



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. (HCS 2201 Ecol of Mng'd Plt Sys. req'd)	4
Opt. 1 (HCS 2202 Frm & Fxn Cult Plt 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
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

BIO 1114	Form, Function, Diversity, and Ecology	4
HCS 3100	Introduction to Agronomy	3
or HCS 3200	Introduction to Horticulture	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 1900	Extreme Weather and Climate	4
GEOG 1900H	Extreme Weather Climate	4
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	Phylobacteriology	2
PLNTPTH 5020	Introductory Plant Virology	2
PLNTPTH 5030	Plant Nematology	2
PLNTPTH 5040	Science of Fungi: Mycology Lecture	3