

# TIP SHEET FOR STUDENTS INTERESTED IN B.S. in ENVIRONMENTAL SCIENCE 2016-2017

Students interested in pursuing a B.S. degree in Environmental Science should take **ES 117 (fall or spring term)**. In addition, you may want to take Ecology (T/Th 8:50-10:20; lab M or Th 1:30-4:30) or another elective course associated with the ES major.

## ES COURSES OFFERED

### Fall 2016

#### Core Courses

ES 117: Intro to Env't Science  
Econ 157: Microeconomics  
ES 207: Ecology  
ES 207L: Ecology Lab (2 cr)  
ES 470: Senior Seminar in Env't Studies

#### Required Science/Math Courses

Chem 101/101L: General Chemistry I  
Chem 105/105L: Principles of Chemistry  
Phys 151/151L or 201/201L: Physics  
Psy 208: Research Statistics  
Stat 251: Statistical Methods I

#### Elective Science Courses

Bio 241/241L: Plant Biology  
Chem 221/221L: Organic Chemistry I

#### Additional ES Courses

ES 220: Globalization & Loc. Responses

### Spring 2017

#### Core Courses

ES 117: Intro to Env't Science  
Econ 157: Microeconomics  
ES 234: Env't Politics and Policy  
ES 357: Conservation Biology + lab

#### Required Science/Math Courses

Chem 102/102L: General Chemistry II  
Phy 152/152L or 202/202L: Physics  
Psy 208: Research Statistics

#### Elective Science Courses

Bio 236/236L: Cell and Mol. Biology (6)  
ES/Bio 328: Field Vert. Zool  
ES/Phys 241: Geology & Earth History  
Chem 214/214L: Analytical Chemistry  
Chem 222/222L: Organic Chemistry II

#### Additional ES Courses

ES 210: World Geography  
ES 219: Food Culture and Social Justice  
ES 305: Cultural Geo Landscape Study

## Frequently Asked Questions

**Q:** *What kind of internships have ES majors pursued?*

Here are a sampling of internships our students have obtained - *Canaveral National Seashore, Florida; Mountain Castle Soil and Water Division, Roanoke Va; Blue Ridge Land Conservancy, Roanoke, Va; Roanoke Clean Valley Council, Roanoke, Va; The Nature Conservancy, Charlottesville, Va; VMI Laboratories, Lexington, VA; Sierra Club - Cumberland Chapter, Lexington, KY; Kentucky Division of Compliance Assistance, Frankfort, KY; George Washington National Forest Service, Roanoke, Va ; Southern Waterview Development, Jacksonville, Fla; National Zoo, Washington, D.C.* **We encourage you to pursue internship opportunities early and frequently during your academic career!**

**Q:** *How is the B.S. degree different from the B.A. degree?*

The B.S. degree has a science focus and students pursuing this degree will have a developed background in the sciences. Students interested in environmental consulting, graduate work in environmental science, and other science related careers should pursue the B.S.

See Requirements Below:

### **REQUIREMENTS FOR A B.S. IN ENVIRONMENTAL SCIENCE:**

17 courses plus related laboratories (62-76 credits) and Experiential Component

#### **CORE COURSES (7):**

- ES 117: Environmental Science (4)
- Econ 157: Microeconomics (4)
- ES 207: Ecology (4) + Laboratory (2)
- ES 234: Environmental Politics and Policy (4) **or** SFS course: Policy and Socioeconomic Values
- ES 357: Conservation Biology (4) **or** SFS Principles of Resource Management
- ES 470: Senior Seminar in Environmental Studies (4)

#### **ADDITIONAL SCIENCE/MATH COURSES (9)**

- Chem 101/101L & 102/102L (12) **or** Chem 105/105L (6)
- PHYS 151/151L & 152/152L or 201/201L & 202/202L (12)
- PSY 208: Research Statistics (4) **or** Stat 251: Statistical Methods (4)
- MATH 250: Modeling the Environment (2) or MATH 152: Intuitive Calculus (4)
- 3 additional science courses from the following: Bio 241/241L: Plant Biology (6); Bio 236/236L: Cell and Molecular Biology (6); Bio 312/312L Microbiology (6); Bio 313/313L Invertebrate Zoology (6); Bio 323/323L Animal Behavior (6); Bio 337: Ornithology (4); Chem 214/214L: Analytical Chemistry (6); Chem 221/221L: Organic Chemistry I (6); Chem 222/222L Organic Chemistry II (6); ES/Phys 241: Earth History and Geology (4); School for Field Studies courses: SFS Directed Research (4); SFS Regional Ecology (4); SFS Resource Management (4); one semester of ES 390/480

#### **ADDITIONAL ENVIRONMENTAL STUDIES COURSE (1)**

- 1 course from the following: ES 182: Environmental Philosophy (4); ES 210: World Geography (4); ES 219: Food, Culture and Social Justice (4); ES 220: Globalization and Local Response (4); ES 230: Economics and the Environment (4); ES 304: Geography of Global Environment (4); ES 305: Cultural Geography and Landscape Studies (4); SFS Policy and Socioeconomic Values (4)

#### **EXPERIENTIAL COMPONENT**

- All students must complete an experiential component, which consists of a related internship, service project, or completion of the Hollins Outdoor Leadership certificate.

**Q:** *Can I go abroad and still major in ES?*

YES, you can and we encourage you to do so! Our affiliate program with the School for Field Studies, allows E.S. majors to get a research-based experience in ecology, environmental issues, and sustainable development in environmentally sensitive areas around the world. There are several field station locations, which include: Costa Rica (sustainable development studies), Kenya (wildlife ecology and management studies), Turks and Caicos (marine resources studies), Panama (tropical island biodiversity and conservation studies), Australia (tropical rainforest management studies), Peru (biodiversity and development in the Amazon), and Cambodia (the living Mekong). Each field station offers four courses, including one involving directed research. **ALL 4 courses transfer directly to ES major.** Contact Renee Godard or [www.fieldstudies.org/](http://www.fieldstudies.org/) for more information.