HORTICULTURAL SCIENCE | PLANT MOLECULAR AND CELLULAR BIOLOGY

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.

Note that critical tracking is the same for all specializations of this major except Plant Molecular and Cellular Biology.

Critical Tracking records each student’s progress in courses that are required for entry to each major. Please note the critical-tracking requirements below on a per-semester basis.

Equivalent critical-tracking courses as determined by the State of Florida Common Course Prerequisites may be used for transfer students.

Semester 1

• Complete 1 of 6 critical-tracking courses, excluding labs:
  BSC 2010/BSC 2010L, BSC 2011/BSC 2011L, CHM 2045/CHM 2045L, CHM 2046/CHM 2046L, MAC 2311, PHY 2048/PHY 2048L or PHY 2053/PHY 2053L
• 2.0 GPA required for all critical-tracking courses
• 2.0 UF GPA required

Semester 2

• Complete 1 additional critical-tracking course, excluding labs
  • 2.0 GPA required for all critical-tracking courses
  • 2.0 UF GPA required

Semester 3

• Complete 2 additional critical-tracking courses, excluding labs
  • 2.0 GPA required for all critical-tracking courses
  • 2.0 UF GPA required

Semester 4

• Complete 2 additional critical-tracking courses, excluding labs
  • 2.0 GPA required for all critical-tracking courses
  • 2.0 UF GPA required

Semester 5

• Complete all critical-tracking courses, including labs
  • 2.0 GPA required for all critical-tracking courses
  • 2.0 UF GPA required

To remain on track, students must complete the appropriate critical-tracking courses, which appear in bold. These courses must be completed by the terms as listed above in the Critical Tracking criteria.

This semester plan represents an example progression through the major. Actual courses and course order may be different depending on the student’s academic record and scheduling availability of courses. Prerequisites still apply.
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:
  
<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HOS 3020</td>
<td>Principles of Horticulture Crop Production</td>
<td>3</td>
</tr>
<tr>
<td>HOS 4304</td>
<td>Horticultural Physiology</td>
<td>3</td>
</tr>
<tr>
<td>HOS 4341</td>
<td>Advanced Horticultural Physiology</td>
<td>3</td>
</tr>
</tbody>
</table>

- 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.