THE OHIO STATE UNIVERSITY
COLLEGE OF FOOD, AGRICULTURAL, AND ENVIRONMENTAL SCIENCES

B.S. in Agriculture
Sustainable Plant Systems
Specialization: Plant Biosciences
Effective Autumn 2019

All students must complete two Global Issues courses (▲). All students must take a Social Diversity requirement in the GE by completing Rural Sociology 1500 or Sociology 1101.

FAES 1100 and Dept. Seminar	**.5, .5**
Writing Level 1 (English 1110)	**3**
Writing Level 2 (2367) see approved CFAES GE List	**3**
Agr Comm 3130 or Comm 2110	**3**
Math 1130, 1148, 1151, or 1156	**4 or 5**
Data Analysis (HCS 2260 recommended)	**3**
Biological Science (Bio 1113 req'd)	**4**
Physical Science Chem 1110, 1210, or 1220	**5**
Add'l. Sci. (BIO 1114 Form, Function, Diversity, and Ecology req'd)	**4**
Opt. 1 (HCS 2201 Ecology of Managed Plant Systems req'd)	**4**
Social Science 1 (Rural Soc 1500 or Sociol 1101)	**3**
Social Science 2 (AED Econ 2001 or Econ 2001)	**3**
Historical Study (see approved CFAES GE List)	**3**
Culture & Ideas or Historical Study (see approved CFAES GE List)	**3**
Literature (see approved CFAES GE List)	**3**
Art (see approved CFAES GE List)	**3**
Contemporary Issues (see approved CFAES GE List)	**3**
Internship (HCS 4191.01)	**2**
TOTAL GE Credit Hours	**57 or 58**
4 SPS – Plant BioScience Specialization	**42-43**
SPS – Minor Equivalent	**15-18**
Electives	**2-7**
TOTAL	**121**

PLANT BIOSCIENCE SPECIALIZATION 42-43

Required Courses – Plant Bioscience Specialization 32-33

HCS	2202	Form and Function in Cultivated Plants	4
HCS	3100	Introduction to Agronomy	3
or HCS	3200	Introduction to Horticultue	3
or HCS	3470	Introduction to Turfgrass Management	3
HCS	3220	Crop Origins and Diversity	2
HCS	3310	Crop Responses to the Environment	3
HCS	4325	Plant Genetics	3
or MOLGEN	4500	General Genetics	3
HCS	5602	Ecology of Agriculture (Capstone)	3
or HCS	5100	Advanced Cropping Systems (Capstone)	3
or HCS	5200	Advanced Horticultural Systems (Capstone)	3
HCS	5621	Physiology of Cultivated Plants	3
HCS	5622	Biochem. Processes in Cultivated Plants	3
or BIOCHEM	4511	Intro. to Biological Chemistry	4
CHEM	2310	Introductory Organic Chemistry[1]	4
or CHEM	2510	Organic Chemistry I[2]	4
ENR	3000	Soil Science	3
ENR	3001	Soil Science Laboratory	1

Elective Courses – Plant Bioscience Specialization 10

HCS	3320	Plant Propagation	3
HCS	3420	Seed Science	3
HCS	3521	Greenhouse Systems and Management	2
HCS	4193	Individual Studies	1-3
HCS	4300	Hydroponic Crop Production	2
HCS	4301	Hydroponics Crop Production Lab	2
HCS	4560	Creating a Virtual Perspective	3
HCS	4570	Turfgrass Management & Science	3
HCS	4999	Research with Distinction	1-3
HCS	4999H	Honors Research with Distinction	1-3
HCS	5097.01-.04	Study Abroad Pre-Departure Course	1
HCS	5797.01-.04	Study Abroad	3
HCS	5100	Advanced Cropping Systems (if not Capst.)	3
HCS	5193	Independent Study	1-3
HCS	5200	Advanced Hort. Systems (if not Capst.)	3
HCS	5411	Domestic.& Util. Agron. Crops	3
HCS	5412	Agroecol. of Grasslands and Prairies	3
HCS	5422	Biol. & Mgmt. of Weeds and Invasive Plants	3
HCS	5450	Vegetable Crop Production & Physiology	3
HCS	5460	Fruit Crop Physiology & Production	3
HCS	5601	Digital Portfolio Development	1
HCS	5602	Ecology of Agriculture (if not Capst.)	3
HCS	5730	Seed Ecology and Physiology	2
HCS	5887	Introduction to Experimental Design	3

[1] CHEM 2310 prerequisites: 1110, 1220 (122), 1250 (125), 1620, or 1920H. Not open to students with credit for 2510 (251), 2610, or 2910H.
[2] CHEM 2510 prerequisites: 1220 (123), 1620 or 1920H (203H). Not open to students with credit for 252.

MINOR EQUIVALENT 15-18

Students must take the following two courses (8 credits), and at least 7 to 10 credits from the Supporting Electives group.

Required Courses 8

EEOB	3310.01	Evolution	4
or EEOB	3310.02	Evolution	4
EEOB	3410	Ecology	4

Supporting Electives 7-10

CHEM	2520	Organic Chemistry II	4
CHEM	2540	Organic Chemistry Lab I	2
CHEM	2550	Organic Chemistry Lab II	2
EEOB	3320	Organismal Diversity	3
EEOB	4240	Ecol & Evol of Plants & People	3
EEOB	5450	Population Ecology	3
EEOB	5460	Physiological Ecology	3
ENR	3321	Biol & Ident of Woody Forest Plants	3
ENR	3322	Forest Ecosystems	3
ENR	3700	Intro to Spatial Infor. for ENR	3
ENR	5261	Environmental Soil Physics	3
ENR	5263	Biology of Soil Ecosystems	3
ENR	5273	Env. Fate of Contamin. in Soil and Water	3
ENR	5274	Ecosystem Simulation	3
ENTMLGY	4000	General Entomology	3
ENTMLGY	5420	Insect Behavior	3
ENTMLGY	6410	Insect Ecology & Evolution	3
GEOG	5900	Weather, Climate, & Global Warming	3
MOLGEN	4501	General Genetics Laboratory	1
MOLGEN	4502	Expanded General Genetics Laboratory	2
MOLGEN	5623	Genetics and Genomics	2
MOLGEN	5630	Plant Physiology	3
MOLGEN	5643	Plant Anatomy	3
MOLGEN	5701	DNA Transactions and Gene Regulation	3
MOLGEN	5735	Plant Biochemistry	3
PLNTPTH	3001	General Plant Pathology	3
PLNTPTH	3002	General Plant Pathology Lab	2
PLNTPTH	5010	Phytobacteriology	2
PLNTPTH	5020	Introductory Plant Virology	2
PLNTPTH	5030	Plant Nematology	2
PLNTPTH	5040	Science of Fungi: Mycology Lecture	3