



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 (0.5 cr hr) and HCS 1100 (0.5 cr hr)	.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, 1150, 1151, or 1156	4 or 5
Data Analysis (HCS 2260 recommended)	3
Physical Science Chem 1110, 1210, or 1220	5
Biological Science (Bio 1113 req'd)	4
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 Social 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 (FAES 3191 and HCS 4191.01)	0.2
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

HCS 2202	Form and Function in Cultivated Plants	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 ²	4
ENR 3000	Soil Science	3
ENR 3001	Soil Science Laboratory	1

Elective Courses – Plant Bioscience Specialization 10

HCS 2307	Sustainable Ag. Practical Experience	2
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 4998	Undergraduate Research ³	1-12
HCS 4999	Research with Distinction ³	1-12
HCS 4999H	Honors Research with Distinction ³	1-12
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 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 5887	Introduction to Experimental Design	3

*Students interested in a chemistry enriched minor curriculum should plan to take CHEM 1220 and CHEM2510
¹ CHEM 2310 prerequisites: 1110, 1220 (122), 1250 (125), 1620, or 1920H.

² CHEM 2510 prerequisites: 1220 (123), 1620 or 1920H (203H).

*Students interested in a Molecular Genetics enriched minor curriculum should plan to take MOLGEN 4500

*Students interested in an advanced plant pathology (>5000 level) minor curriculum should plan to take PLNTPH 3001 and 3002
³Students may take up to 12 credits of any combination of 4193, 4998, 4999, or 4999H, but only up to 6 credits can count towards the major electives

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

AGSYSMT 3580	UAS and Remote Sensing in Agriculture	3
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
ENR 3321	Biol & Ident of Woody Forest Plants	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
PLNTPH 3001	General Plant Pathology	3
PLNTPH 3002	General Plant Pathology Lab	2
PLNTPH 5010	Phylobacteriology	2
PLNTPH 5020	Introductory Plant Virology	2
PLNTPH 5030	Plant Nematology	2
PLNTPH 5040	Science of Fungi: Mycology Lecture	3