The Environmental Science Major

The Environmental Science major requires students to take a total of 20 courses, 14 of which have an environmental focus and 6 of which are background science courses. Of the 14 environmentally focused courses, 6 are required core science courses. Additionally, students are to take two environmental studies courses and 6 courses in their environmental concentration area/track (Restoration Ecology or Hydrology and Aquatic Systems or Energy Resources).

F – typically offered in the Fall semester
S – typically offered in the Spring semester
B – typically offered in both semesters

This notation is not a guarantee that the course is offered in the indicated semester. Please consult the Course Schedule listing on the Office of the Registrar’s Website.

* denotes courses that have prerequisites

Science Background Courses (6 courses):
Chem 121 B, 122* - S
Math 161, 162* - B
Math 186* - B
Physics 111*/131* or Biol 111 – F (students in the Restoration Ecol track should take Biol 111)

<table>
<thead>
<tr>
<th>Course</th>
<th>Term Taken</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Environmental Science Core (6 courses):
EVST 100 An Introduction to the Environment - F
Biol 233 Environmental Problem Solving in Biology* F or Biol 234 Environmental Biology* - S or Biol 272 Conservation Biology* - F
Chem 252 Environmental Chemistry* - F or CE 321 Introduction to Environmental Engineering and Science* - F
Geol 110 Environmental Geology - S or Geol 120 Geologic Disasters: Agents of Chaos - F
**EVST 290 Climate Change the Facts, the issues, the Long-Term View** - **S**  
**or** Geol 115 Earth: Evolution of a Habitable Planet - **F**  
EVST 400 Environmental Studies Praxis – **F** (normally)

<table>
<thead>
<tr>
<th>Course</th>
<th>Term Taken</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Environmental Studies** - choose 2 courses from the EVST approved list of courses in Humanities or Social Sciences (see EVST Program requirements).

<table>
<thead>
<tr>
<th>Course</th>
<th>Term Taken</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Concentration Areas/Tracks:** (6 courses in concentration area)

1. Restoration Ecology **OR**  
   2. Hydrology & Aquatic Systems **OR**  
   3. Energy Resources

1. **Restoration Ecology Concentration** (6 courses)  
   (Note: students pursuing this track cannot double count Biol 272 as a required course and a core science course)

<table>
<thead>
<tr>
<th>Required Course</th>
<th>Term Taken</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Electives**

<table>
<thead>
<tr>
<th>Course</th>
<th>Term Taken</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>
**Required courses**

Biol 231 Ecology* - S
Biol 272 Conservation Biology* - F
Geol 300 Earth Surface Processes* - S

**Elective courses** (In addition to the three required courses above, students must take any 3 courses from the list below)

Biol 215 Phytopathology* - F
Biol 224 Plant Form, Function, and Adaption* - S
Biol 225 Microbiology* **Every 3rd semester**
Biol 275 Behavioral Ecology* S
Biol 332 Advanced Aquatic Ecology* F
Biol 342 Restoration Ecology* F
CE 351 Water Resources Engineering* - S
CE/EVSC 352 Hydrology* - F
CE/EVSC 322 Environmental Site Assessment* - S
CE 423 Water Quality * - S – odd years
CE 425 Water Supply and Pollution Control* - S – odd years
CE 451 Open Channel Flow* - S – odd years
EVSC/Geol 211 Rivers and Watersheds: Form and Function*
Geol 205 Oceanography* - S
Geol 210 Hydrogeology* - F
Geol 229 Geographical Information Systems and Remote Sensing in Geosciences* - F
Geol 300 Earth Surface Processes* - S
Geol 321 Geochemistry* - S **even years**

(2) Hydrology and Aquatic Systems Concentration (6 courses)

**Required** (at least one from each set)

Groundwater course (Geol 210* - F)
Surface water course (Geol 300 - S or CE/EVSC 352* or CE 351* - S)
Aquatic biology course (Biol 231* - S or Biol 332* - F **every other year** or Biol 341* - F)

**Elective courses** (In addition to three required courses selected above, students must take any 3 courses from the list below)

Biol 231 Ecology* S
Biol 332 Advanced Aquatic Ecology* F – odd years
Biol 342 Restoration Ecology* F
CE 321 Introduction to Environmental Engineering and Science* F
CE 351 Water Resources Engineering* S
CE/EVSC 352 Hydrology* F
CE 423 Water Quality* S
CE 425 Water Supply and Pollution Control* S
CE 451 Open Channel Flow* S
ChE 211 Material and Energy Balances* F
Chem 231 Analytical Chem I* F
Chem 252 Environmental Chemistry* F
EVSC/Geol 211 Rivers and Watersheds: Form and Function*
Geol 205 Oceanography* S
Geol 229 Geographical Information Systems and Remote Sensing in Geosciences* F
Geol 300 Earth Surface Processes* S
Geol 315 Paleoclimatology and Paleoceanography* S
Geol 321 Geochemistry* S
Geol 322/CE464 Environmental Geophysics*

(3) Energy Resources Concentration (6 courses)

Required
ChE 211 Material and Energy Balances* - F
EGRS 352 Energy, Technology, and the Modern World* - S
Thermodynamics (ChE 222* or ME 354*) – F (both courses)

Elective courses (In addition to the three required courses selected above, students must take any 3 courses from the list below)

Fluid Mechanics (CE251* - F or ME 362* - S)
CE/EVSC 352 Hydrology* F
CE 351 Water Resources Engineering* - S
ChE 311 Transport Phenomena* - F
ChE 342 Atmospheric Engineering and Science*
ChE 370 Alternative Energy Resources* - S
Geol 215 Modern and Ancient Depositional Environments* - S
Geol 229 Geographical Information Systems and Remote Sensing in Geosciences* - F
Geol 317 Tectonics and Structure of the Earth* - F
Geol 322/CE 464 Environmental Geophysics* - S
ME 470 Heat Transfer* - F
ME 475 Thermal/Fluids Systems* - S
ME 483 Power Plants* - no regular cycle