders.

8403. Clinical Education II (4)

May be repeated. 40 hours per week for 8 weeks. P: PTHE 8203. Supervised clinical training and experience in medical training facility. Emphasis on special program functions in inpatient or outpatient facility.

8500. Musculoskeletal Physical Therapy III (4)

P: PTHE 8300. Care of patients with musculoskeletal problems of the extremities and spine. Focus on advanced examination and intervention for complicated patients.

8501. Prosthetics (2)

> P: PTHE 8200. Patient assessment, prescription criteria, rehabilitation goals, and treatment techniques. Functional assessment of patients prosthetic devices.

8502. Muscle Physiology (3)

> P: PTHE 8104 or consent of instructor. Physiology of muscle in health, disease, and aging.

8603. Clinical Education III (4)

> May be repeated. 40 hours per week for 8 weeks. P: PTHE 8403. Supervised clinical experiences concentrating on specialized areas of physical therapy practice.

8700. Cardiovascular and Pulmonary Rehabilitation (3)

> P: PTHE 8502. Assessment and treatment used for cardiac, peripheral vascular, and pulmonary impairments. Analysis of physiological responses to physical rehabilitation treatment, benefits of preventative management, and value of interdisciplinary team management.

8701. Administration of Physical Therapy Services (3)

> P: PTHE 8503. Impact of health care industry trends and issues on development and operations of PT services. Application of planning, organizing, marketing, managing and financing principles for clinical practice establishment and maintenance. Medico-legal, ethical, and quality control aspects of services.

8702. Research Design (3)

> P: PTHE 8603 or consent of instructor. Scientific method, research design, basic statistics, and procedures for communicating results to physical therapy professionals and integrating into evidence-based practice.

8703. Geriatric Physical Therapy (3)

> P: PTHE 8503. Advanced knowledge of the aging process and the treatment and management of the elderly client.

8704. Health Promotion for Physical Therapists (2)

> P: PTHE 8104 or consent of instructor. Impact of exercise and nutrition on promoting health and wellness as it relates to the practice of physical therapy.

8801. Seminar in Physical Therapy (1)

> May count a maximum of 2 s.h. towards DPT. P: PTHE 8403. Integrates basic science and clinical experiences in professional practice.

8803. Clinical Education IV (5)

> May be repeated. 40 hours per week for 10 weeks. P: PTHE 8503. Supervised clinical experiences in long-term care facilities and specialized clinics.

8900. Advanced Concepts in Sports Physical Therapy (2)

> P: PTHE 8300. Advanced knowledge and skill in outpatient sports settings. Emphasis on evidence-based research.

8901. Advances in Muscle Research (2)

> P: PTHE 8104 or consent of instructor. Foundation in pathophysiology and/or rehabilitation of muscle. Emphasis on evidence-based research.

8902. Advances in Lower Extremity Evaluation (2)

> P: PTHE 8300. Advanced techniques for evaluation of patients with lower extremity pathology, including biomechanics and instrumented gait analysis.

8904. Advances in Prosthetics and Orthotics (2)

P: PTHE 8200. Current amputee, prosthetic, and orthotic therapeutic interventions. Emphasis on evidence-based research.

8905. Advanced Seminar in Evidenced Based Practice (2)

May be repeated. May count maximum of 6 s.h. P: Consent of instructor. Critical analysis of advances in research in specialized areas of physical therapy practice.

8906. Clinical Specialty Concentration (2)

May be repeated. May count maximum of 4 s.h. P: PTHE 8203, PTHE 8403, PTHE 8603. Supervised experience in specialty clinical practice.

8907. Research Concentration (2)

May be repeated. May count maximum of 10 s.h. P: Consent of instructor. Directed research with graduate-level faculty.

8908. Advanced Topics in Pediatric Physical Therapy (2)

P: PTHE 8401. Advanced techniques for examination, evaluation and intervention for infants, children, and adolescents with/at risk for movement dysfunction in the pediatric population. Use of scientific evidence to aid in clinical decision-making.

8909. Geriatric Balance and Gait Disorders (2)

P: PTHE 8402. Advanced knowledge and skill in the evaluation and treatment of geriatric patients with balance and gait disorders. Emphasis on selected populations at high risk for falls.

8910. Muscle Plasticity (2)

P: Consent of instructor. Changes in muscle composition and mass with a focus on disease processes and therapeutic interventions.

8911. Advanced Concepts in Spine and Manual Therapy (2)

P: PTHE 8300. Theories and techniques of spinal and extremity mobilizations, high velocity thrusts, and functional exercise interventions. Evidenced-based emphasis on spinal impairments and temporomandibular dysfunction.

8912. Pain Mechanisms and Treatment (2)

P: PTHE 8101 or consent of instructor. Advances in scientific mechanisms and therapeutic interventions of pain.

PTHE Banked Courses

6414. Clinical Problem Solving II (2)

8202. Evaluation and Treatment of the Spine (3)

VII. College of Technology and Computer Science

Department of Technology Systems

Retrieved From: http://www.ecu.edu/cs-acad/grcat/programICTN.cfm (09/26/2011)

College of Technology and Computer Science

Department of Technology Systems

Tijjani Mohammed, Interim Chair, Suite 202, Science and Technology Building

The Department of Technology Systems offers graduate programs leading to the graduate certificate, the master of science, and a consortium-based doctor of philosophy (PhD). The department is a leading proponent of collaborative network-based learning and offers many of its graduate programs online. Students are expected to be proficient in use of a personal computer and have access to high speed internet service.

Graduate certificates offered through the department include: computer network professional, information assurance, lean six-sigma black-belt (LSSBB), performance improvement, and website developer. The department also offers a master of science (MS) in network technology, a MS in technology systems, and a master of science a MS in occupational safety. The MS in network technology degree program includes studies in the areas of computer networking management, digital communications technology, information security, and web technologies. The MS in technology systems degree program includes study in the areas of computer networking management, digital communications technology, environmental planning and development, industrial distribution and logistics, information security, manufacturing systems, performance improvement, and quality systems. The MS in occupational safety builds upon expertise in foundational regulatory and technical aspects of occupational safety and is a stand along degree program. The doctor of philosophy (PhD) in technology management is designed to prepare scholars for leadership positions in education, industry, government, and business. The PhD is offered through a five-university consortium with the degree being awarded through Indiana State University. Graduates from all of these graduate programs are prepared to manage rapidly changing technologies and technical systems.

General Admission Requirements

Applicants must meet the admission requirements of the Graduate School. Acceptance into any master's degree program in the Department of Technology Systems is based on satisfactory undergraduate grades, scores on a graduate test such as the Graduate Management Admission Test (GMAT) 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 Network Technology
The master of science in network technology is designed to serve the needs of students who possess baccalaureate degrees in networking technology-oriented disciplines. Students take a common set of courses and select one of four concentrations: computer networking management, digital communications technology, information security, or web technologies. The program emphasizes advanced applications in computer networking, such as network infrastructure management, networked systems design, network security, and technical problem solving in technology-driven organizations. A minimum of **30 s.h.** is required as follows:

1. Common core: ICTN 6823, 6878; ITEC 6000, 6060, 6200.................................15 s. h.
2. Concentrations (Choose one)...12 s.h.
   Computer Networking Management: ICTN 6865, 6875, 6880, 6885
   Digital Communications Technology: ICTN 6810, 6820, 6830, 6840
   Information Security: ICTN 6865, 6870, 6873, 6883
   Web Technologies: ICTN 6815, 6825, 6835, 6845
3. Options (Choose one of the following.) – 3-6 s.h.
   Thesis option: ICTN 7000 Thesis – 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 advisor and the committee composed of three technology systems faculty members.
   Practicum option: ICTN 6900 Practicum – 3 s.h.
      The student writes a practicum report and presents a seminar based on the report. The practicum project proposal and the subsequent report must be approved by the student's advisor and the committee composed of three technology systems faculty members.
   Non-thesis option: Additional electives – 6 s.h.
      The student's advisor, the graduate program director, and the chair must approve the electives and student's course of study.

Computer Networking Management

Courses in this concentration emphasize advanced technologies used in the design, implementation, administration, monitoring, optimization, and maintenance of data communication and computer networking systems in industry.

Digital Communications Technology

Courses in this concentration emphasize a broad understanding of communication theory and practice in the transmission of digital data, including signal generation, conditioning, transmission, error detection and correction, and the underlying technologies used to retrieve, process, store, and analyze data in organizations.

Information Security

Courses in this concentration prepare students to design, deploy, manage, and apply techniques of securing and protecting the integrity and availability of information systems and communication networks in governmental, private, and nonprofit organizations.

Web Technologies

Courses in this concentration prepare students to design, analyze, configure, implement, and operate web services, computer networks, multimedia objects, data storage systems, and interactive web components for governmental, private, and nonprofit organizations.

MS in Occupational Safety

The master of science in occupational safety requires 30 s.h. credit and is comprised of courses that build upon expertise in foundational regulatory and technical aspects of occupational safety. Required courses include: SAFT 6040, 6250, 6290, 6310, 6402, 6288; and EHST 6700 and 6701 or SAFT 6805. Electives from EHST, ITEC, SAFT or other areas are selected as approved by the

Graduate Program Coordinator. Students who are deficient in the foundational regulatory and technical aspects of occupational safety may be required to take additional courses. Program pre-requisites include chemistry with lab and statistics.

Non-thesis option: SAFT 6995; 6 s.h. of approved electives.
Thesis option: BIOS 7021; SAFT 7000; 3 s.h. of approved electives.

MS in Technology Systems
The master of science in technology systems is designed to serve the needs of students who possess a baccalaureate degree in technology systems and related technology oriented disciplines. 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. Students are required to apply theory to practice through analytical projects and research involving industry problems and applications. The program of study includes course work composed of four core courses, and six courses in a concentration. Concentrations that are currently available in environmental planning and development, industrial distribution and logistics, manufacturing systems, performance improvement, and quality systems.

Minimum degree requirement is 30 s.h. of credit as follows:
1. Common core: ITEC 6000, 6050, 6200, 6406 - 12 s. h.
2. Concentrations area (Choose one) - 18 s.h.
   Computer networking management:
   ICTN 6823, 6850, 6865, 6875, 6880, 6885
   Digital communications technology:
   ICTN 6810, 6820, 6823, 6830, 6840, 6850
   Environmental Planning and Development:
   PLAN 5025, 5065, 6020, 6029, 6301, 6305
   Industrial Distribution and Logistics:
   IDIS 6500, 6535, 6545; ITEC 6001, 6600; approved elective from ICTN, ITEC, SAFT
   Information Security:
   ICTN 6823, 6865, 6870, 6873, 6878, 6883
   Manufacturing Systems:
   IDIS 6535; ITEC 6001, 6002, 6003, 6600; approved elective from ICTN, IDIS, ITEC, SAFT
   Performance Improvement:
   EDTC 6010, 6020, 6045, 7125; ITEC 6001; approved elective from EDTC, IDIS, ITEC, PSYC
   Quality Systems:
   IDIS 6535; ITEC 6001, 6110, 6112, 6600; approved elective from ICTN, IDIS, ITEC, SAFT

The master of science degree program is designed to serve the needs of students who possess a baccalaureate degree in technology systems 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 communications technology, industrial distribution and logistics, information security, performance improvement, environmental planning, manufacturing systems and quality 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 online 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 Technology Systems.

Computer Networking Management
Courses in this concentration emphasize advanced technologies used in the design, implementation, administration, monitoring, optimization, and maintenance of data communication and computer networking systems in industry.

Digital Communications Technology
Courses in this concentration emphasize a broad understanding of communication theory and practice in the transmission of digital data, including signal generation, conditioning, transmission, error detection and correction, and the underlying technologies used to retrieve, process, store, and analyze data in organizations.

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.

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.

Manufacturing Systems

The manufacturing systems concentration prepares students for upper-level positions in the manufacturing industry. The curriculum provides industry based, problem-solving experiences in Lean manufacturing concepts, production planning and inventory management, computer integrated manufacturing, improvement of the quality of manufacturing enterprises, change management, and productivity improvement.

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.

Quality Systems

The qualify systems concentration prepares students for upper-level positions in quality management fields. The curriculum provides industry based, problem-solving experiences in Lean enterprise, quality planning and analysis, experimental design, improvement of the overall quality of enterprises, and process improvement of management systems.

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

East Carolina University 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. ITEC 6050 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 communications 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 online 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 Technology Systems, College of Technology and Computer Science.

Required courses: ICTN 6800, 6810, 6820, 6823, 6830.

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 online 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: ICTN 6800, 6823, 6865, 6873, 6878.

Lean Six-Sigma Black-Belt (LSSBB) Certificate Program

The lean six-sigma black-belt (LSSBB) certificate program prepares graduates for employment in industry in a variety of jobs related to quality and process improvement. The skills developed in the course work can lead to successful careers as a lean six-sigma facilitator, continuous improvement manager, project leader, and similar positions. The program is structured to achieve this objective through internet-based, online advanced course work. Students are required to have high-speed internet connection.

Minimum certificate requirement is 15 s.h. of credit as follows:
Complete the following for 12 s.h.: ITEC 6110, 6112, 6501 and 6600.
Choose 3 s.h. from the following: ITEC 6002 or 6005.
Courses may have prerequisites that may be waived by the program coordinator based on student's background. The courses are scheduled to allow completion of the certificate program in 18 months. External transfer hours are not accepted in the certificate program. For students who choose to pursue this certificate jointly with the MSTS degree with a concentration in either manufacturing systems or quality systems, a maximum credit of 6 s.h. are allowed to be used toward the certificate. The certificate program requires the undertaking of an industrial or business process project (ITEC 6501 – Enterprise Process Improvement Project) where certified savings or revenue increase should be shown. Students are responsible for finding and structuring the project.

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 online 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 Technology Systems in the College of Technology and Computer Science.

Required courses: ICTN 6800, 6815, 6825, 6835, 6845.