Natural Resources (BS): Marine and Coastal Concentration

To see more about what you will learn in this program, visit the Learning Outcomes website (https://apps.oirp.ncsu.edu/pgas/).

The department offers curricula in each of the areas of marine, earth and atmospheric sciences. Each prepares students for employment at graduation or for further professional training. There is one Bachelor of Science (B.S.) curricula in atmospheric sciences: Meteorology. Students in that major can choose to concentrate in Marine Meteorology.

Earth sciences house one curricula: the B.S. in Geology. In the marine sciences, students can choose between two degree programs: the B.S. in Marine Science or the B.S. in Natural Resources. Students in the marine science major choose one of five concentrations:

1. Biological Oceanography
2. Chemistry
3. Geology
4. Meteorology
5. Physics

Students in the B.S. in Natural Resources concentrate in Marine and Coastal Resources.

Plan Requirements

Natural Resources (BS): Marine and Coastal Concentration: 120 Total Units

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<tr>
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Math/Statistics/orientation

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Chemistry/Physics/Natural Sciences

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<td>Animal Phylology and Diversity</td>
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<td>PY 208 &amp; PY 209</td>
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English/Writing

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Humanities/Social Sciences

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<td>EC 201</td>
<td>Principles of Microeconomics</td>
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<td>EC 205</td>
<td>Fundamentals of Economics</td>
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<td>ARE 336</td>
<td>Introduction to Resource and Environmental Economics</td>
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<td>PS 336</td>
<td>Global Environmental Politics</td>
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Health & Exercise Science

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<tr>
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GEP Courses

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Health & Exercise Science

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GEP Courses

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<tbody>
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<td>GEP Health and Exercise Studies (<a href="http://catalog.ncsu.edu/undergraduate/gep-category-requirements/gep-humanities/">http://catalog.ncsu.edu/undergraduate/gep-category-requirements/gep-humanities/</a>)</td>
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GEP Additional Breadth (http://catalog.ncsu.edu/undergraduate/gep-category-requirements/) (Humanities/Social Sciences/Visual and Performing Arts)

GEP U.S. Diversity (http://catalog.ncsu.edu/undergraduate/gep-category-requirements/gep-us-diversity/) (verify requirement)

GEP Global Knowledge (http://catalog.ncsu.edu/undergraduate/gep-category-requirements/gep-global-knowledge/) (verify requirement)

Foreign Language Proficiency (http://catalog.ncsu.edu/undergraduate/gep-category-requirements/foreign-language-proficiency/) (verify requirement)

Total Hours 120

1 Students should consult their academic advisors to determine which courses fill this requirement.

A grade of C- or higher is required.

### Semester Sequence

Critical Path Courses - Identify using the code (CP) which courses are considered critical path courses which represent specific major requirements that are predictive of student success in a given program/plan. Place the (CP) next to the credit hours for the course.

This is a sample.

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<th>Course</th>
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<td>Geology I: Physical 2</td>
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GEP Health and Exercise Studies (http://catalog.ncsu.edu/undergraduate/gep-category-requirements/gep-health-exercise-studies/) (verify requirement)

ZO 350  Animal Phylogeny and Diversity 3  4

### Hours

- First Year: 14
- Spring Semester: 14
- Third Year: 16
- Summer: 5
- Fourth Year: 12
- Spring Semester: 14
- Total Hours: 120
A grade of C- or higher is required.

No more than one D will be accepted in major core courses.

No more than one D will be accepted in other basic math or science courses.

**Career Opportunities**

MEAS undergraduate degree programs provide talented students with the foundation of scientific knowledge required for careers in government, industry, or academia. Many students pursue graduate degrees and pursue careers in industry, at government agencies and in academia.

Marine Sciences graduates go on to become oceanographers, to manage our coastal resources, model air-sea interaction, and explore global climate change. They conduct basic and applied research, serving as environmental consultants for industry and governmental agencies, policy and management experts for governmental agencies, and environmental science educators. Graduates with a Natural Resources degree are versed in the fundamental processes and interdisciplinary nature of the coastal zone. As scientists, managers, administrators, and regulators, they make decisions regarding use and conservation of coastal and marine resources.

Geology graduates address society’s needs for dealing effectively with earth processes, such as water resources and the stability of land forms. They work for engineering firms, permit-issuing agencies, and industries that rely on geological resources. Historical geologists are familiar with the evolution of earth through time and provide a perspective on potential long-term reactions of the earth systems to change. Those who concentrate in Environmental Geology are trained to assess and monitor geological resources such as ground water. Marine geologists are experts in the complex issues facing industry, municipalities, and residents in the dynamic and ecologically vulnerable coastal zone.

Meteorology graduates enjoy careers in weather forecasting, air quality assessment, development of weather products and services, broadcast communications, and advanced research. Marine meteorologists study ocean-generated weather systems. Their research is yielding practical benefits such as refined prediction of storm surge, which has streamlined evacuation efforts during severe storms along the Carolina coast. Meteorology graduates with an air quality emphasis work for environmental firms, regulatory agencies, and in applied research. Study of air quality and how air pollution is transported and dispersed is a rapidly expanding field in the atmospheric sciences.

MEAS graduates play a key service role for the State of North Carolina, assisting in everything from forecasting severe storms and analyzing the impact of atmospheric pollutants on agriculture and our estuaries, to determining the effects of toxic waste disposal on quality of surface and ground water.