Plant Biology—Applied Ecology Major (B.S.)
Special curriculum; major code BS2115

The Applied Ecology program prepares students for entry-level environmental science jobs immediately after graduation. In addition to providing a strong background in field botany and ecology, the program offers students experience in a variety of marketable skills including plant identification, vegetation survey techniques, GIS, and greenhouse management. Graduates have jobs in environmental monitoring, rare-plant surveys, high school teaching, project management for nonprofit organizations, horticulture, park management, organic farming, and tree care. Students are strongly encouraged to select the internship option, which will greatly improve job prospects. Listings of internship opportunities can be found at the following web sites:
http://www.thesca.org/
http://www.americorps.org/vista/
http://www.conbio.org/SCB/Services/Jobs/
http://www.biology.duke.edu/jackson/ecophys/tech.htm
http://www.biology.duke.edu/jackson/ecophys/undergrad.htm

Required PBIO courses

PBIO 114	Foundations of Plant Biol.	5
PBIO 115	Plant Structure and Devel.	4
PBIO 209	Plant Ecology	4
PBIO 210	Plant Physiology	4
PBIO 211	Diversity of Life	5
PBIO 309	Pl. Systematics & Ohio Flora	6
PBIO 331	Plant Genetics	5
PBIO 322	Tropical Plant Biology	4
or PBIO 426	Physiological Pl. Ecology	5
or PBIO 435	Plant Population Biology	5
or PBIO 436*	Plant Community Ecology	5
or PBIO 437	Ecosystem Ecology	4
PBIO 490	Internship	2
or PBIO 404	Undergraduate Research	2

*Strongly recommended. The vegetation analysis skills taught in PBIO 436 are particularly valuable in the environmental job market.

Additional PBIO credit hours at 200 level or above to total at least 55 hours, but no more than 80. A maximum of 10 hours of PBIO 404 and 490 combined may count toward the 55-hour requirement. It is recommended that the additional courses used to satisfy the 55-hour requirement be selected from PBIO 248, 307, 310, 410, 412, 420, 426, 435, 436, and 437.

Recommended departmental elective:

PBIO 418	Writing in the Plant Sciences	4

Required nondepartmental courses

BIOS 171, 173	Introduction to Zoology	6
BIOS 220	Conservation and Biodiversity	4

4 hours from BIOS courses, selected from courses at 300-400 level (see recommended electives below)

CHEM 121, 122, 123	Prin. of Chemistry	12
or CHEM 151, 152, 153	Fund. of Chemistry	15

GEOL 101	Introduction to Geology	5
PSY 221	Stat, for Behavioral Sci.	5

4 additional hours from GEOL (GEOL 231: Water and Pollution recommended to satisfy this requirement)

GEOG 268	Computer Appl. in Geog.	4
GEOG 370	Geog. Inform. Syst. Appl.	4

4 additional hours in GEOG from the following:

GEOG 201	Environmental Geog.	4
GEOG 260	Maps	4
GEOG 302	Meteorology	5
GEOG 303	Climatology	5
GEOG 316	Biogeography	4
GEOG 353	Environmental Planning	4
GEOG 417	Landscape Ecology	4
GEOG 440	Environ. Impact Analysis	4
GEOG 447	Resource Management	4
GEOG 466	Remote Sensing	5

Recommended electives

BIOS 375	Animal Ecology	5
BIOS 430	Invertebrate Biology	6
BIOS 431	Limnology	5
BIOS 435	Entomology	6
BIOS 471	Ornithology	6
BIOS 474	Mammalogy	6
BIOS 477	Population Ecology	4
BIOS 481	Animal Conservation Biol.	4

Arts and Sciences degree requirements (including language), University General Education Requirements, and/or electives.