

HORTICULTURAL SCIENCE MAJOR (A.S.) INTERESTED IN SUSTAINABLE PLANT SYSTEMS MAJOR – PLANT BIOSCIENCES SPECIALIZATION (B.S.)

This model plan of study is presented as a suggested path to graduate in 4 years with an Associate of Science Degree with a major in Horticultural Science and a Bachelor of Science Degree in Agriculture with a major in Sustainable Plant Systems and specialization in Plant Biosciences. It is intended to be a useful guide; however, each student is unique and should review the Degree Requirements and work with their advisor to develop an individualized course plan that best fits their personal academic background and goals.

NOTE: This sheet should not be used in isolation. In order to graduate in a timely manner, students must consult their academic advisor on a regular basis.

Freshman Year (ATI)	Autumn Semester				Spring Semester			
Benchmarks	Department	Course #	Course Name	Hours	Department	Course #	Course Name	Hours
MATH 1148 should be completed by the end of this year.	AEDECON	2001	Principles of Food and Resource Economics ^a	3	AGRCOMM	3130	Oral Expression in Agriculture ^a	3
ENGLISH 1110 should be completed by the end of this year.	CHEM	1210	General Chemistry I	5	CHEM	1220	General Chemistry II	5
Begin to consider study abroad programs.	ENGLISH	1110.01	First-Year English Composition	3	GENED	1201	GE Launch Seminar	1
	GENSTDS	1201.01T	College Orientation	.5	HCS	2202	Form and Function in Cultivated Plants	4
	HORTEC	1201T	Exploring Horticulture	.5	_____	_____	GE Hist & Cultural Studies	3
	MATH	1148	College Algebra ^a	4				
			Total:	16			Total:	16
Sophomore Year (ATI)	Autumn Semester				Spring Semester			
Benchmarks	Department	Course #	Course Name	Hours	Department	Course #	Course Name	Hours
Begin to consider an internship location. (Internships are not required for A.S. Degree.)	BIOLOGY	1113.01	Energy Transfer and Development ^a	4-5	BIOLOGY	1114.01	Bio Sci: Form, Function, Diversity and Ecology	4
Apply to graduate from ATI at least one semester before the semester of your graduation.	CHEM	2510	Organic Chemistry I	4	HCS	2204	Ecology of Managed Plant Systems ❖	3
Maintain at least a 2.0 cumulative GPA.	CRPSOIL	2300T	Intro to Soil Science	3	HCS	2205	Ecology of Managed Plant Systems Lab	1
Graduate with Associate of Science Degree.	CRPSOIL	2301T	Intro to Soil Science Lab	1	_____	_____	GE R. E. & G. Diversity	3
	_____	_____	GE Lit, Vis and Perf Arts	3	_____	_____	Electives	2
			Total:	15-16			Total:	13
Total credit hours for Associate of Science Degree:								60-61
Junior Year (Columbus)	Autumn Semester				Spring Semester			
Benchmarks	Department	Course #	Course Name	Hours	Department	Course #	Course Name	Hours
Internship should be completed by end of this summer.	EEOB	3310.01	Evolution	3	EEOB	3410	Ecology	3
Half of minor should be completed by the end of the year.	HCS	2260	Data Analysis	3	HCS	3220	Crop Origins and Diversity	2
Apply to graduate from Columbus at least three semesters before the semester of your graduation.	HCS	3200	Introduction to Horticulture	3	HCS	3310	Crop Responses to the Env	3
	_____	_____	GE Citizenship #1 ^b	3-4	HCS	5622	Biochemical Processes in Cultivated Plants	3
	_____	_____	GE Theme #1 ^b	3	_____	_____	Minor Equivalent	3
			Total:	15-16	_____	_____	GE Theme Choice #2 ^b (or Open Elective)	3
							Total:	17
Summer	Conduct Internship (Enroll in FAES 3191)							
Senior Year (Columbus)	Autumn Semester				Spring Semester			
Benchmarks	Department	Course #	Course Name	Hours	Department	Course #	Course Name	Hours
Maintain at least a 2.0 GPA in the major, minor, and cumulative.	HCS	4191	Internship	2	GENED	4001	GE Reflection	1
Graduate with Bachelor of Science Degree.	HCS	5325	Plant Genetics	3	HCS	5200	Advanced Horticultural Systems (Capstone) ^a	3
	_____	_____	Minor Equivalent	3	_____	_____	GE Citizenship #2 ^b (or open elective)	3
	_____	_____	Minor Equivalent	3	_____	_____	Major Elective	3-4
	_____	_____	Major Elective	3	_____	_____	Minor Equivalent	3
			Total:	14	_____	_____	Minor Equivalent	3-4
							Total:	16-18
Total credit hours for Bachelor of Science Degree:								121

^a One possible course from approved CFAES GE list or B.S. major requirement that has multiple options, as outlined in corresponding *Degree Requirements* document.

^b Students complete either a 4-credit course or two 3-credit courses in each of two General Education Theme areas: Citizenship for a Diverse & Just World (required), and the student's choice of available GE Themes. If any major-required courses are identified as a GE Theme course, one course in each GE Theme area may double count in the GE and major hours. Theme courses are identified with a ❖ symbol.

HORTICULTURAL SCIENCE MAJOR (A.S.) INTERESTED IN SUSTAINABLE PLANT SYSTEMS MAJOR – PLANT BIOSCIENCES SPECIALIZATION (B.S.)

This advising sheet is for Ohio State ATI students that wish to earn both an Associate of Science (A.S.) Degree with a major in Horticultural Science and a Bachelor of Science (B.S.) Degree with a major in Sustainable Plant Systems and specialization in Plant Biosciences. The tables below outline the complete degree requirements for the B.S. in Agriculture with a major in Sustainable Plant Systems and specialization in Plant Biosciences. The underlined courses are those that also fulfill a requirement for the A.S. Horticultural Science major. These courses can count toward both degree programs simultaneously.

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Table 1. Degree Requirements			
Subject	Course Options	Hours	✓
GE Launch Seminar	<u>GENED 1201</u>	1	
Writing and Information Literacy	<u>ENGLISH 1110</u>	3	
Mathematical & Quantitative Reasoning/Data Analysis	<u>MATH 1148</u> , 1130, 1150, 1151, or 1156	4-5	
Literary, Visual and Performing Arts	<u>Student Choice</u>	3	
Historical & Cultural Studies	<u>Student Choice</u>	3	
Natural Science	<u>BIOLOGY 1113.01</u>	4	
Social & Behavioral Sciences	<u>AEDECON 2001</u> or ECON 2001	3	
Race, Ethnic and Gender Diversity	<u>Student Choice</u>	3	
Theme: Citizenship for a Diverse & Just World ^a	Student Choice	4-6	
Theme: Student Choice ^a	Student Choice	4-6	
GE Reflection	GENED 4001	1	
Survey Courses	<u>GENSTDS 1201.01T*</u> OR FAES 1100 & <u>HORTTEC 1201T*</u> OR HCS 1100	.5 .5	
Oral Expression	<u>AGRCOMM 3130</u> or COMM 2110	3	
Additional Science	<u>CHEM 1110</u> or <u>1210</u> or <u>1220</u>	5	
Internship	FAES 3191 and HCS 4191.01 or HORTTEC 2191.21T* or 2191.22T*	2	
Major	See Table 2.	45-46	
Major Supporting	See Table 3.	8	
Minor Equivalent ^b	See Table 4.	15-18	
Electives	Consult advisor for selection.	0-9	
Minimum Total Credit Hours		121	

^a Students complete either a 4-credit course or two 3-credit courses in each of two General Education Theme areas: Citizenship for a Diverse & Just World (required), and the student's choice of available GE Themes. If any major-required courses are identified as a GE Theme course, one course in each GE Theme area may double count in the GE and major hours. Theme courses are identified with a ♦ symbol.

^b Students in this program complete a group of courses called a minor equivalent. Declaring an additional minor is not required.

* courses are only offered at the Wooster (ATI) Campus

Note: A capital OR separates a pair of *equivalent* courses, a lowercase or separates a choice between *different* courses that fulfill the same requirement.

Additional Bachelor's Degree Requirements:

1. A 2.00 cumulative CPHR is required as well as a 2.00 CPHR in the major and minor coursework.
2. Students must complete a minimum of 30 credit hours at The Ohio State University with at least 12 in the department in Columbus offering the major.
3. Applications to graduate must be submitted at least three semesters in advance.

Table 2. Major Requirements		
Course(s)	Hours	✓
CRPSOIL 2300T* Intro. to Soil Science OR ENR 3000 Soil Science	3	
CRPSOIL 2301T* Intro to Soil Science Lab OR ENR 3001 Soil Science Lab	1	
<u>HCS 2202</u> Form and Function in Cultivated Plants	4	
HCS 2201 Ecology of Managed Plant Systems OR HCS 2204 ♦ and <u>HCS 2205</u> Ecology of Managed Plant Systems and Lab	4	
HCS 2260 Data Analysis and Interpretation for Decision Making	3	
HCS 3100 Introduction to Agronomy or HCS 3200 Introduction to Horticulture or HCS 3470 Introduction to Turfgrass Management	3	
HCS 3220 Crop Origins and Diversity	2	
HCS 3310 Crop Responses to the Environment	3	
HCS 5325 Plant Genetics or MOLGEN 4500 General Genetics	3	
HCS 5621 Physiology of Cultivated Plants	3	
HCS 5622 Biochemical Processes in Cultivated Plants or BIOCHEM 4511 Introduction to Biological Chemistry	3-4	
Select ONE Capstone Course from the following: HCS 5100 Advanced Cropping Systems HCS 5200 Advanced Horticultural Principles and Practices HCS 5602 The Ecology of Agriculture	3	
Additional Electives to Complete Specialization: See approved list on the CFAES Majors website under SPS	10	
Total Major Credit Hours		45-46

Table 3. Major Supporting Coursework		
Course(s)	Hours	✓
<u>BIOLOGY 1114.01</u> Bio S ci: Form, Function, Diversity & Ecology	4	
CHEM 2310 Introductory Organic Chemistry or <u>CHEM 2510</u> Organic Chemistry I	4	
Total Major Supporting Coursework Credit Hours		8

Table 4. Minor Equivalent		
Course(s)	Hours	✓
EEOB 3310.01 or .02 Evolution	4	
EEOB 3410 Ecology	4	
Supporting Electives See approved lists on the CFAES Majors website under SPS	7-10	
Total Minor Equivalent Credit Hours		15-18