

Bachelor of Science in **Environmental Science**

0817



WHAT DO STUDENTS LEARN?

Students learn to apply evidence-based concepts and processes to create productive, sustainable solutions to environmental challenges. They learn to identify problems; generate hypotheses; design and document experiments; analyze data; and assess the implications of their findings. Finally, they're able to communicate scientific ideas and data in clear and precise written, oral, and graphic formats.

WHAT DO GRADUATES GO ON TO DO?

Graduates can explore a wide range of career options, including:

- Environmental consultant
- Environmental manager
- Forest ranger
- Environmental educator
- Air and water quality manager
- Environmental planner
- Soil conservation technician
- Environmental lobbyist



Chatham is one of the top five universities in the world rankings for sustainability as measured by the Association for the Advancement of Sustainability in Higher Education (AASHE)'s Sustainability Tracking, Assessment & Rating System (STARS).

Environmental Science

Alma mater of environmental pioneer Rachel Carson '29, Chatham University is on the forefront of environmental studies. The environmental science major provides students with an **INTERDISCIPLINARY, SCIENTIFIC PERSPECTIVE** to help them develop an evidence-based approach to environmental challenges.

The job outlook for environmental scientists is excellent. **EMPLOYMENT IS PROJECTED TO GROW 15%** from 2012 to 2022, which is faster than the average for all occupations¹ partially due to energy, climate change, and infrastructure challenges.

¹EnvironmentalScience.org (www.environmentalscience.org/careers)



Environmental scientists analyze the interactions between humans and our biotic and abiotic environment. They are key players in development of research and technology for investigating the challenges faced by the natural world. Environmental scientists of many different specialties collect data, analyze it, model it, and communicate their findings to a wide range of stakeholders in government, private sector, and the citizenry.

Qualified students can choose to enroll in an **INTEGRATED DEGREE PROGRAM**—combining their undergraduate degree in environmental science with a Master in Sustainability from Chatham's Falk School of Sustainability & Environment, graduating with both in as few as five years—saving time and money.

PROGRAM HIGHLIGHTS

- Enroll in foundational courses in biology, chemistry, ecology, hydrology, climate science, and geology, coupled with skills-based courses (statistics, GIS) and labs
- Benefit from ready access to the 388-acre Eden Hall Campus—the world's first academic community built for the study of sustainability, with its woodlands, streams, and research labs
- Expand your options with a minor in areas such as botany, chemistry, data science, economics, or sustainability
- Take electives through the Falk School of Sustainability & Environment
- Study at a university renowned for its commitment to the environment

SAMPLE COURSES

Hydrology

This course provides an introduction to the science of hydrology, covering fundamental terminology, processes, and technologies from an environmental science perspective. The basics of the hydrologic cycle including details of spatial and temporal patterns of precipitation, evaporation, and runoff will be covered. Threats to surface and soil water processes at local, regional and watershed scales will be introduced.

Geographic information systems

Students will develop competence in geographic information systems (GIS) technology and its application to various spatial analysis problems in natural resources. Topics include data development and management, spatial analysis techniques, critical review of GIS applications, needs analysis and institutional context.

Applied & Environmental Microbiology

This course focuses on the importance of microorganisms in environmental and industrial processes, and the role of scientific research in finding solutions to applied problems. Areas of microbiology that will be covered include basic microbiology, soil and water, agriculture and food, and public health.

► [www.chatham.edu/
environmental-science/
curriculum.cfm](http://www.chatham.edu/environmental-science/curriculum.cfm)

FUNDING OPPORTUNITIES

- The **RACHEL CARSON HEALTHY PLANET AWARD** is a national award that includes a \$5,000 scholarship to Chatham University. It is awarded to one student nominated from each high school and community college across the United States who embodies the spirit of Rachel Carson in his or her dedication to sustainability and community development. For more information, visit chatham.edu/rachel-carson-award.
- Chatham offers many scholarships and grants to incoming first-year students, including the **RACHEL CARSON SCHOLARSHIP**, a full-tuition scholarship renewable for a total of four years. For more information, visit chatham.edu/scholarships.



EDEN HALL CAMPUS

Located 20 miles north of Pittsburgh and home to the Falk School of Sustainability & Environment, Chatham's 388-acre, net-zero Eden Hall Campus is a living and learning laboratory. Faculty and students there collaborate on projects involving food and sustainable agriculture, water, energy and climate, and community health. Learn more at falk.chatham.edu and at chatham.edu/edenhall.



“Environmental science and sustainability are natural partners. Scientists gather and analyze the data to assess how our natural systems are functioning, and sustainability specialists coordinate that information to generate sustainable, innovative, and equitable answers to today’s environmental, economic, and social justice challenges.”

— LINDA JOHNSON, PH.D., *assistant professor of sustainability and the environment*



▶ **Apply online at**
apply.chatham.edu

LEARN MORE

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