COMMITTEE: University Curriculum Committee

MEETING DATE: February 24, 2011

PERSON PRESIDING: Jonathan Reid

REGULAR MEMBERS IN ATTENDANCE: Kanchan Das, Ron Graziani, Janice Neil, Jonathan Reid, Paul Schwager, and Ralph Scott

EX-OFFICIO MEMBERS IN ATTENDANCE: Derek Alderman, Linner Griffin, Gregory Lapicki, and Carolyn Willis

EXCUSED: Kenneth Blair Jr. and Donna Kain

ABSENT: None

SUPPORT: Kimberly Nicholson

OTHERS IN ATTENDANCE:
College of Fine Arts and Communication: Jill Matarelli Carlson, Clarine Powell, and Chris Ullfers
College of Health and Human Performance: Susan McGhee and Katie Walsh
Thomas Harriot College of Arts and Sciences: David Pravica, Heather Ries, and Mike Spurr

ACTIONS OF MEETING

Agenda Item: II. Old Business

(1.) The 02-10-11 UCC minutes will be distributed electronically for review and approval.

Discussion:

Minutes are not ready for approval due to the secretary being unavailable (jury duty) last week.

Action Taken:

Minutes will be approved electronically by the members when they are complete.
Agenda Item: III. College of Health and Human Performance, Department of Health Education and Promotion

(1.) Proposal of New Course(s): ATEP 3000, 3500, 3811, 3821

Discussion:

ATEP 3000: Clarification about when course will be offered. Add: Justification: no mention of faculty support, faculty discussion, or regulatory requirements. This should be added.

3500: texts- names are not complete. The name is incorrect. #11- # of hours. Click “other” and add clinical.

3811: justification says 2 hours of lab, but 1 credit- answered that it is consistent with their college. #18- book titles not complete.

3821: bibliography will be completed and justification will have faculty component as above added.

Match description text in marked catalog copy to proposal forms.

Action Taken:

Approved with changes

(2.) Revision of Existing Course(s): ATEP 2800; 3250; 3251; 3280; 3281; 3810; 3820; 3860; 4001, 4002; 4860

Discussion:

2800: change: removed pre-req HLT 1000. Add to justification. Bibliography to be completed.

3250: change: lab has been removed. Lab is now separate. Justification needs improvement to reflect why the change was made and faculty discussion or approval. #6- “fall” will be added to catalog copy. “consent of instructor” should be removed and “3820, 3821” should replace “3810, 3811.” typo ISBN, bibliography needs to be cleaned up

3251: #6 add Fall, justification to be corrected as above, bibliography needs to be cleaned up


3281: no change required

3810: lab was added- content not changed. Course name was changed. Justification needs improvement. Bibliography needs to be cleaned up.

3820: justification, bibliography cleanup.

3860: practicum hours were increased to 20. Justification. Practicum, lecture and clinical will be checked. #6- malpractice insurance reference will be removed. Bibliography completed

4001: change: asking that each course can be repeated twice. Justification needs improvement.
4002: same as above
4860: justification, bibliography, #6- remove malpractice insurance reference. Pre-requisite should be 3820 and 3821 and “athletic training major”
Match description text in marked catalog copy to proposal forms.

**Action Taken:**

Approved with changes

(3.) Prerequisite, Recommended Prerequisite, and/or Corequisite Revision of Existing Course(s): ATEP 2810, 2811, 3200, 3201, 3271, 3350, 3400, 4300, 4320

**Discussion:**

The wording about the teacher certification will be changed to “provide the option of teacher licensure with additional coursework”.
Suggestion about whether the “TB” should be changed to a 2-step PPD?
The punctuation on the catalog copies involving parentheses will need to be corrected per catalog policy.
4320: will have to go WI committee. Catalog will reflect current catalog- change will be removed.

**Action Taken:**

Approve with changes

(4.) Revision of Existing Degree(s): BS in Athletic Training

**Discussion:**

Changes to reflect above

**Action Taken:**

Approved with changes noted in other section

**Motion for approval of the entire package: Schwager and Alderman (2nd), Motion passed**

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**Agenda Item:** IV. Thomas Harriot College of Arts and Sciences, Department of Mathematics

Query into units notified about course- risk management at COB? Presenters will comply with request
Math 4100 is the actual course number. Says “graduate” students, needs to be “undergraduate” students.

(1.) Proposal of New Course(s): MATH 4100

Discussion:
#6- course number incorrect
Pre-requisites do not match on catalog and course proposal P: Math 2172, Math 3307 to be deleted
Justification needs faculty or assessment that lead to the course development.
Textbook; add ISBN
Change Objectives: “at the end of the course the student will be able to…: objectives will be changed to reflect the above statement.
Course description in proposal form and marked catalog copy has been changed from what is on the agenda. Reis said she is working on suggestions from the office of Academic Programs and planning:

Action Taken:

Approved with changes

(2.) Prerequisite Revision of Existing Course(s): MATH 2119, 2152, 2154, 3307

Discussion: approved

Action Taken: Approved

Motion for entire to be approved: Schwager, Scott (2nd) Motion approved

Agenda Item: V. College of Fine Arts and Communication, School of Theatre and Dance

(1.) Proposal of New Course(s): DNCE 1004, 4040, 4234

Discussion:
1004: #4- not complete- add future delivery, #5- justification needs faculty support statement, #11- course credits- remove “30”. #18- objectives are not clear- #2 expand
4040: #4 complete, justification- needs statement about faculty support. #11- take out “30”.
Objectives- #2- expand
4234: #4- not complete- add future delivery, #5- justification needs faculty support statement, #11- course credits- remove “30”. Objectives; add “at the completion of this course…” clarify objectives.

Action Taken:
Approved with revisions

(2.) Renumbering and Revision of Existing Course(s): DNCE 3014 (to 1014), DNCE 3024 (to 2024), DNCE 4034 (to 3034)

Discussion:
1014: 1004: #4- not complete- add future delivery, #5- justification needs faculty support statement. Reason why you are renumbering. #11- course credits- remove “30”.
2024: #4- not complete- add future delivery, #5- justification needs faculty support statement. Reason why you are renumbering. #11- course credits- remove “30”.

Action Taken:
Motion to approve entire package with revisions: Schwager, 2nd- Alderman. Motion approved

Agenda Item: VI. College of Fine Arts and Communication, School of Music

(1.) Proposal of New Course(s): MUSC 2205, 2215, 3677

Discussion:
2205: #6 update description text to be more consistent with current catalog. #11-“ studio” box needs to be checked, no grading scale, objectives- not in right format, “upon completion of this course the students will be able to. Will be revised.
2215: #6 update description text to be more consistent with current catalog. #11- studio box needs to be checked, no grading scale, , objectives- not in right format, “upon completion of this course the students will be able to. Will be revised
3677: #3 check “new course,” add justification. #11- complete boxes about credit hours. ISBN needs to be added.
Catalog copy is being revised with course descriptions.

Action Taken:
Committee agreed that course revisions will be reviewed by Dr. Reid. He will report to the committee.

MUSC 2205 and MUSC 2215 were TABLED

MUSC 3677 was approved as amended.; Revisions were not received in the one-week time frame specified:
(2.) Revision of Existing Degree(s): BM in Music Therapy, BM in Performance, BM in Theory-Composition

Discussion:
Clarification of sequencing and catalog language for courses. Changes in requirements.

Action Taken:
Motion: revisions be made as submitted to the Chair for approval within one week. Revisions were not received in the one-week time frame specified.

(3.) Deletion of Existing Concentration(s): Music Theatre

Discussion:
deleted

Action Taken:
Motion: revisions be made as submitted to be submitted within one week. Revisions were not received in the one-week time frame specified.

Motion to approve entire package with revisions and input from Dr. Reid. Revisions were not received in time frame specified-
Motion made: Griffin, 2nd: Scott

Agenda Item: VII. Thomas Harriot College of Arts and Sciences, Department of History

(1.) Deletion of Existing Courses Previously Deleted from Graduate Catalog: HIST 5515, 5525

Discussion:
Deletions-
Action Taken: Approved

Motion: Griffin, 2nd Schwager

Agenda Item: VIII. New Business

(1.) Additional UCC Screening Items

Discussion:

Dr. Reid reported that he will be meeting with some Faculty Senate representatives about the roles that administrative support play in submitted packages.

Action Taken:

Report pending.

Marked Catalog Copy:

Agenda Item III

http://www.ecu.edu/cs-acad/ugcat/HealthEd.cfm

2010-2011 Undergraduate Catalog p. 254

BS in Athletic Training

The athletic training degree program is a Commission on Accreditation of Athletic Training Education (CAATE) accredited undergraduate program based on a minimum of 126 s.h: 42 s.h. of foundations curriculum courses, 701 s.h. in the major area, and elective hours which can result in an approved minor or prepare one for further graduate study in an allied health profession, or provide the option of teacher licensure with additional coursework, such as physical therapy or a physician assistant program. Upon successful completion of this degree, the student will be eligible to sit for the Board of Certification exam. There is a strong clinical aspect of the program involving a minimum of 800 supervised hours under a certified athletic trainer. Admission to the university does not guarantee admission to the athletic training degree, as it is restricted by an
imposed student-to-clinical instructor ratio. Candidates are required to submit a separate application process, and it is due August 15 prior to the fall semester you wish to begin your degree. See program web site for details. Competitive admission is based upon assessments of the applicant’s academic abilities, knowledge, dedication to the profession, and commitment to the health care of others. Eligible applicants must have a minimum cumulative and semester 2.0 GPA, completed ATEP 1800, 2810, 2811 with a minimum grade of C, current cardiopulmonary resuscitation (CPR) and first aid certification from an approved provider, successfully completed a two-semester (fall and spring, consecutively) candidacy period, passed a health screening/physical examination, a letter of formal application on file, and an interview with the athletic training faculty and staff. There are written technical standards for admission that can be found in the Athletic Training Student Handbook and the program’s web site. Athletic training students are required to earn a minimum course grade of C in all athletic training courses. A minimum semester and cumulative GPA of 2.0 must be sustained throughout the program. All students in the degree are required to maintain current CPR certification, TB status, varicella immunization, Hepatitis B immunization (or waiver), and liability insurance for the duration of their involvement in the curriculum. Verification of CPR certification and liability insurance are required each academic year. Specific requirements are stated in the Athletic Training Student Handbook. The athletic training degree requires a minimum of 800 practical, supervised clinical hours under the direction of a certified athletic trainer. The candidacy period does not count toward the total hours required. Transfer students must meet the above criteria. No transfer athletic training classes will be accepted, but other course work may be allowed on an individual basis. Minimum degree requirement is 126 s.h. of credit as follows:

1. **Foundations curriculum requirements** (See Section 4, Foundations Curriculum Requirements for all Baccalaureate Degree Programs), including those listed below


<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
<th>Prerequisites/Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 1050</td>
<td>General Biology (3) (F,S,SS) (FC:SC)</td>
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<tr>
<td>BIOL 1051</td>
<td>General Biology Laboratory (1) (F,S,SS) (FC:SC)</td>
<td>1</td>
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<tr>
<td>HLTH 1000</td>
<td>Health in Modern Society (2) (F,SS,SS) (FC:HL)</td>
<td>2</td>
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<tr>
<td>MATH 1065</td>
<td>College Algebra (3) (F,S,SS) (FC:MA) (P: Appropriate score on mathematics placement test)</td>
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<tr>
<td>PHYS 1250</td>
<td>General Physics (3) (F,S,SS) (FC:SC) (P: MATH 1065)</td>
<td>3</td>
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<tr>
<td>PHYS 1251</td>
<td>General Physics Laboratory (1) (F,S,SS) (FC:SC) (C: PHYS 1250 or 2350)</td>
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<td></td>
</tr>
<tr>
<td>PSYC 1000</td>
<td>Introductory Psychology (3) (F,S,SS) (FC:SO)</td>
<td>3</td>
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</table>

2. **Core**


<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
<th>Prerequisites/Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATEP 1800</td>
<td>Orientation to Athletic Training (1) (F) (P: Admission to candidacy period of athletic training curriculum; C: HLTH 1000 or 1050)</td>
<td>1</td>
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<tr>
<td>ATEP 2800</td>
<td>Medical Nomenclature for Human Performance (2) (F, S, SS)</td>
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<tr>
<td>ATEP 2810</td>
<td>Principles of Athletic Training (3) (S) (C: Current participation in candidacy aspect of the athletic training program; first aid and CPR certification; ATEP 2811; RC: BIOL 2130, 2140 or 2150; EXSS 2850)</td>
<td>3</td>
<td></td>
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<tr>
<td>ATEP 2811</td>
<td>Principles of Athletic Training (0) (S) (PC: Current participation in candidacy period of athletic training program or consent of instructor; first aid and CPR certification; C: ATEP 2810; RC: BIOL 2130, 2140 or 2150; EXSS 2850)</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>ATEP 3000</td>
<td>Evidence-Based Medicine for the Health Care Professional (3) (F, SS) (RP: MATH 1065 or equivalent)</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>
ATEP 3200. Field Experience in Athletic Training I (1) (F) (C: Current participation in the athletic training curriculum; Athletic training major; ATEP 3810, 3811)
ATEP 3201. Basic Rehabilitation Techniques in Athletic Training (2) (S) (P: Athletic training major; C: ATEP 3820, 3821)
ATEP 3250, 3254. Sports Medicine Treatment Modalities (3.0) (F) (P: ATEP 3810, 3820, 3821; C: ATEP 3251 or consent of instructor)
ATEP 3251, Sports Medicine Treatment Modalities Lab (1) (F) (P: ATEP 3820, 3821; C: ATEP 3250)
ATEP 3270. Pathology and General Medicine in Sport (3) (S) (P: BIOL 2130 or 2140 or 2150)
ATEP 3271. Clinical Experience in Medicine (1) (F,S,SS) (P: ATEP 3200, 3270; C: Athletic training major)
ATEP 3280, 3284. Therapeutic Rehabilitation in Sports Medicine (3.0) (S) (P: ATEP 3250, 3251; athletic training major or consent of instructor; C: ATEP 3280)
ATEP 3281. Therapeutic Rehabilitation in Sports Medicine Lab (1) (S) (P: ATEP 3250, 3251; athletic training major; C: ATEP 3280)
ATEP 3350. Concepts in Pharmacology (3) (F, S, SS) (RP: ATEP 2800 or equivalent)
ATEP 3400. Clinical Experience in an Equipment Intensive Sport (2) (F,S) (C: ATEP 3810, 3811; BIOL 2130, 2140 or 2150; EXSS 2850; current athletic training major participation in the athletic training curriculum)
ATEP 3500. Clinical Experience in Medical Readiness for Sport (1) (F) (P: ATEP 3820, 3821; C: Athletic training major)
ATEP 3810. Etiology and Orthopedic Evaluation of the Trunk and Upper Extremity (3) (F) (P: ATEP 2810, 2811; P/C: BIOL 2130, 2140 or 2150; EXSS 2850; C: ATEP 3811)
ATEP 3811. Orthopedic Evaluation of Upper Extremity Lab (1) (F) (P: ATEP 2810, 2811; P/C: BIOL 2130 or 2140; EXSS 2850; C: ATEP 3810)
ATEP 3820. Etiology and Orthopedic Evaluation of Lower Extremity (3) (S) (P: ATEP 2810, 3810, 3811; P/C: BIOL 2130; EXSS 2850; C: ATEP 3821)
ATEP 3821. Orthopedic Evaluation of Lower Extremity Lab (1) (S) (P: ATEP 3810, 3811; C: ATEP 3820)
ATEP 3860. Sports Medicine Practicum I (3) (F) (P: Admission to the athletic training program; ATEP 3810, 3811; C: Athletic training major)
ATEP 4300. Field Experience in Athletic Training II (1) (F,S,SS) (P: ATEP 3250, 3251, 3810, 3820, 3821; athletic training major; and consent of instructor; C: Current participation in the athletic training curriculum)
ATEP 4320. Organization and Administration of Sports Medicine (3) (WI) (P: ATEP 3810, 3820, 3821)
ATEP 4860. Sports Medicine Practicum II (3) (SF) (P: ATEP 3820, 3821; C: Athletic training major)
BIOL 2130. Survey of Human Physiology and Anatomy (4) (F,S,SS) (P: BIOL 1050, 1051; or 1100, 1101)
EXSS 1101. Physical Conditioning (1) (F,S,SS) (P: EXSS 1000 or 1001)
EXSS 2850. Structural Kinesiology (1) (F,S)
EXSS 3805. Physiology of Exercise (3) (F,S,SS) (P: BIOL 2130 or BIOL 2140, 2150; EXSS 2850)
EXSS 3850. Introduction to Biomechanics (3) (F,S,SS) (P: BIOL 2130 or 2140; EXSS 2850; PHYS 1250, 1251; or consent of instructor)
HLTH 2000. Introduction to Health Education (3) (F,S,SS) (P: HLTH 1000 or 1050)
HLTH 2125, 2126. Safety Education and First Aid (3,0) (F,S,SS) (P: HLTH 1000 or 1050; C for 2125: HLTH 2126; C for 2126: HLTH 2125)
HLTH 3020. Health Disparities (3) (F,S,SS) (P: HLTH 1000 or 1050; 3010 or consent of instructor)
MIS 2223. Introduction to Computers (3) (F,S,SS)
NUTR 2105. Nutrition (3)
A course in research methodology/statistical design (3)

2. Minor or approved electives to complete requirements for graduation.

2010-2011 Undergraduate Catalog  p. 258

BS in Health Education and Promotion

2. Concentration (Choose one option.) - 39 s.h.
Community Health (40 s.h.): 
   BIOL 2131. Survey of Human Physiology and Anatomy Laboratory (1) (F,S,SS) (FC:SC) (P/C: BIOL 2130)
   EHST 2110, 2111. Introduction to Environmental Health Sciences and Laboratory (3,0) (F,S)
   HLTH 2500. Peer Health I: Training (3) (F,S) (P: HLTH 1000 or HLTH 1050 or consent of instructor)
   HLTH 3000. Theory and Practice in Community Health Education (3) (S)
   HLTH 3011. Introduction to Epidemiology in Health Education and Promotion (3) (F,S,SS)
   HLTH 4605. Community Strategies for Health Education (3) (F,S,SS) (WI*) (P: HLTH 3000 or consent of instructor)
   HLTH 4611. Planning and Evaluation of Community Health Education Programs (3) (F,S) (P: HLTH 3000)
   HLTH 4991. Health Education and Promotion Internship (12) (F,S,SS) (P: Completion of all other major requirements)
   HLTH 5002. Maternal and Child Health Education (3) (P: HLTH 3010 or consent of instructor)
   MATH 2228. Elementary Statistical Methods I (3) (F,S,SS) (P: MATH 1065 or equivalent or approved basic statistics course)
   PSYC 3221. Social Psychology (3) (F,S,SS) (FC:SO) (P: PSYC 1000 or 1060)
Prehealth Professions (47-55 s.h.)

Basic Science Requirements:
   BIOS 1500. Introduction to Biostatistics (3) (F,S) (P: MATH 1065 or equivalent)
   BIOL 2140, 2141. Human Physiology and Anatomy (3,1) (P: CHEM 1120 or 1150; C for 2140: BIOL 2141; C for 2141: BIOL 2140)
   BIOL 2150, 2151. Human Physiology and Anatomy (3,1) (P: BIOL 2140; C for 2150: BIOL 2151; P for 2151: BIOL 2141; C for 2151: BIOL 2150)
CHEM 1150, 1151. General Chemistry and Laboratory (3,1) (F,S,SS) (FC:SC)
CHEM 1160, 1161. General Chemistry and Laboratory II (3,1) (F,S,SS) (FC:SC)
HIMA 3000. Medical Terminology for Health Professionals (3) (F,S,SS) or ATEP
2800. Medical Nomenclature for Human Performance (2) (F,S,SS) (P: HLTH 1000)
Choose either:
CHEM 2750, 2753. Organic Chemistry I and Laboratory (3,1) (F,S,SS) (P: CHEM
1160, 1161) and CHEM 2760, 2763. Organic Chemistry II and Laboratory (3,1)
(F,S,SS) (P: CHEM 2750) and/or PHYS 1250, 1251.
General Physics and Laboratory (3,1) (F,S,SS) (FC:SC) (P: MATH 1065) and PHYS
1260, 1261. General Physics II and Laboratory (3,1) (F,S,SS) (FC:SC)
Health Education Requirements:

(page continues)

http://www.ecu.edu/cs-acad/ugcat/CoursesA.cfm#atep

2010-2011 Undergraduate Catalog  p. 334

ATEP: Athletic Training Education Program

1800. Orientation to Athletic Training (1) (F) P: Admission to candidacy period of athletic
training curriculum; C: HLTH 1000 or 1050. Orientation and principles of observation in allied
health settings.
2800. Medical Nomenclature for Human Performance (2) (F, S, SS) P: HLTH 1000. Standard
nomenclature of athletic injuries. Focus on orthopedic and surgical conditions of active person.
Fundamental word-building principles of medical nomenclature, enabling effective
communication with medical professionals and medical record keeping.
2810. Principles of Athletic Training (3) (S) 2 lecture and 2 lab hours per week. P: HLTH
1000; C: Current participation in candidacy aspect of the athletic training program; first aid and
CPR certification; ATEP 2811; RC: BIOL 2130, 2140 or 2150; EXSS 2850. Fundamental
principles. Recognition, evaluation, treatment, rehabilitation, and prevention of athletic injuries.
Practical clinical evaluation and preventative taping.
2811. Principles of Athletic Training (0) (S) 2 lab hours per week. PC: Current participation in
 candidacy period of athletic training program or consent of instructor; first aid and CPR
certification; C: ATEP 2810; RC: BIOL 2130, 2140 or 2150; EXSS 2850. Fundamental
principles. Recognition, evaluation, treatment, rehabilitation, and prevention of athletic injuries.
Practical clinical evaluation and prevention taping.
3000. Evidence-Based Medicine for the Health Care Professional (3) (F, SS) 3 lecture hours
per week. RP: MATH 1065 or equivalent. Introduction and application of evidence-based
medicine principles to clinical practice.
3200. Field Experience in Athletic Training I (1) (F) Current first-aid and CPR certifications
and medical malpractice insurance required. 1 lecture per week and clinical assignments. C:
Athletic training major; C: Current participation in the athletic training curriculum; ATEP 3810, 3811. Introduction to field experience. Supervised medical coverage of athletic teams.

3201. Basic Rehabilitation Techniques in Athletic Training (2) (S) P: Athletic training major; C: ATEP 3820, 3821. Introduces basic principles of therapeutic exercise rehabilitation techniques of athletic injuries.

3250, 3251. Sports Medicine Treatment Modalities (3,0) (F) 2 lecture and 2 lab hours per week. P: ATEP 3810, 3820, 3821; or consent of instructor. C: ATEP 3251. In-depth study of theory and application of therapeutic modalities in relation to the treatment of athletic injuries.

3251. Sports Medicine Treatment Modalities Lab (1) (F) 2 lab hours per week. P: ATEP 3820, 3821; C: ATEP 3250. Clinical application of therapeutic modalities in relation to the treatment of musculoskeletal injuries.

3270. Pathology and General Medicine in Sport (3) (S) P: BIOL 2130, or 2140, or 2150. General pathology associated with medical conditions in sport. Systemic approach to common medical disorders, including clinical proficiencies.


3280, 3281. Therapeutic Rehabilitation in Sports Medicine (3,0) (S) 2 lecture and 2 lab hours per week. P: ATEP 3250, 3251; athletic training major; or consent of instructor C: ATEP 3281. In-depth study of theory and application of therapeutic rehabilitation of athletic injuries.

3281. Therapeutic Rehabilitation in Sports Medicine Lab (1) (S) 2 lab hours per week. P: ATEP 3250, 3251; athletic training major; C: ATEP 3280. Practical application of therapeutic rehabilitation of musculoskeletal injuries in a lab setting.

3350. Concepts in Pharmacology (3) (F, S, SS) RP: ATEP 2800 or equivalent. General knowledge of therapeutic drug classifications, indications, contraindications, regulations, and drug testing in sport.

3400. Clinical Experience in an Equipment Intensive Sport (2) (F,S) 1 lecture per week and clinical assignment to an equipment intensive sport for the semester. C: ATEP 3810, 3811; current athletic training major, participation in the athletic training curriculum) Introduces field experience in athletic training, including supervised medical coverage of athletics teams. Current first-aid and CPR certifications and proof of medical malpractice insurance are required for duration of course.

3500. Clinical Experience in Medical Readiness for Sport (1) (F) 100 clinical hours. P: ATEP 3820, 3821; C: Athletic training major. Application of didactic knowledge to the clinical aspect of medical readiness for sport.

3810. Etiology and Orthopedic Evaluation of the Trunk and Upper Extremity (3) (F) 4 lecture/4 lab hours per week. P: ATEP 2810, 2811; P/C: BIOL 2130, 2140 or 2150; EXSS 2850; C: ATEP 3811. In-depth study and practical application of pathomechanics or sports-related injury and diseases to trunk and upper extremity.

3811. Orthopedic Evaluation of Upper Extremity Lab (1) (F) 2 lab hours per week. P: ATEP 2810, 2811; P/C: BIOL 2130 or 2140; EXSS 2850; C: ATEP 3810. Practical application of assessment and disposition of injuries to the upper extremity.

3820. Etiology and Orthopedic Evaluation of Lower Extremity (3) (S) 4 lecture/4 lab hours per week. P: ATEP 3810, 3811; 3810; P/C: BIOL 2130, 2140 or 2150; EXSS 2850 C: ATEP
3821. In-depth study and practical application of pathomechanics of sports-related injury and diseases to lower extremity.

3821. Orthopedic Evaluation of Lower Extremity Lab (1) (S) 2 lab hours per week. P: ATEP 3810, 3811; C: ATEP 3820. Practical application of assessment and disposition of injuries to the lower extremity.

3860. Sports Medicine Practicum I (3) (F) 1 lecture and 15-20 supervised clinical hours per week. P: Admission to athletic training program; ATEP 3810, 3811; C: Athletic training major. Practical experience in athletics under supervision of certified athletic trainer. Current CPR and first-aid certifications and proof of medical malpractice insurance required.

4001, 4002. Clinical Experience in Athletic Training (1,2) (F,S,SS) P: Consent of instructor and athletic training major. Individualized program of clinical supervised hours in athletic training. Each can be repeated once twice.

4300. Field Experience in Athletic Training II (1) (F,S,SS) 1 lecture per week and clinical assignments for the semester. P: ATEP 3250, 3251, 3810, 3820, 3821; athletic training major; and consent of instructor. C: Current participation in the athletic training curriculum. Field experience in allied health settings relevant to athletic training. Current first aid and CPR certifications and proof of medical malpractice insurance are required for the duration of the course.

4320. Organization and Administration of Sports Medicine (3) (WI) 2 lecture and 2 lab hours per week. P: ATEP 3810, 3820, 3821. Organization and administration of sports medicine programs including law, ethics, and therapeutic concepts. Advanced experience in prevention, clinical evaluation, treatment, and rehabilitation of sports-associated afflictions.

4860. Sports Medicine Practicum II (3) (S,F) 1 lecture and 15-20 supervised clinical hours per week. P: ATEP 3820, 3821; C: Athletic training major. Practical experience in athletics under supervision of certified athletic trainer. Current CPR and first-aid certifications and proof of medical malpractice insurance required.

Agenda Item IV

Thomas Harriot College of Arts and Sciences

Department of Mathematics

http://www.ecu.edu/cs-acad/ugcat/math.cfm

BA in Mathematics

Credit toward a mathematics major will not be given in any MATH course or in CSCI 2310, 2311 with a grade less than C. The degree offers two concentration areas: mathematics and statistics. The mathematics concentration requires a minor and the statistics concentration requires specified cognates in lieu of a minor. Minimum degree requirement is 126 s.h. of credit as follows:
1. Foundations curriculum (For information about courses that carry foundations curriculum credit see *Liberal Arts Foundations Curriculum*) - 42 s.h.
2. Foreign language through level 1004 - 12 s.h.
3. Common core - 30 s.h.

   MATH 2171, 2172, 2173. Calculus I, II, III (4,4,4) (F,S,SS) (FC:MA) (P for 2171: minimum grade of C in any of MATH 1083,1085, 2122; P for 2172: minimum grade of C or 2122 with consent of instructor; P for 2173: MATH 2172 with a minimum grade of C)  
MATH 2300. Transition to Advanced Mathematics (3) (P: MATH 2171)  
MATH 3256. Linear Algebra (3) (F,S,SS) (P: MATH 2172)  
MATH 3263. Introduction to Modern Algebra (3) (WI) (F,S) (P: MATH 2300, 3256)  
MATH 3307. Mathematical Statistics I (3) (F,S) (P: MATH 2300, 3256)  
MATH 3308. Mathematical Statistics II (3) (F) (P: MATH 3307)  
MATH 4101. Advanced Calculus I (3) (F,S) (P: MATH 2173, 2300; or consent of instructor)  
MATH 4331. Introduction to Ordinary Differential Equations (3) (F,S) (P: MATH 2173)  

4. Cognate - 4 s.h.

   CSCI 2310,2311. Algorithmic Problem Solving and Programming Laboratory (4,0)  
(F,S,SS) (P: MATH 1065; C for 2310: CSCI 2311; C for 2311: CSCI 2310)  

5. Concentration area to include minor or specified cognates as listed below.

   (Choose one area.) - 31-40 s.h.
   Mathematics (30-36 s.h.):  
   Choose 6 s.h. of MATH electives numbered above 2999, excluding MATH 3229, 3237, 3239  
   Minor (24-30 s.h.)  
   Statistics (27 s.h.):  
   Choose 9 s.h. of MATH electives numbered above 2999, excluding MATH 3229, 3237, 3239, and excluding cognates listed below.  
   Cognates (18 s.h.):  
   CSCI 5774. Programming for Research (3) (F,S) (P: General course in statistics or consent of instructor)  
   MATH 3308. Mathematical Statistics II (3) (F) (P: MATH 3307)  
   MATH 5031. Applied Statistical Analysis (3) (WI) (P: MATH 2228 or 3308; 3584; or equivalent)  
   MATH 5801. Probability Theory (3) (P: MATH 2173 or 3307)  
   Choose 6 s.h. from:  
   ECON 3343. Econometrics (3) (F,S) (FC:SO) (P: DSCI 2223 or CSCI 2600; ECON 2133; MATH 2283)  
   ECON 4430. Business Cycles and Forecasting (3) (P: ECON 3244, 3343; or consent of instructor)  
   MATH 4201. Introduction to Stochastic Processes (3) (S) (P: MATH 3307 or equivalent or consent of instructor)
MATH 5000. Introduction to Sampling Design (3) (P: MATH 3308 or 3229 or consent of instructor)
MATH 5132. Probabilistic Methods in Operations Research (3) (P: MATH 2173, 3256, 3307; or 5801)
OMGT 4493. Quality Management (3) (F) (P: OMGT 3123.)

6. Electives to complete requirements for graduation.

BS in Mathematics

Credit toward a mathematics major will not be given in any MATH course or in CSCI 2510 with a grade less than C. Minimum degree requirement is 126 s.h. of credit as follows:

1. Foundations curriculum (For information about courses that carry foundations curriculum credit see Liberal Arts Foundations Curriculum.) - 42 s.h.
2. Common mathematics core - 37 s.h.
   MATH 2171, 2172, 2173. Calculus I, II, III (4,4,4) (F,S,SS) (FC:MA) (P for 2171: MATH 1083, 1085, 2122 with minimum grade of C; P for 2172: MATH 2171 or 2122 with consent of instructor; P for 2173: MATH 2172)
   MATH 2300. Transition to Advanced Mathematics (3) (P: MATH 2171)
   MATH 3256. Linear Algebra (3) (F,S,SS) (P: MATH 2172)
   MATH 3263. Introduction to Modern Algebra (3) (WI) (F,S) (P: MATH 2300, 3256)
   MATH 3307. Mathematical Statistics I (3) (F,S) (P: MATH 2152 or MATH 2172)
   MATH 3308. Mathematical Statistics II (3) (F) (P: MATH 3307)
   MATH 4101. Advanced Calculus I (3) (P: MATH 2173, 2300, or consent of instructor)
   MATH 4331. Introduction to Ordinary Differential Equations (3) (F,S) (P: MATH 2173)
   CSCI 2310, 2311. Algorithmic Problem Solving and Programming Laboratory (4,0) (F,S,SS) (P: MATH 1065; C for 2310: CSCI 2311; C for 2311: CSCI 2310)

3. Concentration area (Choose one area.) - 13-33 s.h.
   Mathematics (27-33 s.h.):
   MATH 4110. Elementary Complex Variables (3) (S) (P: MATH 2173)
   Minor (24-30 s.h.)
   Science (27-28 s.h.)
   CHEM 1150, 1151. General Chemistry and Laboratory I (3,1) (F,S,SS) (FC:SC) (P/C: MATH 1065; C for 1150: CHEM 1151; C for 1151: CHEM 1150)
   CHEM 1160, 1161. General Chemistry and Laboratory II (3,1) (F,S,SS) (FC:SC) (P: CHEM 1150, 1151; C for 1160, CHEM 1161; C for 1161: CHEM 1160; R/C: MATH 1083 or 1085)
   MATH 4110. Elementary Complex Variables (3) (S) (P: MATH 2173)
   PHYS 2350, 2360. University Physics (4,4) (F,S,SS) (FC:SC) (P for 2350: MATH 2121, 2151, 2171; P for PHYS 2360: PHYS 2350)
Choose one of the following:
BIOL 1100, 1101. Principles of Biology I (4,0) (F,S,SS) (FC:SC) and BIOL 1200, 1201. Principles of Biology II (4,0)(F,S,SS) (FC:SC)
A combination of any 3 courses numbered above 1999 in Chemistry or numbered above 3999 in Physics.
Statistics (21 s.h.)
ENGL 3880. Writing for Business and Industry (3) (WI) (F,S,SS) (P: ENGL 1200)
MATH 4031. Applied Statistical Analysis (3) (WI) (P: MATH 2228 or 2283 or 3308; MATH 3256 or MATH/CSCI 3584; or equivalent; or consent of instructor)
MATH 4201. Introduction to Stochastic Processes (3) (P: MATH 3307 or equivalent or consent of instructor) or MATH 5000. Introduction to Sampling Design (3) (F) (P: MATH 3308 or 3229 or consent of instructor)
MATH 4774. Programming for Research (3) (P: MATH 2228 or MATH 2283 or equivalent)
MATH 4801. Probability Theory (3) (P: MATH 2173 or 3307)
MATH 4999. Capstone and Statistical Consulting (3) (P: MATH 4031)
PHIL 2274. Business Ethics (3) (F,S,SS) (FC:HU)
Computer Science (13 s.h.)
CSCI 3300. Introduction to Algorithms and Data Structures (4) (F,S,SS) (P: CSCI 2300, 2310, 2427)
CSCI 3310. Advanced Data Structures and Data Abstraction (3) (F,S,SS) (P: CSCI 3300)
CSCI 3650. Analysis of Algorithms (3) (S,SS) (P: CSCI 3200 or 3300; CSCI 2427)
CSCI 3526. Switching Theory and Computer Organization (3) (F,SS) (P: CSCI 3210 or CSCI 2610; CSCI 2427) or CSCI 3675. Organization of Programming Language (3) (F,SS) (P: CSCI 3200 or 3310) or MATH 4110. Elementary Complex Variables (3) (S) (P: MATH 2173)

4. Specified electives

Mathematics (9 s.h.):
Choose 9 additional s.h. in consultation with advisor from MATH 3174, 3233, 3273, 3301, 3573, 4201, 4264, 4801, 5000, 5002, 5021, 5102, 5121, 5122, 5131, 5132, 5311, 5322, or 5551.
Science (3 s.h.)
Choose 3 additional s.h. in consultation with advisor from MATH 3174, 3233, 3273, 3301, 3573, 4201, 4264, 4801, 5000, 5002, 5021, 5102, 5121, 5122, 5131, 5132, 5311, 5322, or 5551.
Statistics (9 s.h.)
Choose 3 additional s.h. from MATH 4201, 5000, 5132; OMGT 4493; ECON 3343, 4430.
Choose 6 additional s.h. from MATH 3174, 3233, 3273, 3301, 3573, 4110, 4264, 5002, 5021, 5102, 5121, 5122, 5131, 5132, 5311, 5322 or 5551.
Computer Science (15 s.h.)
Choose 3 s.h. from MATH 3174, 3233, 3273, 3301, 3573, 4201, 4264, 4801, 5000, 5002, 5021, 5102, 5121, 5122, 5131, 5132, 5311, 5322 or 5551.
Choose 12 s.h. of CSCI electives numbered above 1999, 2310/2311, 2510, 2610, 2611, 3300, 3310, 3510, 3584, 3601, 3650.
5. Electives to complete requirements for graduation.

Mathematics Minor

Credit towards a mathematics minor will not be given in any MATH course or in CSCI 2310/2311 with a grade of less than C. Minimum requirement for mathematics minor is **24 s.h.** of credit as follows:

1. Core - 21 s.h.

   MATH 2171, 2172, 2173. Calculus I, II, III (4,4,4) (F,S,SS) (FC:MA) (P for 2171: minimum grade of C in any of MATH 1083, 1085, 2122; P for 2172: MATH 2171 with a minimum grade of C or 2122 with consent of instructor; P for 2173: MATH 2172 with a minimum grade of C)
   MATH 2300. Transition to Advanced Mathematics (3) (P: MATH 2171)
   MATH 3256. Linear Algebra (3) (F,S,SS) (P: MATH 2172)
   MATH 3263. Introduction to Modern Algebra (3) (WI) (F,S) (P: MATH 2300, 3256) or
   MATH 5101. Advanced Calculus I (3) (P: MATH 2173, 2300; or consent of instructor)

2. Electives acceptable for a major in mathematics - 3 s.h.

Statistics Minor

(Not open to majors in Mathematics)
Minimum requirement for statistics minor is **26 s.h.** of credit as follows:

1. Core - 23 s.h.

   CSCI 5774. Programming for Research (3) (P: General course in statistics or consent of instructor)
   MATH 2171. Calculus I (4) (F,S,SS) (FC:MA) (P: MATH 1083 or 1085 or 2122 with minimum grade of C)
   MATH 2172. Calculus II (4) (F,S,SS) (FC:MA) (P: MATH 2122 with a minimum grade of C or MATH 2171)
   MATH 3256. Linear Algebra (3) (F,S,SS) (P: MATH 2172)
   MATH 3307. Mathematical Statistics I (3) (F,S) (P: MATH 2152 or MATH 2172)
   MATH 3308. Mathematical Statistics II (3) (F) (P: MATH 3307)
   MATH 5031. Applied Statistical Analysis (3) (WI) (P: MATH 2228 or 3308; 3584; or equivalent)

2. Electives (Choose from the following.) - 3 s.h.
ECON 3343. Econometrics (3) (F,S) (FC:SO) (P: MIS 2223 or CSCI 2600; ECON 2133; MATH 2283)
ECON 4430. Business Cycles and Forecasting (3) (FC:SO) (P: ECON 3244, 3343; or consent of instructor)
MATH 4201. Introduction to Stochastic Processes (3) (S) (P: MATH 3307 or equivalent or consent of instructor)
MATH 5000. Introduction to Sampling Design (3) (P: MATH 3308 or 3229 or consent of instructor)
MATH 5132. Probabilistic Methods in Operations Research (3) (P: MATH 2173, 3256, 3307; or 5801)
MATH 5801. Probability Theory (3) (P: MATH 2173 or 3307)
OMGT 4493. Quality Management (3) (F) (P: OMGT 3123)

http://www.ecu.edu/cs-acad/ugcat/CoursesM.cfm#math

MATH: Mathematics

0001. Intermediate Algebra-A (2) (F,S,SS)
   May not be taken by students who have credit for MATH 0045, 1065, 1074, 1085, 2119, 2171, or who have passed the math placement test. May not count toward foundations curriculum math requirement, certification, or degree. Remedial course in basic algebra; some sections may be taught in a lab/tutorial mode.

0045. Intermediate Algebra-B (2)
   May not be taken by students who have credit for MATH 0001, 1065, 1074, 1085, 2119, 2171, or who have passed the math placement test. May not count toward foundations curriculum math requirement, certification, or degree. Remedial basic algebra. Some sections may be taught in lab/tutorial mode.

1050. Explorations in Mathematics (3) (F,S,SS) (FC:MA)
   May not count toward MATH major or minor. Fulfills foundations curriculum MATH requirement for students whose major does not require a specific MATH course. Broad overview of mathematics and its relevance to life. Selected topics include at least four of the following: algebraic concepts, geometry, set theory and logic, number theory, discrete mathematics, statistics, consumer mathematics/finance, and history of mathematics.

1065. College Algebra (3) (F,S,SS) (FC:MA)
   May not be taken by students who have credit for MATH 1085. P: Appropriate score on math placement test. Topics include sets; linear, quadratic, polynomial, and exponential functions; inequalities; permutations; combinations; binomial theorem; and mathematical induction.

1066. Applied Mathematics for Decision Making (3) (F,S,SS) (FC:MA)
   Required for students planning to major in business administration or accounting. P: Appropriate score on the math placement test or approval of the dept chair. Skills in formulating models for and interpreting solutions to business word problems. Topics
include linear and nonlinear equations, systems of linear equations, applications of matrix algebra, and applied basic differential calculus. No proofs included.

1067. Algebraic Concepts and Relationships (3) (F,S) (FC:MA)
May not count toward MATH or CSCI major or minor. P: Appropriate score on math placement test. Properties of integers, rationals, real and complex numbers, and polynomials from an algebraic point of view; conjectures and intuitive proofs in number theory; properties of linear and quadratic functions. Representations of real-world relationships with physical models, charts, graphs, equations and inequalities. Emphasis on development of problem-solving strategies and abilities.

1074. Applied Trigonometry (2) (F,S,SS)
Students who plan to take MATH 2171 must choose 1083 or 1085. May not be taken by students who have credit for MATH 1083 or 1085. P: MATH 1065. Practical and computational aspects of trigonometry. Properties of trigonometric functions. Use of tables, interpolation, logarithms, solution of right and oblique triangles, and applications.

1077. Pre-Calculus Concepts and Relationships (3) (S)
May not count toward MATH or CSCI major or minor. P: MATH 1067. Modeling approach to study of functions (including logarithmic, exponential, and trigonometric functions), data analysis, and matrices. Foundation for future course work in calculus, finite mathematics, discrete mathematics, and statistics.

1083. Introduction to Functions (3) (F,S,SS) (FC:MA)
May not be taken by students who have successfully completed MATH 1074 or MATH 1085. P: MATH 1065 with a minimum grade of C. Accelerated introduction to language of functions. Emphasis on trigonometry as a preparation for calculus sequence MATH 2171-73.

1085. Pre-Calculus Mathematics (5) (F,S,SS) (FC:MA)
May not be taken by students who have credit for MATH 1074. P: MATH 1065 with minimum grade of C. Algebra and trigonometry for qualified students who plan to take calculus.

2119. Elements of Calculus (3) (F,S,SS) (FC:MA)
May not receive credit for MATH 2119 after having received credit for a higher numbered calculus course. P: Minimum grade of C in MATH 1065 or MATH 1066 with minimum grade of C. Elementary differentiation and integration techniques. Proofs not emphasized.

2121. Calculus for the Life Sciences I (3) (F,S,SS) (FC:MA)
May not receive credit for MATH 2121 after taking MATH 2171 P: MATH 1065 or 1077 with minimum grade of C. Introductory differential calculus with biological sciences applications. Introduces differentiation of exponential and logarithmic functions. Applications to exponential biological phenomena, related rates, regions of increase and decrease, and extrema.

2122. Calculus for the Life Sciences II (3) (F,S,SS)
May not receive credit for MATH 2122 after taking MATH 2172. P: MATH 2121. Introductory integral calculus with biological sciences applications. Introduction to and applications of definite integrals. Introduces trigonometric functions with applications to periodic biological phenomena. Functions of several variables, partial derivatives, simple differential equations, and arithmetic of matrices and vectors.

2124. Elementary Mathematical Models (1)
2171. Formulation and solution of various types of problems using techniques of establishing a mathematical model.

2127. Basic Concepts of Mathematics (3) (F,S,SS) (FC:MA)
May not count toward MATH or CSCI major or minor. P: Appropriate score on math placement test. System of real numbers and subsystems and their properties from an algebraic viewpoint. Statistics and number theory.

2151. Engineering Calculus I (3) (S) FC:MA
May not receive credit for MATH 2151 after receiving credit for MATH 2171. 3 lecture hours per week. P: MATH 1083 or 1085 or placement test criteria; or consent of instructor. Fundamentals of single variable differentiation with applications to problems in geometry, engineering, and physics. Includes applications to engineering areas.

2152. Engineering Calculus II (3) (S) FC:MA
May not receive credit for MATH 2152 after receiving credit for MATH 2172. 3 lecture hours per week. P: Minimum grade of C in MATH 2151 or 2171; or consent of instructor. Fundamentals of single variable integration with applications to problems in geometry, engineering, and physics. Includes applications to engineering areas such as, work and moments.

2153. Engineering Calculus III (3) (F) FC:MA
May not receive credit for MATH 2153 after receiving credit for MATH 2173. 3 lecture hours per week. P: MATH 2152 or 2172; or consent of instructor. Fundamentals of vector functions and multivariable calculus including partial derivatives, multiple integrals, and vector calculus. Includes applications to engineering problems such as motion in space, and force fields.

2154. Engineering Linear Algebra and Differential Equations I (4) (S)
3 lecture and 2 lab hours per week P: ENGR 2050; MATH 2153 or MATH 2173. First order and second order linear differential equations, Laplace transforms, systems of equations and general matrix theory. Includes software applications to solve differential equations and systems of equations.

2171. Calculus I (4) (F,S,SS) (FC:MA)
P: minimum grade of C in any of MATH 1083, 1085, or 2122. First of three course sequence. Brief review of precalculus, limits and continuity, differentiation and its applications, and integration.

2172. Calculus II (4) (F,S,SS) (FC:MA)
P: MATH 2171 with a minimum grade of C or MATH 2122 with consent of instructor. Second of three-course sequence. Transcendental functions, applications of integrals, techniques of integration, and infinite series.

2173. Calculus III (4) (F,S,SS) (FC:MA)
P: MATH 2172 with a minimum grade of C. Third of three-course sequence. Conics, parametrized curves, polar coordinates, vectors and analytic geometry in space, partial derivatives, and multiple integrals.

2228. Elementary Statistical Methods I (3) (F,S,SS) (FC:MA)
For students with limited mathematical training. May not count toward MATH major or minor. May receive credit for one of MATH 2228, 2283. P: MATH 1065 or equivalent. Collection, systematic organization, analysis and interpretation of numerical data obtained in measuring certain traits of a given population.

2282. Data Analysis and Probability (3) (F,S) (FC:MA)
May not count toward MATH or CSCI major or minor. May receive credit for one of MATE or MATH 2282, 2935. P: MATE or MATH 1067. Collection of data from experiments and surveys. Organizing and representing data. Interpreting data for judging claims, making decisions, or making predictions.

2283. Statistics for Business (3) (F,S,SS) (FC:MA)
May receive credit for one of MATH 2228, 2283. P: MATH 1065 or 1066 or equivalent. Sampling and probability distributions, measures of central tendency and dispersion, hypothesis testing, Chi-square, and regression.

2300. Transition to Advanced Mathematics (3)
P: MATH 2171. Proof methods including induction, naïve set theory, functions and relations, cardinality, basic number theory, completeness of the real number system.

2427. Discrete Mathematical Structures (3) Same as CSCI 2427
May not count toward MATH major or minor. May receive credit for one of MATE or MATH 2775, 3237, or MATH 2427. P: MATH 1065 or 1066. Structures of discrete mathematical structures. Special emphasis is given to those structures most important in computer science. Considers practical applications of the subject.

2775. Topics in Discrete Mathematics (3) (S) (FC:MA)
For prospective teachers of secondary school math. May receive credit for one of MATE or MATH 2775, 3237 or MATH 2427. P: MATH 1085. Selected topics include counting techniques, graph theory, difference equations, recursion, iteration, induction, and dynamical systems.

2935. Data Analysis (3) (F) (FC:MA)
May receive credit for one of MATE or MATH 2282, 2935. P: MATH 1085. Introductory course utilizing hands-on approach to collection, representation, and interpretation of data. Topics include types of data, sampling techniques, experimental probability, sampling distributions, simulations, and hypothesis testing using collected.

3100. Mathematical Methods for Engineers and Scientists (4) (F,S,SS)
May not count toward MATH major or minor. May not be taken by students who have credit for MATH 2173 or MATH 3256 or MATH 4331. P: MATH 2172; or equivalent; or consent of instructor. Functions of several variables, partial derivatives, first and second order differential equations, matrices, determinants, cofactor expansions, vector spaces, linear independence/dependence, linear transformations, eigenvalues/eigenvectors, variation of parameters.

3166. Euclidean Geometry (3) (F,S) (FC:MA)
May not count toward MATH or CSCI major or minor. P: MATE 1067 or MATH 1065; 2127. Euclidean geometry using deductive and inductive mathematical reasoning. Formal proofs.

3174. Vector Calculus (3)
P: MATH 2173. Vector algebra and vector functions of single variable. Scalar and vector fields, line and surface integrals, and multiple integrals.

3229. Elementary Statistical Methods II (3)
For students with limited mathematical training. May not count toward MATH major or minor. P: MATH 2228 or equivalent. Collection, systematic organization, analysis, and interpretation of numerical data obtained in measuring certain traits of a given population.

3233. College Geometry (3) (F)
P: MATH 2300. Modern college geometry presented as outgrowth and extension of elementary plane geometry. Important theorems relative to nine-point circle, cross ratios, the geometry of circles, and solid geometry. Euclidean transformations discussed.

3237. Discrete Mathematics (3) (F) (FC:MA)
May not count toward MATH or CSCI major or minor. May receive credit for one of MATE or MATH 2275, 3237 or MATH 2427. P: MATH 2121. Logic and sets, mathematical induction, and matrices. Applications of discrete mathematics in probability, linear programming, dynamical systems, social choice, and graph theory.

3239. Applied Mathematics Via Modeling (3) (FC:MA)
May not count toward MATH or CSCI major or minor. P: MATE or MATH 2282, 3166, 3237; MATH 2122. Real world problems that can be modeled with algebra, geometry, calculus, and statistical, probabilistic, discrete, or other mathematical techniques appropriate for prospective teachers of middle school mathematics. Mathematical modeling processes examined through historical and contemporary modeling success stories. Power and limitations of mathematical modeling.

3256. Linear Algebra (3) (F,S,SS)

3263. Introduction to Modern Algebra (3) (WI) (F,S)
P: MATH 2300, 3256. Postulation viewpoint of modern algebra. Defining postulates for mathematical system exhibited from which properties of system are derived. Principal systems studied are groups, rings, fields, each fully treated with illustrative examples.

3273. Combinatorics (3)

3301. Foundations of Geometry (3) (F)

3307. Mathematical Statistics I (3) (F,S)
P: MATH 2152 or MATH 2172. Axiomatic development of theory of probability and its application to construction of certain mathematical models.

3308. Mathematical Statistics II (3)

3550, 3551. Mathematics Honors (2,1) (F,S,SS)
Acceptance in program entitles student to register for MATH 3550 or 3551. P: Exceptional mathematical ability; MATH 2173 or consent of instructor.

3573. Introduction to Numerical Analysis (3) Same as CSCI 3573
P: CSCI 2310 or consent of instructor; MATH 2119 or 2172 or equivalent. Algorithms suitable for digital computation in areas of linear algebra, linear programming, slope finding, area finding, and nonlinear equation solution.

3584. Computational Linear Algebra (3) (F,S,SS) Same as CSCI 3584
May not count toward MATH major or minor. P: Calculus course. Introduces vectors, matrices, and determinants. Special emphasis on application of linear algebra to solution of practical problems.

4031. Applied Statistical Analysis (3) (S)
   P: MATH 2228 or 2283 or 3308; MATH 3256 or MATH/CSCI 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 packages.

4100. Mathematics of Risk Analysis (3) (S) P: MATH 3308. A Comprehensive introduction to the single-period mathematical risk theory. Explores approaches to modeling and measuring risks. Topics include distribution theory with an emphasis on exponential models, risk measurement and policy modifications. Prepares the student for the Society of Actuaries Exam P “Probability”.

4101. Advanced Calculus I (3) (F,S)
   P: MATH 2173, 2300; or consent of instructor. May receive credit for one of MATH 4101, 5101. Axioms of real number system, completeness, sequences, infinite series, power series, continuity, uniform continuity, differentiation, Riemann integral, and Fundamental Theorem of Calculus.

4110. Elementary Complex Variables (3)
   P: MATH 2173. Complex numbers, analytic functions, mapping by elementary functions, integrals, residues, and poles.

4201. Introduction to Stochastic Processes (3)
   P: MATH 3307 or equivalent or consent of instructor. Fundamental theory and models of stochastic processes. Expectations and independence, sums of independent random variables, Markov chains and their limiting behavior and applications, Poisson processes, birth and death processes; and Gaussian processes.

4264. Introduction to Modern Algebra II (3)
   P: MATH 3263. Continuation of development of topics begun in MATH 3263. Normal subgroups, factor groups, homomorphisms, rings, ideals, quotient rings, and fields.

4322. Foundations of Mathematics (3) (F)
   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 axiomatically.

4331. Introduction to Ordinary Differential Equations (3) (F,S)
   P: MATH 2173. Linear and nonlinear differential equations.

4332. The Calculus of Finite Differences (3)
   P: MATH 2173. Discrete changes that take place in values of a function and its dependent variable due to discrete changes in independent variable.

4501, 4502, 4503. Independent Study (1,2,3) (F,S,SS)
   For advanced math students. Number of hours per week will depend on credit hours and nature of work assigned. P: MATH major; consent of dept chair. Topics supplement regular curriculum.

4550, 4551. Mathematics Honors (2,1) (F,S,SS)
   Acceptance in program entitles student to register for MATH 4550 or 4551. P: Exceptional mathematical ability; MATH 2173 or consent of instructor.
4774. Programming for Research (3)
   P: MATH 2228 or 2283 or equivalent. Emphasis on minimum-level programming skill
   and use of statistical packages.

4801. Probability Theory (3) (F)
   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.

4999. Capstone and Statistical Consulting (3) (F, S)
   1 hour lecture and 3 hours practicum per week. P: MATH 4031. Supervised statistical
   consulting experience related to prior coursework in statistics.

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 3200 or 3310 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 math hours required for math 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.

5101. Advanced Calculus I (3)
   P: MATH 2173, 2300 or consent of instructor. May receive credit for one of MATH
   4101, 5101. 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)

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. Introduces 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.

5511. 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 math. 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.

MATH Banked Courses
  1063. College Algebra (3)
  5252. Modern Mathematics for Elementary Teachers II (3)
  5261, 5262. Modern Mathematics for Secondary Teachers I (3,3)
  5301, 5302. Analytical Mechanics I (3,3)
  5321, 6322. Applied Mathematics I, II (3,3)
  5331. Introduction to Celestial Mechanics (3)
  5610. Applied Analysis (3)

Agenda Item V

College of Fine Arts and Communication

School of Theatre and Dance

http://www.ecu.edu/cs-acad/ugcat/CoursesD.cfm#dnce

DNCE: Dance

1000. Introduction to Dance (3) (F,S,SS) (FC:FA)
  May not count toward DNCE major. Development of dance as art. Roles of choreographer and dancer.

1001. Fundamentals of Ballet (3) (SS) (FC:FA)
  7.5 hours per week. Basic skills of ballet. Includes overview of ballet development.

1002. Fundamentals of Contemporary Dance (3) (SS) (FC:FA)
  7.5 hours per week. Basic skills of modern dance. Includes overview of modern dance development.

1003. Fundamentals of Jazz Dance (3) (SS) (FC:FA)
  7.5 hours per week. Basic skills of jazz dance. Includes overview of jazz dance styles.

1004. Tap for Theatre and Other Non-Dance Majors (2) (F, S) Introduction to tap dance.

1011. Ballet I (3) (F) (FC:FA)
  Progressive and continuous work in learning and perfecting technique in this most difficult and refined form of dance.

1012. Contemporary Dance I (3) (F) (FC:FA)
  Dance technique which does not employ a standardized vocabulary of steps.

1013. Jazz Dance I (3) (F) (FC:FA)
  May not count toward BFA in DNCE. Most recent dance form influenced by South American and African cultures.

1014. Tap I (2) (F) Formerly DNCE 3014. May be repeated for a maximum of 4 s.h. P:
Consent of instructor and/or dance performance, dance education or theatre majors. Introduction to tap dance performance technique.

1021. Ballet II (3) (S)
Progressive and continuous work in perfecting technique and style in ballet.

1022. Contemporary Dance II (3) (S)
Progressive and continuous work in perfecting technique and style in contemporary dance.

1023. Jazz Dance II (3) (S)
May not count toward BFA in DNCE. Progressive and continuous work in perfecting technique and style in jazz dance.

1111, 1121, 2131, 2141, 3151, 3161, 4171, 4181. Ballet Technique Development I, II, III, IV, V, VI, VII, VIII (3 each)
Formerly 1111 was DNCE 2111; 1121 was DNCE 2121; 6 hours per week. P: Placement by faculty jury. Progressive and continuous work in perfecting ballet technique.

1112, 1122, 2132, 2142, 3152, 3162, 4172, 4182. Contemporary Dance Technique Development I, II, III, IV, V, VI, VII, VIII (3 each)
Formerly 1112 was DNCE 2112; 1122 was DNCE 2122; 6 hours per week. P: Placement by faculty jury. Progressive and continuous work in perfecting contemporary dance technique.

1113, 1123, 2133, 2143, 3153, 3163, 4173, 4183. Jazz Dance Technique Development I, II, III, IV, V, VI, VII, VIII (3 each)
Formerly 1113 was DNCE 2113; 1123 was DNCE 2123; 6 hours per week each. P: Placement by faculty jury. Progressive and continuous work in perfecting jazz dance technique.

1114. Beginning Ballet I (2) (F)
May be repeated for a maximum of 4 s.h. Basic work in learning techniques in ballet.

1115. Beginning Modern I (2) (F)
May be repeated for a maximum of 4 s.h. Basic work in learning techniques in modern dance.

1116. Beginning Jazz I I (2) (F)
May be repeated for a maximum of 4 s.h. Basic work in learning techniques in jazz dance.

1124. Beginning Ballet II (2) (S)
May be repeated for a maximum of 4 s.h. P: DNCE 1114 or consent of instructor. Continued work in learning techniques in ballet.

1125. Beginning Modern II (2) (S)
May be repeated for a maximum of 4 s.h. P: DNCE 1115 or consent of instructor. Continued work in learning techniques in modern dance.

1126. Beginning Jazz II (2) (S)
May be repeated for a maximum of 4 s.h. P: DNCE 1116 or consent of instructor. Continued work in learning techniques in jazz dance.

2011, 2021, 3011, 3021, 4011, 4021, 4131, 4141. Pointe I, II, III, IV, V, VI, VII, VIII (1 each)
2 hours per week. P: Consent of instructor. Progressive and continuous work in perfecting technique of pointe combinations and classical ballet variations.

2024. Tap II (2) (S) Formerly DNCE 3024. May be repeated for a maximum of 4 s.h. P: Consent of instructor. Intermediate tap dance.
2031. Ballet III (3) (F)
Continued work on ballet technique.

2032. Contemporary Dance III (3) (F)
Continued work on contemporary dance technique.

2033. Jazz Dance III (3) (F)
P: 6 s.h. ballet or consent of instructor. Continued work on jazz technique.

2041. Ballet IV (3)
Continued work in perfection of technique.

2042. Contemporary Dance IV (3) (S)
Continued work in perfection of technique.

2043. Jazz Dance IV (3) (S)
P: 6 s.h. ballet or consent of instructor. Continued work in perfection of technique.

2051, 2061. Ballet Studio I, II (1)

2134. Intermediate Ballet I (2) (F)
May be repeated for a maximum of 4 s.h. P: DNCE 1124 or consent of instructor. Continuous and progressive work in perfecting techniques in ballet.

2135. Intermediate Modern I (2) (F)
May be repeated for a maximum of 4 s.h. P: DNCE 1125 or consent of instructor. Continuous and progressive work in perfecting techniques in modern dance.

2136. Intermediate Jazz I (2) (F)
May be repeated for a maximum of 4 s.h. P: DNCE 1126 or consent of instructor. Continuous and progressive work in perfecting techniques in jazz dance.

2144. Intermediate Ballet II (2) (S)
May be repeated for a maximum of 4 s.h. P: DNCE 2134 or consent of instructor. Continuous and progressive work in perfecting techniques in ballet.

2145. Intermediate Modern II (2) (S)
May be repeated for a maximum of 4 s.h. P: DNCE 2135 or consent of instructor. Continuous and progressive work in perfecting techniques in modern dance.

2146. Intermediate Jazz II (2) (S)
May be repeated for a maximum of 4 s.h. P: DNCE 2136 or consent of instructor. Continuous and progressive work in perfecting techniques in jazz dance.

2190. Early Experiences for the Prospective Dance Educator (1) (F)
1 lecture hour for 6 weeks; 2 lab or studio hours for 10 weeks. For students considering a career in dance education. Teaching of dance through observation and participation in teaching activities in school classrooms.

2200. Creative Dance and Drama for the Elementary School (2) (S)
Same as THEA 2200 Content, philosophy, methodology, and projects appropriate for student preparing to teach elementary grades.

2201. Dance Improvisation I (1) (F)
2 hours per week. Guided exploration in elements of dance for development of spontaneity of individual movement, group interaction, and choreographic skills.

2202. Dance Improvisation II (1) (S)
2 hours per week. Continuation of guided exploration in elements of dance. Student creates and conducts improvisations.
2203, 2204. Dance Improvisation Aerobics (1,1)
2 hours per week. Guided movement exploration within framework of aerobic workout. Emphasis on spontaneous physical expression and high-paced release of energy.
2211, 2221, 3211, 3221, 4211, 4221, 4231, 4241. Partnering I, II, III, IV, V, VI, VII, VIII (1 each)
Formerly 2211 was DNCE 3071 2 hours per week. P: Consent of instructor. Progressive and continuous work in perfecting technique of support when performing with a partner.
3000, 3001. Dance Performance (1,1) (F,S)
6 hours per week each. P: Consent of instructor. Practical experience in various areas of dance performance in faculty-choreographed production.
3014. Fundamentals of Tap Dance (1) (F) (FA)
Formerly DNCE 3070 2 hours per week. Introduction to tap dance as performing art through study of basic tap vocabulary, fundamental rhythms, locomotor movements, and tap styles.
3024. Intermediate Tap Dance (1) (S)
Formerly DNCE 3072 2 hours per week. P: DNCE 3014 or consent of instructor. Vocabulary of tap terminology, repertoire of tap steps, and recognizable jazz/tap style in performance.
3034. Tap III (2) (F) Formerly DNCE 4034 May be repeated for a maximum of 4 s.h. P: Consent of instructor. Advanced tap dance.
3051. Ballet V (3) (F)
P: DNCE 2041 or consent of instructor. Continued study in perfecting ballet technique.
3052. Contemporary Dance V (3) (F)
P: DNCE 2042 or consent of instructor. Continued work toward perfection of technique and style.
3053. Jazz Dance V (3) (F)
P: DNCE 2043 or consent of instructor. Continued work in perfection of technique.
3061. Ballet VI (3) (S)
P: DNCE 3051 or consent of instructor. Continued study in perfecting ballet techniques.
3062. Contemporary Dance VI (3) (S)
P: DNCE 3052 or consent of instructor. Continued work toward perfection of technique and style.
3063. Jazz Dance VI (3) (S)
P: DNCE 3053. Continued work in perfection of technique.
3114, 3124, 4134. Tap Technique Development I, II, III (1,1,2) (3114:F; 3124:S; 4134:F)
Formerly 3114 was DNCE 4074; 3124 was DNCE 4075. DNCE 3114, 3124: 2 hours per week; 4134: 3 hours per week. P: Placement by faculty jury. Progressive and continuous work in perfecting technique and style in tap dance.
3501, 3502, 3503. Independent Study in Dance (1,2,3) (F,S,SS)
May be repeated for maximum of 4 s.h. with change of topic. P: Consent of instructor and dept chair. Independent study of scholarly topic related to dance.
3601, 3602, 3603. Selected Topics in Dance (1,2,3) (F,S,SS) (FA)
May be repeated for maximum of 4 s.h. with change of topic. P: Consent of instructor and dept chair. Intensive study of selected topics related to dance.
3703. International Ballroom and Folk Dance Styles (3) (FA)
Knowledge, skills, and understanding of international ballroom and folkdance styles.
4000, 4001. Special Dance Projects (1,1)
   6 hours per week each. P: Consent of instructor. Practical experience in various areas of
dance performance directed and supervised by faculty.

4034. Advanced Tap Dance (2) (F)
   Formerly DNCE 3073 3 hours per week. P: DNCE 3024 or consent of instructor.
   Progressive and continuous work in perfecting technique of tap dance.

4040. Tap Dance IV (2) (S) May be repeated for a maximum of 4 s.h. P: Consent of instructor.
   Tap performance styles.

4044. History of Dance I (3) (WI) (F) (FC:FA)
   Explores dance as ritual and theatrical art.

4045. History of Dance II (3) (WI) (S) (FC:FA)
   Explores development of dance as theatrical art.

4046. Composition I (3) (WI) (F)
   P: 3000-level DNCE technique classes. Movement possibilities through kinesthetic
   awareness. Development of creative intuition through problem-solving in choreographic
   design.

4047. Composition II (3) (WI) (S)
   P: DNCE 4046. Development of choreographic idea.

4048. Choreography Project (3) (F)
   9 hours per week. P: DNCE 4047 or consent of instructor. Development, presentation,
   and evaluation of choreographic projects.

4071. Ballet VII (3) (F)
   P: DNCE 3061 or consent of instructor. Continued study in perfection of technique.

4072. Contemporary Dance VII (3) (F)
   P: DNCE 3062 or consent of instructor. Continued study in perfection of technique and
   style.

4073. Jazz Dance VII (3) (F)
   6 hours per week. P: DNCE 3063. Continued work in perfection of jazz technique.

4076. Theatre Dance Styles I (3)
   6 hours per week. P: DNCE 2041 or 2043; and consent of instructor. Develop basic
   practical knowledge of choreographed movement in musical theatre dance idiom.
   Emphasizes twentieth century theatre dance styles.

4081. Ballet VIII (3) (S)
   P: DNCE 4071 or consent of instructor. Continued study in perfection of technique.

4082. Contemporary Dance VIII (3) (S)
   P: DNCE 4072 or consent of instructor. Continued study in perfection of technique and
   style.

4083. Jazz Dance VIII (3) (S)
   6 hours per week. P: DNCE 4073. Continued work in perfection of jazz technique.

4234. Tap Ensemble (2) (F,S) May be repeated for a maximum of 16 s.h. P: Consent of
   instructor. Advanced tap dance repertory for performance.

4323. Perspectives on Dance Education, Grades K-12 (3) (WI) (F,S)
   P: Admission to upper division; consent of instructor. Theoretical foundations in dance
   education and implications for curriculum and teaching.

4324. Internship in Dance Education (10) (F,S)
Full-time, semester-long internship. P: Admission to upper division; C: DNCE 4325. Supervised internship in dance education in public schools.

4325. Internship Seminar: Issues in Dance Education (1) (F,S)
P: Admission to upper division; C: DNCE 4324. Individualized study of problems or issues in dance education.

DNCE Banked Courses
- 2071, 2081. Ballet Studio III, IV (1 each)
- 2052, 2062, 2072, 2082. Contemporary Dance Studio I, II, III, IV (1 each)
- 2053, 2063, 2073, 2083. Jazz Dance Studio I, II, III, IV (1 each)
- 4031, 4041, 4051, 4061. Ballet Studio V, VI, VII, VIII (1 each)
- 4032, 4042, 4052, 4062. Contemporary Dance Studio V, VI, VII, VIII (1 each)
- 4033, 4043, 4053, 4063. Jazz Dance Studio V, VI, VII, VIII (1 each)
- 4077. Theatre Dance Styles II (3)

Agenda Item VII

Thomas Harriot College of Arts and Sciences

Department of History

http://www.ecu.edu/cs-acad/ugcat/history.cfm

Thomas Harriot College of Arts and Sciences

Department of History

Gerald J. Prokopowicz, Chair, A-315 Brewster Building

Students may choose between the BA in history and the BS in public history. Students may also minor in either program.

BA in History

Minimum degree requirement is 126 s.h. of credit as follows:

1. Foundations curriculum (For information about courses that carry foundations curriculum credit see Liberal Arts Foundations Curriculum.) - 42 s.h.
2. Foreign language through level 1004 - 12 s.h.
3. Core - 36 s.h.

HIST 1030. World Civilizations to 1500 (3) (WI*) (F,S,SS) (FC:SO)
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Offered</th>
<th>Course Format</th>
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<tbody>
<tr>
<td>HIST 1031</td>
<td>World Civilizations Since 1500</td>
<td>3</td>
<td>(WI*)</td>
<td>(F,S,SS)</td>
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<tr>
<td>HIST 1050</td>
<td>American History to 1877</td>
<td>3</td>
<td>(WI*)</td>
<td>(F,S,SS)</td>
</tr>
<tr>
<td>HIST 1051</td>
<td>American History Since 1877</td>
<td>3</td>
<td>(WI*)</td>
<td>(F,S,SS)</td>
</tr>
<tr>
<td>HIST 4000</td>
<td>Senior Seminar</td>
<td>3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Choose a minimum of 21 s.h. of electives above 2999, at least one 3 s.h. course from each area as listed below (Minimum of 3 s.h. must be taken at the 4001-5999 level, excluding HIST 4531, 4532, 4533, 4550, 4551):

**American History:**
- HIST 3010. Constitutional History of the United States to 1888 | 3 | (FC:SO) |
- HIST 3011. Constitutional History of the United States Since 1888 | 3 | (FC:SO) |
- HIST 3031. Economic History of the United States Since 1865 | 3 | (FC:SO) |
- HIST 3100. North Carolina History | 3 | (F,S) | (FC:SO) |
- HIST 3110. History of African-Americans | 3 | (FC:SO) |
- HIST 3121. American Military History to 1900 | 3 | (FC:SO) |
- HIST 3122. American Military History Since 1900 | 3 | (FC:SO) |
- HIST 3140. Women in American History | 3 | (FC:SO) |
- HIST 3170. History of Native Americans | 3 | (FC:SO) |
- HIST 3200. Diplomatic History of the United States | 3 | (WI*) | (FC:SO) |
- HIST 3205. History of American Urban Life | 3 | (FC:SO) |
- HIST 3210. Colonial American to 1763 | 3 | (WI*) | (FC:SO) |
- HIST 3215. American Revolution and the Federal Era, 1763-1800 | 3 | (WI*) | (FC:SO) |
- HIST 3225. The Era of Sectionalism and Civil War, 1848-1877 | 3 | (FC:SO) |
- HIST 3230. The Birth of Modern America, 1865-1892 | 3 | (WI*) | (FC:SO) |
- HIST 3235. The Era of Populism and Progressivism in American History, 1892-1919 | 3 | (FC:SO) |
- HIST 3240. The Age of Franklin Roosevelt, 1919-1945 | 3 | (WI*) | (FC:SO) |
- HIST 3245. The United States Since 1945 | 3 | (WI*) | (FC:SO) |
- HIST 3260. The United States and the Middle East | 3 | (FC:SO) |
- HIST 3300. History of American Rural Life | 3 | (F) | (FC:SO) |
- HIST 3920. Social History of American Medicine | 3 | (S) | (FC:SO) |
- HIST 5122. Social and Cultural History of the United States Since 1865 | 3 |
- HIST 5125. American Political Development in the Nineteenth Century | 3 |
- HIST 5140. The Old South | 3 |
- HIST 5141. The South Since 1877 | 3 | (WI*) |
- HIST 5220. Selected Topics in US Women’s History | 3 |
- HIST 5230. Themes in African-American History | 3 |
- HIST 5520. Maritime History of the Western World Since 1815 | 3 |
- HIST 5960. Introduction to Oral History | 3 |

**European History:**
- HIST 3405. History of Ancient Greece to 146 BC | 3 | (FC:SO) |
- HIST 3406. War and Society in Ancient Greece and Rome | 3 | (F) |
- HIST 3410. History of Ancient Rome | 3 | (F) | (FC:SO) |
- HIST 3412. A History of Christianity to 1300 | 3 | (FC:SO) |
- HIST 3413. A History of Christianity, 1300 to Present | 3 | (FC:SO) |
- HIST 3414. The Celtic World, 700 BC - 1601 AD | 3 |
- HIST 3415. The Middle Ages | 3 | (F) | (FC:SO) |
HIST 3420. Early Modern Europe to 1648 (3) (F) (FC:SO)
HIST 3430. History of Europe, 1815-1914 (3) (F) (FC:SO)
HIST 3435. History of Europe Since 1914 (3) (FC:SO)
HIST 3444. Old Regime and Revolutionary France (3) (FC:SO)
HIST 3445. Modern France, 1815 to Present (3) (FC:SO)
HIST 3460. Germany, 1790-1914 (3) (FC:SO)
HIST 3461. Germany Since 1914 (3) (FC:SO)
HIST 3480. Britain to 1688 (3) (FC:SO)
HIST 3482. Britain, 1688-1832 (3) (FC:SO)
HIST 3484. Britain from 1832 (3) (FC:SO)
HIST 3551. Medieval Russia, 862 - 1682 (3)
HIST 3552. Imperial Russia, 1682-1917 (3)
HIST 3553. Soviet Russia, 1917-1991 (3)
HIST 4400. Science and Religion in Europe and America, 1600-1900 (3)
HIST 4445. The European Enlightenments (3)
HIST 4470. The Great War: Experience, Memory and Legacy (3)
HIST 4500. Political Culture and Community in Eighteenth-Century Britain (3)
HIST 5310. Intellectual History of Europe (3)
HIST 5350. The Renaissance in European History (3)
HIST 5360. The Reformation, 1450-1598 (3)
HIST 5440. Twentieth Century England (3)
HIST 5450. Tudor-Stuart England (3)
HIST 5470. History of Soviet Russia Since 1917 (3)
HIST 5480. Weimar and the Rise of Hitler (3)
HIST 5505. Maritime History of the Western World to 1415 (3)
HIST 5515. Maritime History of the Western World, 1415-1815 (3) (WI*)
HIST 5555. Constitutionalism and Kingship in Early Modern Europe (3)
HIST 5660. Imperialism in Theory and Practice, 1800 to the Present (3) (WI*)
HIST 5670. A Diplomatic History of Europe, 1815 to the Present (3)
World History:
HIST 3610. History of East Asia to 1600 (3) (FC:SO)
HIST 3611. History of East Asia Since 1600 (3) (FC:SO)
HIST 3615. History of Traditional Japan (3) (FC:SO)
HIST 3620. History of Modern Japan (3) (F) (FC:SO)
HIST 3625. Field Study in Japanese Historical Culture (3) (FC:SO)
HIST 3626. Field Study in Japanese Historical Texts (3) (FC:SO)
HIST 3627. History of Japanese Buddhism (3) (FC:SO)
HIST 3629. History of Traditional China (3) (FC:SO)
HIST 3630. History of Modern China (3) (FC:SO)
HIST 3669. History of the Middle East, 600-1500 (3) (FC:SO)
HIST 3670. History of the Middle East Since 1500 (3) (WI*) (FC:SO)
HIST 3710. Introduction to Latin-American History: Colonial Period (3) (WI*) (FC:SO)
HIST 3711. Introduction to Latin-American History: Since 1808 (3) (WI*) (FC:SO)
HIST 3780. Mexico and Central America (3) (WI*) (FC:SO)
HIST 3810. History of Africa (3) (WI*) (FC:SO)
HIST 3820. History of South Africa (3) (WI) (FC:SO)
HIST 3830. Africa and Islam (3) (WI) (FC:SO)
HIST 4610. History of Southeast Asia (3) (FC:SO)
HIST 5300. Comparative History of Non-Western Civilizations (3) (WI*)
HIST 5340. The Ancient Near East (3)
HIST 5680. Diplomatic History of Modern Asia (3)
HIST 5765. Latin-America: 1492 to the Present (3) (WI*)
The following courses vary in content and will be classified according to topic:
HIST 3005. Selected Topics in History (3) (WI*) (FC:SO)
HIST 3333. Biography and History (3) (FC:SO)
HIST 3350. War and Society (3) (FC:SO)
HIST 4531, 4532, 4533. Directed Readings in History (1,2,3) (FC:SO) (P: Consent of dept chair)
HIST 4550, 4551. Honors (3,3) (F,S) (FC:SO)
HIST 5005. Selected Topics in History (3) (WI*)
HIST 5525. Sea Power: 480 BC to the Present (3) (WI*)

4. Minor and general electives to complete requirements for graduation.

BS in Public History

Minimum degree requirement is 126 s.h. of credit as follows:

1. Foundations curriculum (For information about courses that carry foundations curriculum credit see Liberal Arts Foundations Curriculum) - 42 s.h.
2. Foreign language through level 1004 - 12 s.h.
3. Core - 36 s.h.

HIST 1030. World Civilizations to 1500 (3) (WI*) (F,S,SS) (FC:SO)
HIST 1031. World Civilizations Since 1500 (3) (WI*) (F,S,SS) (FC:SO)
HIST 1050. American History to 1877 (3) (WI*) (F,S,SS) (FC:SO)
HIST 1051. American History Since 1877 (3) (WI*) (F,S,SS) (FC:SO)
HIST 4000. Senior Seminar (3)
Choose a minimum of 21 s.h. of HIST courses above 2999, including a minimum of one course each in American, European, and other world areas. (See BA degree for course area designations.)

4. Professional courses - 24 s.h.

Required public history courses - 12 s.h.
HIST 3900. Introduction to Public History (3)
HIST 3993. Approaches to Historical Objects (3)
HIST 5910. Introduction to the Administration of Archives and Historical Manuscripts (3)
HIST 5920, 5921. Techniques of Museum and Historic Site Development (3,0)
Public history electives - 6-9 s.h.
Choose from the following:
HIST 3980. Shipwreck Archaeology (3) (F, S)
HIST 3985. History of American Architecture (3)
HIST 5930, 5931. Field and Laboratory Studies in Museum and Historic Site Development (3,0)
HIST 5950. Introduction to Quantitative History (2) (P: 20 s.h. of undergraduate history)
HIST 5951. Directed Readings and Research in Quantitative History (1) (C: HIST 5950)
HIST 5960. Introduction to Oral History (3)
HIST 5970. Living History (3)
HIST 5985. Historic Preservation Planning (3)

Internship - 3-6 s.h.
Choose from the following:
HIST 4940, 4941, 4942. Internship in Archives and Historical Records Administration (3,6,9) (F,S,SS) (P: Senior standing; minimum cumulative 2.2 GPA; minimum 2.5 GPA in HIST; consent of instructor)
HIST 4943, 4944, 4945. Internship in Museum Administration (3,6,9) (F,S,SS) (P: Senior standing; minimum cumulative 2.2 GPA; minimum 2.5 GPA in HIST; consent of instructor)
HIST 4946, 4947, 4948. Internship in Historic Site Administration (3,6,9) (F,S,SS) (P: Senior standing; minimum cumulative 2.2 GPA; minimum 2.5 GPA in HIST; consent of instructor)

Maximum of 6 s.h. may count toward the requirement.

5. Cognates (Choose from the following.) - 6 s.h.

ACCT 2101. Survey of Financial and Managerial Accounting (3) (F,S) (P: MATH 1065 or 1066)
ANTH 2000. Archaeology Around the World (3) (F,S) (FC:SO)
ANTH 3077. Archaeological Methods (3) (S) (P: ANTH 2000 or consent of instructor)
ART 1906. Art History Survey (3) (F,S) (FC:FA) (P: ART 1905 or 1910)
ART 1907. Art History Survey (3) (F,S) (FC:FA) (P: ART 1905 or 1910)
ART 2905. Masterpieces in the Visual Arts and Literature (3) (FC:FA)
ART 4948. Art of the United States (3) (P: ART 1906, 1907 or consent of instructor)
ENGL 3870. Introduction to Editing and Abstracting (3) (WI) (F,S) (P: ENGL 1200)
IDSN 2700. Historic Interiors I: 3000 BC Through Mid-Nineteenth Century (3) (WI) (F)
IDSN 2750. Historic Interiors II: Late Nineteenth and Twentieth Centuries (3) (WI) (S)
MGMT 3202. Fundamentals of Management (3) (F,S,SS)
MUSC 2227. Introduction to American Music from Colonial Times to the Present (3) (FC:FA)
PHIL 2275. Professional Ethics (3) (WI*) (F,S,SS) (FC:HU)

6. Electives to complete requirements for graduation.

History Minor

The minor requires 24 s.h. credit. History courses used for the minor may not be counted toward history major.
1. Required HIST courses (Choose from the list below.) - 9 s.h.

HIST 1030. World Civilizations to 1500 (3) (WI*) (F,S,SS) (FC:SO)
HIST 1031. World Civilizations Since 1500 (3) (WI*) (F,S,SS) (FC:SO)
HIST 1050. American History to 1877 (3) (WI*) (F,S,SS) (FC:SO)
HIST 1051. American History Since 1877 (3) (WI*) (F,S,SS) (FC:SO)

2. HIST electives above 2999 - 15 s.h.

Public History Minor

The minor requires **24 s.h.** credit. History courses used for the minor may not be counted toward history major.

1. Required HIST courses - 6 s.h.

   HIST 3900. Introduction to Public History (3)
   HIST 3993. Approaches to Historical Objects (3)

2. HIST electives (Choose from the following.) - 9 s.h.

   HIST 3980. Shipwreck Archaeology (3) (F, S)
   HIST 3985. History of American Architecture (3)
   HIST 4940, 4941, 4942. Internship in Archives and Historical Records Administration (3,6,9) (P: Senior standing; minimum cumulative 2.2 GPA; minimum 2.5 GPA in HIST; consent of instructor)
   HIST 4943, 4944, 4945. Internship in Museum Administration (3,6,9) (P: Senior standing; minimum cumulative 2.2 GPA; minimum 2.5 GPA in HIST; consent of instructor)
   HIST 4946, 4947, 4948. Internship in Historic Site Administration (3,6,9) (P: Senior standing; minimum cumulative 2.2 GPA; minimum 2.5 GPA in HIST; consent of instructor)
   HIST 5910. Introduction to the Administration of Archives and Historical Manuscripts (3)
   HIST 5920, 5921. Techniques of Museum and Historic Site Development (3,0)
   HIST 5930, 5931. Field and Laboratory Studies in Museum and Historic Site Development (3,0)
   HIST 5960. Introduction to Oral History (3)
   HIST 5970. Living History (3)
   HIST 5985. Historic Preservation Planning (3)

3. Cognates - 9 s.h.

   ANTH 2000. Archaeology Around the World (3) (F,S) (FC:SO)
   ART 1906. Art History Survey (3) (F,S) (FC:FA) (P: ART 1905 or 1910)
   ART 1907. Art History Survey (3) (F,S) (FC:FA) (P: ART 1905 or 1910)
ART 2905. Masterpieces in the Visual Arts and Literature (3) (FC:FA)
ART 4948. Art of the United States (3) (P: ART 1906, 1907 or consent of instructor)
ENGL 3870. Introduction to Editing and Abstracting (3) (F, S) (P: ENGL 1200)
IDSN 2700. Historic Interiors I (3) (WI)
IDSN 2750. Historic Interiors II: Late Nineteenth and Twentieth Centuries (3) (WI) (F)

**History Honors Program**

A student desiring to enter the honors program in history must be a second semester junior majoring in history; possess a minimum cumulative and major 3.0 GPA; and have a minimum of 20 s.h. in history (exceptions may be made at the discretion of the dept chair). Furthermore, a student engaged in the history honors program shall be enrolled as a part of the regular curriculum in HIST 4550 and 4551, starting the sequence the spring semester of the junior year and concluding at the end of the first semester of the senior year. Upon completion of the two courses, the student will receive 6 s.h. credit in advanced history.

Each honors scholar will carry out an extensive program of carefully supervised reading and research in one of nine areas of history: Colonial America; Nineteenth-Century America; Twentieth-Century America; Ancient and Medieval; Europe, 1500-1815; Europe, 1815 to Present; Asia; Latin America; Africa.

A history honors award is given annually to the history honors program student who completes and defends the most outstanding honors paper.

[http://www.ecu.edu/cs-acad/ugcat/CoursesH.cfm#hist](http://www.ecu.edu/cs-acad/ugcat/CoursesH.cfm#hist)

**HIST: History**

1030. World Civilizations to 1500 (3) (WI*) (F,S,SS) (FC:SO)
May receive credit for one of HIST 1030, 1552. Evolution of world civilizations from prehistory to 1500.

1031. World Civilizations Since 1500 (3) (WI*) (F,S,SS) (FC:SO)
May receive credit for one of HIST 1031, 1553. World civilizations since 1500 and their economic, social, cultural, and political development.

1050. American History to 1877 (3) (WI*) (F,S,SS) (FC:SO)
May receive credit for one of HIST 1050, 1550. History of US from discovery of America in 1492 to end of Reconstruction.

1051. American History Since 1877 (3) (WI*) (F,S,SS) (FC:SO)
May receive credit for one of HIST 1051, 1551. History of US from Reconstruction to present.

1550. Honors, American History to 1877 (3) (F) (FC:SO)
May receive credit for one of HIST 1050, 1550. P: By invitation or consent of instructor. History of US from discovery of America in 1492 to end of Reconstruction.

1551. Honors, American History Since 1877 (3) (WI*) (S) (FC:SO)
May receive credit for one of HIST 1051, 1551. P: By invitation or consent of instructor. History of US from Reconstruction to present.

1552. Honors, World History to 1500 (3) (F) (FC:SO)
May receive credit for one of HIST 1030, 1552. P: By invitation or consent of instructor. Evolution of world civilizations from prehistory to 1500.

1553. Honors, World History Since 1500 (3) (S) (FC:SO)
May receive credit for one of HIST 1031, 1553. P: By invitation or consent of instructor. World civilizations since 1500 and their economic, social, cultural, and political development.

2012. American Business History (3) (WI*) (F) (FC:SO)

2222. Western Europe Since 1500 (3) (F) (FC:SO)
History of Western Europe from Age of Discovery to present. Emphasis on development and growth of nation state system using Spain, France, England, and Germany as examples.

2444. The History of Sports in Western Society (3) (F) (FC:SO)
Role of sports from ancient Greeks to twentieth century. Focus on how sports mirror historical developments and social and cultural trends.

3000. History: Its Nature and Method (3) (WI*) (F,S)
P: 6 s.h. in HIST. Designed for students in the HIED program. Introduction to historical thought and method and varieties and uses of history. May not count toward the “above 2999” HIST major requirement in the BA in history or the BSP in public history. May not count toward the history or public history minor.

3005. Selected Topics in History (3) (WI*) (FC:SO)
May be repeated for credit with change of topic. May count 3 s.h. toward HIST major or minor. Selected topics from historical perspective.

3010. Constitutional History of the United States to 1888 (3) (FC:SO)
Constitutional development of US from colonial period through Waite Court.

3011. Constitutional History of the United States Since 1888 (3) (FC:SO)
Constitutional evolution of US. Emphasis on Supreme Court’s response to industrial developments, politics, war, and civil liberties.

3031. Economic History of the United States Since 1865 (3) (FC:SO)
Economic development of US since Civil War.

3100. North Carolina History (3) (F,S) (FC:SO)
Political, social, and economic developments in NC from colonial era to present.

3110. History of African-Americans (3) (F) (FC:SO)

3121. American Military History to 1900 (3) (F) (FC:SO)
May not be taken by students who have successfully completed HIST 3120. History of military thought and institutions in US from era of American Revolution through nineteenth century. Emphasis on interrelationship between war and society by study of political, economic, and social aspects of military affairs.

3122. American Military History Since 1900 (3) (S) (FC:SO)
May not be taken by students who have successfully completed HIST 3120. American military thought and institutions since 1900. Emphasis on interrelationship between war and society by study of political, economic, and social aspects of military affairs.

3130. Problems in American History (3)
   Principal turning points in American history. Emphasis on varying interpretations.

3140. Women in American History (3) (FC:SO)
   Variety of women's experience in American history. Role of women in nation's social, economic, political, and cultural development.

3170. History of Native Americans (3) (FC:SO)
   Historical approach to understanding the socio-economic, political, legal, and cultural changes experienced by Native Americans focusing on the territory that is now the United States.

3200. Diplomatic History of the United States (3) (WI*) (FC:SO)
   American diplomatic history from 1776 to present. Emphasis on major episodes, policies, and personalities.

3205. History of American Urban Life (3) (FC:SO)
   May receive credit for one of HIST 3205, 5210. Historical assessment of importance of the American city in US history.

3210. Colonial America to 1763 (3) (WI*) (FC:SO)

3215. American Revolution and the Federal Era, 1763-1800 (3) (WI*) (FC:SO)
   Military and political history of War for Independence, problem of constructing a new nation as a union of states, making and ratification of Federal Constitution, and rise of political parties during Federal Era.

3225. The Era of Sectionalism and Civil War, 1848-1877 (3) (FC:SO)
   Rise of sectionalism and events of Civil War and Reconstruction.

3230. The Birth of Modern America, 1865-1892 (3) (WI*) (FC:SO)
   Major historical trends in US from end of Civil War to 1890s.

3235. The Era of Populism and Progressivism in American History, 1892-1919 (3) (FC:SO)
   US history from 1892 to 1919. Compares Populist and Progressive movements and shows emergence of US as a world power.

3240. The Age of Franklin Roosevelt, 1919-1945 (3) (WI*) (FC:SO)
   US politics and society of 1920s, Great Depression, New Deal, and background and impact of World War II.

3245. The United States Since 1945 (3) (WI*) (F) (FC:SO)
   Economics, politics, and society of US from Truman years to present.

3260. The United States and the Middle East, 1783 to the Present (3) (FC:SO)
   History of American interests and involvement in Middle East since 1783.

3300. History of American Rural Life (3) (F) (FC:SO)
   Rural America from pre-contact to present. Major themes include regional development of agricultural economy, agrarian ideology, myths and realities of family farms, farm protest and public policy, and representations of American rural life in literature, music, and film.

3333. Biography and History (3) (FC:SO)
May be repeated for credit with change of topic. May count maximum of 3 s.h. may count toward HIST major or minor. Selected influential people and their impact on society.

3350. War and Society (3) (F) (FC:SO)
Survey of interrelationship between society and warfare from dawn of civilization to present.

3405. History of Ancient Greece to 146 BC (3) (FC:SO)
Political, social, and cultural developments in Greece from 800 BC to 146 BC.

3406. War and Society in Ancient Greece and Rome (3)
Military and social history of Ancient Greece and Rome.

3410. History of Ancient Rome (3) (F) (FC:SO)
Examines political, social, and cultural developments in Rome from 753 BC to 476 AD.

3412. A History of Christianity to 1300 (3) (FC:SO)
Formation and evolution of institutional church and its role in society from its origins to Renaissance. Emphasis on historical interaction between Mediterranean and trans-Alpine cultures.

3413. A History of Christianity 1300-present (3) (FC:SO)

3414. The Celtic World, 700 BC-1601 AD (3)
Institutional and cultural developments of Celtic-speaking polities on the Continent and British Isles until seventeenth century.

3415. The Middle Ages (3) (F) (FC:SO)
Major aspects of political, social, economic, and cultural history of Middle Ages from third to sixteenth centuries.

3420. Early Modern Europe to 1648 (3) (F) (FC:SO)
Political, social, and intellectual transformation that marked beginnings of modern European history.

3430. History of Europe, 1815-1914 (3) (F) (FC:SO)
Europe from Congress of Vienna to outbreak of first world war. Emphasis on political, social, and economic developments of period.

3435. History of Europe Since 1914 (3) (FC:SO)
Transformations in European society and institutions from outbreak of first world war to present.

3444. Old Regime and Revolutionary France (3) (FC:SO)
RP: HIST 1031. Major themes in politics, society and culture from the “Old Regime” to Napoleon’s defeat (1660-1815).

3445. Modern France, 1815-present (3) (FC:SO)
RP: HIST 1031 and/or HIST 3444. The history of French culture, politics and society from the defeat of Napoleon to the present day.

3460. Germany, 1790-1914 (3) (FC:SO)
RP: HIST 1031. Political, social, economic, and cultural development of Germany from late eighteenth century to World War I. Not open to students who have successfully completed HIST 3450.

3461. Germany Since 1914 (3) (FC:SO)
RP: HIST 1031. Political, social, economic, and cultural development of Germany from World War I to the present. Not open to students who have successfully completed HIST 3450.

3480. Britain to 1688 (3) (FC:SO)
Social, political, and cultural development of the British Isles to 1688, with particular emphasis on methods of historical research.

3482. Britain, 1688-1832 (3) (FC:SO)
Social, political and cultural development of British Isles from 1688 to 1832, with particular emphasis on historiography.

3484. Britain from 1832 (3) (FC:SO)
Social, political and cultural development of British Isles from 1832, with particular emphasis on collective memory.

3551. Medieval Russia, 862-1682 (3)
History of Russia from its legendary foundation in 862 to reign of Peter the Great. Emphasis on religious history as well as impact of nationalism on historical writing.

3552. Imperial Russia, 1682-1917 (3)
Political, social, cultural and intellectual history of Russia under Romanovs from Peter I to October Revolution.

3553. Soviet Russia, 1917-1991 (3)
Politics, society, and ideology of Soviet experiment from October Revolution to collapse of communism.

3610. History of East Asia to 1600 (3) (FC:SO)
Contrasting religions, life-styles, and institutions of major civilizations of traditional Asia. Emphasis on China and Japan.

3611. History of East Asia Since 1600 (3) (FC:SO)
Main themes of modern Asian history. Emphasis on revolutionary impact of the West on civilizations of China, Japan, and Southeast Asia (including Vietnam).

3615. History of Traditional Japan (3) (FC:SO)
Japanese history from ancient times to 1600. Emphasis on foundations of traditional patterns, in politics society, religion, philosophy, and art.

3620. History of Modern Japan (3) (F) (FC:SO)
Transformation of Japanese culture under influence of West. Emphasis on causes and consequences of modernization.

3625. Field Study in Japanese Historical Culture (3) (FC:SO)
Field study of traditional Japanese culture and history, based in former imperial capital (794-1868) of Japan, Kyoto.

3626. Field Study in Japanese Historical Texts (3) (FC:SO)
Field study of traditional Japanese historical texts produced in former imperial capital (794-1868) of Japan, Kyoto.

3627. History of Japanese Buddhism (3) (FC:SO)
History of Japanese Buddhism from its introduction in mid-sixth century, through modern times.

3629. History of Traditional China (3) (FC:SO)
History of China before 1600, focusing primarily on main forces operative within intellectual history of China, Confucianism, Daoism, Mohism, Legalism, various schools of Buddhism, and Neo-Confucianism.
3630. History of Modern China (3) (FC:SO)
Factors responsible for collapse of China’s traditional Confucian culture and triumph of communism. Emphasis on role of West in this revolutionary transformation.

3670. History of the Middle East (3) (WI*) (FC:SO)
People, land, and religious groups of Middle East. Emphasis on Islam and imperialism.

3710. Introduction to Latin-American History: Colonial Period (3) (WI*) (FC:SO)
Establishment and administration of Spanish and Portuguese colonies in New World, 1492-1808.

3711. Introduction to Latin-American History: Since 1808 (3) (WI*) (FC:SO)
Wars of Independence. Latin-American nations since independence. Emphasis on growth of republican institutions, social organizations, and economic and cultural developments.

3760. The ABC Powers: Argentina, Brazil, Chile (3) (FC:SO)
Major developments in Republics of Argentina, Brazil, and Chile since independence. Emphasis on conservative-liberal struggle, development of democratic institutions, and economic changes.

3780. Mexico and Central America (3) (WI*) (F) (FC:SO)
Major developments in history of Mexico and Central American republics.

3810. History of Africa (3) (WI) (F) (FC:SO)
Emphasis on pre-colonial African societies, interactions between African societies and Europeans during colonial era, and African quest for independence.

3820. History of South Africa (3) (WI) (FC:SO)
Examination of pre-colonial, colonial, and post-colonial South African history. Emphasis on post-1800 South Africa.

3830. Africa and Islam (3) (WI) (FC:SO)
Examination of relationship between Africans and Islam. Emphasis on the impact of Islam on African societies, especially in North, West, and East Africa.

3900. Introduction to Public History (3) (F)
May not count toward BS in HIST. Meaning and various aspects and practices of public history. Emphasis on reading, discussion, and fieldwork projects.

3920. Social History of American Medicine (3) (S) (FC:SO)
Development of medical ideas, practices, and healing professions. Emphasis on changing interactions between medicine and society.

3993. Approaches to Historical Objects (3)
Social, cultural, political, and intellectual implications of classifying, conserving, and displaying historical objects. Topics include artifacts, archives, monuments, cultural policy, commercial history, and historical memory.

4000. Senior Seminar (3)(WI*)
P: Declared major in either history or public history, with senior standing or consent of the instructor. Capstone course in undergraduate study of history.

4400. Science and Religion in Europe and America, 1600-1900 (3)
Examines debate between intellectuals who believed that scientific discovery and religious faith were compatible and those who did not. Primary and secondary sources.

4444. Studies in French History (3)
May be repeated with change of topic. May count maximum of 3 s.h. toward HIST major or minor. Varied selected topics in French history from Middle Ages to present day.

4445. The European Enlightenments (3)
RP: A 3000-level course in history, political science, philosophy and/or classical studies. History and major texts of period and process called Enlightenment, including its critics and legacy in modern history and politics.

4470. The Great War: Experience, Memory and Legacy (3)

4500. Political Culture and Community in Eighteenth-century Britain (3)
RP: HIST 3480, or 3482 or 3484. Dimensions of British political culture during long eighteenth century, 1688 to 1832.

4531, 4532, 4533. Directed Readings in History (1,2,3) (F,S) (FC:SO)
P: Consent of dept chair. Intensive examination of specific field in student’s area of interest. May be repeated once with change of topic and permission of the director of undergraduate studies and the department chair.

4550, 4551. Honors (3,3) (F,S) (FC:SO)
Independent reading and research program under direction of major area professor.

4610. History of Southeast Asia (3) (FC:SO)
Evolution of modern Southeast Asia. Emphasis on transformation of traditional cultures under impact of western colonial rule.

4940, 4941, 4942. Internship in Archives and Historical Records Administration (3,6,9) (F,S)
140 hours for 3 s.h., 280 hours for 6 s.h., 420 hours for 9 s.h. Maximum of 3 s.h. in HIST 4940-4948 may count toward HIST requirement for BS or minor in public history. May not count toward HIST major or minor elective requirements above 2999. P: Senior standing; minimum cumulative 2.2 GPA; minimum 2.5 GPA in HIST; consent of instructor. Practical field experience under supervision in archival and manuscript agencies.

4943, 4944, 4945. Internship in Museum Administration (3,6,9) (F,S)
140 hours for 3 s.h., 280 hours for 6 s.h., 420 hours for 9 s.h. May not count toward HIST major or minor elective requirements above 2999. Maximum of 3 s.h. in HIST 4940-4948 may count toward HIST requirement for BS or minor in public history. P: Senior standing; minimum cumulative 2.2 GPA; minimum 2.5 GPA in HIST; consent of instructor. Practical field experience under supervision.

4946, 4947, 4948. Internship in Historic Site Administration (3,6,9) (F,S)
140 hours for 3 s.h., 280 hours for 6 s.h., 420 hours for 9 s.h. Maximum of 3 s.h. in HIST 4940-4948 may count toward HIST requirement for BS or minor in public history. May not count toward HIST major or minor elective requirements above 2999. P: Senior standing; minimum cumulative 2.2 GPA; minimum 2.5 GPA in HIST; consent of instructor. Practical field experience under supervision.

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) (F)
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) (S)
In-depth exploration of topics. Analysis of major themes, documents, and theoretical work.

5230. Themes in African American History (3) (S)
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) (S)
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)

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*)

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. Develop 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.

HIST Banked Courses
   3030. Economic History of the United States to 1865 (3)
   3120. American Military History (3)
   3125. A History of World War II in Film (3)
   3220. Continental Expansion of the United States, 1800-1848 (3)
   3486. Constitutional History of England (3)
   3910. History of Science (3)
   3915. History of Western Medical Thought (3)
   4450. History of Eastern Europe (3)
   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)
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III. College of Health and Human Performance, Department of Health Education and Promotion, Affected Units

http://www.ecu.edu/cs-acad/ugcat/ExerSport.cfm

BS in Health Fitness Specialist

The health fitness specialist program is endorsed by the American College of Sports Medicine (ACSM) as providing all competencies necessary for the ACSM Health Fitness Instructor® certificate exam. This program provides competencies and knowledge for students to develop and conduct health and fitness programs in commercial, corporate, clinical and community settings. A minimum cumulative 2.0 GPA is required for admission as well as successful completion of the EXSS health-related fitness test. Students must have nine semester hours of writing intensive credit from Foundations Curriculum. A minimum grade of C in all required EXSS courses is required to complete the degree. Minimum degree requirement is 125 s.h. of credit as follows:

1. Foundations curriculum requirements (For information about courses that carry foundations curriculum credit see Liberal Arts Foundations Curriculum) including those listed below - 42 s.h.

   BIOL 1050. General Biology (3) (F,S,SS) (FC:SC)
   BIOL 1051. General Biology Laboratory (1) (F,S,SS) (FC:SC)
   CHEM 1020. General Descriptive Chemistry (4) (F,S) (FC: SC)
   COMM 2410. Public Speaking (3) (F,S,SS) (FC:FA) or COMM 2420. Business and Professional Communication (3) (F,S,SS) (FC:FA)
   MATH 1065. College Algebra (3) (F,S,SS) (FC:MA) (P: Appropriate score on mathematics placement test)
   PSYC 1000. Introductory Psychology (3) (F,S,SS) (FC:SO)
   PSYC 3206. Developmental Psychology (3) (WI*) (F,S,SS) (FC:SO) (P: PSYC 1000 or 1060)

2. Core - 46 s.h.

   EXSS 1101. Physical Conditioning (1) (F,S,SS) (P: EXSS 1000 or 1001)
   EXSS 1114. Aerobic Dance (1) (F,S,SS) (P: EXSS 1000 or 1001)
   EXSS 2000. Introductory Exercise and Sport Science (3) (F,S,SS)
   EXSS 2202. Motor Learning and Performance (3) (F,S,SS)
   EXSS 2850. Structural Kinesiology (1) (F,S,SS)
   EXSS 3804. Measurement of Physical Activity and Fitness (3) (F,S,SS) (P: BITE 2112 or MIS 2223; EXSS 2000; or consent of instructor)
   EXSS 3805. Physiology of Exercise (3) (F,S,SS) (P: BIOL 2130 or BIOL 2140, 2150; EXSS 2850)
EXSS 3850. Introduction to Biomechanics (3) (F,S,SS) (P: BIOL 2130 or BIOL 2140; EXSS 2850; PHYS 1250, 1251; or consent of instructor)
EXSS 3880. Personal Fitness Training (3) (F,S,SS) (P: Declared major or consent of instructor)
EXSS 4805. Exercise Evaluation and Prescription Laboratory (1) (F,S,SS) (C: EXSS 4806)
EXSS 4806. Exercise Evaluation and Prescription (3) (WI) (F,S,SS) (P: EXSS 3805; health and human performance major or minor; or consent of instructor; C: EXSS 4805)
EXSS 4850. Exercise Leadership (3) (F,S) (P: EXSS 1114 or 1214, 3805; declared EXSS major or consent of instructor)
EXSS 5020. Exercise Adherence (3) (P: PSYC 1000; P/C: EXSS 4806; health and human performance major or minor; or consent of dept chair)
EXSS 5800. Physical Activity and Aging (3) (SL)
HLTH 4200. Planning and Evaluation in Worksite Health Promotion (3) (F,S,SS) (P: Completion of core courses)
Choose 3 s.h. of approved EXSS electives at or above the 3000 level.
Choose 6 s.h. from the following HLTH classes:
ATEP 2800. Medical Nomenclature - for Human Performance (2) (F,S,SS) (P: HLTH 4000)
ATEP 3350. Concepts in Pharmacology (3) (F,S,SS) (RP: ATEP 2800 or equivalent)
HLTH 3010. Health Problems I (3) (F,S,SS) (P: BIOL 2130 or 2140; HLTH 1000 or 1050; or consent of instructor)
HLTH 4604. Applied Principles of Health Promotion (3) (SL*) (F,S) (P: BIOL 2130 or 2140; NUTR 2105; PSYC 1000; or consent of instructor)
HLTH 5900. Stress Management (3) (S) P: Undergraduate course in anatomy and physiology; graduate standing; or consent of instructor)
3. Cognates - 18 s.h.
   BITE 2112. Introduction to Information Processing Technology (3) (F,S,SS) or MIS 2223. Introduction to Computers (3) (F,S,SS)
   BIOL 2130. Survey of Human Physiology and Anatomy (4) (F,S,SS) (P: BIOL 1050, 1051; or 1100, 1101)
   CHEM 1021. General Descriptive Chemistry Laboratory (1) (F,S) (FC: SC)
   HLTH 2220, 2221. Basic Athletic Training (3,0) (F,S,SS) (P: HLTH 1000 or 1050); C for 2220; HLTH 2221; C for 2221: HLTH 2220)
   NUTR 2105. Nutrition Science (3)
   PHYS 1250. General Physics (3) (F,S,SS) (FC:SC) (P: MATH 1065)
   PHYS 1251. General Physics Laboratory (1) (F,S,SS) (FC:SC) (C for 1251: PHYS 1250 or 2350)
4. Internship - 12 s.h.
   EXSS 4800. Internship in Health Fitness (12) (F,S,SS) (P: Declared major and satisfactory completion of all other degree requirements or consent of dept chair)
5. Electives to complete requirements for graduation.

http://www.ecu.edu/cs-acad/ugcat/ExerSport.cfm

Exercise and Sport Science Minor

Minimum requirement for the exercise and sport science minor is 24 s.h. of credit as follows:

1. Core - 3 s.h.
   EXSS 2000. Introductory Exercise and Sport Science (3) (F,S,SS)

2. Electives (must comprise at least 15 s.h. of EXSS courses) - 21 s.h.
   ATEP 2800. Medical Nomenclature in for Human Performance (2) (F,S,SS) (P: HLTH 1000)
   EXSS 2202. Motor Learning and Performance (3) (F,S,SS)
   EXSS 2850. Structural Kinesiology (1) (F,S,SS)
   EXSS 3300. Applied Sports Psychology (3) (F) (P: PSYC 1000)
   EXSS 3301. Physical Education and Sport in Modern Society (3) (F,SS) (P: Health and human performance major or minor, or consent of instructor)
   EXSS 3804. Measurement of Physical Activity and Fitness (3) (F,S,SS) (P: BITE 2112 or MIS 2223; EXSS 2000; or consent of instructor)
   EXSS 3805. Physiology of Exercise (3) (F,S,SS) (P: BIOL 2130 or BIOL 2140, 2150; EXSS 2850)
   EXSS 3850. Introduction to Biomechanics (3) (F,S,SS) (P: BIOL 2130 or BIOL 2140; EXSS 2850; PHYS 1250; 1251; or consent of instructor)
   EXSS 3906. Physical Education for Special Populations (3) (WI) (F,S,SS) (P: Upper-division standing; EXSS 2323; SPED 2000; or consent of instructor)
   EXSS 4804. Measurement and Evaluation in Exercise and Sport Science (3) (F,S,SS) (P: Upper-division standing; EXSS 2323; MATH 1065; health and human performance major or minor or consent of dept. chair)
   EXSS 4805. Exercise Evaluation and Prescription Laboratory (1) (F,S,SS) (C: EXSS 4806)
   EXSS 4806. Exercise Evaluation and Prescription (3) (WI) (F,S,SS) (P: Health and human performance major or minor; EXSS 3805; or consent of instructor; C: EXSS 4805)
   EXSS 4807. Advanced Exercise Physiology (3) (F) (P: EXSS 4806, CHEM 2750, 2753 (C or better), and consent of instructor)
   EXSS 4808. Cardiopulmonary Physiology (3) (S) (P: EXSS 4806, CHEM 2750, 2753 (C or better), and consent of instructor)
   EXSS 4809. Exercise Prescription for Clinical Populations (3) (F,S,SS) (P: EXSS 4806)
   EXSS 4850. Exercise Leadership (3) (F,S) (P: EXSS 1114 or 1214 3805; declared EXSS major or consent of instructor)
EXSS 5020. Exercise Adherence (3) (P: PSYC 1000; P/C: EXSS 4806; HHP major or minor or consent of instructor)
EXSS 5303. Physical Activity Programs for Individuals with Developmental, Emotional, and Learning Disabilities (3) (P: EXSS 3545 or 3546; SPED 5101; or consent of instructor)
EXSS 5305. Motor Development (3) (P: EXSS 2800 or equivalent or consent of instructor)
EXSS 5800. Physical Activity and Aging (3) (SL) (P: Consent of instructor)
EXSS 5903. Physical Activity Programs for Individuals with Orthopedic, Neurologic, and Sensory Impairments (3) (P: BIOL 2130 or equivalent)
HLTH 3010. Health Problems I (3) (F,S,SS) (P: BIOL 2130 or 2140; HLTH 1000 or 1050; or consent of instructor)
HLTH 3030. Health Behavior (3) (WI) (F,S,SS) (P: HLTH 1000 or 1050; PSYC 1000)
HLTH 4200. Planning and Evaluation of Worksite Health Promotion (3) (F,S,SS) (P: Completion of core courses in worksite health promotion)
HLTH 4604. Applied Principles of Health Promotion (3) (SL*) (F,S) (P: BIOL 2130 or 2140; NUTR 1000 or 2105; PSYC 1000; or consent of instructor)
NUTR 3101. Clinical Nutrition for Allied Health Professions (3)
PSYC 4333. Learning Theories and Applications (3) (P: PSYC 1000)

IV. Thomas Harriot College of Arts and Sciences, Department of Mathematics, Affected Units

http://www.ecu.edu/cs-acad/ugcat/economics.cfm

Thomas Harriot College of Arts and Sciences

Department of Economics

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

BS in Economics

Economics majors are required to earn a minimum grade of C in each of the following courses: ECON 2113, 2133, 3144, 3244. Minimum degree requirement is 120 s.h. of credit as follows.

1. Foundations curriculum (For information about courses that carry foundations curriculum credit see Liberal Arts Foundations Curriculum.) - 42 s.h.

   MATH 1065. College Algebra (3) (F,S,SS) (FC:MA) (P: Appropriate score on mathematics placement test) or MATH 1066. Applied Mathematics for Decision Making
(3) (F,S,SS) (FC:MA) (P: Appropriate score on mathematics placement test or approval of dept chair)

2. Common Core - 21 s.h.

ECON 2113. Principles of Microeconomics (3) (F,S,SS) (FC:SO)
ECON 2133. Principles of Macroeconomics (3) (F,S,SS) (FC:SO) (P: ECON 2113)
ECON 3144. Intermediate Microeconomics (3) (F,S) (FC:SO) (P: ECON 2113)
ECON 3244. Intermediate Macroeconomics (3) (F,S) (FC:SO) (P: ECON 2133)
ENGL 3880. Writing for Business and Industry (3) (WI) (F,S,SS) (P: ENGL 1200)
MATH 2283. Statistics for Business (3) (F,S,SS) (P: MATH 1065 or 1066 or equivalent)
MIS 2223. Introduction to Computers (3) (F,S,SS)

3. Concentration area (Choose one.) - 39-42 s.h.

Applied Economics:
ACCT 2401. Financial Accounting (3) (F,S,SS) (P: MATH 1065 or 1066 or 2119 or 2121 or 2171)
ACCT 2521. Managerial Accounting (3) (F,S,SS) (P: ACCT 2401)
COMM 2410. Public Speaking (3) (F,S,SS) (FC:FA) or COMM 2420. Business and Professional Communication (3) (F,S,SS) (FC:FA)
ECON 3343. Econometrics (3) (WI) (F,S) (FC:SO) (P: MIS 2223 or CSCI 2600; ECON 2133; MATH 2283)
FINA 2244. Legal Environment of Business (3) (F,S,SS)
FINA 3724. Financial Management (3) (F,S,SS) (P: ECON 2113; MATH 2283; C: ACCT 2521 or 3551)
MATH 2119. Elements of Calculus (3) (F,S,SS) (FC:MA) (P: Minimum grade of C in MATH 1065 or MATH 1066 with a minimum grade of C) An additional 18 s.h. of ECON above 2999, including at least 6 s.h. above 3999
Quantitative:
MATH 1083. Introduction to Functions (3) (F,S,SS) (FC:MA) (P: Consent of dept. chair)
MATH 2171, 2172, 2173. Calculus I, II, III (4,4,4) (F,S,SS) (FC:MA) (P for 2171: minimum grade of C in any of MATH 1083, 1085 or 2122; P for 2172: MATH 2171 with a minimum grade of C or 2122 with consent of instructor; P for 2173: MATH 2172 with a minimum grade of C)
MATH 3256. Linear Algebra (3) (F,S,SS) (P: MATH 2172)
MATH 3307. Mathematical Statistics I (3) (F,S,SS) (P: MATH 2152 or MATH 2172) or ECON 3343. Econometrics (3) (WI) (F,S) (FC:SO) (P: MIS 2223 or CSCI 2600; ECON 2133; MATH 2283)
An additional 21 s.h. of ECON above 2999, including at least 6 s.h. above 3999

4. Electives, or optional minor and electives, to complete requirements for graduation.

(Grades in required cognate courses will be used in computing the GPA in the major even in those cases in which the same courses are a part of the minor.)
College of Education

Academic Concentrations

Mathematics (24 s.h.)
MATE 1267. Functional Relationships (3) (P: MATH 1065 or equivalent)
MATE 2067. Data and Probability Explorations (3) (F, S) (P: MATH 1065 or equivalent)
MATE 3067. Algebra and Number Foundations (3) (F, S) (P: MATH 1065 or equivalent)
MATE 3167. Geometry and Measurement (3) (F, S) (P: MATH 1065 or equivalent)
MATE 3267. Concepts in Discrete Mathematics (3) (S) (P: MATE 3067)
MATE 3367. Mathematical Modeling (3) (S) (P: MATE 1267, 2267, 3067, and 3167)
MATH 1065. College Algebra (3) (F,S,SS) (FC:MA) (P: Appropriate score on math placement test)
MATH 2119. Elements of Calculus (3) (F,S,SS) (FC:MA) (P: Minimum grade of C in MATH 1065 or MATH 1066 with minimum grade of C)

BS in Middle Grades Education

See Licensure, above. A minimum GPA of 2.5 is required for admission to the program. Middle Grades education majors must have a minimum grade of C in EDTC 4001; EDUC 4400 or PSYC 4305; MIDG 2123, 3001, 3010, 3022, 4001, 4010; READ 5317; and SPED 4010. Minimum degree requirement is 128 s.h. of credit as follows:

(Note: These degree requirements are subject to change beginning Fall 2010 pending NC State Board of Education approval of revised licensure program requirements. Students should consult their departmental advisor for specific program information.)

1. Foundations curriculum requirements (For information about courses that carry foundations curriculum credit see Liberal Arts Foundations Curriculum) including those listed below - 42 s.h.

ANTH 2010. Societies Around the World (3) (F,S,SS) (FC:SO) or GEOG 2100. World Geography: Developed Regions (3) (F,S,SS) (FC:SO) or GEOG 2110. World Geography: Less Developed Regions (3) (F,S,SS) (FC:SO) or SOCI 2110. Introduction to Sociology (3) (F,S,SS) (FC:SO) or ECON 2113. Microeconomics (3) (F,S,SS) (FC:SO)
ART 1910. Art Appreciation (2) (F,S,SS) (FC:FA) or DNCE 1000. Introduction to Dance (2) (F,S,SS) (FC:FA) or MUSC 2208. Music Appreciation (2) (F,S,SS) (FC:FA) or THEA 1000. Introduction to Theatre (3) (F,S,SS) (FC:FA)
HIST 1050. American History to 1877 (3) (WI*) (F,S,SS) (FC:SO) or HIST 1051. American History Since 1877 (3) (WI*) (F,S,SS) (FC:SO) or HIST 1030. World Civilizations to 1550 (3) (F,S,SS) (FC:SO) or HIST 1031. World Civilizations since 1550 (3) (F,S,SS) (FC:SO)

MATH 1065. College Algebra (3) (F,S) (FC:MA) (P: Appropriate score on mathematics placement test)
POLS 1010. National Government (3) (F,S,SS) (FC:SO)
PSYC 1000. Introductory Psychology (3) (F,S,SS) (FC:SO)

A literature course (3) (WI) (F,S,SS) (FC:HU) (P: ENGL 1100)
Choose 4 s.h. BIOL (FC:SC)
Choose 4 s.h. CHEM, PHYS, or GEOL (FC:SC)
Choose 5 s.h. humanities and/or fine arts

2. Professional studies - 25-26 s.h.

EDTC 4001. Technology in Education (2) (F,S,SS) (P: Admission to upper division)
EDUC 3200. Foundations of American Education (3) (WI*) (F,S,SS) (P: Early experience course or consent of instructor)
EDUC 4400. Foundations of School Learning, Motivation, and Assessment (3) (F,S) (P: Admission to upper division; C: Senior I semester) or PSYC 4305. Educational Psychology (3) (F,S,SS) (P: PSYC 2201 or 2240 or 3206 or 3240 or equivalent)
MIDG 2123. Early Experiences for the Prospective Teacher (1) (F,S) (P: Sophomore standing or consent of instructor)
MIDG 4324. Internship in the Middle Grades (10) (F,S) (P: Admission to upper division; EDTC 4001; EDUC 3200; EDUC 4400 or PSYC 4305; MIDG 4001, 4010; READ 5317; 2 methods courses from the following: MIDG, HIED, MATE, SCIE 4319; C: MIDG 4325)
MIDG 4325. Internship Seminar: Issues in Middle Grades Education (2) (F,S) (P: Admission to upper division; C: MIDG 4324)
READ 3990. Teaching Reading in the Content Areas in the Secondary School (2) (F,S,SS) or READ 5317. Reading in the Junior and Senior High School (3) (F,S,SS) SPED 4010. Effective Instruction in Inclusive Classrooms (2) (F,S) (RP: SPED 2000) A methods course (4319) is required for certification in each of the 2 academic concentrations leading to middle grades licensure. No substitutions for methods classes may be made without special MIDG program approval.

3. Specialty area - 22 s.h.

MIDG 3001. Early Experience Through an Introduction to Middle Grades Education (3) (WI) (F,SS) (P/C: MIDG 2123)
MIDG 3010. Middle Grades Curriculum and Planning (3) (S,SS) (P: Junior standing; MIDG 3001; C: MIDG 3022)
MIDG 3022. Instructional Models and Strategies for Middle Grades (4) (S,SS) (P: MIDG 3001; C: MIDG 3010)
MIDG 4001. Organization, Management, and Motivation in the Middle Grades Classroom (3) (S,SS) (P: MIDG 2123, 3001 or approval by area coordinator; upper division standing)

MIDG 4010. Instructional Evaluation in Middle Grades (3) (WI) (F) (P: Upper division standing: MIDG 3010, 3022; C: Choose 2 from ENED or MIDG; or HIED or MATE or SCIE 4319)

Choose two of the following four methods courses (total of 6 hours):
- ENED 4319. Teaching English/Language Arts in the Middle Grades (3) (F) (P: Admission to upper division; EDUC 3200; MIDG 3001, 3010, 3022; 10 s.h. in ENGL; C: MIDG 4010; HIED or MATE or SCIE 4319)
- HIED 4319. Teaching Social Studies in the Middle Grades (3) (F) (P: Admission to upper division; EDUC 3200; MIDG 3001, 3010, 3022; 18 s.h. in social sciences; or consent of instructor; C: MIDG 4010; MIDG 4319 or SCIE 4319 or MATE 4319)
- MATE 4319. Teaching Mathematics in the Middle Grades (3) (F) (P: Admission to upper division; EDUC 3200; MIDG 3010, 3022; C: MIDG 4010; HIED or MIDG or SCIE 4319 or consent of instructor)
- SCIE 4319. Teaching Science in the Middle Grades (3) (F) (P: Admission to upper division; EDUC 3200; MIDG 3010, 3022; SCIE 3602, 3604; or consent of instructor; C: MIDG 4010; HIED or MATE or MIDG 4319)

4. Academic concentration: Middle grades majors are required to complete two academic concentrations appropriate for licensure - 36-42 s.h.

Middle grades education majors must select 2 of the following academic concentrations. A total of 6 credit hours in each concentration may be double counted in foundations curriculum or specialty area.

English (24 s.h.)
- CLAS 1500. Classical Mythology (3) (FC:HU) (Formerly CLAS 3460)
- ENGL 2000. Interpreting Literature (3) (F, S, SS) (FC:HU) (P: ENGL 1100)
- ENGL 2100. Major British Writers (3) (F, S) (WI) (FC:HU) (P: ENGL 1200) or ENGL 2200. Major American Writers (3) (WI) (F, S) (FC:HU) (P: ENGL 1200)
- ENGL 2700. Introduction to Language Studies (3) (WI) (F, S) (FC:HU) (P: ENGL 1200) or ENGL 2730. Functional Grammar (3) (F, S) (P: ENGL 1200)
- ENGL 3810. Advanced Composition (3) (F, S) (P: ENGL 1200) or ENED 3815. Composition Instruction in Grades 9-12 (3) (W) (P: ENED 2123 or department consent)

Choose one from:
- ENGL 3260. African American Literature (3) (F, S, SS) (FC:HU) (P: ENGL 1200)
- ENGL 3300. Women and Literature (3) (F, S, SS) (FC:HU) (P: ENGL 1200)
- ENGL 3450. Northern European Mythology (3) (FC:HU) (P: ENGL 1200)
- ENGL 3460. Literature and Classical Mythology (3) (FC:HU) (P: ENGL 1200)
- ENGL 3570. American Folklore (3) (WI) (F, S) (FC:HU) (P: ENGL 1200)
- ENGL 3600. Classics from Homer to Dante (3) (F) (FC:HU) (P: ENGL 1200)
- ENGL 3630. The Bible as Literature (3) (S) (FC:HU) (P: ENGL 1200)
- ENGL 4360. World Literature in English (3) (W) (FC:HU) (P: ENGL 1200)

Choose 9 s.h. ENGL electives of which 6 s.h. must be above 2999
General Science (24 s.h.)
BIOL 1050. General Biology (3) (F,S,SS) (FC:SC)
CHEM 1020. General Descriptive Chemistry (4) (F,S) (FC:SC)
GEOL 1500. Dynamic Earth (3) (F,S,SS) (FC:SC)
PHYS 1250. General Physics (3) (F,S,SS) (FC:SC) (P: MATH 1065 or 1066)
SCIE 3602. Investigations in Physical and Earth Science for Elementary Majors (4) (F,S,SS)
SCIE 3604. Investigations in Life and Environmental Science for Elementary Education Majors (4) (F,S,SS)
Choose one of the following:
SCIE 3350, 3351. Descriptive Astronomy (4,0) (F)
SCIE 3360, 3361. Physical Meteorology (4,0) (S)

Social Studies (24 s.h.)
ANTH 3002. Cultures of East Asia (3) (FC:SO) (P: ANTH 1000 or 2010 or 2200 or consent of instructor) or GEOG 3049. South America (3) (WI) (F) (FC:SO) or GEOG 3051. Far East (3) (S) (FC:SO) or HIST 3611. History of the Far East Since 1600 (3) (FC:SO) or ANTH 3003. Cultures of Africa (3) (OY) (FC:SO) (P: ANTH 1000 or 2010 or 2200 or consent of instructor) or GEOG 3050. Africa (3) (S) (FC:SO) or HIST 3710. Introduction to Latin-American History: Colonial Period (3) (WI*) (FC:SO) or HIST 3711. Introduction to Latin-American History: Since 1808 (3) (FC:SO) or HIST 3810. History of Africa (3) (WI*) (FC:SO)
ECON 2113. Principles of Microeconomics (3) (F,S,SS) (FC:SO)
GEOG 2100. World Geography: Developed Regions (3) (F,S,SS) (FC:SO) or GEOG 2110. World Geography: Less Developed Regions (3) (F,S,SS) (FC:SO)
HIST 1030. World Civilizations to 1500 (3) (WI*) (F,S,SS) (FC:SO) or HIST 1031. World Civilizations Since 1500 (3) (WI*) (F,S,SS) (FC:SO) or HIST 1050. American History to 1877 (3) (WI*) (F,S,SS) (FC:SO) or HIST 1051. American History Since 1877 (3) (WI*) (F,S,SS) (FC:SO) or HIST 3100. North Carolina History (3) (FC:SO)
POLS 1010. National Government (3) (F,S,SS) (FC:SO) or POLS 3265. African Political Systems (3) (S) (FC:SO)

Mathematics (24 s.h.)
MATE 1267. Functional Relationships (3) (S) (P: MATH 1065 or equivalent)
MATE 2067. Data and Probability Explorations (3) (F, S) (P: MATH 1065 or equivalent)
MATE 3067. Algebra and Number Foundations (3) (F, S) (P: MATH 1065 or equivalent)
MATE 3167. Geometry and Measurement (3) (F, S) (P: MATH 1065 or equivalent)
MATE 3267. Concepts in Discrete Mathematics (3) (S) (P: MATE 3067)
MATE 3367. Mathematical Modeling (3) (S) (P: MATE 1267, 2267, 3067, and 3167)
MATH 1065. College Algebra (3) (F,S,SS) (FC:MA) (P: Appropriate score on math placement test)
MATH 2119. Elements of Calculus (3) (F,S,SS) (FC:MA) (P: Minimum grade of C in MATH 1065 or MATH 1066 with minimum grade of C)

5. Cognate - 3 s.h.
Mathematics concentration students: MATE 2067. Data and Probability Explorations (3) (F, S) (P: MATH 1065 or equivalent) or MATE 3167. Geometry and Measurement (3) (F, S) (P: MATH 1065 or equivalent).
Non-mathematics concentration students: EDUC 3002. Introduction to diversity (3)

6. Electives to complete requirements for graduation.

http://www.ecu.edu/cs-acad/ugcat/HealthEd.cfm

BS in Environmental Health

A minimum GPA of 2.0 in all 1000 level basic science and math courses, a minimum cumulative GPA of 2.0 on at least 30 s.h., and completion of EHST 2110 are required for admission to the professional phase of the environmental health sciences curriculum. Environmental health majors must pass all environmental health courses with a minimum grade of C. A student earning a D in any of these courses must petition the environmental health sciences faculty for probationary continuation. Minimum degree requirement is 126 s.h. of credit as follows:

1. Foundations Curriculum requirements (For information about courses that carry foundations curriculum credit see Liberal Arts Foundations Curriculum) including those listed below - 42 s.h.

   Required:
   BIOL 1050, 1051. General Biology and Laboratory (3,1) (F,S,SS) (FC:SC)
   BIOL 2130. Survey of Human Anatomy (4) (F,S,SS) (P: BIOL 1050, 1051; or 1100, 1101)
   MATH 1065. College Algebra (3) (F,S,SS) (FC:MA) (P: Appropriate score on mathematics placement test)
   
   Recommended
   COMM 2420. Business and Professional Communication (3) (F,S,SS) (FC:FA)
   HIST 1051. American History Since 1877 (WI*) (3) (F,S,SS) (FC:SO)
   PSYC 1000. Introductory Psychology (3) (F,S,SS) (FC:SO)
   RCLS 2601. Leisure in Society (3) (F,S,SS) (FC:SO)
   SOCI 2110. Introduction to Sociology (3) (F,S,SS) (FC:SO)

2. Common Core - 42 s.h.

   Select from the following with advisor approval:
   EHST 2110, 2111. Introduction to Environmental Health Sciences and Laboratory (3, 0) (F,S)
   EHST 3003. Environmental Epidemiology (3) (F)
   EHST 3200. Food Sanitation Principles (3) (S) (P: Consent of Instructor, C: EHST 3201)
   EHST 3201. Food Sanitation Principles Laboratory (1) (S) (P: Consent of Instructor, C: EHST 3200)
EHST 3350. Safe Water (4) (F) (P: BIOL 2110, 2111; CHEM 1160, 1161, C: EHST 3351)
EHST 3351. Safe Water Laboratory (1) (F) (P: BIOL 2110, 2111; CHEM 1160, 1161, C: EHST 3350)
EHST 3370. Waste Water Management (3) (S) (P: EHST 3350, 3351, C: EHST 3371)
EHST 3371. Waste Water Management Laboratory (1) (S) (P: EHST 3350, 3351, C: EHST 3370)
EHST 3600. Air Pollution (3) (F) (P: EHST 2110 or consent of instructor)
EHST 3700. Industrial Hygiene (3) (S) (P: 8 s.h. of general science lab courses or consent of program directors; C: EHST 3701)
EHST 3701. Industrial Hygiene Laboratory (1) (S) (P: Consent of instructor; C: EHST 3700)
EHST 4010. Toxicological Foundations of Risk Assessment (3) (S) (P: BIOL 2130; CHEM 2650, 2651)
EHST 4200. Environmental Health Management and Law (3) (WI) (F) (P: EHST major or minor)
EHST 4300, 4301. Institutional and Recreational Sanitation and Laboratory (3,0) (F) (P: EHST 2110, 3003, 3200, 3201, 3350, 3351, 3370, 3371; or consent of instructor)
EHST 4350, 4351. Vector Borne Disease Ecology and Laboratory (3,0) (F) (P: EHST 2110, 3003, 3350, 3351, 3370, 3371; or consent of instructor)
EHST 4990. Environmental Health Internship (3) (P: EHST major; 13 s.h. in EHST or consent of program dir.)
EHST 5001. Environmental Health Seminar (1) (May be taken more than once)
EHST 5800, 5801. Solid and Hazardous Waste Management and Laboratory (3,0) (P: CHEM 1160, 1161 or consent of instructor)

3. Cognates - 30 s.h.

Required Cognates (24 s.h.):
BIOL 2110, 2111. Fundamentals of Microbiology and Laboratory (3,1) (F,S) (FC:SC) P for 2110; CHEM 1120, 1130 or CHEM 1150, 1160; RP for 2110; BIOL 1050, 1051 or 1100, 1101; P/C for 2111: BIOL 2110
CHEM 1150, 1151. General Chemistry and Laboratory I (3,1) (F,S,SS) (FC:SC) (P/C: MATH 1065; C for 1150: CHEM 1151; C for 1151: CHEM 1150)
CHEM 1160, 1161. General Chemistry and Laboratory II (3,1) (F,S,SS) (FC:SC) (P: CHEM 1150, 1151; C for 1160: CHEM 1161; C for 1161: CHEM 1160; RC: MATH 1083 or 1085)
CHEM 2650, 2651. Organic Chemistry for the Life Sciences (4,1) (F,S) (P: CHEM 1160, 1161)
PHYS 1250, 1251. General Physics and Laboratory (3,1) (F,S,SS) (FC:SC) (P: MATH 1065)
MATH 2228. Elementary Statistical Analysis (3) (F,S,SS) (P: MATH 1065 or equivalent) or BIOS 1500. Introduction to Biostatistics (3) (P: MATH 1065 or equivalent or consent of instructor)
Recommended Cognates (select at least 6 s.h.)
MIS 2223. Introduction to Computers (3) (F,S,SS)
PHYS 1260, 1261. General Physics and Laboratory (3,1) (P: PHYS 1250)
GEOG 3220. Soil Properties, Surveys, and Applications (3) (F) (P: GEOG 2250) or GEOL 5710, 5711. Ground Water Hydrology (3,0) (P: GEOL 1500, 1501 or consent of instructor)
MATH 2119. Elements of Calculus (3) (F,S,SS) (FC:MA) (P: Minimum grade of C in MATH 1065 or MATH 1066 with a minimum grade of C) or MATH 2121. Calculus for the Life Sciences (3) (F,S,SS) (FC:MA) (P: MATH 1065 with a minimum grade of C)

4. Electives to complete requirements for graduation

Choose at least 6 s.h. of EHST electives from the 3000 level and above.

http://www.ecu.edu/cs-acad/ugcat/TechSystems.cfm

BS in Industrial Engineering Technology

Merwan B. Mehta, Coordinator, 212 Science and Technology Building

Minimum degree requirement is 126 s.h. of credit as follows:

1. Foundations curriculum requirements (For information about courses that carry foundations curriculum credit see Liberal Arts Foundations Curriculum) including those listed below. 42 s.h.

COMM 2410. Public Speaking (3) (F,S,SS) (FC:FA) or COMM 2420. Business and Professional Communication (3) (F,S,SS) (FC:FA)
ECON 2113. Principles of Microeconomics (3) (F,S,SS) (FC:SO)
MATH 1065. College Algebra (3) (F,S,SS) (FC:MA) (P: Appropriate score on mathematics placement test) or MATH 1066. Applied Mathematics for Decision Making (3) (F,S,SS) (FC:MA) (P: Appropriate score on mathematics placement test or approval of dept chair)
PHYS 1250, 1260. General Physics (3,3) (F,S,SS) (FC:SC) (P for 1250: MATH 1065 or 1066; P for 1260: PHYS 1250)
PHYS 1251, 1261. General Physics Laboratory (1,1) (F,S,SS) (FC:SC) (C for 1251: PHYS 1250 or 2350; C for 1261: PHYS 1260 or 2260)
PSYC 1000. Introductory Psychology (3) (F,S,SS) (FC:SO)
PSYC 3241. Personnel and Industrial Psychology (3) (F,S,SS) (FC:SO) (P: PSYC 1000 or 1060)

2. Core - 66 s.h.

DESN 2034, 2035. Engineering Graphics I (3,0) (F,S) (P: ITEC 2000 or MIS 2223)
DESN 2036, 2037. Computer-Aided Design and Drafting (3,0) (F,S) (P: DESN 2034)
IENG 2020, 2021. Materials and Processes Technology (3,0) (WI*) (F,S) (P: ITEC 2000 or MIS 2223)
IENG 2076, 2077. Introduction to Computer Numerical Control (CNC) (3,0) (F,S) (P: DESN 2034)
IENG 3020, 3021. Introduction to Computer Integrated Manufacturing (3,0) (S) (P: ITEC 2090; IENG 2076)
IENG 3300. Plant Layout and Materials Handling (3) (F) (P: IENG 2020)
IENG 3600. Statics and Strength of Materials (3) (S) (P: IENG 2020, MATH 2119)
IENG 4020. Manufacturing System Planning (3) (F) (P: ITEC 3200, MATH 2119)
IENG 4023. Advanced Manufacturing Systems (3) (S) (P: IENG 3300)
IENG 4092. Operation Research (3) (S) (P: IENG 3300, MATH 2119)
IENG 4200. Work Methods and Ergonomic Analysis (3) (S) (P: IENG 4020)
IENG 4900. Capstone (3) (S) (P: Senior Standing)
ITEC 2000. Industrial Technology Applications of Computer Systems (3) (F,S)
ITEC 2054, 2055. Electricity/Electronics Fundamentals (3,0) (F,S) (P: MATH 1065 or 1066 or 1085 or 2119)
ITEC 2080, 2081. Thermal and Fluid Systems (3,0) (F,S) (P: IENG 2020)
ITEC 2090, 2091. Electromechanical Systems (3,0) (F,S) (P: ITEC 2054)
ITEC 3290. Technical Writing (3) (WI) (F,S,SS) (P: ENGL 1200)
ITEC 3292. Industrial Safety (3) (F,S) (P: Junior standing)
ITEC 3300. Technology Project Management (3) (F,S) (W) (P: ENGL 1200; ITEC 2000 or MIS 2223)
ITEC 3800. Cost and Capital Project Analysis (3) (F,S) (P: MATH 1065)
ITEC 4293. Industrial Supervision (3) (WI) (F,S) (P: Senior standing or approval of instructor)
ITEC 4300. Quality Assurance Concepts (3) (F,S) (P: ITEC 3200 or MATH 2283)

3. Cognates - 12 s.h.

CHEM 1020 General Descriptive Chemistry (4) (F,S)
ITEC 3200. Introduction to Statistical Process Control (3) (F,S) (P: MATH 1065 or 1066 or equivalent)
MATH 1074. Applied Trigonometry (2) (F,S,SS) (P: MATH 1065)
MATH 2119. Elements of Calculus (3) (F,S,SS) (FC:MA) (P: Minimum grade of C in MATH 1065 or MATH 1066 with minimum grade of C.)

4. Approved electives to complete requirements for graduation.

http://www.ecu.edu/cs-acad/ugcat/engineering.cfm

BS in Engineering
Minimum degree requirement for the engineering program is 128 s.h. credit as follows:

1. Foundations curriculum requirements (For information about courses that carry foundations curriculum credit see "Liberal Arts Foundations Curriculum") including those listed below - 42 s.h.

- **BIOL 1050. General Biology (3) (F,S,SS) (FC:SC) and BIOL 1051. General Biology Laboratory (1) (F,S,SS) (FC:SC) (C: BIOL 1030 or 1050) or BIOL 1100, 1101. Principles of Biology and Laboratory I (3,1) (F,S,SS) (FC:SC) (P/C for 1101: BIOL 1100)
- **ECON 2113. Principles of Microeconomics (3) (F,S,SS) (FC:SO)
- **MATH 2151. Engineering Calculus I (3) (S) (FC:MA) (May not receive credit for MATH 2151 after receiving credit for MATH 2171) (P: MATH 1083 or 1085 or placement test criteria; or consent of instructor)
- **PHIL 2275. Professional Ethics (3) (WI*) (F,S,SS) (FC:HU) or PHIL 2274. Business Ethics (3) (WI*) (F,S,SS) (FC:HU)
- **PHYS 2350. University Physics (4) (F,S,SS) (FC:SC) (P for 2350: MATH 2121, 2151, or 2171)

2. Engineering Foundation - 39 s.h.

- **ENGR 1012. Engineering Graphics (2) (C: MATH 1083 or higher)
- **ENGR 1014. Introduction to Engineering (3) (P: ENGR 1012)
- **ENGR 2022. Statics (3) (P: MATH 1083 or higher)
- **ENGR 2050. Computer Applications in Engineering (3) (P: MATH 1083 or higher)
- **ENGR 2070. Materials and Processes (3) (F)
- **ENGR 2450. Dynamics (3) (Formerly ENGR 3004) (P: ENGR 2022 with minimum grade of C; MATH 2152)
- **ENGR 3014. Circuit Analysis (3) (P: MATH 2153; PHYS 2360)
- **ENGR 3024. Mechanics of Materials (3) (WI) (P: ENGR 2022 with minimum grade of C; ENGR 2070)
- **ENGR 3050. Sensors, Measurements and Controls (3) (P: ENGR 3014; MATH 2154)
- **ENGR 3400. Engineering Economics (3) (WI) (P: MATH 2152)
- **ENGR 3500. Introduction to Engineering Project Management (3) (WI) (Formerly ENGR 3300) (P: ENGR 3400; MATH 3307)
- **ENGR 3800. Quality Control for Engineers (3) (Formerly ENGR 4000) (P: MATH 3307)
- **ENGR 4010. Senior Capstone Design Project I (2) (WI) (P: Consent of instructor)
- **ENGR 4020. Senior Capstone Design Project II (2) (WI) (P: ENGR 4010)

3. Cognates - 21 s.h.

- **CHEM 1150, 1151. General Chemistry and Laboratory I (3,1) (F,S,SS) (P/C: MATH 1065; C for 1150: CHEM 1151; C for 1151: CHEM 1150)
- **MATH 2152. Engineering Calculus II (3) (S) (FC:MA) (May not receive credit for MATH 2152 after receiving credit for MATH 2172) (P: Minimum grade of C in MATH 2151 or 2171; or consent of instructor)


MATH 2153. Engineering Calculus III (3) (F) (FC:MA) (May not receive credit for MATH 2153 after receiving credit for MATH 2173) (P: MATH 2152 or 2172; or consent of instructor)
MATH 2154. Engineering Linear Algebra and Differential Equations I (4) (S) (P: ENGR 2050; MATH 2153 or MATH 2173)
MATH 3307. Mathematical Statistics I (3) (F,S) (P: MATH 2152 or MATH 2172)
PHYS 2360. University Physics (4) (F,S,SS) (FC:SC) (P: PHYS 2350)

4. Concentrations (Choose one)

Biomedical Engineering - 26 s.h.
BIME 3000. Foundations of Biomedical Engineering (3) (P: Consent of instructor)
BIME 4030. Biomechanics and Materials (4) (P: CHEM 2750, 2753; ENGR 2450 with minimum grade of C; ENGR 3024)
BIME 4040. Physiological Systems and Modeling for Engineering (3) (P: BIME 3000)
BIME 4200. Biomedical Instrumentation (4) (P: BIME 3000; ENGR 3050)
CHEM 1160, 1161. General Chemistry and Laboratory II (3,1) (F,S,SS) (FC:SC) (P: CHEM 1150, 1151; C for 1160: CHEM 1161; C for 1161: CHEM 1160; RC: MATH 1083 or 1085)
CHEM 2750. Organic Chemistry I (3) (F,S,SS) (P: CHEM 1160, 1161; C: CHEM 2753)
CHEM 2753. Organic Chemistry Laboratory I (1) (F,S,SS) (C: CHEM 2750)
ENGR 3012. Thermal and Fluid Systems (4) (P: ENGR 2450 with minimum grade of C; MATH 2153)
Bioprocess Engineering - 26 s.h.
BIOE 3016 Engineering Applications in Microbial Systems (2) (P: ENGR 2450 with minimum C; MATH 2154; C: CHEM 2650, 2651)
BIOE 3250. Bioprocess Engineering Systems (3) (Formerly BIOE 3000) (P: CHEM 2650, 2651; BIOE 3016)
BIOE 4006. Bioprocess Validation and Quality (2 ) (P: MATH 3307; consent of instructor)
BIOE 4010. Bioprocess Separation Engineering (3) (P: BIOE 3250; ENGR 3012)
BIOE 4020. Bioprocess Plant Design, Simulation and Analysis (3) (P: BIOE 4010; MATH 3307)
BIOL 2110, 2111. Fundamentals of Microbiology and Laboratory (3,1) (F,S) (FC:SC) P for 2110: CHEM 1120, 1130 or CHEM 1150, 1160; RP for 2110; BIOL 1050, 1051 or 1100, 1101; P/C for 2111: BIOL 2110)
CHEM 1160, 1161. General Chemistry and Laboratory II (3,1) (F,S,SS) (FC:SC) (P: CHEM 1150, 1151; C for 1160: CHEM 1161; C for 1161: CHEM 1160; RC: MATH 1083 or 1085)
CHEM 2650. Organic Chemistry for the Life Sciences (4) (F,S) (P: CHEM 1160, 1161)
CHEM 2651. Organic Chemistry Lab for the Life Sciences (1) (F,S) (C: CHEM 2650)
ENGR 3012. Thermal and Fluid Systems (4) (P: ENGR 2450 with minimum grade of C; MATH 2153)
Industrial and Systems Engineering - 26 s.h.
ISYS 3010. Principles and Methods of Industrial and Systems Engineering (3) (P: Junior standing in engineering)
ISYS 3060. Systems Optimization (3) (P: MATH 2154, 3307)
ISYS 4010. Work Measurement and Human Factors (3) (P: MATH 3307)
ISYS 4020. Analysis of Production Systems and Facility Design (3) (P: MATH 3307)
ISYS 4065. Discrete System Modeling (3) (P: ENGR 3800)
ENGR 3012. Thermal and Fluid Systems (4) (P: ENGR 2450 with minimum grade of C: MATH 2153)

Technical electives, 7 s.h. as approved by the academic advisor.
Mechanical Engineering - 26 s.h.
MENG 3624. Solid Mechanics (3) (P: ENGR 3024)
MENG 3070. Thermodynamics I (3) (P: MATH 2154; ENGR 2450 with minimum grade of C)
MENG 4018. Thermodynamics II (3)(P: MENG 3070)
MENG 4150. Fluid Mechanics (4) (P: ENGR 2450 with minimum grade of C; MATH 2154)
MENG 4260. Heat and Mass Transfer (3) (P: MENG 3070)
MENG 4650. Machine Design (3) (P: MENG 3624)

Technical electives, 7 s.h. as approved by the academic advisor.

http://www.ecu.edu/cs-acad/ugcat/mathSciEd.cfm

College of Education

Department of Mathematics, Science, and Instructional Technology Education

Susan Ganter, Chair, 342-A Flanagan Building

BS in Mathematics, Secondary Education

Credit toward a mathematics major will not be given in any MATH course with a grade less than C. See Section 8, Academic Programs, College of Education, Licensure, for NC teacher licensure requirements. Minimum degree requirement is 126 s.h. of credit as follows: (Note: These degree requirements are subject to change beginning Fall 2010 pending NC State Board of Education approval of revised licensure program requirements. Students should consult their departmental advisor for specific program information.)

1. Foundations curriculum plus special requirements for licensure (For information about courses that carry foundations curriculum credit see Liberal Arts Foundations Curriculum.) including those listed below - 42 s.h.

   PSYC 1000. Introductory Psychology (3) (F,S,SS) (FC:SO)

2. Core - 36 s.h.
MATE 2700. Applications in Statistics and Probability (3) (S) (P: MATH 1065 or equivalent)
MATE 2800. Discrete Mathematics: Explorations and Applications (3) (F) (P: MATH 1065 or equivalent)
MATE 3300. Geometry for High School Teachers (3) (F) P: MATH 2171.
MATH 2171, 2172, 2173. Calculus I, II, III (4,4,4) (F,S,SS) (FC:MA) (P for 2171: minimum grade of C in any of MATH 1083, 1085, or 2122; P for 2172: MATH 2171 with a minimum grade of C or 2122 with consent of instructor; P for 2173: MATH 2172 with a minimum grade of C)
MATH 2300. Transition to Advanced Mathematics (3) (P: MATH 2171)
MATH 3256. Linear Algebra (3) (F,S,SS) (P: MATH 2172)
MATH 3263. Introduction to Modern Algebra (3) (WI) (F,S,SS) (P: MATH 2300, 3256)
MATH 3301. Foundations of Geometry (3) (F) (P: MATH 2300)
MATH 3307. Mathematical Statistics I (3) (F,S) (P: MATH 2152 or MATH 2172)
MATH 5322. Foundations of Mathematics (3) (WI) (P: MATH 3233, 3263; or equivalent)

3. Professional courses - 28 s.h.

Council for Teacher Education approved diversity course
EDUC 3200. Foundations of American Education (3) (WI*) (F,S,SS) (P: Early experience course or consent of instructor)
EDUC 4400. Foundations of School Learning, Motivation, and Assessment (3) (F,S) (P: Admission to upper division; C: Senior I semester) or PSYC 4305. Educational Psychology (3) (F,S,SS) (P: PSYC 2201 or 2240 or 3206 or 3240 or equivalent)
MATE 4001. Technology in Secondary Mathematics Education (3) (F) (P: Admission to upper division; MATE or MATH 2700, 2800; C: MATE 4323)
MATE 4324. Internship in Mathematics (10) (S) (P: Admission to upper division; MATE 4323; C: MATE 4325; READ 3990)
MATE 4325. Internship Seminar: Issues in Mathematics Education (1) (S) (P: Admission to upper division; MATE 4323; C: MATH 4324)
READ 3990. Teaching Reading in the Content Areas in the Secondary School (2) (F,S,SS)
SPED 4010. Effective Instruction in Inclusive Classrooms (2) (F,S) (RP: SPED 2000)

4. Specialty Area - 6 s.h.

MATE 3523. Teaching Topics in High School Mathematics (3) (S) (P: MATE 2123)
MATE 4323. The Teaching of Mathematics in High School (3) (F) (P: Admission to upper division; MATE 2123)

5. Electives to complete requirements for graduation.
BS in Computer Science

Credit toward a computer science major will not be given for any CSCI course with a grade less than C being used to satisfy the requirements specified in the common core and CSCI electives. Minimum degree requirement is **126 s.h.** of credit as follows:

1. **Foundations curriculum** (For information about courses that carry foundations curriculum credit see [Liberal Arts Foundations Curriculum](http://www.ecu.edu/cs-acad/ugcat/CompScience.cfm)) including those listed below - 42 s.h.

   - COMM 2410. Public Speaking (3) (F,S,SS) (FC:FA) or COMM 2420. Business and Professional Communication (3) (F,S,SS) (FC:FA)
   - PHIL 2275. Professional Ethics (3) (WI*) (F,S,SS) (FC:HU)

   See cognates below for courses that fulfill science requirements.

2. **Common core** - 30 s.h.

   - CSCI 2310, 2311. Algorithmic Problem Solving and Programming Laboratory (4,0) (P: MATH 1065; C for 2310: CSCI 2311; C for 2311: CSCI 2310)
   - CSCI 3300. Introduction to Algorithms and Data Structures (4) (P: CSCI 2310; C: CSCI 2427)
   - CSCI 3310. Advanced Data Structures and Data Abstraction (3) (P: CSCI 2427, 3300)
   - CSCI 3526. Switching Theory and Computer Organization (3) (P: CSCI 2310 or 2610; CSCI 2427)
   - CSCI 3675. Organization of Programming Language (3) (P: CSCI 3200 or 3310)
   - CSCI 4000. Ethical and Professional Issues in Computer Science (1)
   - CSCI 4200. Software Engineering I (3) (WI) (P: CSCI 3200 or 3310 and CSCI major)
   - CSCI 4230. Software Engineering II (3) (P: CSCI 4200 or consent of the instructor)
   - CSCI 4602. Theory of Automata and Linguistics (3) (P: CSCI major; CSCI 2427)
   - CSCI 4630. Operating Systems I (3) (P: CSCI 3200 or 3300; CSCI major)

3. **Cognates** - 25-27 s.h.

   - CSCI/MATH 2427. Discrete Mathematical Structures (3) (P: MATH 1065 or 1066)
   - CSCI/MATH 3584. Computational Linear Algebra (3) (P: Calculus course)
   - ENGL 3880. Writing for Business and Industry (3) (WI) (F,S,SS) (P: ENGL 1200) or ITEC 3290. Technical Writing (3)(WI) (F,S,SS) (P: ENGL 1200)
   - MATH 2171. Calculus I (4) (F,S,SS) (FC:MA) (P: MATH 1083 or 1085 or 2122 with a minimum grade of C) or MATH 2121. Calculus for the Life Sciences I (3) (F,S,SS) (FC:MA) (May not receive credit for MATH 2121 after taking MATH 2171) (P: MATH 1065 or 1077 with minimum grade of C)
   - MATH 2172. Calculus II (4) (F,S,SS) (FC:MA) (P: MATH 2171 with a minimum grade of C or MATH 2122 with consent of instructor) or MATH 2122. Calculus for the Life Sciences II (3) (F,S,SS) (May not receive credit for MATH 2122 after taking MATH 2172.) (P: MATH 2121)
MATH 2228. Elementary Statistical Methods I (3) (F,S,SS) (FC:MA) (P: MATH 1065 or equivalent) or MATH 2283. Statistics for Business (3) (F,S,SS) (FC:MA) (P: MATH 1065 or 1066 or equivalent) or MATH 3307. Mathematical Statistics I (3) (F,S) (P:
MATH 2152 or MATH 2172)
MATH 3229. Elementary Statistical Methods II (3) (P: MATH 2228 or equivalent) or MATH 3308. Mathematical Statistics II (3) (F) (P: MATH 3307) or CSCI 5774.
Programming for Research (3) (P: General course in statistics or consent of instructor)
12 s.h. of science. (Note that 8 of these 12 units count toward foundation curriculum requirements.)
One of the following options must be selected.
Option 1 - Physics:
PHYS 1251, 1261. General Physics Laboratory (1,1) (F,S,SS) (FC:SC) (C for 1251:
PHYS 1250 or 2350; C for 1261: 1260 or 2360)
PHYS 2350, 2360. University Physics (4,4) (F,S,SS) (FC:SC) (P for 2350: MATH 2121,
2151, or 2171; P for PHYS 2360: PHYS 2350)
2 s.h. of science that satisfy ECU foundation requirements.
Option 2 – Chemistry:
CHEM 1150, 1151. General Chemistry and Laboratory I (3,1) (F,S,SS) (FC:SC) (P/C: 
MATH 1065; C for 1150: CHEM 1151; C for 1151: CHEM 1150)
CHEM 1160, 1161. General Chemistry and Laboratory II (3,1) (F,S,SS) (FC:SC) (P:
CHEM 1150, 1151; C for 1160: CHEM 1161; C for 1161: CHEM 1160; RC: MATH 
1083 or 1085)
4 s.h. of science that satisfy ECU foundation requirements.
Option 3 - Biology
BIOL 1100, 1101. Principles of Biology and Laboratory I (3,1) (F,S,SS) (FC:SC) (P/C: 
for 1101: BIOL 1100)
BIOL 1200, 1201. Principles of Biology and Laboratory II (3,1) (F,S,SS) (FC:SC) (P/C: 
for 1201: BIOL 1200)
4 s.h. of science that satisfy ECU foundations curriculum requirements.

4. CSCI electives above 2999 (excluding CSCI 3200 and 5774) - 15 s.h.
5. Electives to complete requirements for graduation.

*Requirements for 5 above, may be met by satisfying the requirements for a minor.

VII. Thomas Harriot College of Arts and Sciences, Department of History, Affected Units

http://www.ecu.edu/cs-acad/ugcat/CoastalMarine.cfm

Thomas Harriot College of Arts and Sciences
Interdisciplinary Programs

Coastal and Marine Studies

Bob Edwards, Director, A-224 Brewster Building

The coastal and marine studies minor requires a minimum of 24 s.h. and is designed to provide students with an overview of coastal and marine resources. Considerable attention is devoted to the biological, physical, social, and historical aspects of coastal and marine resources. Whenever possible, information from North Carolina and other US coastal and marine environments is used to illustrate or emphasize important concepts. A maximum of 6 s.h. may be used to satisfy foundations curriculum requirements and requirements for the coastal and marine studies minor. A course may not count toward the student’s major and the coastal and marine studies minor.

1. Core - 10 s.h.

   COAS 2025. Survey of Coastal and Marine Resources (3) (F) (P: Basic science course in BIOL, CHEM, GEOL, or PHYS)
   COAS 4025. Society and the Sea Seminar (3) (S) (P: COAS 2025)
   GEOL 1550. Oceanography (4) (S) (FC:SC)

2. Electives (Choose at least 3 s.h. from 3 of the 4 areas below in consultation with the director) - 14 s.h.

   (COAS 5001, 5002 and other courses may be counted toward the minor; however, the director must approve the course substitution.)

   Biological Science:
   BIOL 1010. Diversity of Coastal North Carolina (3) (F,S)
   BIOL 1060. Environmental Biology (4) (F,S,SS) (FC:SC)
   BIOL 2250, 2251. Ecology and Laboratory (3,1) (F,S,SS) (P: BIOL 1100, 1101, 1200, 1201; C for BIOL 2251: BIOL 2250)
   BIOL 3230, 3231. Field Botany (4,0) (F,S,SS) (P: BIOL 1050, 1051 or 1100, 1101)
   BIOL 3240, 3241. Field Zoology (4,0) (F) (P: BIOL 1060 or 2250)
   BIOL 3400, 3401. Biological Field Studies of the Coastal Plain (3,0) (P: BIOL 1100, 1200 or 2 from: GEOL 1500, 1550, 1600 and 1700)
   BIOL 3660. Introduction to Marine Biology (3) (F,S,SS) (P/C: BIOL 2250, 2251)
   BIOL 5680. Current Topics in Coastal Biology (3) (P: Consent of instructor)
   BIOL 5270. Marine Community Ecology (3) (P: BIOL 2250, 2251; or consent of instructor)
   BIOL 5750, 5751. Introduction to Regional Field Ecology (2,0) (5750: WI)

   Maritime History:
   HIST 5505. Maritime History of the Western World to 1415 (3)
   HIST 5515. Maritime History of the Western World from 1415-1815 (3) (WI*)
   HIST 5520. Maritime History of the Western World Since 1815 (3)
HIST 5530. Field School in Maritime History and Underwater Research (2) (P: Consent of instructor)
HIST 5920, 5921. Techniques of Museum and Historic Site Development (3,0)
Physical Science:
GEOG 3220. Soil Properties, Surveys, and Applications (3) (F) (P: GEOG 2250)
GEOG 4210. Fluvial and Hydrological Processes (P: GEOG 2200, 2250; or consent of instructor)
GEOG 4220. Coastal Geography (3) (WI) (S) (P: GEOG 2200, 2250; or consent of instructor)
GEOG 4230. Land Form Analysis (3) (F) (P: GEOG 2200, 2250; or consent of instructor)
GEOG 4540. Coastal Storms (3) (P: GEOG 2200, 2250)
GEOL 1500. Dynamic Earth (3,1) (F,S,SS) (FC:SC)
GEOL 1501. Dynamic Earth Laboratory (1) (F,S,SS) (FC:SC)
GEOL 1700. Environmental Geology (4) (F,S) (FC:SC)
GEOL 5300. Geology of Coastal Processes and Environments (3) (P: GEOL 1550, 4010, 4011; or consent of instructor)
GEOL 5350. Marine Geology (3) (P: GEOL 1550, 4010, 4011; or consent of instructor)
PHYS 1050. Physics and the Environment (4) (F,S,SS) (FC:SC)
Social Science:
ANTH 2005. Environmental Anthropology (3) (S) (FC:SO)
ANTH 3004. Cultures of the South Pacific (3) (EY) (FC:SO) (P: ANTH 1000 or 2010 or 2200 or consent of instructor)
ANTH 3016. Cultures of the Caribbean (3) (S) (FC:SO) (P: ANTH 1000 or 2010 or 2200 or consent of instructor)
ANTH 4260. Cultural Ecology (3) (FC:SO) (P: ANTH 1000 or 2010 or 2200 or consent of instructor)
ANTH 5065. Maritime Anthropology (3) (P: ANTH 2200 or consent of instructor)
ECON 3855. Environmental Economics (3) (FC:SO) (P: ECON 2133)
GEOG 4335. Geography of Tourism (3) (FC:SO)
GEOG 4440. Coastal Applications of GIS (3) (F,S) (P: GEOG 2250, 3410; or consent of instructor)
PLAN 4015. Emergency Management Planning (3)
PLAN 5025. Coastal Area Planning and Management (3) (P: Consent of instructor)
POLS 3256. The Politics of Energy and Environment (3) (F)
POLS 3257. International Environmental Policy (3)
SOCI 3410. Introduction to Maritime Sociology (3) (FC:SO) (P: ANTH 1000 or SOCI 2110)