



think•evolve•act

Environmental Science and Studies



The Juniata Advantage

- **The Field:** Just minutes from campus, study for a day or an entire semester at Juniata's **Raystown Field Station**, an environmental research complex on the shores of Raystown Lake. There, you can enjoy 24-hour access to wild habitat, a major lake fishery, and a watershed as well as an educational program rare for an undergraduate institution. Additionally, the department has a relationship with the U.S. Army Corps of Engineers which adds research and applied science experiences on more than 29,000 acres of water and forest resources.
- **Research:** Start your own research project or join ongoing projects estimating whitetail deer populations, studying sustainable agriculture in India, examining larval fishes in Raystown Lake, or monitoring trees as part of the breeding program to restore the American Chestnut at several Chestnut orchards including one on campus.
- **Equipped for Exploration:** Juniata has a fully-equipped water analysis lab, groundwater monitoring wells, a 24-foot pontoon boat, a 36-foot houseboat, laser-induced breakdown spectroscopy, colorimeters, GIS and GPS devices, and much more. In fact, our spatial analytics lab has 20 high-end workstations with the latest GIS software. Certificates in **Geographical Information Systems**, **Naturalist Guide**, and **Wildlife** are available.

Juniata's Outcomes

More than 85 percent of environmental science and studies alumni who have applied to graduate schools in the past five years have been accepted with full funding. Many have won prestigious fellowships. A vast majority of the graduates of the past five years who sought professional positions related to their degrees were hired within weeks of graduation at organizations like the U.S. Department of Environmental Protection.

Our Recent Graduates

- Samantha DiLorenzo '14 is employed as a technician for the U.S. Department of Agriculture.
- Alaina Gercak '15 is employed as a campaign organizer at PennEnvironmental in Philadelphia, Pa.
- Benjamin Krouse '14 works as an environmental specialist for Schlumberger Petrochemical.
- Elizabeth "Libby" Morrison '12 is currently attending Oregon State University, where her graduate studies focus on water resources.

"Juniata has the opportunity to do research and live at the Raystown Field Station. I also had the opportunity to work on a research project with foresters from the U.S. Army Corps of Engineers, where I walked through numerous forests across the state identifying trees and forestry management practices."

—Dylan Krycinski '15
ENVIRONMENTAL SCIENCE

A Sampling of Courses

Conservation Biology
Ecology of Fish
Economics of the Environment
Environmental Methods
Environmental Policy Law
Environmetrics
Field Research Methods
Geographical Information Systems
Natural Resource Management
Oceanography
Water Resources
Wildlife Management

An Environmental Science and Studies POE Story

First, choose from five designated environmental science and studies (ESS) Programs of Emphasis (POEs): **environmental economics**, **environmental studies**, **environmental science**, **environmental education/secondary education**, and **wildlife conservation**. Or, **create your own POE**, incorporating additional interests.

Then, get your hands dirty. Juniata is located amidst Pennsylvania's Ridge-and-Valley region, and our Raystown Field Station takes field observation to a whole new level. **Examine local species and geological formations** in a LEED-certified facility while living adjacent to Pennsylvania's largest inland lake. **Become certified as an Associate Wildlife Biologist** through the Wildlife Society by enrolling in two out of three summer courses at the Raystown Filed Station, which include Mammology, Herpetology, and Ornithology.

If that's not enough exploration in the wild, consider the Remote Field Course. Or, study abroad. ESS students have explored Ecuador, New Zealand, and India in recent years. Meanwhile, gain a **liberal arts education** through interdisciplinary courses like Art as Sustainable Development or Environmental History.

Work on **major research projects** and take on a senior capstone experience to graduate with distinction. The many opportunities in ESS at Juniata will enable you to rock at grad school, mine the job field, and form a fantastic lifecycle. But don't just take our word for it.

"I know that the hands-on experience I gain from my class work—whether I'm collecting samples in the field or analyzing data in the lab—will prepare me for wherever my future studies and career take me," says Garret Kratina '15.



Student Opportunities

Field Opportunities: ESS students are **in the field** starting with the first introductory course. Local field sites include limestone quarries, scree fields, acid mine drainage sites, caves, wetlands, and more.

Undergraduate Research: Research with a faculty member or work on your own project with faculty guidance. Present your findings at professional meetings or Juniata's Liberal Arts Symposium. **Recent examples:** Mitchell Stanton '15, "Developmental Methodology of Inter-Watershed Transport of Benthic Macroinvertebrates;" Heather Wetzel '15, "Regional Distinctions of Coloration and Morphometrics in Pennsylvanian Coyotes."

Distinctive Opportunities: Join Juniata's Remote Field Course and learn geology, ecology, psychology, anthropology, physics, and other disciplines in various locations in the western United States. Spend a semester at Juniata's Raystown Field Station. Or, **intern in water quality** in Ireland or **reef monitoring** in Thailand and India.

The Environmental Fellowship: Network at a professional conference and create a project in service learning with a leading environmental agency. After your first year, you can apply to receive \$6,000 and a highly selective fellowship. Check out these and other fellowships online at: www.juniata.edu/admission/fellows.php



Faculty

At Juniata, **93 percent** of faculty hold the highest degree in their field. In the ESS department, 100 percent of faculty have Ph.D.s, and they serve, first and foremost, as professors. But, they also publish in journals including *ACSE Journal of Hydrologic Engineering*, *Weather, Biological Conservation*, *African Journal of Ecology*, *Conservation Biology*, *Journal of Wildlife Diseases*, *Primates*, *Folia Primatologica*, *Frontiers of Plant Science*, *Journal of Comparative Psychology*, *Behavior, Biological Conservation*, *Current Science*, and *Animal Conservation*. The Department also hosts federal employees from the Corps of Engineers Institute for Water Resources who provide guest lectures, tours, and research opportunities for students.

Environmental Science and Studies
Department Chair: Dennis Johnson, B.S.,
M.S., Ph.D., Penn State University.



Check out the environmental science and studies department web page to explore your career path.

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