

# LAFAYETTE

*The Programs in Environmental Science and Environmental Studies*

## **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** – offered in the Fall semester

**S** – offered in the Spring semester

**B** – offered in both semesters

This notation is not a guarantee that the course is offered in the indicated semester. It is only a notation of when the course is *typically* offered. 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\* - **F** **or** 131\* - **B**

<b><u>Course</u></b>	<b><u>Term Taken</u></b>

**Environmental Science Core (6 courses):**

- EVST 100 An Introduction to the Environment - **F**
- Biol 234 Environmental Biology\* - **F** 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)

<u>Course</u>	<u>Term Taken</u>

**Environmental Studies (choose 2 courses):**

- A&S 201 Culture and the Environment - **S**
- AFS 330 Cowboys in Africa: Social Transformations and Environmental Justice - **S**
- Econ 202 Environmental Economics\* - **S**
- EGRS 230 Environmental Justice – **no regular cycle**
- Eng 276 Literature of the Sea - **F**
- Eng 351 Environmental Writing\* - **S**
- EVST 215 Environmental Policy\* - **S**
- EVST 220 People, Places and Environments of the Mid-Atlantic - **S**
- EVST 230 Water Problems, Water Solutions - **S**
- EVST/WGS 253 Gender, Race, and Environmental Justice - **S – odd years**
- EVST 254 Cultures of Nature **F – odd years**
- EVST 310 Organizations and the Environment\* - **F**
- EVST/ FAMS 363 Green Screen Film and The Environment\* - **F – even years**
- EVST/EGRS 373 Technology and Nature\* - **S**
- ART/EVST 250 Art and Environment - **F**
- Govt 231 Global Environmental Politics\* - **F**
- Hist 252 Transformation of the American Environment – **S**
- IA 240 Pursuing Global Sustainability - **S**
- Phil 155 Environmental Ethics – **S – odd years**
- WGS 204 Gender & Environmentalism – **F**

<u>Course</u>	<u>Term Taken</u>

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

**(1) Restoration Ecology OR (2) Hydrology and Aquatic Systems OR (3) Energy Resources**

**Required**

<b><u>Course</u></b>	<b><u>Term Taken</u></b>

**Electives**

<b><u>Course</u></b>	<b><u>Term Taken</u></b>

**(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)**

**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 3<sup>rd</sup> semester**

Biol 275 Behavioral Ecology\* S

Biol 332 Advanced Aquatic Ecology\* F

Biol 341 Environmental Issues in Aquatic Ecosystems\* F

CE 351 Water Resources Engineering\* - S

CE 421 Hydrology\* - F – **odd years**

CE 422 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**

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 421\* - F – **odd years** or CE 423\* - **S** – **odd years** 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)

### Ecology

Biol 231 Ecology\* **S**

Biol 332 Advanced Aquatic Ecology\* **F – odd years**

Biol 341 Environmental Issues in Aquatic Ecosystems\* **F**

### Physical Flow Systems

CE 351 Water Resources Engineering\* - **S**

CE 421 Hydrology\* - **F – odd years**

CE 451 Open Channel Flow\* - **S – odd years**

ChE 211 Material and Energy Balances\* - **F**

Geol 210 Hydrogeology\* - **F**

Geol 300 Earth Surface Processes\* - **S**

### Marine Systems

Geol 205 Oceanography\* - **S – even years**

Geol 315 Paleoclimatology and Paleoceanography\* - **S odd years**

### Water Quality

CE 423 Water Quality\* - **S – odd years**

CE 425 Water Supply and Pollution Control\* - **F – odd years**

Chem 252 Environmental Chemistry\* - **F**

Geol 321 Geochemistry\* - **S – even years**

### Toolbox Courses

CE 321 Introduction to Environmental Engineering and Science\* - **F**

Chem 231 Analytical Chem I\* - **F**

Geol 229 Geographical Information Systems and Remote Sensing in Geosciences\* - **F**

Geol 322/CE464 Environmental Geophysics\* - **S – even years**

### (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\*or ME 362\*) – **CE251 - F/ME362 - S**

CE 351 Water Resources Engineering\* - **S**

CE 421 Hydrology\* - **F – odd years**

ChE 311 Transport Phenomena\* - **F**

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**