

PLANT SCIENCE MAJOR

Bachelor of Science Degree

Overview

The Plant Science degree provides an interdisciplinary perspective on the science of plant production and applications for managing plants in human and natural systems.

A flexible plan of study allows students to meet their individual objectives, while preparing them for careers in a wide variety of fields, such as sustainable and organic crop production, plant breeding and genetics, biotechnology, precision agriculture, greenhouse and landscape industries, native plant conservation, plant health and protection, turfgrass science, community food systems, and more.

plantscience.ifas.ufl.edu



Example Upper Division Semester Plan:

Course Code	Course Title	Credits
Fifth Semester (Fall)		
PLS 3004C	Principles of Plant Science	3
HOS 4918	Capstone Planning	1
ORH 3513C or BOT 3151C	Env. Plant Identification or Local Flora of Florida	3
SWS 3022 & L	Introduction to Soils & Lab	4
Approved Elective	Category: Plant Production	3
Total		14

Sixth Semester (Spring)		
PLS 3223 & L	Plant Propagation & Lab	3
HOS 4304 or AGR 4512	Plant Physiology	3
HOS 3430C or ORH 4256	Crop Nutrition	3
Approved Elective	Category: Plant Production	3
Approved Elective	Category: Natural Systems and Agroecosystem	3
Total		15

Course Code	Course Title	Credits
Seventh Semester (Fall)		
PLS 4941	Internship/High Impact Practice	3
AGR 3303	Genetics	3
BCH 3023	Elementary Organic and Biological Chemistry	3
Approved Elective	Category: Plant Pest/Disease	3
Approved Elective	Category: Lab/Info Skills	3
Total		15

Eighth Semester (Spring)		
PLS 4950	Plant Science Capstone	3
Approved Elective	Category: Plant Pest/Disease	3
Approved Elective	Category: Lab/Info Skills	3
Elective	Available for completing Minors/Certificates	7
Total		16

Approved Elective Options:

Natural Systems and Agroecosystems | Minimum 3 credits, all must be unique

ALS 3153	Agricultural Ecology	3
EVR 3323	Introduction to Ecosystem Restoration	4
HOS 3281C	Organic and Sustainable Crop Production	3
AGR 4212	Alternative Cropping Systems	3

Plant Production Systems | Minimum 6 credits, all must be unique

AGR 4212	Alternative Cropping Systems	3
AGR 4214C	Applied Field Crop Production	3
AGR 4231C	Forage Science and Range Management	4
ALS 4210	Controlled Environment Plant Production	3
FRC 3212	Introduction to Citrus Culture and Production	3
FRC 3252	Tropical and Subtropical Fruit	2
FRC 3274	Tree and Small Fruit Production	3
FRC 3802	Viticulture for Table Grapes and Wine	2
HOS 3020C	Principles of Horticultural Crop Production	4
HOS 3222C	Greenhouse and Protected Agriculture	3
HOS 3281C	Organic and Sustainable Crop Production	3
HOS 3513C	Breeding and Production of Medicinal Plants and Herbs	2
HOS 4283C	Advanced Organic and Sustainable Crop Production	3
HOS 4332C	Principles of Postharvest Horticulture	3
ORH 3222C	Turfgrass Culture	4
ORH 3253C	Introductory Nursery Management	4
ORH 3815C	Florida Native Landscaping	3
ORH 4223	Golf and Sports Turf Management	2
ORH 4236C	Ornamental Landscape Management	3
ORH 4242C	Arboriculture	4
ORH 4264	Greenhouse and Nursery Crop Culture	3
ORH 4280	Orchidology	3
ORH 4804&L	Annual and Perennial Gardening	3
ORH 4848	Landscape Plant Establishment	2
PLS 3421C	Hydroponic Systems	3
VEC 3221C	Vegetable Production	4

Plant Pests and Diseases | Minimum 6 credits

ENY 3005+L	Principles of Entomology (with lab)	4
ENY 3510C	Turf & Ornamental Entomology	3
IPM 3022	Fundamentals of Pest Management	3
IPM 4114	Insect Pest and Vector Management	3
NEM 3002	Principles of Nematology	3
PLP 3002C	Fundamentals of Plant Pathology	4
PLP 3230	Survey of Plant Pathogens	3
PLP 4104	Applied Plant Disease Management	3
PLS 4601C	Principles of Weed Science	3
PLS 4613	Aquatic Weed Control	3
PMA 4570C	Field Techniques in IPM	2
WDS 4001	Organic Weed Management	3

Lab Skills and Information Skills | Minimum 6 credits

ALS 3200C	AI in Agricultural and Life Sciences	3
AOM 4434	Precision Agriculture	3
BOT 3503L	Physiology and Molecular Biology of Plants Laboratory	2
BSC 4434C	Introduction to Bioinformatics	3
ENY 2890	Using Insect Research to Understand the Nature of Scientific Engagement (CURE course)	3
ENY 4823	Molecular Biology of Insects and Nematodes	3
HOS 4241C	Genetics and Breeding of Vegetable Crops	3
HOS 4313C	Laboratory Methods in Plant Molecular Biology	2
PLP 3002C	Fundamentals of Plant Pathology	4
PLP 4222C	Introduction to Plant Virology	3
PLP 4242C	Introduction to Plant Bacteriology	3
PLP 4260C	Introduction to Plant Pathogenic Fungi	3
PLS 4105	Genome Editing and Plant Biotechnology	3
PLS 4242C	Micropropagation of Horticultural Crops	4
SWS 4720C	GIS in Soil and Water Science	3