Botany- Bachelor of Arts

For information, contact the Department of Biology, 212 Pearson Hall, 513-529-3100.

Students may double major in Botany and Zoology, but in that case only nine credits of the Advanced Hours requirement may be used for both degrees.

Minors in Horticulture, Molecular Biology, and/or the Co-major in Environmental Science may be completed along with the A.B. to obtain an emphasis in these areas.

Program Requirements

(30 semester hours, 22 hours must be advanced; plus 12 related hours)[1]

Code	Title	Credit Hours
Select one of the following options:		7-8
Option A:		
BIO/MBI 115	Biological Concepts: Ecology, Evolution, Genetics, and Diversity	
BIO/MBI 116	Biological Concepts: Structure, Function, Cellular, and Molecular Biology	
Option B:		
BIO 191	Plant Biology	
Plus any BIO or MBI course from the Science and Society Perspective area in the Miami Plan		
Select the following:		
BIO 204	Evolution of Plant Biodiversity: Genes to Biosphere	4
Select one of the following 200 level W courses:		3
BIO 203	Introduction to Cell Biology	
BIO 206	Evolutionary Biology	
BIO 209W		
Select at least two core plant biology courses:		8
BIO 205	Dendrology	
BIO 302	Plant Taxonomy	
BIO 314	Plant Diversity	
BIO 402	Plant Anatomy	
BIO 425	Environmental Plant Physiology	
Select at least one of the following courses in applied botany:		3-4
BIO 221	Plant Propagation	
BIO 241	Botanical Principles in Landscape Gardening	
BIO 244	Viticulture and Enology	
BIO 306	Basic Horticulture	
IES 278	Introduction to Food Systems [2]	
Select up to 3 credit hours of Independent Study/Research/Internship		0-3
BIO 277	Independent Studies	
BIO 320	Directed Research	
BIO 340	Internship	
BIO 377	Independent Studies	
BIO 477	Independent Studies	
Select from the courses listed below to reach the required 30 hours:		0-5
BIO 203	Introduction to Cell Biology	
BIO 209	Fundamentals of Ecology	
BIO 256	Introduction to Programming for the Life Sciences	
or CSE 256	Introduction to Programming for the Life Sciences	
or MBI 256	Introduction to Programming for the Life Sciences	
BIO 342	Genetics	
BIO 351	Environmental Education: Focus on Natural History	
BIO 422	Evolutionary and Population Genetics	
BIO 431	Global Plant Diversity	
or GEO 431	Global Plant Diversity	
BIO 433	Field Ecology	
BIO 438	Soil Ecology and Sustainable Use	
BIO 444	Molecular Biology	
BIO 464	Laboratory in Cell and Molecular Biology	
BIO 466	Bioinformatics Computing Skills	
BIO 467	Conservation Biology	
BIO 480	Departmental Honors	
BIO 481	Theory of Electron Microscopy	
BIO 482	Scanning Electron Microscopy Laboratory	
BIO 483	Transmission Electron Microscopy Laboratory	
BIO 485	Bioinformatics Principles	
BIO 491	Seminar in Biology	
Related Hours		
A course in CHM of 3 credit hours or more, plus other courses from the departments of CHM, CSE, IES, GEO, GLG, MTH, MBI, PHY, or STA [3]		12
Total Credit Hours		**42**

1 One course must be at the 300 or 400 level. No more than three hours of research/internship may count toward the major.
2 IES 278L encouraged.
3 It is recommended students take at least one course in statistics, in particular STA 261 or STA 301.

Note: For graduate study in biological sciences, most programs require genetics, organic chemistry, and/or biochemistry; many require calculus and/or statistics, and some require a physics sequence.

Students seeking the Bachelor of Arts in Botany meet the College of Arts and Science writing in the major requirement by completing the following courses: two W Biology courses at the 200- or 300-level and one biology W course at the 400-level. As an alternative to the 400-level course, students may complete an independent study that includes technical science writing. Upon completion of an independent study, the student must submit, with the signed support

of a faculty member, a letter of certification indicating that s/he has successfully completed the technical science writing requirement.