

Academic Program Student Learning Goals – BOTANY BS & BA

The mission of the Department of Botany is to provide the undergraduate major a broad background in the principles of modern biology, and specifically plants, algae (including photosynthetic bacteria) and fungi, and give a solid foundation for careers in environmental studies, conservation biology, ecology, systematics, evolution, genetics, physiology, biotechnology, agriculture, and horticulture. Jobs requiring such preparation include teaching in secondary schools and colleges, research and development in industry and medicine, stewardship of our natural world through private and governmental programs, and research and teaching in academia.

Botany Undergraduate Students Learn to . . .

Knowledge and Skills to . . .	How Assessed
<ul style="list-style-type: none">• Acquire and demonstrate foundational understanding of the basic properties of plant life from the subcellular to the ecosystem level of organization.• Acquire and demonstrate detailed knowledge in at least five of these core areas of plant biology: Genetics, Physiology, Structural biology, Ecology, Systematics, Evolution, Cryptogamic biology.• Explore these core areas in the context of the laboratory and/or the field.• Engage in plant biology research (to include algae, photosynthetic bacteria, and fungi): develop hypotheses, acquire scientific information, and interpret results in the context of the historical scientific literature in one or more specialized botanical subdisciplines.• Develop an appreciation of communicating scientific information, especially in written form.	<ul style="list-style-type: none">• Achieving grades of at least C in Biol 151/152 or Bot 130 or BioCore.• Fulfilling the intermediate breadth area of botany with grades of at least C.• Taking at least three of these core area courses with a lab section.• Completing one or more Independent Research experiences (Bot 699) or Senior Thesis.• Depositing with Department the final and graded written document based on Directed Research or Senior Thesis.