

## ENVIRONMENTAL STUDIES

*Understanding the world's environment and ecology through an array of disciplines ranging from the scientific to the humanistic*

### RELATED STUDENT ORGANIZATIONS AND UNIVERSITY PROGRAMS

Bucknell University  
Environmental Center

Earth Day Planning Committee  
Environmental Residential College  
Student Environmental  
Action Coalition

### CAREER PATHS

Environmental studies majors are prepared to pursue careers in a variety of fields and at places including environmental engineering firms, planning offices, state and federal environmental agencies and nonprofit organizations. Recent alumni have secured the following positions:

- Research Assistant, KF Consulting
- Sea Turtle Technician, Sea Island Company
- Associate, UBS AG
- Consultant, Deloitte & Touche
- Data Collection Associate, Bureau of Land Management, United States Government
- Environmental Scientist – Data Analysis, URS Corporation

### PROGRAM DETAILS

- Bucknell's environmental studies program supports students whose main focus is environmental life science and ecology, as well as those who wish to study social, political and ethical approaches to environmental studies.
- We offer an interdisciplinary Bachelor of Arts major in environmental studies for students who are interested in general environmental problems faced by humans and who have special concern for the social and policy aspects of their solution. This major includes courses in engineering, the sciences, humanities, social sciences and policy.
- We also offer a Bachelor of Science major in environmental studies with a concentration in life sciences. This major is designed for students interested in the living environment of humans and the environments of other living things. The program provides substantial depth in the life sciences and related fields, within the context of a liberal education. Students pursuing a Bachelor of Science degree will gain a rigorous background in environmental biology, focusing on topics that include biodiversity, conservation biology, aquatic biology and behavioral ecology.
- An environmental studies minor, comprising five courses, also is available.
- Besides Bucknell's interdisciplinary approach, the University also offers the specific professional training needed to work in one of the environmental fields where professionals work to solve a single facet of a complex problem, which could range from water treatment, wildlife management, or resource economics to land-use policy, law, groundwater movement or pollutant chemistry.

### FACULTY

#### Core Faculty

**Maria Antonaccio**, religion  
*B.A. Williams; M.A., Ph.D. Chicago*  
Scholarly interests: environmental ethics

**Diana DiStefano**, history  
*Ph.D. University of Colorado*  
Scholarly interests: The American West, Native American history, North American environmental history

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## GRANTS/AWARDS

Environmental studies faculty have recently received grants and awards from the National Science Foundation for instrumentation acquisition and collaborative research.

## SELECTED FACULTY PUBLICATIONS

Faculty of the environmental studies program have recently published their scholarship in the following journals:

*The Community Forests of Mexico: Managing for Sustainable Landscapes*

*GeoCongress 2008: Geosustainability and Geohazard Mitigation*

*Geotechnics of Waste Management and Remediation*

*Hydrobiologia*

*Journal of the American Water Resources Association*

*Journal of Economic Perspectives*

*Journal of Social History*

*Langmuir*

*Oxford Journal of Archaeology*

*Policy Sciences*

*Process Geomorphology*

*The State of Law in the South Caucasus*

## FACULTY *continued*

**Michael Malusis**, civil and environmental engineering  
*B.S.C.E. Bucknell; M.S.C.E., Ph.D. Colorado State*  
Scholarly interests: unsaturated soil mechanics, waste containment

**Thomas Kinnaman**, economics (program director)  
*B.A. George Mason; M.A., Ph.D. Virginia*  
Scholarly interests: environmental economics

**Craig Kochel**, geology  
*B.A. Franklin and Marshall; M.S. Southern Illinois at Carbondale; Ph.D. Texas at Austin*  
Scholarly interests: environmental geology, watersheds

**Ben Marsh**, geography  
*B.A. California at Santa Cruz; M.S., Ph.D. Penn State*  
Scholarly interests: human impact, GIS, geoarchaeology

**Matthew McTammany**, biology  
*B.S. Bucknell; M.S., Ph.D. Virginia Tech*  
Scholarly interests: stream ecology, human impact on aquatic ecosystems, restoration and management of aquatic ecosystems, carbon and nutrient dynamics in ecosystems, GIS and remote sensing

**Molly McGuire**, chemistry  
*B.A. Carleton; Ph.D. University of Wisconsin-Madison*  
Scholarly interests: environmental chemistry, environmentally important redox chemistry at clay mineral surfaces, spectroscopic characterization of aqueous colloids

**Peter Wilshusen**, environmental studies, co-director of the Bucknell University Environmental Center  
*B.A. Vermont; M.S. Yale School of Forestry and Environmental Studies; Ph.D. Michigan*  
Scholarly interests: comparative international environmental politics and planning

**Amanda Wooden**, environmental studies  
*B.A. Syracuse; M.A., Ph.D. Claremont Graduate University*  
Scholarly interests: comparative environmental policy, water politics

### **Affiliated Faculty**

**Warren Abrahamson**, biology  
*B.S. Michigan; M.A., Ph.D. Harvard*  
Scholarly interests: ecology and conservation biology

**Thomas DiStefano**, civil and environmental engineering  
*B.S.C.E. Drexel; M.Eng., Ph.D. Cornell*  
Scholarly interests: biological treatment of industrial wastes, bio-remediation of hazardous waste sites

**Dina El-Mogazi**, environmental studies, Director of the Campus Greening Initiative, Bucknell University Environmental Center  
*B.S. Louisiana State; M.L.A. School of Environmental Design at University of Georgia*  
Scholarly interests: environmental planning, ecological design

**Duane Griffin**, geography  
*B.A., Ph.D. University of Wisconsin*  
Scholarly interests: biogeography, GIS

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## **FACULTY** *continued*

**Carl Kirby**, geology

*B.S., M.S., Ph.D. Virginia Polytechnic Institute*

Scholarly interests: geochemistry, acid mine drainage

**Edmund (Ned) Searles**, anthropology

*B.A. Bowdoin College; Ph.D. Washington*

Scholarly interests: indigenous peoples of the Circumpolar North, ecological anthropology, political anthropology, anthropology of Christianity

## **UNDERGRADUATE RESEARCH**

Environmental studies majors can conduct independent research with the guidance of a faculty member, or they can collaborate with a faculty member on a research project. Often, these projects lead to publications or presentations at conferences. Recent projects include:

- Manganese Oxidation Rates in Passive Treatment of Mine Drainage
- Purple Loosestrife on the Susquehanna River's West Branch: Distribution and Environmental Correlates
- Bucknell University Greenhouse Gas Emissions

## **FACILITIES AND RESOURCES**

- Environmental studies students work closely with the Bucknell University Environmental Center (BUEC). At the center, faculty, staff and students collaborate on environmental and nature-related learning, teaching, scholarship, service and action projects at local, regional, national and international levels. BUEC provides increased opportunities for interdisciplinary discourse on the environment and serves as a resource for grant and external funding opportunities.
- A degree in geology with a concentration in environmental geology is offered for students interested in learning how to avoid or mitigate environmental hazards by developing an understanding of the physical and geochemical processes responsible for forming the dynamic landscape in which humans live.
- The B.S. degree in civil engineering is suited to students interested in applied approaches to remedying environmental problems. Three members of that department are environmental specialists.

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## **INTERNSHIPS**

Environmental studies majors can gain career experience and hands-on skills through internships. Bucknell's Career Development Center supports students who want to secure internships. Recently, students have interned at the following organizations:

- Cleveland Museum of Natural History
- SEDA-COG Energy Resource Center

## **STUDY ABROAD**

A majority of environmental studies majors take advantage of the University's international studies opportunities and spend a semester studying in different environments, including Africa, Australia, Belize, Costa Rica, Ecuador, Italy and Spain.

## GRADUATE AND PROFESSIONAL SCHOOL

Many environmental studies majors go on to law school or to graduate school in environmental science, environmental engineering, policy studies or environmental planning. Recent graduates have pursued advanced degrees at the following schools:

- Rice University
- Albany Law School
- Duquesne University
- Pennsylvania State University
- University of Florida
- University of Pennsylvania
- Duke University

## QUICK FACTS

Number of core faculty: 10

Average number of majors per class year: 19

## FACILITIES AND RESOURCES *continued*

- Students and faculty work at four natural areas in the local region and in many other locales in the rural ridge-and-valley landscape and beyond. These sites include coal mines, landfills, state forests, limestone valleys, Virginia beaches, Florida scrublands and California deserts.
- Lectures, workshops and round-tables bring experts and distinguished scholars in the areas of environmental science, policy and law to campus to add to the knowledge students gain through their coursework.

## COURSES OFFERED

As an interdisciplinary major, environmental studies draws from courses offered by departments across campus. The following is a partial list of environmental studies courses.

American Environmental History	Environmental Thinkers
Directed Research I and II	Green Utopia
Environmental Community Projects	Hazardous Waste and Society
Environmental History	International Environmental Law
Environmental History of the Ancient World	Introduction to Ecological Design
Environmental History of the Developing World	Introduction to Environmental Studies
Environmental Justice	Seminar in Environmental Topics
Environmental Law	Senior Thesis
Environmental Planning	Stream Restoration
Environmental Policy Analysis	Sustainable Resource Management
Environmental Policy and Politics	Water Politics and Policies
Environmental Pollution and Control	Watershed Systems Science
Environmental Studies Research Methods	

*To view the entire Bucknell University catalog, see [www.bucknell.edu/catalog](http://www.bucknell.edu/catalog).*

