

SUSTAINABLE PLANT AND SOIL SYSTEMS (BS)

The Sustainable Plant and Soil Systems major, with concentrations in Environmental Horticulture, Sustainable Agriculture, and Turfgrass Science, focuses on the science and practices associated with sustainable plant production and/or use within managed systems. Courses emphasize practices and concepts related to reducing environmental impact during production and in managed land use systems.

Concentrations focus on the production of ornamental and edible crops in controlled environments, greenhouses, nurseries and on farms; management practices for built landscapes and surfaces used for recreational and sporting activities; and the selection and management of ornamental trees, shrubs, grasses, native species, and plants and soils that perform ecosystem services in recreational, urban, and suburban settings to meet functional and aesthetic requirements. The program emphasizes hands-on learning and developing and applying knowledge to solve contemporary problems in individual and team approaches. Students have the opportunity to gain real-world experience through internships.

Requirements

All students in this major must complete the following courses:

Course	Title	Credits
Core Courses		
BIOL 1108 or BIOL 1110	Principles of Biology II Introduction to Botany	4
CHEM 1122 or CHEM 1124Q or CHEM 1127Q	Chemical Principles and Applications Fundamentals of General Chemistry I General Chemistry I	4
SPSS 1120	Introduction to Plant Science	4
SPSS 2120	Environmental Soil Science	3
SPSS 2125	Soils Lab	1
SPSS 2110W or SPSS 2560W or SPSS 3660W	Sustainable Plant Pest Management Communication Written Communications in Horticulture Nursery Production	1
SPSS 4210	Plant Physiology: How Plants Work	3
Total Credits		20

The writing in the major requirement is satisfied by SPSS 2110W Sustainable Plant Pest Management Communication or SPSS 2560W Written Communications in Horticulture or SPSS 3660W Nursery Production.

Environmental Horticulture Concentration

Students in this concentration must complete the following courses:

Course	Title	Credits
SPSS 3640	Plant Propagation	3
Select two of the following:		6
SPSS 3810	Fundamentals of Plant Pathology	
SPSS 3820	Ecology and Control of Weeds	

SPSS 3830	Horticultural Entomology	
Select two of the following:		6
SPSS 2430	Herbaceous Ornamental Plants	
SPSS 3410	Woody Plants: Common Trees, Shrubs and Vines	
SPSS 3560	Indoor Plants and Interiorscaping	
Select three of the following:		9
SPSS 3440	Small Fruit Production	
SPSS 3540	Garden Center Management	
SPSS 3550	Urban Plant Systems Construction and Maintenance	
SPSS 3610	Organic and Sustainable Vegetable Production	
SPSS 3660	Nursery Production	
SPSS 3670	Greenhouse Technology and Operations	
SPSS 4650	Plant Tissue Culture	

Total Credits 24

Sustainable Agriculture Concentration

Students in this concentration must complete the following courses:

Course	Title	Credits
SPSS 2100E	Environmental Sustainability of Food Production in Developed Countries	3
SPSS 2500E	Principles and Concepts of Agroecology	3
SPSS 3610	Organic and Sustainable Vegetable Production	4
SPSS 3620	Soil Fertility	3
SPSS 3840	Integrated Pest Management	3
SPSS 3990	Field Study Internship	1-6
Select two of the following:		6
SPSS 3810	Fundamentals of Plant Pathology	
SPSS 3820	Ecology and Control of Weeds	
SPSS 3830	Horticultural Entomology	
Total Credits		23-28

Turfgrass Science Concentration

Students in this concentration must complete the following courses:

Course	Title	Credits
SPSS 1100	Turfgrass Management	3
SPSS 1115	Turfgrass Management Lab	1
SPSS 3150	Advanced Turfgrass Management	3
SPSS 3620	Soil Fertility	3
SPSS 3990	Field Study Internship	1-6
Select three of the following:		9
SPSS 3810	Fundamentals of Plant Pathology	
SPSS 3820	Ecology and Control of Weeds	
SPSS 3830	Horticultural Entomology	
SPSS 3840	Integrated Pest Management	
Select one of the following:		3
SPSS 2430	Herbaceous Ornamental Plants	
SPSS 3410	Woody Plants: Common Trees, Shrubs and Vines	

SPSS 3550	Urban Plant Systems Construction and Maintenance
Total Credits	23-28

Students successfully completing these courses will have met their general education exit requirements for information literacy.

University General Education Requirements

Every student must meet a set of core requirements to earn a baccalaureate degree, in addition to those required by the student's major course of study and other requirements set by the student's school or college. For more information about these requirements, please see General Education Requirements (<https://catalog.uconn.edu/undergraduate/gen-ed-requirements/>).

College of Agriculture, Health and Natural Resources Degree Requirements

Students must meet a set of requirements established by the college in addition to the University's General Education requirements. For more information, see the College of Agriculture, Health and Natural Resources (<https://catalog.uconn.edu/undergraduate/agriculture-health-natural-resources/#requirementstext>) section of this catalog.