PLANT SCIENCE

Plant scientists sustain and improve our current and future world as they work with foods, fibers, fuel, flowers, pharmaceuticals, urban forests, soil health, plant pests, and our natural environs. Plant Science students study biology, plant morphology and physiology, chemistry, entomology, physics, soil and water sciences, plant identification, plant pathology, plant propagation, and environmental horticulture.

About this Program
- **College**: Agricultural and Life Sciences (http://catalog.ufl.edu/UGRD/colleges-schools/UGAGL)
- **Degrees**: Bachelor of Arts | Bachelor of Science
- **Credits for Degree**: 120
- **Additional Information**
- **Related Plant Science Programs**

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

The plant science degree offers diverse specializations that provide a wide range of professional opportunities. The specializations provide students with an interdisciplinary perspective of these areas and pursue coursework that tracks them into a variety of job opportunities.

The University of Florida offers some of the specializations in this major to transfer students who have the appropriate credentials through the statewide programs at the Fort Lauderdale Research and Education Center in Ft. Lauderdale, the Mid-Florida Research and Education Center in Apopka, or the West Florida Research and Education Center in Milton.

Course Requirements

**Bachelor of Science**

Designed for students with different professional objectives. All students, regardless of degree or specialization, are required to take an introductory plant science course, an introductory statistics course, an economics course, a technical writing course, a speech course, a soil science course, a plant physiology course, a plant pathology course, a professional development course, and a capstone experience course. All students must also complete an internship related to their area of interest.

**Bachelor of Arts**

Designed for students who want to learn about contemporary food systems from an interdisciplinary perspective. All students are required to take an introductory plant science course, a capstone experience course, and must complete an internship related to their area of interest.

Each specialization has a specific set of required core courses and a number of upper-division electives to choose from that represent important interdisciplinary topic areas. Core courses provide students with the knowledge and fundamental concepts essential to the specialization. Upper-division electives are designed to build knowledge, competency and skills applicable to professional development.

Students should meet with an advisor as early as possible in their academic careers to choose their specialization and to plan their course of study.

**Related Plant Science Programs**
- Environmental Horticulture minor (http://catalog.ufl.edu/UGRD/colleges-schools/UGAGL/EVH_UMN)
- Golf and Sports Turf Management minor (http://catalog.ufl.edu/UGRD/colleges-schools/UGAGL/GST_UMN)
- Plant Science minor (http://catalog.ufl.edu/UGRD/colleges-schools/UGAGL/PLS_UMN)
- Environmental Horticulture Management certificate (http://catalog.ufl.edu/UGRD/colleges-schools/UGAGL/AGL_UCT02)

**Academic Learning Compact**

The plant science major, offered jointly by the departments of Agronomy and Plant Pathology, enables students to apply principles associated with production and improvement of agronomic crops. Students will acquire knowledge about the scientific fundamentals of plant growth of field and forage crops. They will acquire knowledge about fungi, bacteria and viruses, as well as environmental factors that cause plant disease. This program prepares students to work in the lab and field settings and to develop applied skills for research and extension.

**Before Graduating Students Must**
- Complete a research paper and an oral presentation with satisfactory faculty evaluation.
- 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 plant growth and development in terms of plant morphology and physiology and evaluate the abiotic and biotic factors that impact plant growth and management.
2. Recommend practices that growers and managers can implement to address the abiotic and biotic components of their cropping system.

**Critical Thinking**

3. Analyze and apply science-based data to solve problems in plant production, distribution and/or utilization.
4. Design and evaluate a project that addresses a problem or challenge related to their area of interest.
Communication
5. Create, interpret and analyze written text and multimedia presentations.
6. Communicate effectively through oral and multimedia presentations.

Curriculum Map
_I = Introduced; R = Reinforced; A = Assessed_

<table>
<thead>
<tr>
<th>Courses</th>
<th>SLO 1</th>
<th>SLO 2</th>
<th>SLO 3</th>
<th>SLO 4</th>
<th>SLO 5</th>
<th>SLO 6</th>
</tr>
</thead>
<tbody>
<tr>
<td>AEC 3030C</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>I, R, A</td>
</tr>
<tr>
<td>AEC 3033I</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>I, R, A</td>
</tr>
<tr>
<td>PLS 3004D</td>
<td>I</td>
<td>I</td>
<td>I</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PLS 4932A</td>
<td>A</td>
<td>A</td>
<td>A</td>
<td>A</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>PLS 4941</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td></td>
</tr>
</tbody>
</table>

Assessment Types
- Standardized post-test
- Capstone and individual projects
- Final grades