### Curriculum and Recommended Schedule: B.S. degree in EARTH & ENVIRONMENTAL SCIENCES

**GENERAL DEGREE**

<table>
<thead>
<tr>
<th>FALL Semester</th>
<th>First Year</th>
<th>SPRING Semester</th>
<th>Second Year</th>
<th>Spring Semester Total</th>
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<tr>
<td>ENGL 1101 English Composition</td>
<td>3</td>
<td>ENGL 1102 Academic Writing</td>
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<td>MATH 1241 Calculus I</td>
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<td>MATH 1242 Calculus II OR STAT 12xx</td>
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<td>CHEM 1251 General Chemistry I</td>
<td>3</td>
<td>PHYS 1102 Introductory Physics I</td>
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<td>CHEM 1251L General Chemistry I Lab</td>
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<td>PHYS 1101L Introductory Physics I Lab</td>
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<td>ESCI 1101 Earth Science-Geography</td>
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<td>GEOL 1200 Physical Geology</td>
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<td>GEOL 1200L Physical Geology Lab</td>
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<tr>
<th>THIRD YEAR</th>
<th>GEOL 4155 Geomorphology</th>
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<th><strong>GEOL 4165 Aqueous Geochemistry</strong></th>
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<td>LBST 2102 Global Connections</td>
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<td>LBST 22xx Liberal Studies Elective</td>
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<td>ESCI 3101 Global Environmental Change</td>
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<td>Writing (W) Comm Elective</td>
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<td><strong>16</strong></td>
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<th>FOURTH YEAR</th>
<th>ESCI 3105 Oceanography</th>
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<td>G&amp;ES Elective</td>
<td>4</td>
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<tr>
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<td>3</td>
<td>15</td>
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<td><strong>Spring Semester Total</strong></td>
<td><strong>15</strong></td>
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- **ESCI 4170 Environmental Quality Management**
- **ESCI 3180 Environmental Impact Analysis**
- **ESCI 4233 Geoenvironmental Site Characterization**

- **ESC BS Requirement**
- **General Education Requirement**
- **G&ES Dept. Course**

### Examples of Supportive G&ES Electives - Fall Offerings

- BIOL 3215 Economic Botany (W)
- BIOL 4162 Environmental Biotechnology I
- ESCI 3105 Oceanography
- ESCI 3101 Global Environmental Change
- ESCI 4140 Hydrologic Processes
- ESCI 4170 Fundamentals of Remote Sensing
- ESCI 4210 Soil Science
- ESCI 4222 Watershed Science
- GEOG 2103 Intro. to GIScience and Tech.
- GEOG 4216 Landscape Ecology
- GEOL 3120 Geochemistry
- GEOL 3120L Geochernistry Lab
- GEOL 3124 Sedimentology (W)
- GEOL 4105 Geomorphology
- GEOL 4105L Geomorphology Lab
- GEOL 4120 Geoecologic Mapping and Interpretation
- GEOL 4140 Coastal Geology
- METR 4240 Boundary-Layer Meteorology

### Examples of Supportive G&ES Electives - Spring Offerings

- BIOL 4163 Environmental Biotechnology II
- CEGR 3143 Hydraulics and Hydrology
- ESCI 3170 Environmental Quality Management
- ESCI 3180 Environmental Impact Analysis
- ESCI 4155 Fluvial Processes
- ESCI 4160 Contaminant Transport
- ESCI 4233 Geoenvironmental Site Characterization
- GEOG 3215 Environmental Planning (W)
- GEOG 3250 World Food Problems
- GEOG 4131 Environmental Modelling with GIS
- GEOL 3115 Mineralogy
- GEOL 4110 Stratigraphy
- GEOL 4145 Fundamentals of Hydrogeology (W)
- GEOL 4165 Aqueous Geochemistry
- GEOL 4410 Applied Soil Science
- METR 3250 Dynamic Meteorology
- METR 3252 Weather Analysis Lab
- METR 4150 Applied Climatology (W)
- METR 4220 Atmospheric Chemistry

### We recommend students take the following elective courses if they are interested in pursuing an advanced degree

- Relevant Field Experience Course
- GEOL 4800 Independent Study in the Earth Sciences
- MATH 2241 Calculus III

*One of the following courses: ANTH 1101, ECON 1101, ECON 2101, GEOG, 1105, POLS 1110, or SOCY 1101

Dept. of Geography and Earth Sciences
UNC Charlotte
Updated Fall 2013 -