

Biology

Learning Goals

1. To think critically.
2. To problem solve.
3. To learn independently.
4. To be biologically literate.
5. To be able to effectively construct and communicate novel biological thinking both orally and in writing.

About the major

The goals of the Biology Department are to provide students opportunities to explore the diversity of life within the tradition of a liberal arts education.

To accomplish our first goal, we require course work that spans the entire field of biology, as well as course work that provides depth in at least one subdiscipline. Students who choose to major or minor in biology complete a common core program, which includes two introductory courses that have been designed to explore four critical fields in modern biology: ecology, evolution, genetics, and cellular biology. We offer courses from across the breadth of the field each semester so that students can customize their major to achieve their own educational goals while providing preparation necessary to be successful in their future career.

Each biology course emphasizes active learning rather than rote memorization by providing problems that require critical thinking in order to solve them. Connections are made at every opportunity between biological knowledge and other disciplines. As part of this effort, faculty in the Biology Department are active participants in the interdisciplinary environmental science, neuroscience, and molecular biology and biochemistry programs.

“As a natural resources conservation professional, I find that the policy, human geography, and other humanities lenses I used as a Conservation Biology major were equally as important as the rigorous ecology.”

—Jeannie Bartlett '15
*Manager, Franklin County
Vermont Natural Resource
Conservation District*

Reasons you might choose this major

- You have an interest in critical analysis, the life sciences, medicine, and/or research.
- You want to further understand the mechanisms and processes of life through varied course work and research opportunities.
- You are interested in major social issues, most of which have underlying biological principles, such as climate change, stem cell research, and food modification.
- You are interested in allied health; a career in medical, dental, nursing, or veterinary sciences; or any other number of paths toward a health profession.
- You want a solid education rooted in the liberal arts that will prepare you for any career.



Translating Learning into Professional Competencies

Throughout your time at Middlebury, you will develop and enhance the following core professional competencies, skills, and dispositions highly valued by employers that will prepare you for leadership and success in any given field:

Critical Thinking: Exercise sound reasoning to analyze issues, make decisions, and overcome problems.

Oral/Written Communications: Articulate thoughts and ideas clearly and effectively in written and oral forms.

Teamwork/Collaboration: Build collaborative relationships with colleagues and customers from diverse backgrounds.

Leadership: Leverage the strengths of others to achieve common goals, and use interpersonal skills to coach and develop others.

Professionalism/Work Ethic: Demonstrate personal accountability and effective work habits.

Global/Intercultural Fluency: Value, respect, and learn from diverse cultures, races, ages, genders, sexual orientations, and religions.

Digital Technology: Leverage existing digital technologies ethically and efficiently to solve problems, complete tasks, and accomplish goals.

Career Management: Identify and articulate one's skills, strengths, knowledge, and experiences relevant to career goals, and identify areas necessary for professional development.

Where biology majors go

Applying your learning through internships . . .

Students pursue internships and research in a variety of fields, enabling them to apply their liberal arts learning in real-world settings. Internships, research, and self-directed projects enrich your academic experience and help prepare you for life after Middlebury. Students have interned or done research at the following:

Northwest Fisheries Science Center

National Audubon Society

State of Conservation Watershed Planning and Assessment

MedicForce

University of Texas Southwestern Medical School

Global Emergency Care Collaborative

Global Healthy Living

Clean Water Action

Georgetown University Medical Center

The Nature Conservancy

Stanford University

The Scripps Research Institute

Massachusetts General Hospital

National Oceanic and Atmospheric Administration

Project Puffin

NYC Parks and Recreation

Raptor Conservancy of Virginia

University of California Natural Reserve System

American Society for Microbiology

NOFA-VT

. . . leading to meaningful, dynamic, and engaging career paths.

See just some of the many interesting ways our graduates have applied their liberal arts learning to engage the world. If you want to see what other Middlebury alumni are doing now, log into Midd2Midd and search by major. **go/midd2midd**

The Joint Genome Institute, *Head, Genomics Technologies Program*

Maine Medical Center, *Pediatric Pulmonologist*

Procter & Gamble, *Senior Engineer, Process and Engineering*

Ambit Biosciences, *Director, Molecular Biology and Technology Development*

Environmental Protection Agency (EPA), *Deputy Director, Engineering and Analysis*

Center for Disease Control, *Epidemiologist*

Columbia Land Conservancy, *Director, Outreach and Resource Development*

School Specialty Science, *Vice President, Product Development*

Plaistow-Kingston Animal Medical Center, *Associate Veterinarian*

Google, *Account Executive, Healthcare*

3d Systems Corporation, *Creative Director Food Products*

Limerick Biopharma, *Director, Translational Biology*

Ocean Conservancy, *Chief Scientist*

Foundation For Blood Research, *Genetic Counselor*

The Xerces Society for Invertebrate Conservation, *Pollinator Conservation Specialist*

World Health Organization, *Consultant Geneva*

San Francisco Estuary Institute, *Environmental Analyst*

NRG Energy, *Senior Associate, Solar Development*

The Research Foundation at SUNY-ESF, *Director of Science*

Environmental Defense Fund, *Consultant*