## Soil and Water Sciences Option

### Freshman Year

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Fall</th>
<th>Spring</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENSC 110</td>
<td>Land Resources and Environmental Sciences</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>BIOB 170IN</td>
<td>Principles of Biological Diversity</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>CHMY 141</td>
<td>College Chemistry I</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>WRIT 101W</td>
<td>College Writing I</td>
<td>3</td>
<td></td>
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<tr>
<td>BIOB 160</td>
<td>Principles of Living Systems</td>
<td>4</td>
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<tr>
<td>CHMY 143</td>
<td>College Chemistry II</td>
<td>4</td>
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<tr>
<td>M 161Q</td>
<td>Survey of Calculus</td>
<td>4</td>
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**Year Total:** 14 15

### Sophomore Year

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Fall</th>
<th>Spring</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENSC 245IN</td>
<td>Soils</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>ERTH 101IN</td>
<td>Earth System Sciences</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>GPHY 284</td>
<td>Intro to GIS Science &amp; Cartography</td>
<td>3</td>
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Take one of the following:
- BIOB 318 - Biometry
- STAT 216Q - Introduction to Statistics

**Univ. Core**
- ENSC 210 - Role of Plants in the Environment
- ENSC 260 - Evolution for Env Scientists
- PHSX 205 - College Physics I
- WRIT 201 - College Writing II (HONR 202IH)

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- ENSC 210 - Role of Plants in the Environment
- ENSC 260 - Evolution for Env Scientists
- PHSX 205 - College Physics I
- WRIT 201 - College Writing II (HONR 202IH)

**Year Total:** 16 16

### Junior Year

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<thead>
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<th>Course Code</th>
<th>Course Name</th>
<th>Fall</th>
<th>Spring</th>
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</thead>
<tbody>
<tr>
<td>ENSC 353</td>
<td>Environmental Biogeochemistry</td>
<td>3</td>
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<tr>
<td>ERTH 307</td>
<td>Principles of Geomorphology</td>
<td>4</td>
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</tr>
</tbody>
</table>

Take one of the following:
- BIOE 370 - General Ecology
- NRSM 240 - Natural Resource Ecology

**Univ. Core**
- ENSC 210 - Role of Plants in the Environment
- ENSC 260 - Evolution for Env Scientists
- PHSX 205 - College Physics I
- WRIT 201 - College Writing II (HONR 202IH)

**Univ. Core**
- ENSC 210 - Role of Plants in the Environment
- ENSC 260 - Evolution for Env Scientists
- PHSX 205 - College Physics I
- WRIT 201 - College Writing II (HONR 202IH)

**Year Total:** 16 16

### Senior Year

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Fall</th>
<th>Spring</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENSC 444</td>
<td>Watershed Hydrology</td>
<td>3</td>
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</tr>
<tr>
<td>ENSC 454</td>
<td>Landscape Pedology</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>ENSC 499R</td>
<td>LRES Capstone</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

Take one of the following:
- BIOE 428 - Freshwater Ecology
- ENSC 448 - Stream Restoration Ecology
- ENSC 461 - Restoration Ecology
- BIOE 455 - Plant Ecology

**Directed Elective**

Take one of the following:
- ENSC 464 - Computational Techniques Environmental Science (and)
- ENSC 445 - Watershed Analysis
- ENSC 465 - Environmental Biophysics

**Directed Electives**

Each student shall work closely with their faculty advisor to plan an integrated set of elective courses appropriate to their academic, professional and personal goals. Courses not on this list may be used IF considered appropriate to the student’s goals AND approved by the faculty advisor as a curricular exception.

**Choose 15 Credits from the following:**

- AGSC 454 - Agrostology
- BIOE 375 - Ecological Responses to Climate Change
- BIOE 428 - Freshwater Ecology (if not taken above)
- BIOE 455 - Plant Ecology
- BIOM 415 - Microbial Diversity, Ecology, and Evolution
- BIOM 452 - Soil & Environment Microbiology
- CHMY 311 - Fundamental Analytical Chem
- EENV 441 - Natural Treatment Systems
- ENSC 407 - Environmental Risk Assessment
- ENSC 410R - Biodiversity Survey and Monitoring
- ENSC 445 - Weed Ecology and Management
- ENSC 444 - Watershed Analysis
- ENSC 448 - Stream Restoration Ecology (if not taken above)
- ENSC 460 - Soil Remediation
- ENSC 461 - Restoration Ecology (if not taken above)
- ENSC 466 - Chemical Ecology
- ERTH 432R - Surface Water Resources
- GEO 309 - Sedimentation and Stratigraphy
- GPHY 357 - GPS Fund/App in Mapping
- GPHY 384 - Adv GIS and Spatial Analysis
- GPHY 426 - Remote Sensing
- GPHY 429R - Applied Remote Sensing
- GPHY 484R - Applied GIS & Spatial Analysis
- NRSM 421 - Holistic Thought/Mgmt
- NRSM 455 - Riparian Ecology & Management
- STAT 411 - Methods for Data Analysis I

**Total Program Credits:** 120

Because some of the courses are offered during alternate years, the proposed scheduling of courses in junior and senior years may need to be modified. Work with an advisor for an individual schedule.
A minimum of 120 credits is required for graduation; at least 42 of these credits must be in courses numbered 300 and above.

Each student shall work closely with their faculty advisor to plan an integrated set of elective courses appropriate to their academic and professional goals.
Font Notice

This document should contain certain fonts with restrictive licenses. For this draft, substitutions were made using less legally restrictive fonts. Specifically:

Times was used instead of Adobe Garamond Pro.

The editor may contact Leeffrog for a draft with the correct fonts in place.