Academic Track in the
Biological Science Major

PLANT SCIENCES

The plant sciences involve the study of organisms that utilize sunlight as an energy source. Students following this academic track are generally preparing for careers in private industry, environmental consulting, government, teaching, or graduate study in ecology, systematics, physiology, biochemistry, molecular biology, structural biology, agriculture, or horticulture.

CURRICULUM: Diversity of the plant sciences is reflected in the recommended course work. Plant Biology (BOT 3015), a required upper division biology course, should be taken as early as possible following completion of the major prerequisite courses. Students who plan to pursue graduate study in the plant sciences are strongly encouraged to take a Directed Individual Study (BSC 4900) or Research Methods (BSC 4933) course.

The following represents a list of other recommended elective courses offered by the department that are applicable to the plant sciences. Students should determine which elective courses to take based on educational interests and career goals.

BOT 3143C	Field Botany (4)	BOT 4503L	Plant Physiology Lab (1)
BOT 3015L	Plant Biology Lab (1)	PCB 3043	General Ecology (3)
BOT 3800	Plants and Man (3)	PCB 3134	Cell Structure and Function (3)
BOT 4373C	Biology of Higher Plants (4)	PCB 4024	Molecular Biology (3)
BOT 4394	Plant Molecular Biology (3)	PCB 4024L	Molecular Biology Lab (1)
BOT 4503	Plant Physiology (3)		

FACULTY: Undergraduate teaching and guidance is a large part of the commitment of our regular faculty in Biological Science. Our faculty value interaction and discussion with students and encourage individual discussion and research projects. The following faculty have expertise in the plant sciences.

Hank Bass	Molecular and cellular biology of meiosis in maize; meiotic telomere behavior
George Bates	Plant cell and molecular biology; gene transfer
Laura Keller	Gene regulation in photosynthetic algae
Austin Mast	Comparative ecology, biogeography, and phylogeny of the Australian Banksias (Proteaceae)
Thomas Miller	Plant community ecology and the evolution of competitive ability
William Outlaw Jr.	Plant physiology and biochemistry; guard cell histochemistry
Alice Winn	Plant ecology and evolutionary biology; plant adaptations

FACILITIES: Instructional and research facilities for the plant sciences at FSU are exceptional. Advanced undergraduates who have demonstrated special aptitude have access to state-of-the-art instrumentation and expertise in most areas of the plant sciences. In-house electronic, machine, and wood shops support instructional and research activities, as do the Electron Microscope Labs, the Monoclonal Antibody Lab, the Structural Biology Lab, and the Analytical Lab. The Mission Road Plant Growth Facility and the FSU Marine Laboratory on the Gulf of Mexico are available for terrestrial and aquatic plant research projects. The FSU Herbarium facilities contain approximately 200,000 plant specimens. Other local resources such as the privately owned Tall Timbers Research Station provide additional plant research opportunities in fire ecology, land covers, and conservation.