



The School of Biology and Ecology at the University of Maine offers:

AVAILABLE DEGREES

- Biology B.S. or B.A.
- Zoology B.S. or B.A.
- Botany B.S. or B.A.
Optional concentrations in Pre-Medical Studies or Ecology
- Medical Lab Sciences B.S.
(3 years on campus, Senior Practicum at medical center)

MORE THAN 100 MINORS!

**MORE THAN A MILLION
COURSE COMBINATIONS!**

**Your adviser will help you
design the program that is
right for you.**

ACCELERATED PROGRAMS

- 3+4 Agreement with New England College of Optometry
- 3+3 Agreement with Logan University of Chiropractic
- 4+ Programs for combined B.S./M.S.
degrees in Botany, Entomology, and Zoology at UMaine

EARLY ASSURANCE PROGRAM

- Tufts Maine Track M.D.
Early Assurance Program

RESEARCH OPPORTUNITIES

- Active research programs with opportunities for undergraduate participation
 - Systematics and evolutionary biology
 - Biomedical research
 - Development and genetics
 - Evolutionary and behavioral ecology and ecophysiology
 - Aquatic ecology
 - Pest management and invasion ecology
 - And many more...
- Cooperative projects with state and federal agencies and NGOs
- Location provides fantastic opportunities for field research

CURRICULUM

- Flexible curriculum
- Large variety of classes allow degrees to be tailored to individual students
- More than two dozen faculty and instructors
- B.S. in Biology or Zoology with pre-medical studies concentration provides a solid foundation for further studies in medicine, dentistry, osteopathy, optometry, physician assistant, veterinary medicine, and other health-related fields

UNDERGRADUATE EDUCATION

- SBE is a leader in biology education using innovative and effective teaching practices
- Lectures use collaborative and active learning to promote discipline-specific skills (critical thinking, analysis, processing) *and* soft skills (collaboration, negotiation, communication)
- Inquiry-based laboratories train students in scientific thinking, exploration, and discovery
- Capstone research experiences solidify student laboratory experience

BIOLOGY / ZOOLOGY / BOTANY MAJOR REQUIREMENTS

B.S. DEGREE PROGRAM

- One year basic biology
- One year general chemistry
- One year organic chemistry
- One year physics
- Calculus and statistics
- Senior capstone
- 24 credits in Biological Sciences areas

B.A. DEGREE PROGRAM

- One year basic biology
- One year general chemistry
- One semester organic chemistry
- One semester physics
- Calculus or statistics
- Senior capstone
- 24 credits in Biological Sciences areas
- Minor or second major outside of Biology

BIOLOGICAL SCIENCES AREAS

I. Cellular and Molecular Biology

- Development Biology w/lab
- Morphogenesis in Development and Disease
- Microscopy w/lab
- Histology w/lab
- Neurobiology
- Cell Biology (optional lab)
- Intro Molecular and Cell Biology
- General Microbiology (optional lab)
- Infectious Disease (optional lab)

II. Genetics and Evolution

- Genetics
- Evolution

III. Physiology

- Introduction to Neuroscience
- Animal Ecophysiology
- Medical Physiology (optional lab)
- Plant Physiology (optional lab)
- Endocrinology
- Bacterial Physiology (optional lab)
- Intro Immunology (optional lab)

IV. Biodiversity and Evolution

- Plant Biology w/lab
- Introductory Entomology w/lab
- Vertebrate Biology (optional lab)
- Human Anatomy w/lab
- Plants In Our World
- Invertebrate Zoology w/lab
- Ecol/Syst Aquatic Insects w/lab
- Biology of Fungi w/lab
- Mammology w/lab
- Taxonomy of Vascular Plants w/lab
- Marine and Freshwater Algae w/lab

V. Ecology and Behavior

- Field Natural History of Maine w/lab
- Sustainability and Conservation Travel
- General Ecology
- Intro Applied Entomology w/lab
- Animal Behavior
- Emerging Infectious Diseases w/lab
- Avian Biology and Ecology (optional lab)
- Biological Invasions
- River Ecology w/lab
- Lake Ecology
- Paleoecology w/lab
- Soil Science (optional lab)
- Plant Pathology w/lab
- Marine Ecology
- Wildlife Ecology (optional lab)
- Wetland Ecology and Conservation

OTHER OPTIONS

- Independent Research in Biology
- Genome Discovery
- Molecular Genetics
- Intro to Bioinformatics
- Microbial Genetics
- Issues in Plant Genetic Engineering
- Basics of R Programming
- Critical Reading and Verbal Reasoning
- Orientation to Health Professions