University of Massachusetts Amherst

HORTICULTURAL SCIENCE

BACHELOR OF SCIENCE DEGREE

THE FIELD

Horticulture is the science and art of growing landscape plants, ornamental plants, fruits, flowers, and vegetables in an environmentally sound and sustainable way. If you like the idea of applied science, enjoy working with plants and people, or wish to beautify the environment, then horticulture would be a rewarding career for you. Employment opportunities include laboratory scientist in educational institutions and government agencies, USDA Plant Protection and Quarantine agent, grower, sales representative, garden center manager, and nursery production and sales.

There is no minor available in horticultural science.

THE MAJOR

The bachelor of science (BS) degree program in horticultural science encompasses a range of related disciplines that apply basic biological sciences, applied horticulture science, environmental science, and the principles of sustainability to the production and utilization of landscape plants. Students will learn the basics of botany, soils, and chemistry followed by courses in greenhouse management, greenhouse production, plant propagation, and landscape plant production. Horticultural science majors may also take courses about edible crops, herbs, and sustainable agriculture. Students will take advanced classes in plant physiology, plant diseases, soil fertility, plant nutrition, and plant disease diagnosis and management to prepare for careers requiring a BS degree or for admission to graduate school.

With on-campus laboratories and new, state-of-the-art greenhouses, in addition to nearby orchards and other farm facilities, students receive hands-on training that enhances the classroom learning experience. Students will study with enthusiastic teachers and fellow students and will receive individualized academic advising and guidance from their faculty advisor to develop their personal program of study.

THE CURRICULUM

The undergraduate curriculum in the Stockbridge School of Agriculture has been designed with the goal of allowing students to tailor their coursework to best reflect individual academic interests and career objectives. The major encompasses a broad range of related disciplines dealing with applied biology and the environment in general. Students begin their studies with introductory classes in the major and with general education courses required of all university students. These initial courses, which include biology, chemistry, ecology, and mathematics, form the foundation for more advanced study in the major. Independent studies and internships are available under each of the concentrations, providing students with the opportunity to integrate laboratory and fieldwork into their curriculum. Majors will complete a minimum of 30 course credits, and individualized plans are developed with an academic advisor to custom design a program for each student's interest and career aspirations.

HONORS

Students may pursue honors opportunities within the major. Contact the honors coordinator, Allen Barker (413-545-4733, barker@umass.edu), for information.

STUDY ABROAD

Majors are encouraged to study abroad if it supports their academic and career goals. Students should contact the International Programs Office (413-545-2710, umass.edu/ipo) and work closely with their academic advisor to choose the appropriate courses in preparation for study abroad.

University of Massachusetts Amherst

HORTICULTURAL SCIENCE

BACHELOR OF SCIENCE DEGREE (CONTINUED)

CAREER OPPORTUNITIES

The bachelor of science degree in sustainable horticulture prepares students for enjoyable, challenging, and rewarding careers in the green industries. Graduates are employed as environmental consultants, teachers, landscape and edible crop growers and managers, landscapers, state regulatory officials, sales representatives, extension specialists, and research technicians. Students who successfully complete the sustainable horticulture science option are strong candidates for admission to graduate school.

THE STOCKBRIDGE SCHOOL OF AGRICULTURE

The Stockbridge School is unique in that its students have all the advantages of being members of the larger UMass Amherst community and the College of Natural Sciences while keeping the close student-faculty relationships of a small school. Students can be involved in a broad range of activities, including clubs, intramural sports, and residential activities. Stockbridge faculty members teach at both the undergraduate and graduate level, participate in research, and are highly trained professionals. Stockbridge is a small school with big opportunities.

Levi Stockbridge, who was the university's first professor of agriculture and its fifth president, pioneered "Learning by Doing," a concept that combines classroom lectures with practical experiences. We follow his philosophy to this day.

THE COLLEGE OF NATURAL SCIENCES

The College of Natural Sciences unites the life, environmental, computational, and physical sciences on campus. Students take advantage of a range of inquiry-based classroom and laboratory experiences, hands-on undergraduate research opportunities, multidisciplinary and cross-departmental education and research initiatives, and a variety of science student organizations. In addition, they are encouraged to develop strong written and oral communication skills, as well as leadership and problem-solving abilities.

Office: 208 Paige Lab Phone: 413-545-2222

Website: stockbridge.cns.umass.edu/academics/bachelor-degrees