

# PLANT SCIENCE AND TECHNOLOGY, BS

The study of plants is crucial for the survival of humankind and of the planet. Our entire diet comes either directly or indirectly through plants, and plants are a key source of fuel and energy, medicines, and oxygen in the environment. Plants grown in cultivated environments have critical roles in sustaining life and in supporting our economy.

## PLANT SCIENCE AND TECHNOLOGY STUDENTS WILL:

- learn about the biology of plants
- investigate the role of plants in food and industrial systems, and how these systems affect climate and resource management
- study the impact of biotechnology, automation, and artificial intelligence in crop production
- learn from experts in a wide variety of plant species such as grains, fruits, vegetables, herbs, ornamental crops, weeds, and plants that appear in agricultural ecosystems.

This training will open up a wide range of careers in crop production, precision agriculture, biotechnology, and more. Additionally, students will be well prepared to attend graduate school in many disciplines from agronomy and crop science to plant biotechnology.

## LEARN THROUGH HANDS-ON, REAL-WORLD EXPERIENCES

Core coursework in Plant Science and Technology includes hands-on learning experiences. Examples include using remote sensing to collect data on plant performance, growing crops in hydroponics systems, pollinating plants to create genetic variation, and propagating herbaceous and woody plants.

In addition, students can apply their course learning to real life through research projects, independent studies, and internships with guidance from faculty and staff members. During their final year, majors complete a senior capstone course where they work closely with fellow students and a faculty or staff advisor on a semester-long project designed to bring together a number of aspects of their educational experiences. Through their capstone, students can choose to participate in hands-on projects. For instance, a student's capstone could require they collect data on plant performance in a field or greenhouse and use those data to develop models that can predict future performance. Students can pursue complex scientific interests during their capstone such as studying the distribution of mineral content in crop seeds. Typically, the capstone project involves problem solving and data analysis in a real-world context.

## BUILD COMMUNITY AND NETWORKS

Students get to know faculty and instructors through the courses they take, and they can build their networks through independent studies, participation in seminars, paid work in a research or outreach program, field trips, student organizations, and attendance at conferences and workshops. Examples of student organizations include the Badger Crops Club (<https://pasdept.wisc.edu/badger-crop-club/>) and The People's Farm (<https://www.the-peoples-farm.com/>). One of the strengths of our

program is the opportunity to work with university research and outreach programs and experience scientific inquiry and the communication of scientific findings on real-world problems.

## CUSTOMIZE A PATH OF STUDY

Plant Science and Technology students can select from a wide array of elective options to complete coursework that fits their interests and career goals. For some students, gaining experience in a variety of plant materials will be an important career objective, while for other students, exposure to fields such as economics, life sciences communication, foreign languages, or food science might be critical. The Plant Science and Technology major provides ample opportunities for students to identify electives that help build career skills and provide a well-rounded undergraduate experience.

## MAKE A STRONG START

A number of first-year seminar courses (<https://guide.wisc.edu/undergraduate/agricultural-life-sciences/#requirements-text>) are available to help new students understand academic programs, access student services, and develop time management and study skills.

## GAIN A GLOBAL PERSPECTIVE

Many Plant Science and Technology majors study abroad to gain an international perspective and prepare to participate in today's global economy. Students work with their advisor and the CALS study abroad office (<https://cals.wisc.edu/academics/undergraduate-students/studyabroad/>) to identify appropriate programs. The Plant Science and Technology major is also home to a study abroad program in tropical agriculture (<https://studyabroad.wisc.edu/program/?programId=517>) that includes a fall semester course and a winter break study abroad experience in Central America.