

# Biology



WASHINGTON  
& JEFFERSON  
COLLEGE

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.

## Major Requirements

Foundations in Biology

- Cell & Molecular Biology
- Organismal Biology
- Evolution & Biological Diversity

Organic Chemistry I

Pre-calculus or equivalent

Introduction to Probability & Statistics or Applied Statistics for the Life Sciences

Five upper-level lab Biology courses

One upper-level Biology course, with or without lab

Biology Seminar

Biology Capstone Research: Summer internship, independent study, or Experimental Biology

Biological Community Engagement (30 hours of relevant service)

## 200-level Biology Lab-based Courses

- Animal Physiology
- Cell Biology
- Conservation Biology
- Field Biology
- Genetics
- Invertebrate Zoology
- Microbiology
- Plant Diversity
- Vertebrate Anatomy

## 300-level Biology Lab-based Courses

- Animal Behavior
- Developmental Biology
- Ecology
- Environmental Plant Physiology
- Genomics
- Immunology
- Medical Microbiology
- Molecular Biology
- Virology

## Major Emphases

Biomedical Science

Cell & Molecular Biology

Conservation Biology

## Minors

Biology

Biomedical Science

Cell & Molecular Biology

## Department Chair

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## Faculty

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Students participate in biology research outside of the classroom

## Beyond the Classroom

Students in Biology gain a solid **foundation in the biological sciences**, choose upper-level courses that support their **career interests**, and are supported through a strong **research internship program**. Through course **research experiences, internships, and community engagement**, Biology students are prepared for **graduate / law / medical school and employment** after graduation. Their academic achievements are recognized through the Phi Sigma Biological Sciences Honor Society, Edwin Scott Linton Prize in Biology, Rittenhouse Prize in Biology, and Dennis G. Trelka Prize for Original Research.

### Recent Alumni Employment

#### Healthcare and Medicine

- Anesthesiologist, UPMC Mercy
- Certified Registered Nurse Anesthetist (CRNA), Cleveland Clinic
- Orthodontist, LaRue Orthodontics
- Orthopedic Surgeon, Penn State Health
- Pharmacist, Millennium Pharmacy Systems, Inc.

#### Research

- Applied Entomologist, Research Specialist, North Carolina State University
- Microbiologist, Allegheny County Health Department
- Climate & Soil Health Scientist, American Farmland Trust
- Research Coordinator, Pain Diagnostics and Interventional Care
- Fisheries Biologist, North Carolina Division of Marine Fisheries

#### Other Fields

- Attorney, Neighborhood Legal Services
- Assistant Professor, Johns Hopkins Bloomberg School of Public Health
- Natural Resource Consultant, Civil & Environmental Consultants, Inc.
- Wildland Firefighter, U.S. Forest Service
- Science Communication Fellow, Carnegie Museum of Natural History



Program Website

[washjeff.edu/biology](http://washjeff.edu/biology)