COMMITTEE: University Curriculum Committee (2:00 pm – 4:00 pm)

MEETING DATE: October 25, 2012

PERSONS PRESIDING: Donna Kain

REGULAR MEMBERS IN ATTENDANCE: Reece Allen, Leigh Cellucci, Annette Greer, Donna Kain, and Mark Richardson

EX-OFFICIO MEMBERS IN ATTENDANCE: Linner Griffin, Jean-Luc Scemama, Katherine Swank, and Karen Vail-Smith

EXCUSED: Angela Whitehurst

ABSENT: Amy McMillan and Jennifer Warren

SUPPORT: Kimberly Nicholson

OTHERS IN ATTENDANCE:
   College of Fine Arts and Communication: Chris Ulffers
   Thomas Harriot College of Arts and Sciences: James Collins and J.P. Walsh

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ACTIONS OF MEETING

Agenda Item: I. Call to Order

(1.) Minutes
   The 10-11-12 UCC minutes will be distributed for an electronic vote then sent to the Faculty Senate for agenda placement.

   Discussion:

   NA

   Action Taken:

   NA

(2.) Announcements

   Discussion:

   Dr. Kain reported that she and Dr. Allen will be meeting with the Provost and Chair of Faculty Senate regarding the +/- grading. The committee discussed the +/- grading issues
and confirmed that units choosing not to include the +/- grading scale in their proposal forms will be asked why. Their response will be included in the minutes.

Chair Kain shared that she attended a meeting regarding UNIV 1000 and that it will take a while for this course to make it through the curriculum process.

Dr. Allen will present the UCC minutes at the next Faculty Senate meeting.

Action Taken:

NA

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**Agenda Item: II. Thomas Harriot College of Arts and Sciences, Department of Chemistry**

(1.) Banking of Existing Course(s): CHEM 1500, 1510, 1511, 2110

Discussion:

Dr. Collins presented.

Dr. Allen asked why some courses were banked and some were deleted. Dr. Collins responded that the courses were banked in case of future need. Dr. Kain said that if they decided they did not need the courses, they could delete them in the future.

Action Taken:

Dr. Greer moved to approve as presented. Dr. Vail-Smith seconded. Motion passed.

(2.) Revision of Existing Degree: BS in Chemistry

Discussion:

Dr. Collins presented.

Dr. Greer commented that the proposal was complete.

Action Taken:

Dr. Greer moved to approve as presented. Dr. Vail-Smith seconded. Motion passed.
Agenda Item: III. Thomas Harriot College of Arts and Sciences, Department of Geological Sciences

(1.) Proposal of New Course(s): GEOL 2500, 2501, 2600

Discussion:

Dr. Walsh presented.

GEOL 2500

Dr. Vail-Smith asked if the department might seek foundations credit for the course. Dr. Walsh said the department has not planned to do so.

Dr. Allen asked about the proposed method of delivery. It is distance, face-to-face. Dr. Allen reminded him to indicate this on the proposal form.

Dr. Vail-Smith asked about if the course description could be shortened for clarity. Dr. Walsh said that he would do this by eliminating the last sentence and the first three words of the first sentence.

Dr. Greer asked about the syllabus. She recommended he delete the word “month” and just write there will be two exams, one midterm and one final.

Dr. Allen noted the course descriptions need to match in the syllabus and proposal.

Dr. Vail-Smith recommended that he note if the texts are required or not. She also asked about the objectives as written. She recommended that the objectives be introduced by the phrase, “Upon completion of the course, students will be able to…” Then, the verbs should be measurable.

GEOL 2501

Dr. Allen asked if the course description could be shortened for clarity. Dr. Walsh responded positively. Dr. Walsh will also note which texts are required and which are optional/recommended for the course.

Dr. Walsh was asked to include the proposed method of delivery.

Dr. Vail-Smith recommended that the objectives be introduced by the phrase, “Upon completion of the course, students will be able to…” Then, the verbs should be measurable.

GEOL 2600

Dr. Allen asked about if the course description could be shortened for clarity. Dr. Walsh said that he would do this by eliminating the last sentence.
Dr. Walsh was asked to include the proposed method of delivery.

He also asked about course credit and if the time for course meetings is fully accounted for. Dr. Walsh explained how the field trips cover more than one day. For instance, students will meet the evening prior and after the field trip as part of the hours noted.

Dr. Vail-Smith recommended that complete information be provided regarding the text, full citation and whether or not it is required.

It was recommended that Dr. Walsh introduce the objectives with the phrase, “Upon completion of the course, students will be able to….” Then, the verbs should be measurable.

Action Taken:

Dr. Vail-Smith moved that the proposal be approved as amended. Dr. Scemama seconded. Motion passed.

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

(1.) Revision of Existing Course(s): MUSC 1627, 1637, 1647

Discussion:

Dr. Ulffers presented.

Dr. Richardson commented that the proposal is complete. He asked about other affected departments and asked if they were aware of the change. The documentation indicates that the language department faculty are aware and they support this proposal.

MUSC 1627, MUSC 1637 and 1647

Dr. Allen asked about course credit. The credit hours cells should include the number of credit hours earned and indicate that it is also studio in the instructional format sections.

Dr. Vail-Smith recommended that the course dates and times be deleted on the syllabi, as this may change on different semesters. She also indicated that the course descriptions need to be on the syllabi.

Dr. Griffin further recommended that the objectives be introduced by the phrase, “Upon completion of the course, students will be able to….” Then, the verbs should be measurable.

Dr. Vail-Smith recommended that it be noted if the texts are required.
Dr. Allen asked if the +/- is to be used by the department. Dr. Ulffers replied that it was. Since this is the case, +/- grading scales should be included in the sample syllabi.

**Action Taken:**

Dr. Allen proposed that the proposal be accepted as amended. Dr. Greer seconded. Motion passed.

(2.) Revision of School Text: Applied and Core Music Regulations for Music Majors and Minors

**Discussion:**

Dr. Ulffers presented.

**Action Taken:**

Dr. Allen proposal be accepted as proposed. Dr. Greer seconded. Motion passed.

(3.) Revision of Existing Degree(s): BM in Performance

**Discussion:**

Dr. Allen recommended that the course information be consistent in the course description and degree text.

**Action Taken:**

Dr. Allen proposal be accepted as amended. Dr. Greer seconded. Motion passed.

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**Agenda Item**: V. Old Business

(1.) Update regarding implementation plan for removing 5000-level courses that are no longer in the graduate catalog from the undergraduate catalog including notification to units.

**Discussion:**

NA

**Action Taken:**
(2.) Update regarding implementation plan approved this year for encouraging units to delete banked courses.

Discussion:
NA

Action Taken:
NA

(3.) Update regarding implementation plan approved this year for requesting units to delete or bank courses that have not been taught in over ten years.

Discussion:
NA

Action Taken:
NA

(4.) Update regarding the creation of an electronic submission process. An electronic submission process would ensure that all forms are up to date and include required information. Reece Allen is charged with reporting about this to the UCC.

Discussion:
NA

Action Taken:
NA

(5.) Update from subcommittee regarding the creation of an articulated process for the development of a new minor.

Discussion:
NA
Action Taken:

NA

Agenda Item: VI. New Business

Discussion:

Chair Kain brought up the topic of 5000-level courses. A history regarding the new 5000-level policy at the graduate level was provided. Concern was expressed regarding GCC approval of learning objectives for undergraduate students taking 5000-level courses. Chair Kain will contact the GCC to discuss further.

Action Taken:

Dr. Greer moved that Dr. Kain should meet with GCC regarding the matter of 5000-level courses, and Dr. Kain will report back to the committee. Dr. Scemama seconded. Motion passed.

Curricular Actions Reviewed at This Meeting:

New Courses: 3
Revised/Renumbered/Unbanked Courses (includes title/prereq./prefix): 3
New Degrees/Programs: 0
New Minors: 0
New Concentrations: 0
New Certificates: 0
Revised Existing Degrees/Concentrations/Departmental Text: 3
Deletion of Existing Degrees/Concentrations: 0
Revised Minors/Certificates: 0
Deletion of Existing Minors/Certificates: 0
Banked Courses: 4
Deletion of Existing /Banked Courses: 0

Curricular Actions Reviewed to Date (to include this meeting):

New Courses: 6
Revised/Renumbered/Unbanked Courses (includes title/prereq./prefix): 11
New Degrees/Programs: 0
New Minors: 0
New Concentrations: 0
New Certificates: 0
Revised Existing Degrees/Concentrations/Departmental Text: 8
Deletion of Existing Degrees/Concentrations: 1
Revised Minors/Certificates: 4
Deletion of Existing Minors/Certificates: 1
Banked Courses: 4
Deletion of Existing /Banked Courses: 0

NEXT MEETING: November 8, 2012

ITEMS TO BE DISCUSSED:

See agenda.

Dr. Scemama moved to adjourn at 4:00 pm. Motion passed. Meeting adjourned.

Respectfully Submitted by

Leigh W. Cellucci
Secretary of the UCC
Thomas Harriot College of Arts and Sciences

Department of Chemistry

Rickey P. Hicks, Chair, 300 Science and Technology Building

Admission Requirements

Students enrolled at East Carolina University or transferring from other institutions who have a minimum 2.0 GPA and a minimum grade of C in CHEM 1150, 1151, 1160, 1161 and MATH 1065 may apply for admission as chemistry majors. Students who hold a baccalaureate degree qualify for admission to the chemistry degree program if they have completed comparable courses as described above with a minimum grade of C as part of their first degree.

BA in Chemistry

The BA program provides a flexible major designed to provide the student with a broad education in chemistry appropriate for further study in a wide range of fields, such as business, medicine, pharmacy, and law as well as careers dependent on a basic knowledge in chemistry. The BA in chemistry, in conjunction with two semesters of laboratory-based biology courses, satisfies the course requirements for application to most US medical schools. It is different than the BS degree in the required chemistry, math, and physics courses. Any of the required major courses or cognates, however, may be replaced by courses that cover the same topics at a more advanced level. For example, CHEM 3950, 3960 may be taken instead of CHEM 3850. It is the student’s responsibility to ensure that the prerequisites for such courses have been met. If a student successfully completes a higher-level cognate course after bypassing the lower-level prerequisite course(s), he/she may use free electives to substitute for the prerequisite hours. All students are required to take a departmentally administered assessment examination before graduation. Scores from this examination will not be included in the calculation of GPA for academic standing. The performance on this exam will be noted on the student’s transcript. 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.
MATH 1065. College Algebra (3) (F,S,SS) (FC:MA) (P: Appropriate score on math placement test or math section of the SAT/ACT)
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: 1260 or 2360)

2. Foreign language through level 1004. - 12 s.h.
3. Core. - 30 s.h.

CHEM 1150, 1151. General Chemistry and Laboratory I (3,1) (F,S,SS) (FC:SC) (P/C: MATH 1065)
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 2250, 2251. Quantitative and Instrumental Analysis (3,2) (WI, WI) (F,S) (P: CHEM 1160, 1161; CHEM 2650 or 2750)
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)
CHEM 2760. Organic Chemistry II (3) (F,S,SS) (P: CHEM 2750; C: CHEM 2763)
CHEM 2763. Organic Chemistry Laboratory II (1) (F,S,SS) (P: CHEM 2750, 2753; C: CHEM 2760)
CHEM 3450. Elementary Inorganic Chemistry (3) (F,S) (P: CHEM 2250, 2251; C: CHEM 3451)
CHEM 3451. Elementary Inorganic Chemistry Laboratory (1) (WI) (F,S) (P: CHEM 2250, 2251; C: CHEM 3450 or 5550)
CHEM 3850, 3851. Introduction to Physical Chemistry (4,1) (WI, WI) (F,S) (P: CHEM 1160, 1161; MATH 2122 or 2172; PHYS 1260, 1261)

4. Cognates. - 6-13 s.h.

MATH 2121. Calculus for the Life Sciences I (3) (F,S,SS) (FC:MA) (P: MATH 1065 or 1077 with a minimum grade of C) and MATH 2122. Calculus for the Life Sciences II (3) (F,S,SS) (P: MATH 2121)
or
MATH 1083. Introduction to Functions (3) (F,S,SS) (FC:MA) (P: MATH 1065 with a minimum grade of C) or MATH 1085. Pre-Calculus Mathematics (5) (F,S,SS) (FC:MA) (P: MATH 1065 with a minimum grade of C) and MATH 2171. Calculus I (4) (F,S,SS) (FC:MA) (P: Minimum grade of C in any of MATH 1083 or 1085 or 2122) and 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)

5. Electives to complete requirements for graduation.

**BS in Chemistry**
The BS degree in chemistry is the appropriate program for students considering advanced degree programs in chemistry, biochemistry, and other related fields or a professional career in chemistry. Graduates of this program meet certification requirements of the American Chemical Society. Students are strongly encouraged to pursue undergraduate research with a faculty member. Up to 6 s.h. of undergraduate research may be applied toward degree requirements. Information regarding undergraduate research may be obtained from the director of undergraduate studies. Students completing the BS degree are encouraged to consider some of the following courses as electives: COMM 2410 or COMM 2420; ITEC 3290 or ENGL 3820; MATH 2228, 3256, 4331; CHEM 4515, 4516, 4517; advanced 5000-level courses in chemistry; and BIOL 5800 or 5810. If a student successfully completes a higher-level cognate course after bypassing the lower-level prerequisite course(s), he/she may use free electives to substitute for the prerequisite hours. All students are required to take a departmentally administered assessment examination before graduation. Scores from this examination will not be included in the calculation of GPA for academic standing. The performance on this exam will be noted on the student’s transcript. 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.)

   MATH 1065. College Algebra (3) (F,S,SS) (FC:MA) (P: Appropriate score on math placement test or math section of the SAT/ACT)
   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 2360: PHYS 2350)

2. Core. - 45 s.h.

   CHEM 1150, 1151. General Chemistry and Laboratory I (3,1) (F,S,SS) (FC:SC) (P/C: MATH 1065)
   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 2103. Introduction to Chemical Literature (1) (WI) (F) (P: CHEM 2750)
   CHEM 2250, 2251. Quantitative and Instrumental Analysis (3,2) (WI, WI) (F,S) (P: CHEM 1160, 1161; CHEM 2650 or 2750)
   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)
   CHEM 2760. Organic Chemistry II (3) (F,S,SS) (P: CHEM 2750; C: CHEM 2763)
   CHEM 2763. Organic Chemistry Laboratory II (1) (F,S,SS) (P: CHEM 2750, 2753; C: CHEM 2760)
   CHEM 2770. Biological Chemistry (3) (S) (P: CHEM 2650 or 2760)
   CHEM 3451. Elementary Inorganic Chemistry Laboratory (1) (WI) (F,S) (P: CHEM 2250, 2251; C: CHEM 3450 or 5550)
   CHEM 3950, 3951. Physical Chemistry and Laboratory I (4,1) (WI, WI) (S) (P: PHYS 1261, 2360; MATH 2173; CHEM 2250, 2251)
CHEM 3960, 3961. Physical Chemistry and Laboratory II (4,1) (WI, WI) (F) (P: CHEM 3950, 3951)  
CHEM 4103. Seminar (1) (S) (P: Junior or senior standing; CHEM 2103)  
CHEM 5350, 5351. Instrumental Analysis (3,1) (WI, WI) (P: CHEM 3960)  
CHEM 5550. Advanced Inorganic Chemistry (4) (F) (P: CHEM 3950; C: CHEM 3451 [for BS chemistry majors only])

3. Elective labs (Choose a minimum of 2 s.h. from the following). - 2 s.h.

   BIOL 5821. Principles of Biochemistry Laboratory (1) (F,S) (P/C: BIOL 5800 or 5810)  
   CHEM 2301. Teaching Laboratory Chemistry (2,0) (F,S) (P: Grade of B or higher in CHEM 1160 and CHEM 1161 or permission of instructor) May count only 1 s.h. toward the 2 s.h. lab requirement  
   CHEM 2771. Biological Chemistry Laboratory (1) (S) (C: CHEM 2770)  
   CHEM 3301. Practicum in Teaching (1) (F,S) (P: CHEM 2301 and consent of instructor)  
   CHEM 4515, 4516, 4517. Research Problems in Chemistry (1,2,3) (F,S,SS) (P: Consent of instructor)  
   CHEM 5993. Industrial Internship in Chemistry (3) (P: Selection by joint Chemistry department/industry screening committee; CHEM 2250, 2760, 3950)  
   PHYS 3700, 3701. Advanced Laboratory (3,0) (3700:WI) (S) (P: PHYS 2360)

4. Cognates. - 15-17 s.h.

   MATH 1083. Introduction to Functions (3) (F,S,SS) (FC:MA) (P: MATH 1065 with a minimum grade of C) or MATH 1085. Pre-Calculus Mathematics (5) (F,S,SS) (FC:MA) (P: MATH 1065 with a minimum grade of C)  
   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)

5. Electives to complete requirements for graduation.

**Chemistry Minor**

Minimum requirement for the chemistry minor is **25-26 s.h.** of credit as follows:

Core. - 25-26 s.h.

   CHEM 1150, 1151. General Chemistry and Laboratory I (3,1) (F,S,SS) (FC:SC) (P/C: MATH 1065)  
   CHEM 1160, 1161. General Chemistry and Laboratory I (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 2250, 2251. Quantitative and Instrumental Analysis (3,2) (WI, WI) (F,S) (P: CHEM 1160, 1161; CHEM 2650 or 2750)
Chemistry Honors Program

The Department of Chemistry Honors Program provides an opportunity for outstanding chemistry majors to do intensive study and research in areas of special interest. A student desiring to enter the honors program must be a junior or senior majoring in chemistry, and possess a minimum GPA of 3.2 in all courses taken at East Carolina University as well as in all chemistry and cognate courses. Before participating in the honors program, students must notify the director of undergraduate studies chemistry and select a project supervisor from the chemistry faculty. Program participants are expected to select a topic mutual interest to both the student and project supervisor, research the topic through the scientific literature, and then conduct independent research on the topic. Upon completion of the research, the student must submit a detailed written research report and make an oral presentation on the honors project. Course requirements: CHEM 4103; a minimum of 5 h. research and/or independent study from: CHEM 4505, 4506, 4507, 4515, 4516, 4517.

Bachelor of Science and Accelerated MS in Chemistry

Students working toward a BS degree in chemistry have the opportunity to earn an MS degree in two or three additional semesters of study. These students are encouraged to begin research projects as undergraduates and take advanced classes that can be used to waive some MS course requirements. As seniors they may be granted early admission to the MS program and would be eligible to receive paid teaching assistantships. To be enrolled in the MS program as a senior, a student must within 6 s.h. credit of completing all undergraduate degree requirements. Applications to the MS program should be submitted during the first semester of the senior year and must include GRE scores.

http://www.ecu.edu/cs-acad/ugcat/CoursesC.cfm#chem

CHEM: Chemistry

0150. Preparation for College Chemistry (3) (F,S,SS)
May not count toward foundations curriculum science requirement. C: MATH 1065. Intensive review and study of basic chemical laws and mathematical tools needed for further study in general chemistry.

1020. General Descriptive Chemistry (4) (S) (FC:SC)
May not count toward foundations curriculum science requirement for science majors. General chemistry for nonscience majors.

1021. General Descriptive Chemistry Laboratory (1) (S) (FC:SC)
3 lab hours per week. Chemistry lab for nonscience majors. P/C: CHEM 1020. Lab experiences illustrate fundamental chemical principles and relevance of chemistry in modern world. Topics include chemical measurements, acids, synthesis and purification of biochemical substances and DNA fingerprinting.

1120. Introduction to Chemistry for the Allied Health Sciences (3) (F,S,SS) (FC:SC)
3 lecture and 1 recitation hours per week. May not count toward foundations curriculum science requirement for science majors. Fundamental concepts of chemistry emphasizing applications within the health professions.

1121. Basic General, Organic, and Biochemistry Laboratory I (1) (F,S) (FC:SC)
3 lab hours per week. C: CHEM 1120. Introduces lab techniques in general, organic, and biochemistry.

1130. Organic and Biochemistry for the Allied Health Sciences (4) (F,S,SS) (FC:SC)
4 lecture hours per week. May not count toward foundations curriculum requirement for science majors. P: CHEM 1120. Fundamentals of organic and biochemistry emphasizing applications within the health professions.

1131. Basic General, Organic, and Biochemistry Laboratory II (1) (F,S,SS) (FC:SC)
3 lab hours per week. C: CHEM 1130. Continuation of CHEM 1121.

1150, 1151. General Chemistry and Laboratory I (3,1) (F,S,SS) (FC:SC)
For science majors. 3 lecture and 3 lab hours per week. P/C: MATH 1065; C for 1150: CHEM 1151; C for 1151: CHEM 1150. Basic principles and laws of chemistry. Topics include measurements, reactions and stoichiometry, thermochemistry, atomic structure, periodicity, bonding and molecular structure, and states of matter.

1160, 1161. General Chemistry and Laboratory II (3,1) (F,S,SS) (FC:SC)
3 lecture and 3 lab hours per week. P: CHEM 1150, 1151; C for 1160: CHEM 1161; C for 1161: CHEM 1160; RC: MATH 1083 or 1085. Continuation of CHEM 1150. Topics include solutions, kinetics, equilibrium, acid-base theory, thermodynamics, and electrochemistry. Introduces organic, nuclear, and coordination chemistry.

1500. Materials Chemistry I (3) (S)
Chemistry of elements and compounds, atomic structure, molecular geometry and intermolecular forces and their effect on the design and uses of materials. May not count toward chemistry major.

1510, 1511. Materials Chemistry II and Laboratory (1,1) (F)
1 hour lecture and 3 hours lab per week. P: CHEM 1500; C for CHEM 1510: CHEM 1511; C for CHEM 1511: CHEM 1510. Continuation of CHEM 1500. Chemistry of elements and compounds, equilibrium, thermodynamics and kinetics and their effect on the design and uses of materials. Lab experience demonstrates chemical properties of materials. May not count toward chemistry major.

2103. Introduction to Chemical Literature (1) (WI) (F)
P: CHEM 2750. Introduces methods used to search and access chemical literature. Development of technical writing skills.

2110. Scientific Glassblowing (1) (F,S,SS)
3 lab hours per week. P: Consent of instructor. Fundamentals of glassblowing with emphasis on the properties of glass and techniques commonly used in the construction and repair of specialized glassware in chemical laboratories.

2250, 2251. Quantitative and Instrumental Analysis (3,2) (WI, WI) (F,S)
3 lecture and 4 lab hours per week. P: CHEM 1160, 1161; CHEM 2650 or 2750; C for 2250: CHEM 2251; C for 2251: CHEM 2250. Theories and techniques of classical quantitative and modern instrumental analysis.

2301. Teaching Laboratory Chemistry (2,0) (WI) (F,S)
1 lecture and 3 lab hours per week. P: Grade of B or higher in CHEM 1160 and CHEM 1161 or permission of instructor. Instruction and supervised experience in methods and practice of teaching introductory chemistry lab.

2650. Organic Chemistry for the Life Sciences (4) (F)
May not count toward CHEM major or minor. May not substitute as a prerequisite for CHEM 2760. P: CHEM 1160, 1161. Principles of organic chemistry. Emphasis on biologically important topics.

2651. Organic Chemistry Lab for the Life Sciences (1) (F)
3 lab hours per week. May not count toward CHEM major or minor. May not substitute as a prerequisite for CHEM 2763. C: CHEM 2650. Organic lab techniques.

2750. Organic Chemistry I (3) (F,S,SS)
P: CHEM 1160, 1161; C: CHEM 2753. Classes of compounds and their typical reactions, mechanisms, stereochemistry, and instrumental methods in organic chemistry.

2753. Organic Chemistry Laboratory I (1) (F,S,SS)
3 lab hours per week C: CHEM 2750. Organic lab techniques.

2760. Organic Chemistry II (3) (F,S,SS)
P: CHEM 2750; C: CHEM 2763. Continuation of CHEM 2750.

2763. Organic Chemistry Laboratory II (1) (F,S,SS)
3 lab hours per week P: CHEM 2750, 2753; C: CHEM 2760. Continuation of CHEM 2753.

2770. Biological Chemistry (3) (S)
P: CHEM 2650 or 2760. Chemistry and intermediary metabolism of proteins, carbohydrates, lipids, and nucleic acids.

2771. Biological Chemistry Laboratory (1) (S)
3 lab hours per week. C: CHEM 2770. Applies chemical lab techniques to study of proteins, carbohydrates, lipids, and nucleic acids.

3301. Practicum in Teaching (1) (F,S)
3 lab hours per week. May be repeated for credit. May count maximum of 4 s.h. toward CHEM major. P: CHEM 2301 and consent of instructor. Supervised practicum in teaching introductory chemistry lab.

3450. Elementary Inorganic Chemistry (3) (WI) (F,S)
P: CHEM 2250, 2251; C: CHEM 3451. Survey of fundamental concepts and theories of inorganic chemistry, periodicity, descriptive chemistry of selected main group elements and transition metals, and their role in organometallic, bioinorganic, and industrial chemistry.
3451. Elementary Inorganic Chemistry Laboratory (1) (WI) (F,S)  
P: CHEM 2250, 2251; C: CHEM 3450 or 5550. Inorganic laboratory techniques, physical  
methods, and the synthesis and characterization of inorganic and organometallic  
compounds.

3501, 3502, 3503. Special Topics in Chemistry (1,2,3)  
May be repeated for maximum of 6 s.h. with change of topic. May not count toward  
foundations curriculum science credit. P: CHEM 1160; consent of instructor. Selected  
topics of contemporary interest.

3850, 3851. Introduction to Physical Chemistry (4,1) (WI, WI) (F,S)  
4 lecture and 3 lab hours per week. P: CHEM 1160, 1161; MATH 2122 or 2172; PHYS  
1260, 1261; C for 3850: CHEM 3851; C for 3851: CHEM 3850. Physical chemistry for  
students with limited mathematical background.

3950, 3951. Physical Chemistry and Laboratory I (4,1) (WI, WI) (S)  
4 lecture and 3 lab hours per week. P: CHEM 2250, 2251; MATH 2173; PHYS 1261,  
2360; C for 3950: CHEM 3951; C for 3951: CHEM 3950. Theoretical and mathematical  
treatment of fundamental laws and theories underlying science of chemistry.

3960, 3961. Physical Chemistry and Laboratory II (4,1) (WI, WI) (F)  
4 lecture and 3 lab hours per week. P: CHEM 3950, 3951; C for 3960: CHEM 3961; C  
for 3961: CHEM 3960. Continuation of CHEM 3950, 3951.

4103. Seminar (1) (S)  
P: Junior or senior standing; CHEM 2103. Discuss contemporary topics in chemistry,  
instruction on technical presentations, and submission of written and oral reports on  
approved topics. Requires attendance at selected departmental seminars.

4505, 4506, 4507. Independent Study (1,2,3) (F,S,SS)  
May be repeated for credit. May count a maximum of 3 s.h. toward CHEM major. P:  
Consent of instructor and dept chair. Individual study in selected area of chemistry under  
immediate direction of faculty member.

4515, 4516, 4517. Research Problems in Chemistry (1,2,3) (F,S,SS)  
May be repeated for credit. May count maximum of 6 s.h. toward CHEM major. P:  
Consent of instructor. Advanced problems in chemistry pursued under supervision of  
faculty member.

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

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

5550. Advanced Inorganic Chemistry (4) (F)  
P: CHEM 3950; C: CHEM 3451 (for BS chemistry majors only). Advanced treatment of  
atomic and molecular structure, molecular symmetry, group theory, MO theory, the solid  
state and ionic bonding, transition metal coordination and organometallic compounds,  
homogeneous catalysis, and acid-base, redox, and bioinorganic chemistry.

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

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

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

CHEM Banked Courses
1163. Introduction to Computer Techniques in Experimental Chemistry (1)
1500. Materials Chemistry I (3) (S)
1510, 1511. Materials Chemistry II and Laboratory (1,1) (F)
2110. Scientific Glassblowing (1) (F,S,SS)
2111. Applications of Molecular Modeling (1)
3860, 3861. Introduction to Instrument - Computer Interfacing (2,1)
5390. Bioanalytical Chemistry (2)
5450. Industrial Chemistry (3)
5560. Inorganic Reaction Mechanisms (2)
5950, 5951. Introduction to Nuclear Chemistry (2,1)
5970. Chemical Thermodynamics (2)

Agenda Item III

Thomas Harriot College of Arts and Sciences

Department of Geological Sciences

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

Department of Geological Sciences

Stephen J. Culver, Chair, 101 Graham Building

BS in Geology

Geology majors have the opportunity to specialize in one of three concentration areas: coastal and marine, environmental, or general geology. 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. Core ......................................................................................................................................................................................... 3

9 s.h.

GEOL 1500. Dynamic Earth (3) (F,S,SS) (FC:SC) and GEOL 1501. Dynamic Earth Laboratory (1) (F,S,SS) (FC:SC)
GEOL 1600. Earth and Life Through Time (4) (F,S) (FC:SC)
GEOL 3050, 3051. Mineralogy and Petrology I (4,0) (F) (P: A 1000-level GEOL course; RP: CHEM 1150, 1151; GEOL 1500, 1501)
GEOL 3150, 3151. Mineralogy and Petrology II (4,0) (S) (P: GEOL 3050, 3051; P/C: CHEM 1150, 1151)
GEOL 3200, 3201. Introduction to Field Methods (2,0) (F) (P: GEOL 1600)
GEOL 3300, 3301. Structural Geology (4,0) (S) (P: GEOL 3200, 3201)
GEOL 4000. Summer Field Course in Geology (6) (SS) (P: GEOL 3050, 3051, 3300, 3301)
GEOL 4010, 4011. Sedimentology (4,0) (WI) (F) (P: GEOL 1600, 3050, 3051)
GEOL 4020, 4021. Stratigraphy (3,0) (WI) (S) (P: GEOL 1600)
GEOL 4000. Summer Field Course in Geology (6) (SS) (P: GEOL 3050, 3051, 3300, 3301)

3. Concentration areas (Choose one.) ........................................................................................................................................... 7 s.h.

Coastal and Marine Geology (Choose 7 s.h. from the following.):
GEOL 1550. Oceanography (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)
Or other approved GEOL courses

Environmental Geology (Choose 7 s.h. from the following.):
GEOL 1700. Environmental Geology (4) (F,S) (FC:SC)
GEOL 5150. The Geologic Component of Environmental Science (3) (P: Introductory GEOL course or consent of instructor)
GEOL 5450. Introduction to Aqueous Geochemistry (3) (P: CHEM 1150, 1151, 1160, 1161)
GEOL 5710, 5711. Ground-Water Hydrology (3,0) (P: GEOL 1500, 1501; or consent of instructor.
Or other approved GEOL courses

General Geology:
Choose 7 s.h. from any combination of GEOL courses. At least one course must be above 2999.
4. Cognates

CHEM 1150, 1151. General Chemistry and Laboratory I (3,1) (FC:SC) (P/C: MATH 1065; C for 1150: CHEM 1151; C for 1151: CHEM 1150)
CHEM 1160, 1161. General Chemistry and Laboratory I (3,1) (FC:SC) (P: CHEM 1150, 1151; C for 1160: CHEM 1161; C for 1161: CHEM 1160; RC: MATH 1083 or 1085) MATH 1065. College Algebra (3) (F,S,SS) (FC:MA) (P: Appropriate score on mathematics placement test)

Choose 6 s.h. of approved courses in calculus, statistics, and/or computer applications
Choose 8 s.h. of approved BIOL, CHEM, and/or PHYS courses

5. Electives to complete requirements for graduation.

NOTE: Students who plan to pursue graduate degrees in geology should complete a year of physics and a year of calculus.

**Geology Minor**

Minimum requirement for minor is 24 s.h. of GEOL courses. A minimum of 12 s.h. must be selected from courses numbered above 2999.

**Geology Honors Program**

A student desiring to enter the honors program in geology must satisfy the approved departmental criteria; junior standing with a minimum cumulative 3.0 GPA; completion of a minimum of 20 s.h. in geology; a minimum 3.0 GPA in geology courses with no grade below C. See GEOL 4550, 4551, Honors Thesis.

http://www.ecu.edu/cs-acad/ugcat/CoursesG.cfm#geol

GEOL: GEOLOGICAL SCIENCES

1500. Dynamic Earth (3) (F,S,SS) (FC:SC) Introductory survey of geologic materials (minerals and rocks), topographic features on the continents and in the ocean basins, geologic structures (faults, folds, etc.), and various processes (plate tectonics igneous activity, weathering, erosion, sedimentation, glaciation, mountain-building, etc.) that produce geologic features.

1501. Dynamic Earth Laboratory (1) (F,S,SS) (FC:SC) 3-hour lab per week. C: GEOL 1500. Study, classification, and identification of common minerals and rocks of the earth’s crust; study of various topographic features as revealed on topographic maps and aerial photographs; and study of geologic structures as seen on geologic maps, structural cross sections, and aerial photographs.

1550. Oceanography (4) (F,S) (FC:SC) Introductory survey of geological, biological, chemical, and physical characteristics of marine environment, their interrelationships, and interaction between people and the ocean.

1600. Earth and Life Through Time (4) (F,S) (FC:SC) Survey of physical, chemical, and biological geologic events that have occurred on earth during its long history. Chronologic
Major theme is organic evolution.

1700. **Environmental Geology** (4) (F,S) (FC:SC) Interactions among basic geologic processes, geomorphic features, earth resources, and people whose activities are an expanding and increasingly demanding geological agent.

1800. **Geology of the National Parks** (4) (FC:SC) P: GEOL 1500. Geologic evolution and scenic features in our national park system. Topics may include volcanoes, caverns, sea coasts, glaciation, arid regions, and fault block mountains. Relationship of scenery to geologic processes and materials.

2000. **Quantitative Methods in the Geological Sciences** (3). P: MATH 1065. An introduction to quantitative techniques used in descriptive and predictive aspects of the earth and environmental sciences. The focus is on pragmatic application of mathematical methods to geologic problems.

2500. **The Atlantic Ocean and the Mid-Atlantic Coast** (3) (SS) C: GEOL 2501. History and oceanography of the Atlantic Ocean and the morphology of and processes affecting the Mid-Atlantic coast.

2501. **The Atlantic Ocean and the Mid-Atlantic Coast Lab** (1) (SS) Mid-Atlantic coastal environments and their governing physical, geological and related biogeochemical processes, with field investigations.

2600. **Analysis Techniques and Methods of Coastal Ocean Research** (3) (SS) RC: GEOL 2501. Lab and field methods used to examine oceanographic processes and introduction to coastal ocean research.

3050, 3051. **Mineralogy and Petrology I** (4,0) (F) 3 lecture and 3 lab hours per week. P: 1000-level GEOL course; RP: CHEM 1150, 1151; GEOL 1500, 1501, or consent of instructor. Systematic approach to hand-specimen study and classification of minerals and igneous, metamorphic, and sedimentary rocks.

3150, 3151. **Mineralogy and Petrology II** (4,0) (S) 3 lecture and 3 lab hours per week. P: GEOL 3050, 3051; P/C: CHEM 1150, 1151. Crystallographic and chemical properties of minerals and study of chemical and physical processes governing the classification, origin, and occurrence of minerals and rocks.

3200, 3201. **Introduction to Field Methods** (2,0) (F) 1 lecture and 1 3-hour lab per week. P: GEOL 1600. Introduces standard scientific methods of solving geologic field problems. Techniques include description, sampling, and measurement of geologic processes and sections, and principles of field mapping, utilizing the Brunton compass, aerial photographs, and plane table and alidade.

3209. **Environmental Forensics** (3) P: CHEM 1150, 1151, 1160, 1161; or equivalent; or consent of instructor. Identification of environmental pollutants, estimation of their source(s), quantification of how long the pollution has persisted, and assessment of human health and ecosystem exposure. Investigation of common environmental contamination within air, water, soil, groundwater, sediments, and biota.

3250, 3251. **Introduction to Geomorphology** (3) 2 lectures and 1 3-hour lab per week. P: GEOL 1500, 1501 or
consent of instructor. Study and classification of landforms, their origin, and the processes which shape them. Emphasis on field observation and dating techniques for Quaternary processes and landforms.

**3300, 3301. Structural Geology (4,0) (S)** 3 lectures and 1 3-hour lab per week. P: GEOL 3200, 3201. Structures resulting from tectonic formation of earth’s crust and intrusion of molten magma.

**3402. Engineering Geology (3) P: GEOL 1500; MATH 1065.** Study of geologic factors affecting the location, design, construction, operation and maintenance of engineering structures.

**3500. Hydrogeology and the Environment (3)** Hydrogeology with emphasis on environmental water resources issues.

**3700. Advanced Oceanography (3) P: GEOL 1550 or equivalent; or consent of the instructor.** An in-depth examination of the structure and formation of ocean basins, the role of oceans in the hydrological cycle, the physical properties of seawater, atmospheric and ocean circulation, waves and tides. Emphasis is placed on key scientific studies, research methods, data analysis and quantitative problem solving.

**3800. Earth’s Climate: A Geological Perspective (3)** The geologic record and causes (processes) of climate change with a focus on the Quaternary.

**4000. Summer Field Course in Geology (6) (SS)** Full-time each week for the entire 6-week session. P: GEOL 3050, 3051, 3300, 3301. Stratigraphy, structure, geomorphology, and economic deposits of southwestern and central New Mexico and southern Colorado through basic mapping on topographic and photo bases. Mapping exercises involve wide variety of geologic features ranging from complexly faulted Mesozoic and Cenozoic rocks to isoclinally folded Precambrian rocks in areas of excellent exposures.

**4010, 4011. Sedimentology (4,0) (4010:WI) (F)** 3 lecture and 3 lab hours per week. P: GEOL 1600, 3050, 3051. Analysis of processes and products of sedimentation. Flow mechanics and sedimentary structures, depositional systems, sedimentation and tectonics, the effects of sea level on depositional systems, methods of description and classification of sediments and sedimentary rocks, and preparation of sedimentologic field reports.

**4020, 4021. Stratigraphy (3,0) (4020:WI) (S)** 2 lectures and 1 2-hour lab per week. P: GEOL 1600. Description, classification, and interpretation of stratified sedimentary rocks. Emphasis on principles and methodology.

**4200, 4201. Paleontology (4,0) (4200:WI) (S)** 3 lectures and 1 3-hour lab per week. P: GEOL 1600. Fossilized remains of principal animals that lived during earth history. Emphasis on paleontologic principles, especially as applied to invertebrate fossils. Topics include population dynamics, taxonomic principles, functional morphology, paleoecology, evolution, and biostratigraphy.

**4550, 4551. Honors Thesis (3,3) (F,S)** 9 research hours per week. P: Junior standing with minimum cumulative 3.0
GPA; completion of minimum of 20 s.h. in GEOL; a minimum grade of C and minimum 3.0 GPA in GEOL courses. Extensive program of carefully supervised reading and research in area of geology. Written report in scientific format.

5000, 5001. Geomorphology (3,0) 2 lectures and 1 3-hour lab per week. P: GEOL 1500, 1501; an additional 4 s.h.
in introductory GEOL sequences; or consent of instructor. Advanced study of landforms, stages of their development, and agencies which have shaped them.

5150. The Geologic Component of Environmental Science (3) P: Introductory GEOL course or consent of instructor. Basic geologic knowledge and insights that support sound, rational, and science-based environmental decisions and policies in regard to land and water use. Topics include pollution abatement, clean up, and prevention; resource extraction, use, and conservation; and hazardous geologic processes.

5300. Geology of Coastal Processes and Environments (3) May include field trips to various coastal systems. P:
GEOL 1550, 4010, 4011; or consent of instructor. Modern coastal systems. Diversity and distribution, complexity and dynamics of interacting processes and responses, origin and evolutionary history, and role of man as major modifying force.

5350. Marine Geology (3) P: GEOL 1550, 4010, 4011; or consent of instructor. Geology of world’s ocean basins. Impact of geophysical, geochemical, and geobiological principles on concepts of origin and evolution of ocean basins; source, transportation, and deposition of marine sediments and formation of marine stratigraphic record; and role of oceanographic processes affecting earth history such as sea level fluctuation, plate tectonics, paleogeography, and paleoclimatology.

5400, 5401. Optical Mineralogy (3,0) 2 lectures and 1 3-hour lab per week. P: GEOL 3050, 3051. Theory and basic techniques for determining optical constants of crystals using a polarizing microscope and thin sections.

5450. Introduction to Aqueous Geochemistry (3) 2 lectures and 1 3-hour lab per week. P: CHEM 1150, 1151, 1160, 1161; or equivalent. Applies chemical principles to study of elements at earth’s surface; their transportation in aqueous solutions; and weathering, groundwater, and surface water chemistry, geochemical cycles, and distribution of stable isotopes.

5500, 5510, 5520. Directed Studies in Geology (2,2,2) P: Senior or graduate standing in GEOL or consent of instructor. Independent study on selected topic. May include field work, directed readings, or some combination thereof. Occasionally special field study or course offered using one of these course numbers.

5600, 5601. Economic Geology (3,0) 2 lectures and 1 3-hour lab per week. P: GEOL 3050, 3051. Genesis, mode of occurrence, and utilization of mineral resources. Metals, nonmetals, and basic energy resources such as petroleum, coal, and uranium. Emphasis on geology of these resources and their relationship to modern technological society.

5700, 5701. Geohydrology of Drainage Basins (3,0) 2 lectures and 1 3-hour lab per week. P: GEOL 1500, 1501;
or consent of instructor. Drainage basin geology and hydrology. Emphasis on quantitative analysis, evaporation, streamflow, and hydrologic parameters of surface water and ground water basins.

**5710, 5711. Ground Water Hydrology (3,0)** 2 lectures and 1 3-hour lab per week. P: GEOL 1500, 1501; or consent of instructor. Origin, occurrence, movement, quality, regional analysis, and management of ground water. Interrelationship of ground and surface water. Lab emphasis on aquifer test data collection and interpretation.

**GEOL Banked Courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
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<tbody>
<tr>
<td>1601</td>
<td>Historical Geology Laboratory (1)</td>
<td></td>
</tr>
<tr>
<td>3000, 3001</td>
<td>Mineralogy (4,0)</td>
<td></td>
</tr>
<tr>
<td>3100, 3101</td>
<td>Petrology (4,0)</td>
<td></td>
</tr>
<tr>
<td>3402</td>
<td>Engineering Geology (3)</td>
<td></td>
</tr>
<tr>
<td>4100, 4101</td>
<td>Sedimentation and Stratigraphy (4,0)</td>
<td></td>
</tr>
<tr>
<td>5050</td>
<td>Regional Geomorphology of the United States (2)</td>
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</tr>
<tr>
<td>5250, 5251</td>
<td>Stratigraphy (3,0)</td>
<td></td>
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<tr>
<td>5750, 5751</td>
<td>Introduction to Engineering Geology (3,0)</td>
<td></td>
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</tbody>
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**Agenda Item IV**

**College of Fine Arts and Communication**

**School of Music**

Page 233

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

**Applied and Core Music Regulations for Music Majors and Minors**

A minimum grade of C in applied lessons on a student’s major instrument will qualify as credit in the applied major guideline. The first grade lower than C must be raised the following semester according to the procedures given in the undergraduate catalog. A student will be disqualified as a music major or music minor the second time that he or she receives a grade lower than C in applied lessons on the major instrument.

A minimum grade of C in core MUSC courses (1156, 1166, 1176, 1186, 1406, 2156, 2166, 2176, 2186, 2248, 2406, 2416, 3156, 3166, 3176) is required to receive credit toward the music major. A student will be disqualified as a music major or music minor for at least one semester the second time that he or she receives a grade lower than C in any of these core MUSC classes. A student may request consideration for readmission through the School of Music administration. Specific requirements for consideration will be determined by selected faculty and administration of the School of Music in consultation with the student no later than the second
week of the fall or spring semester enrolled. If a student is reinstated, he or she will have one attempt to earn a grade of at least C in the course(s) for which he or she was disqualified.

To be admitted to upper division courses in all degree programs, students must pass a qualifying exam as specified in the School of Music Handbook.

Page 238-39

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

Jazz Studies, Vocal:

**Applied major (16 s.h.):** *(17 s.h.):*
- 6 s.h. applied major (traditional)
- 10 s.h. 11 s.h. applied jazz major
- Present a half senior recital

**Applied minor (4 s.h.):**
- MUSC 1105, 1115. Beginning Group Piano (1,1) (F,S) (P for 1115: MUSC 1105)
- MUSC 2105, 2115. Intermediate Group Piano (1,1) (F,S) (P for 2105: MUSC 1115; P for 2115: MUSC 2105)

**Jazz studies (17 s.h.):**
- MUSC 2095, 2096. Jazz Keyboard Harmony (2,2) (F,S) (P for 2095: MUSC 2115, 2166, 2186; or consent of instructor; P for 2096: MUSC 2095)
- MUSC 2195. Jazz Improvisation (2) (F) (P: MUSC 1115, 2166, 2186; or consent of instructor)
- MUSC 2196. Advanced Jazz Improvisation (2) (S) (P: MUSC 2195 or consent of instructor)
- MUSC 2258. History of Jazz Music (2) (F,S,SS) MUSC 2295, 2296. Jazz Theory and Arranging (2,2) (F,S) (P for 2295: MUSC 2166, 2186; or consent of instructor; P for 2296: MUSC 2295)
- MUSC 4195. Jazz Seminar (3) (F,S,SS) (P: MUSC 1406, 2258, 2406, 2416; passing score on the jazz studies upper division exam)

**Pedagogy (7 s.h.) (6 s.h.):**
- MUSC 1627. Italian Lyric Diction for Singers (2) (F) (1) (S)
- MUSC 2280. Introduction to Music Technology (2) (F) (P: MUSC major or consent of instructor)
- MUSC 3637. Voice Pedagogy (3) (F-OY)

**Performance groups (12 s.h.):**
- Minimum of 4 semesters selected from: MUSC 1625. Concert Choir (1) (F,S) MUSC 1635. University Chorale (1) (F,S) MUSC 1675. Chamber Singers (1) (F,S) Choose 8 s.h. from:
  - MUSC 1775. Jazz Ensemble (1) (F,S)
  - MUSC 1855. Jazz Chamber Music (1) (F,S)
Sacred Music, Vocal:

Applied major (16 s.h.):
No more than 6 semesters of 1000-level applied and 4 semesters of 3000-level applied
Voice–present a full senior recital

Applied minor (5 s.h.):
MUSC 1105, 1115. Beginning Group Piano (1,1) (F,S)
MUSC 2105, 2115. Intermediate Group Piano (1,1) (F,S) (P: MUSC 1115)
1 s.h. piano or organ, in consultation with the degree advisor
(A piano skills proficiency exam will be given no later than the end of the fifth semester;
students found to be in need of further piano study must enroll in additional applied piano
until they pass the proficiency exam.)

Advanced conducting (3 s.h.):
Choose one of MUSC 5706, 5716. Advanced Applied Conducting (3,3) (P: MUSC 3166 or
consent of instructor)

Pedagogy (9 s.h.) (6 s.h.):
MUSC 1627. Italian Lyric Diction for Singers (2) (F) (1) (S)
MUSC 1637. French Diction for Singers (2) (1) (F)
MUSC 1647. German Diction for Singers (2) (1) (F)
MUSC 3637. Voice Pedagogy (3)

Performance groups (8 s.h.):
Minimum of 4 semesters large choral ensemble
Minimum of 4 semesters small ensemble

Sacred music (12 s.h.):
MUSC 4525. History of Sacred Music and Worship (3) (P: MUSC 2416)
MUSC 4526, 4527. Philosophy and Practice of Sacred Music (2,2) (P for 4527: MUSC 4526 or
consent of instructor)
MUSC 4528. Sacred Music Internship (1) (F,S) (P: MUSC 3156, 3166)
MUSC 5906, 5916. Choral Literature (2,2)

Free electives (3 s.h.) (6 s.h.)

String Performance:

Applied major (24 s.h.):
No more than 6 semesters of 1000-level applied and 4 semesters of 3000-level applied
Present at least a half junior recital and full senior recital

Applied minor (6 s.h.):
MUSC 1105, 1115. Beginning Group Piano (1,1) (F,S)
MUSC 2105, 2115. Intermediate Group Piano (1,1) (F,S) (P: MUSC 1115)
Bowed String majors select 2 s.h. minor string (violin or viola major must elect 2 s.h. of cello;
cello or string bass major must elect 2 s.h. of violin or viola)
Guitar majors select 2 s.h. minor applied from: bowed strings, piano, jazz guitar, early plucked
strings or other area with permission of appropriate applied instructor.

Pedagogy (3 s.h.):
MUSC 4657. Directed Study in Instrumental Pedagogy for Brass, Percussion, Strings, or Woodwinds (3) (F,S) (P: Acceptance in performance degree program; consent of instructor)

Performance groups (12 s.h.):
Minimum of 8 semesters large ensemble
Minimum of 4 semesters of MUSC 1805. String Chamber Music (1) (F,S)

Performance groups for guitar majors:
Minimum of 8 semesters of MUSC 1805. String Chamber Music (1) (F,S) and 4 semesters of large ensemble

Music history and literature electives (6 s.h.)
Free electives (5 s.h.)

Voice Performance:

Applied major (16 s.h.):
No more than 6 semesters of 1000-level applied and 4 semesters of 3000-level applied
Present a half junior recital and a full senior recital

Applied minor (2 s.h.):
2 s.h. minor applied piano
Students are required to pass a departmental piano proficiency examination. In preparation for the exam, students must enroll in MUSC 1305,1315 (Functional piano for singers) for 2 semesters. Students desiring further preparation may take piano minor, piano accompanying, MUSC 1105, 1115, 2105, and/or 2115 for no credit.

Performance groups (10 s.h.):
Minimum of 8 semesters large choral ensemble
Minimum of 2 semesters of opera workshop or theatre

Foreign language and diction (21 s.h.):
Minimum of 6 s.h. FREN
Minimum of 6 s.h. GERM
Minimum of 3 s.h. 6 s.h. ITAL
MUSC 1627. Italian Lyric Diction for Singers (2) (F) (1) (S)
MUSC 1637. French Lyric Diction for Singers (2) (S) (1) (F)
MUSC 1647. German Lyric Diction for Singers (2) (S) (1) (F)

Voice pedagogy (3 s.h.):
MUSC 3637. Voice Pedagogy (3) (S)

Music history and literature (4 s.h.):
MUSC 4496. Opera History (2) (WI) (P: MUSC 2416)
MUSC 4596. Historical Development of Solo Vocal Literature (2) (WI) (P: MUSC 2416)

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

MUSC: Pedagogy
1627. Italian Lyric Diction for Singers (2) (F) (1) (S)
RP/C: ITAL 1001. Basic understanding of standard Italian lyric literature with phonetic-grammatical and phonetic analysis.
1637. French Lyric Diction for Singers (2) (S02) (1) (F)
   P: MUSC 1627; RP/C: FREN 1001. SBasic understanding of standard French lyric literature, with Grammatical and phonetic analysis.

1647. German Lyric Diction for Singers (2) (S03) (1) (F)
   P: MUSC 1627; RP/C: GERM 1001. SBasic understanding of standard German lyric literature, with Grammatical and phonetic analysis.

2125, 2135. Basic Keyboard Skills (1,1) (2125: F02; 2135: S03) Same as MUSC 2125, 2135 (Applied Music, Group) 2 sessions per week. Instruction in classes of 4 or more students. No fee. May count toward minor applied music requirement.
   P for 2135: MUSC 2125. Functional use of piano for music majors and minors whose primary performance medium is keyboard instrument.