

BS in Plant Sciences with Emphasis in Crop Management

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.

Whether from a farm or urban background, developing technology in the husbandry and protection of agronomic or horticultural crops has created this productive career track. Students utilize a combination of classroom and outdoor experiences to prepare for one of many opportunities: crop consultant, agronomist, crop sales representative, pest management specialist, farmer or entrepreneur, and advanced education. Crop growth and protection careers will be in demand well into the future. Crop management specialists find employment with universities, the USDA Agricultural Research Service or private companies. They answer agronomic questions specific to their region, study major field and forage crops, and examine the feasibility of growing alternative crops for niche markets.

Major Program Requirements

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

Emphasis Requirements

The management of food and fiber crops is key to meeting the global demands for food and energy. There are many opportunities to improve plant growth by manipulating production practices and improving control of disease, insect, and weed pests.

Crop Management Emphasis Area Requirements

| | | |
|-----------------------|--|---|
| SOIL 2106 | Soil Science Laboratory | 2 |
| STAT 1200 | Introductory Statistical Reasoning | 3 |
| CHEM 1400 & CHEM 1401 | College Chemistry I and College Chemistry I Laboratory | 4 |
| PLNT_SCI 3213 | Genetics of Agricultural Plants and Animals | 3 |
| or BIO_SC 2200 | General Genetics | |
| PLNT_SCI 3225 | Plant Breeding and Genetics | 3 |
| PLNT_SCI 4313 | Soil Fertility and Plant Nutrition | 3 |
| PLNT_SCI 4315 | Crop Physiology | 3 |
| Select three: | | |
| CHEM 2100 | Organic Chemistry I | 3 |
| PLNT_SCI 3270 | Forage Crops | 3 |
| PLNT_SCI 3275 | Grain Crops | 3 |
| PLNT_SCI 3355 | Introductory Turfgrass Management | 3 |
| PLNT_SCI 4325 | Advanced Plant Breeding | 3 |
| PLNT_SCI 4345 | Principles of Viticulture and Winemaking | 3 |

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|---------------|--|--------------|
| PLNT_SCI 4360 | Precision Agriculture Science and Technology | 3 |
| Total | | 27-29 |

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 |
| BIO_SC 1200 | 5 | ENGLSH 1000 | 3 |
| PLNT_SCI 1120 | 1 | CHEM 1400 | 3 |
| MATH 1100 | 3 | CHEM 1401 | 1 |
| ABM 1041 | 3 | AGSC_COM 2220 | 3 |
| Humanities | 3 | State Requirement | 3 |
| | | Elective | 3 |
| | | 15 | 16 |

| Second Year | | | |
|--------------------------|----|--------------------------|-----------|
| Fall | CR | Spring | CR |
| Professional Development | 3 | PLNT_SCI 2125 | 4 |
| Writing Intensive | 3 | SOIL 2100 | 3 |
| Behavioral or Social Sci | 3 | SOIL 2106 | 2 |
| PLNT_SCI 3213 | 3 | Professional Development | 3 |
| Elective | 3 | STAT 1200 | 3 |
| | | 15 | 15 |

| Third Year | | | | | |
|----------------------|----|----------------------|-----------|---|----------|
| Fall | CR | Spring | CR | Summer | CR |
| PLNT_SCI 3225 | 3 | PLNT_SCI 4313 | 3 | Capstone: Internship or Research Experience | 0 |
| PLNT_SCI 3210W | 4 | Select 3 Course | 3 | | |
| Select 3 Course | 3 | Emphasis Area Course | 3 | | |
| Emphasis Area Course | 3 | Electives | 6 | | |
| Elective | 3 | | | | |
| | | 16 | 15 | | 0 |

| Fourth Year | | | |
|-----------------------|----|---------------|-----------|
| Fall | CR | Spring | CR |
| PLNT_SCI 4500 | 4 | PLNT_SCI 4315 | 3 |
| PLNT_SCI 4940 or 4950 | 3 | PLNT_SCI 3710 | 3 |
| Select 3 Course | 3 | Electives | 9 |
| Elective | 3 | | |
| | | 13 | 15 |

Total Credits: 120