



WASHINGTON  
&  
JEFFERSON  
COLLEGE

# Biology

The Biology faculty engage students in an exciting and challenging environment where they master biological concepts and develop scientific competencies necessary to be critical thinkers, successful professionals, and responsible citizens. Students use modern instrumentation and methodologies in the laboratory and field through coursework and independent research with faculty who lead programs in pre-health professions, neuroscience, biochemistry, environmental science, forensic science, and biological physics.

## Program Website

washjeff.edu/biology

## Department Chair

Thomas Contreras, Ph.D.  
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## Faculty

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## Office of Admission

60 S. Lincoln St.  
Washington, PA 15301  
admission@washjeff.edu  
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## Major Requirements

BIO 111 Evolution & Biological Diversity

BIO 121 Cell & Molecular Biology

BIO 131 Organismal Biology

CHM 160 Organic Chemistry I

MTH 111 Pre-calculus or equivalent

MTH 125 Intro to Probability & Stats or

BIO 245 Applied Stats for the  
Life Sciences

Three 200-level BIO courses with labs

Two 300-level BIO courses

One additional 200-level or higher BIO

Seminar: BIO 401 or BCH 401 or NSC 400

Capstone: Independent research experience  
as BIO 412 Experimental Biology  
or BIO 500/501 Independent  
Study or an approved summer  
research internship

Biological Community Engagement:  
30 hours of biologically-related  
service activity

## Minor Requirements

BIO 111 Evolution & Biological Diversity

BIO 121 Cell & Molecular Biology

BIO 131 Organismal Biology

CHM 160 Organic Chemistry I

One 200-level BIO course with lab

One 300-level BIO course or NSC 300 or  
BCH 333

One additional 200-level or higher BIO

## AP Policy:

Students scoring a 4 or 5 on the AP Biology  
test will receive credit for BIO 100

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

## 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 microbial diversity of streams, Parkinson's and Alzheimer's disease, urban ecology, songbird thermal survival, coal mine reclamation, kidney physiology, neuromuscular development, and invasive plants and insects
- Extensive science research internship program with internal funding and strong alumni support

## Careers

- Health professional: doctor, dentist, podiatrist, physician assistant, physical therapist, genetic counselor occupational therapist, registered nurse
- Veterinarian / epidemiologist
- Biomedical / ecological researcher
- Environmental lawyer / consultant
- Wildlife / conservation biologist
- Biology teacher / professor / editor

## Alumni Achievements

- US Medical Lead, Teva Pharmaceuticals
- Staff Veterinarian, VCA Met Vet West Animal Hospital
- Ecosystem Ecologist and Conservation Scientist, Michigan State University
- Staff Anesthesiologist, UPMC Mercy