# Ecology & Environmental Sciences

B.S. degree

## College of Natural Sciences, Forestry & Agriculture

## Contact

**Mark Anderson**, Undergraduate Program Coordinator
Ecology & Environmental Sciences
5782 Winslow Hall, Room 305
Orono, ME 04469-5782

207-581-3198
FAX: 207-581-4278

E-mail: mark.anderson@umit.maine.edu
Web site: www.umaine.edu/nrc/

## Admission Requirements

(In years as established by the college)

A high school diploma with the following specific courses:

| | |
|---|---|
| 4 | English |
| 2 | Algebra I & II |
| 1 | Geometry |
| 2 | Lab Science *(including chemistry or physics)* |
| 2 | History/Social Sciences |
| | Academic electives *(to equal at least 17 total credits)* |

*To ensure current mathematical skills, students should take a mathematics course during their senior year of high school.*

## Major Requirements

| | |
|---|---|
| 10 credits | Introductory and Capstone Courses |
| 9 credits | Communications *(English, writing, speech)* |
| 18 credits | Humanities & Social Sciences |
| 21 credits | Concentration |
| 41 credits | Sciences & Mathematics |
| 21 credits | Electives |

*120 Minimum total credit hours required for graduation*

## Program Description

The Ecology and Environmental Sciences program is an interdisciplinary program offered by the following units—School of Biology & Ecology; School of Economics; Department of Plant, Soil, and Environmental Sciences; School of Forest Resources; and Department of Wildlife Ecology. Students majoring in this program are taught and advised by faculty from these academic units. Students learn the scope and characteristics of our natural environment and are introduced to concepts from several disciplines that illuminate issues of resource use, conservation and preservation.

The curriculum is designed so that graduates will be well grounded in both the natural and social sciences and will possess the analytic and communications skills necessary for successful careers. However, the program is also designed to allow students ample flexibility to pursue individual interests in preparing for careers or post-graduate study.

The Ecology & Environmental Sciences concentrations allow students to pursue a particular area of interest in depth. Students should decide on their area of concentration early in their academic careers so that course choices in the first and second years will include the prerequisites for courses in their chosen concentration. Concentrations currently offered are: Ecology, Environmental Sciences, Soil and Water Sciences, Wetland and Aquatic Ecology, Resource and Environmental Policy, Land Use Planning, Natural History, Entomology, Natural Resource Management, International Conservation, & Individualized.

## Career Opportunities

Recent graduates of the Ecology & Environmental Sciences degree program have found employment as: **Fisheries Analyst**, North Pacific Fisheries Management Council. **Project Manager**, North Country Environmental Services. **Wetland Biologist**, Coler and Colantonio **Masters Candidate**, Yale School of Forestry and Environmental Studies. **Interns Manager**, School for Field Studies. **Land Information Officer**, Belize Ministry of Natural Resources and Environment. **Steam Erosion Inventory Technician**, Idaho Soil & Water Conservation. **Reporter**, Bangor *Daily News.* **Environmental Claims Examiner**, Sedgewick CMS. **Shellfish Hatchery Manager**, Bremen, Maine. **Development Coordinator**, Co-Op America. **Manufacturing Operator,** Lonza Biologics. **Environmental Scientist/Project Manager**, Tyree Organization, Ltd. **Graduate Student**, Audubon Expedition Institute/Lesley College. **Coordinator**, Carolina Farm Stewardship Association. **Hatchery Supervisor**, New England Aquaculture Graduate Student in Elementary Education, Bridgewater State University. **Assistant Women's Ice Hockey Coach**, Niagara University. **Property Tax Manager**, Central Maine Power Company. **Environmental Products Representative**, IDEXX Laboratories. **Wetland Scientist**, Gove Environmental Services. **Graduate Student in Botany**, University of Vermont. **Wetland Ecologist**, Williamsburg Environmental Group. **Corporate Information Specialist**, InterQual Products Group. **Senior Survey Technician**, National Oceanic and Atmospheric Administration. **Soil Scientist**, Civil Engineering Services. **Research Associate**, Savannah River Ecology Lab. **Entomologist**, Modern Pest Control. **Graduate Research Assistant**, Resource Economics. **Forestry Technician**, J.M. Huber Corp. **Director, Environmental Task Force**, Stratus Computer Co. **Graduate Research Assistant**, Soil Science. **Agro-Forestry Project Leader**, Peace Corps, Senegal, West Africa. **Interpretive Ranger**, National Park Service. **Associate Soil Scientist**, ABB Environmental Consultants **Graduate Candidate**—social work/population studies. **Soils Technician**, global change research program. **Laboratory Scientist**, New Hampshire Dept. Environmental Services. **Naturalist**, Denali National Park. **Environmental Biologist**, U.S. Department of Energy. **G.I.S. Technician**, James W. Sewall Co. More career options are available on the program web site.

## General Education Requirements*

| | |
|---|---|
| ENG 101 | College Composition |
| 18 credits | Human Values & Social Context area<br>Western Cultural Tradition<br>Social Context & Institutions<br>Cultural Diversity & International Perspectives<br>Population & the Environment<br>Artistic & Creative Expression |
| 2 courses | Designated Writing Intensive *(1 must be within the major)* |
| 2 courses | Biological or Physical Sciences *(must include at least 1 laboratory course)* |
| 1 course | Ethics *(emphasis on discussion of ethical issues in 1 course or series of courses)* |
| 6 credits | Mathematics *(including statistics & some computer science, only 3 credits in computer science can count toward this requirement)* |
| 1 capstone | An approved experience in which the student integrates the components of his or her undergraduate training to perform at a professional level. The capstone experience is usually completed during the senior year in consultation with the student's academic advisor. |

**All MAINE students must complete these general education requirements, which are counted in the total credit hours required for graduation and may be contained in the Major Requirements previously listed.*

## Specialized Information

A minor in Ecology and Environmental Sciences is offered at the University of Maine. The minor is open to all undergraduate, degree-seeking University of Maine students and requires the completion of 18-19 credit hours in EES courses.

## Graduate Study

This degree can be used in preparation for graduate study in several disciplines related to Ecology and Environmental Sciences, including: environmental sciences, resource economics, soil science, environmental policy, ecology, plant science, marine resources, and entomology.