

Botany

Bachelor of Arts Degree

Bachelor of Science Degree

Contact

Christa Schwintzer
 5751 Murray Hall, Room 100
 Orono, ME 04469-5751
 207-581-2540
 fax: 207-581-2537
 christa.schwintzer@umit.maine.edu
sbe.umaine.edu

Admission Requirements

(In years as established by the college)

A high school diploma with the following specific courses:

- 4 English
- 2 Algebra I & II
- 1 Geometry
- 2 Lab Science (biology and chemistry or physics)
- 2 History/Social Studies
- Academic electives (to equal at least 17 credits)

To ensure current mathematical skills, students should take a mathematics course during their senior year of high school.

Did You Know?

The botany program provides a strong background in modern plant biology, many undergraduate research opportunities and great opportunities for fieldwork.

College of Natural Sciences, Forestry, and Agriculture

Program Description

The Bachelor of Arts and Bachelor of Science degrees in botany provide students with a broad background in the biology of plants. Courses are selected from several departments within the college: Biology and Ecology; Molecular and Biomedical Sciences; Plant, Soil and Environmental Sciences; and Forestry.

The program is solidly grounded in the basic sciences (general biology, chemistry, math and physics) and allows a range of choice in upper-level biology courses, permitting students to tailor their degrees to their interests in plant biology. A range of upper-level courses is available, including courses taught by biology faculty and faculty in related disciplines (biochemistry, microbiology, molecular biology, forestry, plant science and marine sciences).

Students can choose a Bachelor of Science degree that includes an in-depth background in chemistry, math and physics or a Bachelor of Arts degree with a more limited background in chemistry, math and physics but more courses in the humanities and a special emphasis on an international perspective.

Specialized Information

UMaine offers students in botany many opportunities to participate in faculty laboratory and field research. Students can do independent research for course credit, a capstone (senior project) or an honors thesis, as well as for paid work. Undergraduate students have participated in a wide range of research in such areas as age determination in seaweeds, characteristics of a coastal shadblow, plant communities along the shores of the Penobscot River, rate of growth of peat moss (Sphagnum), fungi that infect frogs and fungi that decay wood. The botany program offers great opportunities for class field trips and student research close to our campus. We are adjacent to an extensive university forest and within easy driving distance of a wide variety of interesting ecosystems with a wide range of plants, including forests, fields, bogs, alpine communities, seashores, rivers and lakes.

Associated Honor Societies and Student Organizations

Students are encouraged to join the Biology Club. They also can participate in such travel-study courses as Field Studies in Ecology, which has gone to South Africa, Panama and Peru. Schoodic Experience takes first-year students to Acadia National Park.

Special recognition for students includes membership in the local chapter of the national biology honor society, Beta Beta Beta; book awards for top academic performance in each class; and awards to the top students in animal, insect and plant sciences.

NEBHE Program

Applicants to this program who reside in Massachusetts are eligible for reduced tuition (in-state plus 50 percent) under the New England Regional Student Program, administered through the New England Board of Higher Education (nebhe.org).

Representative Courses

BIO 200 Biology of Organisms
BIO 205 Field Natural History of Maine
BIO 319 General Ecology
BIO 342 Plants in Our World
BIO 350 Concepts and Applications of Genetics
BIO 402 Capstone – Biological Sciences
BIO 432 Biology of the Fungi
BIO 441 Electron Microscopes: Theory and Use

BIO 452 Plant Physiology
BIO 455 Biological Invasions

BIO 462 Principles of Genetics
BIO 464 Taxonomy of Vascular Plants
BIO 465 Evolution
BIO 468 Limnology
BIO 476 Paleocology
BIO 480 Cell Biology
PSE 140 Soil Science
PSE 457 Plant Pathology

SMS 373 Marine and Freshwater Algae

Career and Graduate Opportunities

Research technician assisting with laboratory and field research; product developer or quality controller in biotechnology companies, university or government laboratories; officer in government agencies related to agriculture and the environment; science teacher or professor; environmental consultant; sales representative for laboratory equipment, science books, biotechnology companies; writer or editor for science publications, magazines or newspapers. Graduate programs in botany, ecology, genetics and plant pathology at various levels, including the molecular, cellular, physiological and whole organism.

UMaine Graduate Programs

Master of Science in Botany and Plant Pathology
Master of Science in Ecology and Environmental Science
Master of Science in Entomology
Doctor of Philosophy in Biology
Doctor of Philosophy in Ecology and Environmental Science
Doctor of Philosophy in Entomology

About UMaine

The University of Maine, founded in Orono in 1865, is the state's premier public university. It is among the most comprehensive higher education institutions in the Northeast and attracts students from across the U.S. and more than 60 countries. It currently enrolls 12,000 total undergraduate and graduate students who can directly participate in groundbreaking research working with world-class scholars. Students are offered 88 bachelor's degree programs, 64 master's degree programs, 25 doctoral programs and one of the oldest and most prestigious honors programs in the U.S. The university promotes environmental stewardship on its campus, with substantial efforts aimed at conserving energy, recycling and adhering to green building standards in new construction. For more information about UMaine, go online (umaine.edu). Equal opportunity information also is available online (umaine.edu/eo).

How do I apply?

Visit go.umaine.edu for an application, as well as information about academics and life at UMaine.



Academic Programs 2011–12

The latest versions of the UMaine fact sheets are online (factsheets.umaine.edu). This fact sheet is intended for informational purposes only and is subject to change.

