



COLLEGE OF NATURAL SCIENCES, FORESTRY, AND AGRICULTURE

Botany

WHY STUDY BOTANY AT UMAINE?

The University of Maine is the ideal place to study botany. We have well-equipped teaching laboratories and easy access to nearby forests, fields, streams and wetlands — the ultimate outdoor classroom. We also offer many opportunities for undergraduate research in faculty laboratories and in the field. Our program provides excellent preparation for graduate study in botany at the master's and doctoral level in specialized areas such as plant ecology, genetics and taxonomy, among others. Our advanced courses vary in size but most have 40 or fewer students allowing for extensive interaction with faculty and many have labs and take field trips. Although UMaine's introductory courses have large lectures, these courses provide computer-based support and include small inquiry based labs where students design and carry out their own experiments.

The botany curriculum offers a wide range of choices. The program is solidly grounded in the basic sciences (general biology, chemistry, math and physics) needed to understand the latest research in plant biology. It also allows a range of choices in upper-level courses permitting students to tailor their degrees to their particular interests within plant biology.

WHAT CAN I DO WITH A DEGREE IN BOTANY?

You can discover new plant species, find cures for plant diseases, save endangered species and understand the changes that are likely to occur in Maine and elsewhere as the climate changes. Botany is the study of all aspects of the biology of plants including the familiar seed plants, ferns and other seedless vascular plants, bryophytes, algae and fungi. Fungi have traditionally been included in botany even though we now know that they are more closely related to the animals than to the green plants. UMaine's bachelor's degree in botany provides you with many options for employment or more specialized study. Majors can go on to become research technicians assisting with laboratory and

field research; product developers and quality controllers in biotechnology and pharmaceutical companies, university and government laboratories; officers in government agencies related to agriculture and the environment; science teachers; environmental consultants; sales representatives for laboratory equipment, science books, biotechnology and pharmaceutical companies and writers and editors of science publications, magazines and newspapers. The degree also prepares students for master's and doctoral programs in botany, ecology and genetics.

OUR UNDERGRADUATE PROGRAM

Upper-level courses form the core of our program. These courses build on a foundation of chemistry, math and physics, providing the basis for understanding current advances in botany. Our flexible curriculum allows students to tailor their studies to their interests. For example, one student can prepare for work with plant diseases while another prepares to do research in ecology. Students can choose from 45 upper-level biology courses and many additional courses in related disciplines, including forestry, horticulture, microbiology and molecular biology. The study of botany includes not only what is currently known about plants but also learning how to do research to increase our basic knowledge about plants and to solve problems in many fields including agriculture, ecology and horticulture.

Students interested in research have many opportunities to participate in important investigations in faculty research laboratories or in the field. This can be for academic credit or for employment during the academic year or the summer and is an important resume builder. Strong students can complete a combined bachelors and master's program (4+ program) that allows them to start taking graduate classes in their senior year which saves time and reduces overall tuition.

UMaine's ADVANTAGE

- Excellent faculty
- Hands-on experience early in your program
- Close interaction with faculty
- Easy access to field research sites
- Many research opportunities
- Excellent preparation for graduate school
- Opportunity to combine undergraduate and graduate degrees with the 4+ program

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To apply: **umaine.edu**



Connect with us:
umaine.edu/socialnetwork

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 73 countries. It currently enrolls 11,286 total undergraduate and graduate students who can directly participate in groundbreaking research working with world-class scholars. The University of Maine offers doctoral degrees in 35 fields, representing the humanities, sciences, engineering and education; master's degrees in roughly 70 disciplines; 90 undergraduate majors and academic 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, visit umaine.edu.

explore

*Bachelor of Science in
Botany*

*Concentration in
Ecology*

*Bachelor of Arts in
Botany*

*Concentration in
Ecology*

*Minor in
Botany*

*Master of Science in
Botany and Plant Pathology*

*Ph.D. in
Plant Science*



OUR GRADUATE PROGRAM

UMaine's School of Biology and Ecology Offers a master's degree in botany and plant pathology and a doctoral program in plant science. Our faculty lead cutting-edge, internationally recognized research programs, maintain well equipped laboratories and win grants to support their research and that of their students. The School of Biology and Ecology provides financial support for graduate students via faculty research grants or teaching assistantships.

OUR FACULTY

Courses are taught by distinguished faculty who care deeply about undergraduates. Our faculty use a variety of teaching techniques and welcome students into their research labs. Members of our faculty have won UMaine teaching and research awards. Our faculty regularly present their research results at regional, national and international conferences. Each student works with an academic adviser in the faculty to develop a curriculum that best meets the student's goals and allows for exploration or specialization as desired.



The skills I learned in UMaine plant courses and labs directly applied to botanical consulting work that I did after graduation. My professors also introduced me to professional contacts that have been very important for my work with the flora in Maine."

— Eric Doucette, Class of 2009, Botany major

OPPORTUNITIES TO EXCEL

Outstanding students are recognized through annual book awards. We offer scholarships for top students in plant and insect science. Our students compete successfully for on-campus scholarships and prizes, as well as national research internships. Students can work with faculty on research projects and are often published in the scientific literature together with their faculty mentor.

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).

HOW DO I APPLY?

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

