

## BAXX04 - Applied Plant Biology

### General Info

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### Program Info

**Program Code:** BAXX04 - Applied Plant Biology

<u>Semesters</u>	<u>Quarters</u>
<b>Program Abbr:</b> APPLI PBIO	
<b>Program Name:</b> Applied Plant Biology	
<b>Transcript Name:</b> Applied Plant Biology	
<b>Degree Name:</b> Bachelor of Arts	<b>College:</b> A&S (Arts and Sciences, College of)
<b>Department:</b> PBIO (Environmental and Plant Biology)	<b>Level:</b> U (Undergraduate)
<b>Semesters:</b> This program WILL be offered in semesters.	

### Program Overview

**Overview:** The B.A. in Plant Biology: Applied Plant Biology is designed for students who are interested in the plant sciences as they apply to commercial enterprises, such as greenhouses, nurseries, landscaping, diversified and small scale agriculture, biofuels, and medicinal herbs. The course work in this program provides students with foundational knowledge of plant biology with the option of training in greenhouse management, sustainable agriculture, soil ecology, plant pathology, plant breeding, and/or medicinal plants. In addition to providing a background in applied plant biology, the program includes course work in economics, biology and communications. To help prepare students for their career, an internship is required. The flexibility in this program allows for either a minor or a second major in another discipline, e.g. economics, business administration, communications and others, if desired.

#### Admissions Information: Freshman/First-Year Admission

No requirements beyond University admission requirements.

#### Change of Major/Minor/Certificate Policy

No selective or limited admission requirements.

#### External Transfer Admission

No requirements beyond University admission requirements.

#### Opportunities Upon Graduation:

This program prepares students for entry level jobs in fields such as landscaping, diversified agriculture, horticulture, nurseries, tree care, and plant breeding. In order to enhance job prospects, students in this program are required to complete an internship in one of these areas. Faculty in the Plant Biology department will assist students in locating appropriate internships. Listings of internship opportunities can be found at the following Web sites:  
<http://www.thesca.org/>  
<http://www.americorps.org/vista/>  
<http://conbio.org/SCB/Services/Jobs/>

If you plan to do graduate studies in plant biology or a related biological science, a B.S. degree would be more appropriate. Consult a departmental advisor for assistance in selecting a program to prepare you for an advanced degree.

### Curriculum

**Nature of Changes:** The changes to your program curriculum DOES NOT MAKE the comparison of the minimum number of credit hours in the quarter-based and semester-based curricular less meaningful for most of your curricular components.

#### Curricular Components:

	Semester	Quarter	Equiv	Change
PBIO Required Courses	17.0	24.0	16.0	6.25%
Professional Skills	10.0	12.0	8.0	25.0%
Writing	3.0	4.0	2.67	12.36%
Internship component	2.0	3.0	2.0	0.0%
PBIO Specialty Courses	10.0	12.0	8.0	25.0%
Core specialty course	2.0	3.0	2.0	0.0%
PBIO Electives	5.0	8.0	5.33	-6.19%
Extrdepartmental Requirements	18.0	26.0	17.33	3.87%
ECON, MKT, BIOS or GEOL Electives	3.0	4.0	2.67	12.36%

Min. Credit Hours:	Semester Hrs	Quarter Hrs	Equiv.Semester Hrs	Percent Change
	121.0	190.0	126.67	-4.48

**Summary of Changes:** The changes represent a redesign of our previous the BA in Plant Biology. The changes were the result of lengthy discussions among the faculty, and we feel that they will simplify our programs and better serve our students. The hours in the curricular components do not add to the total hours because courses required for the major will also satisfy the T1 quantitative skills requirement, the T1 J course requirement, the T2 Science and Technology requirement and the T2 Natural Sciences requirement and the A&S Natural Science requirement. The amount and distribution of course work within this BA in Applied Plant Biology are consistent with the BA in Field Ecology offered by the department.

**Sample:** edu.ohio.ocean.domain.q2s.Q2SFile@940093

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**Supplemental Information**

**Patron Departments**

**Department**

**Nature of Change**

**Course Catalog****PBIO Required Courses**

Sem Hrs: 17.0                      Qtrr Hrs: 24.0                      Equiv Hrs: 16.0                      % Change: 6.25%

- PBIO 1140: Foundations of Plant Biology (4.0HR) (2NS) (EXPEDITED - PUBLISHED)
- PBIO 1150: Plant Structure and Development (4.0HR) (2NS) (EXPEDITED - PUBLISHED)
- PBIO 2090: Plant Ecology (3.0HR) (2NS) (EXPEDITED - PUBLISHED)
- PBIO 3300: Plant Genetics (3.0HR) (EXPEDITED - PUBLISHED)
- PBIO 3240: Advanced Plant Physiology (3.0HR) (EXPEDITED - PUBLISHED)

**Professional Skills**

Sem Hrs: 10.0                      Qtrr Hrs: 12.0                      Equiv Hrs: 8.0                      % Change: 25.0%

This increase in credits represents the new requirement for a J course offered in the department and a statistics course and scientific ethics course offered in the department. The departmental statistics and the J course were not previously required. These changes are consistent with our BA in Field Ecology.

- PBIO 3150: Statistical Methods in Plant Biology (4.0HR) (EXPEDITED - PUBLISHED)
- PBIO 4170: Biological Research and Science Ethics (1.0HR) (EXPEDITED - PUBLISHED)

**Writing**

Sem Hrs: 3.0                      Qtrr Hrs: 4.0                      Equiv Hrs: 2.67                      % Change: 12.36%

*Requirements:*

Take one.

- PBIO 4181J: Writing for Biologists (3.0HR) (1J) (SEMESTER - REVIEW)
- PBIO 4180J: Writing for the Science Researcher (3.0HR) (1J) (EXPEDITED - PUBLISHED)

**Internship component**

Sem Hrs: 2.0                      Qtrr Hrs: 3.0                      Equiv Hrs: 2.0                      % Change: 0.0%

*Requirements:*

An internship is required of all students.

- PBIO 4910: Internship (2.0HR) (EXPEDITED - PUBLISHED)

**PBIO Specialty Courses**

Sem Hrs: 10.0                      Qtrr Hrs: 12.0                      Equiv Hrs: 8.0                      % Change: 25.0%

The additional required courses in this area are needed to train students properly with the new more applied focus to the BA in Applied Plant biology. All changes in credit hours are consistent with our BA in Field Ecology.

- PBIO 4380: Soil Properties and Ecosystem Processes (4.0HR) (COMPOSITE - PUBLISHED)
- PBIO 3301: Plant Breeding (3.0HR) (SEMESTER - REVIEW)

**Core specialty course**

Sem Hrs: 2.0                      Qtrr Hrs: 3.0                      Equiv Hrs: 2.0                      % Change: 0.0%

*Requirements:*

Take one course.

- PBIO 3160: Horticultural Management and Techniques (2.0HR) (EXPEDITED - PUBLISHED)
- T3 4020: Sustainable Agriculture (3.0HR) (3) (EXPEDITED - PUBLISHED)

**PBIO Electives**

Sem Hrs: 5.0                      Qtrr Hrs: 8.0                      Equiv Hrs: 5.33                      % Change: -6.19%

*Requirements:*

Choose two additional courses from the list below. You may not get credit for courses taken to fulfill another requirement.

- PBIO 3030: Medicinal Plants of Ohio (2.0HR) (EXPEDITED - PUBLISHED)
- PBIO 3050: Plant Propagation (3.0HR) (EXPEDITED - PUBLISHED)
- PBIO 3100: Biology of Fungi (3.0HR) (EXPEDITED - PUBLISHED)
- PBIO 3160: Horticultural Management and Techniques (2.0HR) (EXPEDITED - PUBLISHED)
- PBIO 3190: Ohio Flora (3.0HR) (SEMESTER - PUBLISHED)
- PBIO 3220: Tropical Plant Ecology (3.0HR) (EXPEDITED - PUBLISHED)
- PBIO 4120: Plant Pathology (3.0HR) (EXPEDITED - PUBLISHED)
- T3 4020: Sustainable Agriculture (3.0HR) (3) (EXPEDITED - PUBLISHED)

**Extrdepartmental Requirements**

Sem Hrs: 18.0                      Qtrr Hrs: 26.0                      Equiv Hrs: 17.33                      % Change: 3.87%

- MATH 1300: Pre-Calculus (4.0HR) (1M) (EXPEDITED - PUBLISHED)
- CHEM 1210: Principles of Chemistry I (4.0HR) (2NS) (EXPEDITED - PUBLISHED)
- CHEM 1220: Principles of Chemistry II (4.0HR) (2NS) (EXPEDITED - PUBLISHED)
- ECON 1030: Principles of Microeconomics (3.0HR) (2SS) (EXPEDITED - PUBLISHED)
- COMS 1010: Fundamentals of Human Communication (3.0HR) (2HL) (EXPEDITED - PUBLISHED)

**ECON, MKT, BIOS or GEOL Electives**

Sem Hrs: 3.0                      Qtrr Hrs: 4.0                      Equiv Hrs: 2.67                      % Change: 12.36%

*Requirements:*

Choose at least one course from the list provided.

- GEOL 2150: Environmental Geology (3.0HR) (2AS) (EXPEDITED - PUBLISHED)
- GEOL 2310: Water and Pollution (3.0HR) (2AS) (EXPEDITED - PUBLISHED)
- BIOS 3160: Biogeography (3.0HR) (EXPEDITED - PUBLISHED)
- MKT 2020: Marketing Principles (3.0HR) (EXPEDITED - PUBLISHED)
- ECON 3510: Agricultural Development (3.0HR) (EXPEDITED - PUBLISHED)