



WASHINGTON  
&  
JEFFERSON  
COLLEGE

# Environmental Science

The Environmental Science major is highly interdisciplinary, with emphasis in biology and chemistry and coursework in computing sciences, environmental policy, and mathematics. Students complete the introductory course and the Capstone Experience in Environmental Studies. Courses and research opportunities in the program empower students with the ability to apply appropriate scientific, technological, and critical thinking skills to solve modern environmental problems.

## Program Website

washjeff.edu/  
environmental-science

## Program Director

Robert M. East Jr., Ph.D.  
reast@washjeff.edu

## Major Coordinator

Jason S. Kilgore, Ph.D.  
jkilgore@washjeff.edu

## Faculty

Jen Bayline, Ph.D.  
jbayline@washjeff.edu

Patrick Caffrey, Ph.D.  
pcaffrey@washjeff.edu

Thomas Contreras, Ph.D.  
tcontreras@washjeff.edu

James March, Ph.D.  
jmarch@washjeff.edu

Lauryn Mayer, Ph.D.  
lmayer@washjeff.edu

Michael McCracken, Ph.D.  
mmccracken@washjeff.edu

Stuart J. Miller, Ph.D.  
smiller@washjeff.edu

Ethan Schmick, Ph.D.  
eschmick@washjeff.edu

Dana Shiller, Ph.D.  
dshiller@washjeff.edu

Mark Swift, Ph.D.  
mswift@washjeff.edu

## Office of Admission

60 S. Lincoln St.  
Washington, PA 15301  
admission@washjeff.edu  
724-223-6025

## Major Requirements

EVS 100 Topics in Environmental Studies *or*  
EVS 101 Introduction to Environmental  
Studies

BIO 111 Evolution & Biological Diversity

BIO 121 Cell & Molecular Biology

BIO 131 Organismal Biology

CHM 160 Organic Chemistry I

CHM 260 Inorganic Chemistry

MTH 151 Calculus

BIO/MTH 245 Applied Statistics for the Life  
Sciences

BIO 219 Field Biology

One course each from Environmental  
Economics, Policy, and Ethics; Computing  
Science; Natural History & Taxonomy; and  
Ecological Synthesis

And one additional elective from the  
disciplinary electives, BIO 201, BIO 215,  
CHM 270, EVS 300, or PHY 101/107

The Capstone Experience in Environmental  
Studies requires EVS 400 Research Methods  
in Environmental Studies and then one of  
three options:

- approved 160-hr internship;
- upper-level research course in an EVS-  
affiliated department;
- or EVS 500/501 Independent Study

## Beyond the Classroom

Students have many opportunities for research, internships, conferences, and networking beyond the classroom that give them an advantage to prepare for life after W&J.

## Research and Internships

- Faculty-led and independent research on topics such as coal mine reclamation, emerald ash borer, heavy metal uptake in plants, biochar ecology, and carbon sequestration
- Mazingira Fund supports environmentally related internships
- Articulated internships, e.g., Jackson Hole Conservation Alliance, Matador Wildlife Management Area, and Southwest PA Environmental Health Project

## Careers

- Environmental consultant / lawyer
- Conservation / wildlife / marine biologist
- Doctor / veterinarian / health professional
- Ecologist / botanist / entomologist
- Environmental policy analyst
- Environmental chemist / scientist
- Energy / water resources specialist

## Alumni Achievements

The Environmental Science Major became effective in 2018, graduates are anticipated in the near future.

A full list of courses and descriptions can be found online in the College catalog.