

BOTANY | CALS

This program provides a broad background in the biology of plants, from the molecular to the whole-plant level. Botany students study anatomy, biochemistry, ecology, genetics, physiology, taxonomy, and molecular biology of plants. This flexible major combines the faculty and resources of two UF colleges to prepare students for career success.

About this Program

- **College:** Agricultural and Life Sciences (<http://catalog.ufl.edu/UGRD/colleges-schools/UGAGL/>)
- **Degree:** Bachelor of Science
- **Specializations:** General Botany (http://catalog.ufl.edu/UGRD/colleges-schools/UGAGL/BTY_BS/BTY_BS02/) | Botanical Research (http://catalog.ufl.edu/UGRD/colleges-schools/UGAGL/BTY_BS/BTY_BS04/)
- **Credits for Degree:** 120
- **More Info**

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

Department Information

The Department of Biology studies life at all levels from molecules to the biosphere to understand the evolution, structure, maintenance and dynamics of biological systems. The department's teaching and research provide the integrative and conceptual foundations of the life sciences.

Website (<https://biology.ufl.edu/>)

CONTACT

Email (info@biology.ufl.edu) | 352.273.0125 (tel) | 352.392.3704 (fax)

P.O. BOX 118525

220 BARTRAM HALL

GAINESVILLE FL 32611-8525

Map (<http://campusmap.ufl.edu/#/index/0747>)

Curriculum

- Biology UF Online
- Biology | CALS
- Biology | CLAS
- Botany Minor
- Botany | CALS
- Botany | CLAS
- Combination Degrees
- Zoology
- Zoology Minor

Small classes are taught by faculty who have a commitment to undergraduate education. Students participate in mentored research, assisting faculty with research projects on campus and abroad. The major prepares students for careers in industry and government agencies, for graduate and professional schools, and for teaching jobs in high schools.

Specializations

General Botany

For students who may not intend to pursue a graduate degree but are interested in a career in plant biology. This specialization provides some flexibility in tailoring the courses needed in order to pursue specific interests. Students are encouraged to consult with an advisor and botany faculty member when deciding on which courses to take.

Botanical Research

For students who intend to pursue a graduate degree and requires research with a faculty member. This specialization provides some flexibility in tailoring the courses needed in order to pursue specific interests. Students are encouraged to consult with an advisor and botany faculty member when deciding on which courses to take.

Coursework for the Major

Required coursework is dependent upon the specialization. Coursework for each specialization can be found below under Critical Tracking and Model Semester Plan.

Relevant Minors and/or Certificates

Students majoring in Botany can minor in most other disciplines, and this is a good way to organize students' electives around areas of interest. Note that botany majors cannot minor in Biology, nor can Biology majors minor in Botany (the curricula for the Botany and Biology majors are too similar).

UFTeach Program

There is a severe shortage of qualified secondary science teachers in Florida and nationwide. Students interested in becoming part of this high-demand profession should see a botany advisor or the UFTeach advisor. UFTeach students complete the UFTeach minor in science teaching with their BS in Botany and have the coursework and preparation for professional teacher certification in Florida when they graduate.

More Info (<http://education.ufl.edu/uf-teach/>)

Research

Botany majors are strongly encouraged to participate in research, and research is required for the Botanical Research specialization. Research experience is valuable on many levels: it diversifies the college experience; it teaches students how scientists apply the knowledge gained in the classroom to real world questions; it provides the opportunity to work with and get to know researchers who are the best in their field; it introduces students to cutting edge scientific questions and techniques; it can enhance a student's resume/CV when applying to graduate or professional school; and finally it is essential in helping students determine if science is a good career choice.

CALS botany majors may participate in research for course credit, as a scholar (e.g., University Scholar, Science for Life Scholar, Beckman Scholar), as a volunteer, or, in rare cases, as a paid research assistant. Please visit Undergraduate Research for information regarding course credit. Students who plan to enroll for course credit must contact potential research mentors, develop a project, and turn in the required application and proposal no later than the week before drop/add. If the window is missed, students should still contact potential research mentors, if only to discuss upcoming opportunities.

Academic Learning Compact

The Botany major is offered by both the College of Liberal Arts and Sciences and the College of Agricultural and Life Sciences. This major provides a foundation in the life sciences with emphasis on plant systems. Students will learn the diversity of life, the structure of organisms and ecosystems and how they function (i.e., the acquisition, flow, organization and uses of information, energy and nutrients in living systems). Students will learn the scientific method and how it facilitates the discovery of new knowledge in botany and biology, including how to critically evaluate hypotheses and conclusions.

Before Graduating Students Must

- Achieve acceptable performance in all required botany courses.
- Complete requirements for the baccalaureate degree, as determined by faculty.

Students in the Major Will Learn to

Student Learning Outcomes | SLOs

Content

1. Identify, describe and explain the basic terminology, concepts, methodologies, and theories used within the biological sciences.

Critical Thinking

2. Analyze biological information and develop reasoned solutions to problems using the processes and applications of scientific inquiry.
3. Discriminate ethical behavior from unethical behavior in scientific research.

Communication

4. Communicate knowledge, ideas, and reasoning clearly and effectively in written or oral forms appropriate to the biological sciences.

Curriculum Map

I = Introduced; R = Reinforced; A = Assessed

Courses	SLO 1	SLO 2	SLO 3	SLO 4
BOT 2011C	R	R		I
BOT 2710C	R	R		R
BOT 3503 and BOT 3503L	R/A	R/A		R/A
BSC 2010	I	I	I	

BSC 2011	I	I		
PCB 3601C	R/A	R/A	R/A	R/A
PCB 4043C	R/A	R/A	R/A	R/A

Assessment Types

- Major field test for biology
 - Bioethics quiz
 - Scientific paper
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