

Biology

Program Overview

Capital's biology program is designed to prepare students for direct placement in biology-related jobs or admission to graduate school (either master's or Ph.D. programs). Pre-professional tracks within the biology department are available to those who desire admission to medical, dental, veterinary or pharmacy schools. Biology majors take a set of core courses to acquire foundational knowledge then build on this core knowledge with electives that allow students to explore molecular and organismal studies in biology. Most courses within the biology program include hands-on laboratory components or field experiences.

Careers and Placement

Recent graduates of Capital's biology program have chosen one of four pathways:

- Direct placement into jobs that include Battelle, Nationwide Children's Hospital, Abbott Labs, Chemical Abstract Services, and Anheuser-Busch
- Admission to graduate school for a master's degree or Ph.D. in disciplines including genetic counseling, nutrition, public health, microbiology, and immunology
- Admission to professional schools – medical, dental, veterinary, physician assistant, and pharmacy
- Partnering with the education department to obtain teaching licensure

Experiential Learning

Students are encouraged to participate in internships and laboratory and field-based research opportunities that may lead to presentations at regional or national scientific meetings. Short-term field courses allow students to study biology and environmental science topics, and become involved in the broader community.

Facilities

Eight laboratories and a two-story greenhouse in the Battelle Hall of Sciences are available for faculty and student research. State-of-the art laboratory components allow students to analyze genetic materials in multiple ways from samples grown in controlled laboratory conditions or from samples collected in the field, while the molecular biology laboratory has equipment to perform DNA fingerprinting analyses and a real time qPCR system. Two cadavers are used in the anatomy lab while physiology students perform ECG's, measure lung volumes, and stimulate skeletal muscle using iWorx technology. Capital University's Primmer Outdoor Learning Center in the Hocking Hills region is a 74-acre property with seven ecosystems, including a 15-acre wetland, a secondary growth deciduous woodlot with groundwater seeps which feed into small streams, and restored prairie habitats. This center is used by students and faculty for research and service projects focused on ecological restoration, biological conservation, and environmental sustainability.



What Our Grads Are Doing Now:

Public Health

Pharmaceutical Liaison

Medical Device Sales

Graduate Research

Physician Assistant

Medical Research

You'll Be Prepared To:

- Demonstrate a working knowledge of the core areas of biology as they apply to the diverse nature of the field
- Retrieve, critically evaluate, and explain information from the relevant scientific literature
- Use the scientific method to formulate research questions and hypotheses
- Use appropriate data collection and computational analysis tools to collect and analyze scientific data individually and collaboratively
- Communicate biological information effectively and appropriately to different audiences in multiple formats
- Conduct actions and experiments responsibly and ethically

Biology

Four Year Sample Curriculum

First Year, Fall

Foundations of Biology
Principles of Chemistry
Biology Seminar
Math
Signature Learning

First Year, Spring

Foundations of Biology
Principles of Chemistry
Math
Signature Learning

Second Year, Fall

Genetics
Calculus
Biology Seminar
Foreign Language
Signature Learning

Second Year, Spring

Microbiology
Biology Elective
Foreign Language
Signature Learning

Third Year, Fall

Research Methods
General Physics
Biology Elective
Elective
Signature Learning

Third Year, Spring

General Physics
Internship
Biology Seminar
Biology Elective
Signature Learning

Fourth Year, Fall

Biology Elective
Biology Seminar
Ecology
Elective
Signature Learning

Fourth Year, Spring

Molecular Biology
Biology Elective
Electives
Signature Learning

All courses subject to availability and advisor approval. All undergraduates must demonstrate that Signature Learning goals have been met.

Program Specific Organizations

Beta Beta Beta

Life Science Organization

Symposium on Undergraduate Scholarship



Dr. Christine Anderson, Ph.D.
canders@capital.edu

Learn More



CapitalUniversity

admission@capital.edu
614-236-6101

1 College and Main
Columbus, OH 43209-2394

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