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)

**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

**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

**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

**MORE THAN 100 MINORS!**
**MORE THAN A MILLION COURSE COMBINATIONS!**
Your adviser will help you design the program that is right for you.

**EARLY ASSURANCE PROGRAM**
- Tufts Maine Track M.D.
  - Early Assurance Program

**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

Contact us: 207.581.2540 or um.biology@maine.edu  Visit us at: sbe.maine.edu
## 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

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