

BS in Plant Sciences with Emphasis in Horticultural Science and Design

Degree Program Description

From the food on our plates to the homes we live in to the fuel in our vehicles, plants impact all aspects of our daily lives. As an ever-growing human population continues to increase the demand for crops and other plant products, so too does the demand for plant scientists. Plant Sciences addresses the challenges from the field to the laboratory.

The beauty of attractive indoor plant displays or ornamental species in landscapes adds value and satisfaction. Appreciating the plants around us and designing new ways to present them can lead to careers in nursery management, landscape designer, groundskeeper, or botanic gardener. Students in this area learn the basics in the classroom and advance their skills working locally (greenhouses, landscape firms) or nationally (Epcot Center, MO Botanical Gardens). Horticulturists use their knowledge of plant growth to sustainably produce flowers, vegetables and ornamental plants to enhance the environment. Careers include botanical gardens, commercial greenhouses and nurseries, landscape design firms, or life science companies.

Major Program Requirements

Students are required to completed the BS in Plant Sciences (<https://catalog.missouri.edu/collegeofagriculturefoodandnaturalresources/plantsciences/bs-plant-sciences/>) major program requirements in addition to the emphasis area requirements.

Emphasis Area Requirements

Trees, flowers and other ornamental plants add beauty to our landscape, preserve green space, and reduce the negative impacts of climate change. Other plants such as vegetables and fruits enhance human health. Career opportunities exist to design landscapes, improve the value and beauty of homes and businesses, as well as commercially grow horticultural crops in greenhouses and other settings.

Horticultural Science & Design Emphasis Area Requirements

ABM 3223	Relationship Selling: Creating Value for Customers	3
PLNT_SCI 2075	Environmental Horticulture	3
PLNT_SCI 2210	Ornamental Landscape Plants I	3
PLNT_SCI 2215	Ornamental Landscape Plants II	3
PLNT_SCI 3230	Plant Propagation	3
PLNT_SCI 3250	Green Industry Bidding	2
Select five:		
AG_S_TCH 2340	Pesticide Application Equipment	3
PLNT_SCI 2220	Introduction to Floral Design	2
PLNT_SCI 2221	Everyday Floral Design	3
PLNT_SCI 2250	Landscape Site Analysis	2
PLNT_SCI 2254	Landscape Design	3
PLNT_SCI 3110	Horticultural Drainage and Irrigation Systems	2
PLNT_SCI 3213	Plant Genetics	3
PLNT_SCI 3220	Special Occasion Floral Design	3

PLNT_SCI 3221	Wedding Floral Design	3
PLNT_SCI 3222	Retail Floral Management	3
or PLNT_SCI 3222W	Retail Floral Management - Writing Intensive	1
PLNT_SCI 3252	Arboriculture and Pruning	3
PLNT_SCI 3254	Digital Landscape Graphics	4
PLNT_SCI 3260	Greenhouse Management	3
PLNT_SCI 4313	Soil Fertility and Plant Nutrition	3
PLNT_SCI 4345	Principles of Viticulture and Winemaking	4
PLNT_SCI 4365	Greenhouse Crops Production	4
PLNT_SCI 4975	Advanced Landscape Design	2
SOIL 2106	Soil Science Laboratory	2
Total		30-38

Semester Plan

Below is a sample plan of study, semester by semester. A student's actual plan may vary based on course choices where options are available.

First Year					
Fall	CR	Spring	CR		
PLNT_SCI 1120	1	CHEM 1100	4		
PLNT_SCI 1500	4	ENGLSH 1000	3		
MATH 1100	3	AGSC_COM 2220	3		
PLNT_SCI 2075	3	State Requirement	3		
ABM 1041	3	Professional Development	3		
			14	16	
Second Year					
Fall	CR	Spring	CR		
PLNT_SCI 2210	3	SOIL 2100	3		
Humanities	3	PLNT_SCI 2125	4		
Writing Intensive Course	3	ABM 3223	3		
Behavioral or Social Science Course	3	PLNT_SCI 2215	3		
Select Five Course	3				
			15	13	
Third Year					
Fall	CR	Spring	CR	Summer	CR
PLNT_SCI 3210W	4	PLNT_SCI 3250	2	Capstone: Internship or Research Experience	0
PLNT_SCI 3230	3	Select Five Course	3		
Select Five Course	3	Select Five Course	3		
Humanities	3	Electives	7		
Elective	3				
			16	15	
Fourth Year					
Fall	CR	Spring	CR		
PLNT_SCI 4500	4	PLNT_SCI 3710	3		
PLNT_SCI 3355	3	PLNT_SCI 4940, 4950, or 4975	3		
Select Five Course	3	Electives	9		
Electives	6				
			16	15	
Total Credits: 120					