

BOTANY, PHD

Graduate students in Botany work with faculty and staff on a range of projects in plant biology at all levels of organization – from molecules, through cells and organs, to populations, communities, and lineages of organisms. Major research areas include evolution and systematics; molecular, cellular, and developmental biology; plant biology; biochemistry; and ecology. We also provide advanced instruction and opportunities for research in phycology, bryology, mycology, ethnobotany, paleoecology, conservation and restoration ecology, taxonomy, genetics, and physiology. Increasingly, graduate student projects encompass two or more of these categories.

Students interested in fields bordering botany will find rich opportunities for coursework, collaborative research, and seminars in many other departments and schools such as Bacteriology, Biochemistry, Chemistry, Engineering, Entomology, Forest and Wildlife Ecology, Genetics, Geography, Geoscience, Integrative Biology, Physics, Plant and Agroecosystem Sciences, Plant Breeding/ Plant Genetics, Plant Pathology, Statistics, Soil Science, and the Nelson Institute for Environmental Studies. Interdisciplinary work is encouraged.

Graduate study in the Department of Botany requires a combination of advanced coursework, participation in seminars, and original research. Course requirements follow one of four pathways: general botany; ecology; evolution; or molecular, cellular, and developmental biology. The department encourages students to pursue independent research soon after arriving. In consultation with the faculty advisor, each student selects a pathway that includes courses and research topics related to their interests as well as training in the array of techniques and approaches needed to pursue research.