

## **B.S.** in Agriculture **Sustainable Plant Systems** Specialization: Agroecology Effective Autumn 2021

7/30/21

All students must complete two Global Issues courses (A). 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		Social Science 2 (AED Econ 2001 or Econ 2001)	3
Writing Level 1 (English 1110)	3		Historical Study (see approved CFAES GE List)	3
Writing Level 2 (2367) see approved CFAES GE List	3		Culture & Ideas or Historical Study (see approved CFAES GE	List) 3
Agr Comm 3130 or Comm 2110	3		Literature (see approved CFAES GE List)	3
Math 1130, 1148, 1150, 1151, or 1156	4 or 5		Art (see approved CFAES GE List)	3
Data Analysis (HCS 2260 recommended)	3		Contemporary Issues (see approved CFAES GE List)	3
Physical Science Chem 1110, 1210, or 1220	5		Internship (FAES 3191 and HCS 4191.01)	0, 2
Biological Science (Bio 1113 req'd)	4		TOTAL GE Credit Hours	57 or 58
Add'l. Sci. (HCS 2201 Ecol of Mng'd Plt Sys. Req'd)	4	4	SPS – Agroecology Specialization	42-43
Opt. 1 (HCS 2202 Form and Function in Cult Plt req'd)	4		SPS – Minor Equivalent	15-18
Social Science 1 (Rural Soc 1500 or Sociol 1101)	3		Electives	<u>2-7</u>
			TOTAL	121

N	OGY SPECI	ALIZATION	42-

Required	Courses	- Agroecology Specialization	36
BIO	1114	Form, Function, Diversity, and Ecology	4
HCS	3100	Introduction to Agronomy	3
or HCS	3200	Introduction to Horticulture	3
HCS	3220	Crop Origins and Diversity	2
HCS	3310	Crop Responses to the Environment	3
HCS	3320	Plant Propagation	3
or HCS	3420	Seed Science	3
HCS	5422	Biol. & Mgmt. of Weeds and Inv. Plants	3
HCS	5411	Domestic. & Util. Agron. Crops	3
or HCS	5412	Agroecol. of Grasslands and Prairies	3
or HCS	5450	Vegetable Crop Production & Physiology	3
or HCS	5460	Fruit Crop Physiology & Production	3
HCS	5602	Ecology of Agriculture (Capstone)	3
or HCS	5100	Advanced Cropping Systems (Capstone)	3
or HCS	5200	Advanced Horticultural Systems (Capstone)	3
EEOB	3310.01	Evolution	4
or EEOB	3310.02	Evolution	4
EEOB	3410	Ecology	4
ENR	3000	Soil Science	3
ENR	3001	Soil Science Laboratory	1

	Elective (	Courses –	Agroecology Specialization	6-7
	HCS	2307	Sustainable Ag. Practical Experience	2
	HCS	3380	Latino Workforce in Land Based Industry	2
	HCS	3488.01	Profess. Devel. in Hort and Crop Science	1-3
	HCS	3521	Greenhouse Systems and Management	2
	HCS	3522	Sustainable Irrigation	3
	HCS	4193	Individual Studies	1-3
	HCS	4325	Plant Genetics	3
	HCS	4300	Hydroponic Crop Production	2
	HCS	4301	Hydroponics Crop Production Lab	1
	HCS	4560	Creating a Virtual Perspective	3
	HCS	4998	Undergraduate Research <sup>1</sup>	1-6
	HCS	4999	Research with Distinction <sup>1</sup>	1-6
	HCS	4999H	Honors Research with Distinction <sup>1</sup>	1-6
	HCS	5097.01	04 Study Abroad Pre-Departure Course	1
HCS 5797.0104 Study Abroad		04 Study Abroad	3	
	HCS	5306	Sustainable Veg Prod Practicum	3
	HCS	5601	Digital Portfolio Development	1
	HCS	5621	Physiology of Cultivated Plants	3
	HCS	5622	Biochem. Processes in Cultivated Plants <sup>2</sup>	3
	HCS	5887	Intro to Experimental Design	3

<sup>&</sup>lt;sup>1</sup>Students 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
Soil Ecology	and Ma	nagement	5-9
AGSYSMT	2580	Introduction to Digital Agriculture	2
ENR	3285	Watershed Hydrology	3
ENR	3700	Intro to Spatial Infor. for ENR	3
ENR	4260	Soil Resources Management	3
ENR	5260	Soil Landscapes: Morphology,	
		Genesis & Classification	3
ENR	5263	Biology of Soil Ecosystems	3
ENR	5268	Soils and Climate Change	2 3
ENR	5270	Soil Fertility	3
ENR	5279	Urban Soils and Ecosystem Services	3
Biotic Intera	ctions in	n Agroecosystems	5-9
ANIMSCI	3400	Mgmt. Intensive Grazing	2
ENTMLGY	2200	Beekeeping	3
ENTMLGY	4600	Introduction to Insect Science	1
ENTMLGY	4601	General Insect Pest Management	2
ENTMLGY	5420	Insect Behavior	3
ENTMLGY	5500	Biological Control	3
ENTMLGY	5600	Integrated Pest Management	3
PLNTPTH	3001	General Plant Pathology	
PLNTPTH	3002	General Plant Pathology Lab	2
PLNTPTH	5110	Ecol. and Mgmt. of Pathogens and Insects	
		Affecting Trees in Forest and Urban Enviro.	3
PLNTPTH	5140	Diseases of Field Crops	3
PLNTPTH	5150	Fruit and Vegetable Diseases	
PLNTPTH	5603	Plant Disease Mgmt.	3

Students may take the remaining credit hours from the courses listed below

Population and	Community	<b>Ecology</b>
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AGSYSMT	3580	UAS and Remote Sensing in Agriculture	3
EEOB	4410	Conservation Biology	3
EEOB	4430	Ecol. Methods I	2
EEOB	5450	Population Ecology	3
EEOB	5470	Community & Ecosystems Ecol.	3
ENR	4320	Sustainable Forest Products <sup>3</sup>	3
ENR	5274	Ecosystem Simulation	3
Human Ecol	ogy and	Global Perspectives	

AEDE	4532	Food Security and Globalization	3
ANIMSCI	3600	Global Food and Agriculture	3
EEOB	4240	Ecology and Evol. of Plants and People	3
or ANTHRO	5614	Ethnobotany	3
ENR	3600	Sustainable Agriculture & Food Systems <sup>4</sup>	3
GEOG	3900	Global Climate Change	3
GEOG	5900	Weather, Climate, & Global Warming	3

<sup>&</sup>lt;sup>2</sup>Prerequisite of CHEM 2310 or 2051.

<sup>&</sup>lt;sup>3</sup>Prerequisites include ENR 2100 & ENR 2300 or permission of instructor