

HORTICULTURAL SCIENCE

This major prepares students for careers in plant science, including management, production, applied research, molecular biology research, marketing, sales and a number of other areas. Students can receive training ranging from commodity production/cropping systems to basic plant science/molecular biology.

About this Program

- **College:** Agricultural and Life Sciences
- **Degree:** Bachelor in Science
- **Credits for Degree:** 120
- **Specializations:** Horticultural Production | Horticultural Science | Organic Crop Production | Plant Molecular and Cellular Biology
- **Additional Information**
- **Related Horticultural Science Programs**

To graduate with this major, students must complete all university, college, and major requirements.

The department offers four specializations: horticultural sciences, horticultural production, organic crop production, and plant molecular and cellular biology. These options provide a strong science background and flexibility when choosing elective courses. Details of the specializations are outlined below. An academic advisor will help develop the curriculum that best suits your career and educational goals.

Related Horticultural Science Programs

- Combined Degree
- Horticultural Science minor

Academic Learning Compact

The horticultural science major prepares students for a career in plant science, including management, production, research, marketing and sales. Students will gain knowledge ranging from commodity production and cropping systems to basic plant science and molecular biology. They will develop skills to describe how plant physiology and genetics relate to plant growth and development as well as developing knowledge of plant diseases and other factors that affect horticultural crops.

Before Graduating Students Must

- Pass the horticultural sciences competency test, given in three parts. One part will be given in each of these required courses:

| Code | Title | Credits |
|----------|--|---------|
| HOS 3020 | Principles of Horticulture Crop Production | 3 |
| HOS 4304 | Horticultural Physiology | 3 |
| HOS 4341 | Advanced Horticultural Physiology | 3 |

- Achieve minimum grades of C in AEC 3030C and AEC 3033C. These courses are graded using rubrics developed by a faculty team.
- Complete requirements for the baccalaureate degree, as determined by faculty.

Students in the Major Will Learn to Student Learning Outcomes (SLOs)

Content

1. Describe fundamental concepts, skills and processes in horticultural science.
2. Apply fundamental concepts, skills and processes in horticultural science.

Critical Thinking

3. Critically analyze and interpret data in horticultural science.
4. Solve problems in horticultural science.

Communication

5. Communicate effectively in written form in a manner appropriate in the field of horticultural science.
6. Communicate effectively orally in a manner appropriate in the field of horticultural science.

Curriculum Map

I = Introduced; R = Reinforced; A = Assessed

| Courses | SLO 1 | SLO 2 | SLO 3 | SLO 4 | SLO 5 | SLO 6 |
|------------------|-------|-------|-------|-------|---------|---------|
| AEC 3030C | | | | | I, R, A | |
| AEC 3033C | | | | | | I, R, A |
| AGR 3303 I | | I | | | | |
| HOS 3020 I, R, A | I | | I | I | | |
| HOS 3430C R | | I, R | R | R | | |
| HOS 4304 R | | A | A | A | | |
| HOS 4341 R | | R | R | R | | |
| HOS 4933 | | | | | R | R |

Assessment Types

- Class project
- Writing assignments
- Exams
- Final grades