

MAJOR IN HORTICULTURE, HORTICULTURAL SCIENCE CONCENTRATION

Horticultural Science graduates conduct research to discover new information about plant growth, development, and environmental response. This research can lead to new plant varieties and production methods. The curriculum consists of a solid foundation in the basic natural sciences as well as in agricultural sciences and prepares students for technical and scientific careers in laboratory, greenhouse, or field research. Exceptional students participate in individual research projects coordinated by professors. Graduates in this area often continue their education.

Learning Objectives

Upon successful completion of this concentration, students will be able to:

1. Describe fundamental principles of plant structure, growth, development, and reproduction as they relate to horticultural crops.
2. Apply principles of soil science, water management, and plant nutrition to optimize plant health and productivity in various horticultural systems.
3. Explain proper propagation methods (e.g., seed, cuttings, grafting, tissue culture) and production techniques used in greenhouse, nursery, and field settings.
4. Utilize modern tools, equipment, and technologies (e.g., precision agriculture, automation, controlled environment agriculture) to improve horticultural efficiency and sustainability.
5. Collect, analyze, and interpret horticultural data to make informed decisions related to plant growth, production systems, and pest management.