



College of Arts and Sciences Environmental & Plant Biology

The curriculum outlined below is a semester-by-semester plan of study for the BS in Plant Biology (BS2111), BA in Applied Plant Biology (BA 2110) and BA in Field Ecology (BA2111) majors in adherence to section 3333.71 of the Revised Code for three-year baccalaureate degrees.

The estimated number of hours transferred or taken as AP is set at 15. Please note that these are just examples. The actual slate of courses would be dependent upon what courses a student actually has previous credit for. Students with additional AP credits would be allowed to count them (as appropriate) to the 3-year degree pathway. Additionally, students may earn credit through successful language placement tests that would apply toward the degree. A student should work closely with an advisor to design a plan that is specific for him/her and that courses are taken appropriately to complete the plan in the desired time frame.

The student should also be aware that trade-offs are inherent in the decision to complete a degree in three years. A student on a three-year track must stay focused on the curriculum and may not be able to explore educational alternatives or change programs or majors. S/he may also not be able to participate in study abroad programs, internships, student clubs or government, or service learning opportunities.

The scheduling scenario below is intended to present an example pattern by which this major can be completed in three years. Those interested in pursuing this option need to work with an academic advisor to develop a specific plan to earn the 126 credit hours required for graduation.

BS2111 Plant Biology

Post-Secondary Coursework or Transfer/AP/IB Credit

Course Subject and Title (Or General Tier/Major Requirement)	Credit Hours	Upper Division	Minimum Grade
Tier I Freshman Composition	3		
Tier 1 Quantitative Skills	3		
Tier II Cross-Cultural Perspectives	3		
Tier II Social Science	3		
Tier II Humanities & Literature	3		
Total hours (minimum 15)	15		

Semester 1: Fall

Course Subject and Title (Or General Tier/Major Requirement)	Credit Hours	Upper Division	Minimum Grade
MATH 2301 Calculus	4		
CHEM 1510 General Chemistry	4		C

Course Subject and Title (Or General Tier/Major Requirement)	Credit Hours	Upper Division	Minimum Grade
PBIO 1140 Foundations of Plant Biology	4		
PBIO 2090 Introduction to Ecology	3		
Tier II Fine Arts	3		
Total hours for semester	18		

Semester 2: Spring

Course Subject and Title (Or General Tier/Major Requirement)	Credit Hours	Upper Division	Minimum Grade
Arts & Sciences Humanities Elective	3		
Arts & Sciences Social Science Elective	3		
PBIO Plant Structure & Function	4		
CHEM 1520 General Chemistry II	4		
Arts & Sciences Humanities Elective 2XXX	3		
Total hours for semester	17		

Semester 3: Summer

Course Subject and Title (Or General Tier/Major Requirement)	Credit Hours	Upper Division	Minimum Grade
Arts & Sciences Humanities Elective	4	Yes	
Arts & Sciences Social Science Elective	2	yes	
Total hours for semester	6		

Semester 4: Fall

Course Subject and Title (Or General Tier/Major Requirement)	Credit Hours	Upper Division	Minimum Grade
PHYS 2051 Physics	5	Yes	
Major Elective ¹	3	Yes	
CHEM Specialty ²	3	Yes	
Major Elective ¹	3	Yes	
Foreign Language	4	Yes	
Total hours for semester	18		

Semester 5: Spring

Course Subject and Title (Or General Tier/Major Requirement)	Credit Hours	Upper Division	Minimum Grade
PBIO 3300 Genetics	3	Yes	
PBIO 3400 Plant Development	4	Yes	
PBIO 3140 Statistics	4	Yes	
Foreign Language	4		
Major Elective ¹	3	Yes	
Total hours for semester	18		

Semester 6: Summer

Course Subject and Title (Or General Tier/Major Requirement)	Credit Hours	Upper Division	Minimum Grade
PBIO 49XX UG Research or Internship	3	Yes	
Total hours for semester	3		

Semester 7: Fall

Course Subject and Title (Or General Tier/Major Requirement)	Credit Hours	Upper Division	Minimum Grade
PBIO 4170 Ethics	1	Yes	
PBIO 4180J Writing	3	Yes	
Major Elective ¹	3	Yes	
Arts & Sciences Tier III	3	Yes	
General Elective	3		
General Elective	3		
Total hours for semester	16		

Semester 8: Spring

Course Subject and Title (Or General Tier/Major Requirement)	Credit Hours	Upper Division	Minimum Grade
PBIO 3250 OR 3260 Physiology	3	Yes	
Major Elective ¹	3	Yes	
Major Elective ¹	3	Yes	
General Elective	3		
General Elective	3		
Total hours for semester	15		

¹Major Electives- A minimum of 12 credit hours must be taken within PBIO at the 3000 or 4000 level, the additional 6 credit hours may come from PBIO or from the list provided: BIOS 3160, 3210, 3750, 3760, 4190, 4260, 4270, 4290, 4310, 4360, 4650, 4710, 4720, 4740; CHEM 2410, 3010, 3050, 3060, 3760, 4310, 4600, 4890, 4901, 4902; GEOL 2110, 2150, 2550; GEOG 2680, 3020 if not taken to satisfy another requirement.

²CHEM specialty course- choose from CHEM 3050 Organic Chem., CHEM 4091 Biochemistry or CHEM 2140 Analytical Chemistry

BA2110 Applied Plant Biology

Post-Secondary Coursework or Transfer/AP/IB Credit

Course Subject and Title (Or General Tier/Major Requirement)	Credit Hours	Upper Division	Minimum Grade
Tier I Fine Arts	3		
Tier 1 Quantitative Skills	3		
Tier II Cross-Cultural Perspectives	3		
Tier II Social Science	3		
Tier II Humanities & Literature	3		
Total hours (minimum 11)	15		

Semester 1: Fall

Course Subject and Title (Or General Tier/Major Requirement)	Credit Hours	Upper Division	Minimum Grade
MATH 1300	4		
CHEM 1510 General Chemistry	4		C
PBIO 1140 Foundations of Plant Biology	4		
PBIO 2090 Introduction to Ecology	3		
ECON 103	3		
Total hours for semester	18		

Semester 2: Spring

Course Subject and Title (Or General Tier/Major Requirement)	Credit Hours	Upper Division	Minimum Grade
Arts & Sciences Humanities Elective	3		
Tier I Freshman Composition	3		
PBIO 1150 Plant Structure & Function	4		
CHEM 1220 General Chemistry II	4		
Arts & Sciences Social Science Elective	3		
Total hours for semester	17		

Semester 3: Summer

Course Subject and Title (Or General Tier/Major Requirement)	Credit Hours	Upper Division	Minimum Grade
Arts & Sciences Humanities Elective	4	Yes	
Arts & Sciences Social Science Elective	2	Yes	
Total hours for semester	6		

Semester 4: Fall

Course Subject and Title (Or General Tier/Major Requirement)	Credit Hours	Upper Division	Minimum Grade
Arts & Sciences Humanities Elective 2XXX	3	Yes	
Arts & Sciences Social Science Elective	3	Yes	
PBIO 2060 Sustainable Ag OR PBIO Hort. Management	3	Yes	
Major Elective ¹	3	Yes	
Foreign Language	4		
Total hours for semester	18		

Semester 5: Spring

Course Subject and Title (Or General Tier/Major Requirement)	Credit Hours	Upper Division	Minimum Grade
PBIO 3300 Genetics	3	Yes	
ECON/MKT Elective	3	Yes	
PBIO 4181J Writing	3	Yes	
Foreign Language	4	Yes	
Major Elective ¹	3		
Total hours for semester	16		

Semester 6: Summer

Course Subject and Title (Or General Tier/Major Requirement)	Credit Hours	Upper Division	Minimum Grade
PBIO 49XX UG Research or Internship	3	Yes	
Total hours for semester	3		

Semester 7: Fall

Course Subject and Title (Or General Tier/Major Requirement)	Credit Hours	Upper Division	Minimum Grade
PBIO 4170 Ethics	1	Yes	
GEOL/BIOS Elective ²	3	Yes	
PBIO 4380 Soils and Ecosystems	4	Yes	
Arts & Sciences Tier III	3	Yes	
PBIO 3190 Ohio Flora	3	Yes	
Arts & Sciences Social Science Elective	3		
Total hours for semester	17		

Semester 8: Spring

Course Subject and Title (Or General Tier/Major Requirement)	Credit Hours	Upper Division	Minimum Grade
PBIO 3250 OR 3260 Physiology	3	Yes	
PBIO 3301 Plant Breeding	3	Yes	

Course Subject and Title (Or General Tier/Major Requirement)	Credit Hours	Upper Division	Minimum Grade
PBIO 3150 Statistics	3	Yes	
General Elective	3		
General Elective	3		
Total hours for semester	16		

*The estimated number of hours transferred or taken as AP is set at 12. Students with additional AP credits would be allowed to count them (as appropriate) to the 3-year degree pathway. Additionally, students may earn credit through successful language placement tests that would apply toward the degree.

¹Major Electives- Choose from PBIO 2600 Sustainable Ag; PBIO 3050 Plant Propagation, PBIO 3100 Fungi, PBIO 3160 Hort. Management, PBIO 3190 Ohio Flora, PBIO 3030 Medicinal Plants of Ohio, PBIO 3220 Tropical Plant Ecology or PBIO 4120 Plant Pathology if not already taken to satisfy a requirement.

²GEOL/BIOS Elective- Choose from GEOL 2150 Environmental Geology, GEOL 2310 Water and Pollution, BIOS 3160 Biogeography, BIOS 3760 Field Ecology, BIOS 4710 Ornithology, BIOS 4720 Herpetology, BIOS 4740 Mammalogy, BIOS 4650 Ichthyology, BIOS 4360 Field Entomology

BA2110 Field Ecology

Post-Secondary Coursework or Transfer/AP/IB Credit

Course Subject and Title (Or General Tier/Major Requirement)	Credit Hours	Upper Division	Minimum Grade
Tier I Fine Arts	3		
Tier 1 Quantitative Skills	3		
Tier II Cross-Cultural Perspectives	3		
Tier II Social Science	3		
Tier II Humanities & Literature	3		
Total hours (minimum 11)	15		

Semester 1: Fall

Course Subject and Title (Or General Tier/Major Requirement)	Credit Hours	Upper Division	Minimum Grade
MATH 1300	4		
CHEM 1510 General Chemistry	4		C
PBIO 1140 Foundations of Plant Biology	4		
PBIO 2090 Introduction to Ecology	3		
General Elective	3		
Total hours for semester	18		

Semester 2: Spring

Course Subject and Title (Or General Tier/Major Requirement)	Credit Hours	Upper Division	Minimum Grade
Arts & Sciences Humanities 2XXX Elective	3		
Tier I Freshman Composition	3		
PBIO 1150 Plant Structure & Function	4		
CHEM 1220 General Chemistry II	4		
Arts & Sciences Social Science Elective	3		
Total hours for semester	17		

Semester 3: Summer

Course Subject and Title (Or General Tier/Major Requirement)	Credit Hours	Upper Division	Minimum Grade
Arts & Sciences Humanities Elective	4	Yes	
Arts & Sciences Social Science Elective	2	Yes	
Total hours for semester	6		

Semester 4: Fall

Course Subject and Title (Or General Tier/Major Requirement)	Credit Hours	Upper Division	Minimum Grade
PBIO 2XXX or above	3	Yes	
GEOL/GEOG Elective ²	3	Yes	
PBIO3190 Ohio Flora	4	Yes	
Foreign Language	4		
Arts & Sciences Social Science Elective	3		
Total hours for semester	16		

Semester 5: Spring

Course Subject and Title (Or General Tier/Major Requirement)	Credit Hours	Upper Division	Minimum Grade
PBIO 3300 Genetics	3	Yes	
PBIO 2XXX or above	3	Yes	
PBIO 2XXX or above	3	Yes	
PBIO 3400 Plant Development	4	Yes	
Foreign Language	4		
Total hours for semester	17		

Semester 6: Summer

Course Subject and Title (Or General Tier/Major Requirement)	Credit Hours	Upper Division	Minimum Grade
PBIO 49XX UG Research or Internship	3	Yes	
Total hours for semester	3		

Semester 7: Fall

Course Subject and Title (Or General Tier/Major Requirement)	Credit Hours	Upper Division	Minimum Grade
PBIO 4170 Ethics	1	Yes	
PBIO 4180J Writing	3	Yes	
PBIO 4350 or 4380 Ecology Elective	4	Yes	
Arts & Sciences Tier III	3	Yes	
BIOS Elective	3	Yes	
General Elective	3		
Total hours for semester	17		

Semester 8: Spring

Course Subject and Title (Or General Tier/Major Requirement)	Credit Hours	Upper Division	Minimum Grade
PBIO 3240 OR 3260 Physiology	3	Yes	
PBIO 3150 Statistics	4	Yes	
PBIO 2XXX or above	3	Yes	
Arts & Sciences Humanities	3		
General Elective	3		
Total hours for semester	16		

*The estimated number of hours transferred or taken as AP is set at 12. Students with additional AP credits would be allowed to count them (as appropriate) to the 3-year degree pathway. Additionally, students may earn credit through successful language placement tests that would apply toward the degree.

¹GEOL/GEOG Elective- choose one: GEOL 2150, 2310, 2550, GEOG 2680 (recommended), 3020

²BIOS Elective- choose one: BIOS 3160, 3210, 4290, 4310, 4650, 4710, 4720, 4740