Plant and Soil Sciences, M.S.

Program Requirements

With the direction of their graduate advisory committee, each student will complete a Plan of Study (https://www.davis.wvu.edu/current-students/graduate/plans-of-study/) during their first semester. The program requirements include a total of 30 credit hours, distributed as outlined below.

Code	Title	Hours
A minimum cumulative GPA of 2.75 is required in all courses applied toward degree requirements.		
Statistics/Analtyical Requirement		
Select one of the following:		3
BIOS 501	Applied Biostatistics 1	
STAT 511	Statistical Methods 1	
Select one of the following:		3
BIOS 503	Applied Biostatistics 2	
RESM 540	Spatial Pattern Analysis	
RESM 575	Spatial Analysis for Resource Management	
STAT 512	Statistical Methods 2	
STAT 521	Statistical Analysis System Programming	
Seminar Requirement		**3**
HORT 796	Graduate Seminar	
ENTO 796	Graduate Seminar	
PPTH 796	Graduate Seminar	
ESWS 796	Graduate Seminar	
Restricted Electives *		**11-13**
Courses in AEM, AGBI, ESWS, ENTO, GEN, HORT, PLSC, PPTH, FNRS, BIOL, and GEOL.		
Required Area of Emphasis		**8-10**
Entomology (9 credits)		
Environmental Soil and Water Sciences (9 credits)		
Horticulture (8-9 credits)		
Plant Pathology/Environmental Microbiology (10 credits)		
Total Hours		**30**

* All restricted electives must be approved by the student's graduate committee on the formal Davis College Plan of Study. Restricted elective credits cannot be double-counted with credits earned in meeting the AoE requirement. Excludes 797 and limit 590, 690, and 790 to no more than three credits.

Areas of Emphasis

- Entomology (p. 1)
- Environmental Soil and Water Sciences (p. 2)
- Horticulture (p. 2)
- Plant Pathology/Environmental Microbiology (p. 2)

Entomology Area of Emphasis

Code	Title	Hours
ENTO 650	Insect Ecology	3
ENTO 797	Research	6
Total Hours		**9**

Environmental Soil and Water Sciences Area of Emphasis

Code	Title	Hours
ESWS 516	Soil Chemistry	3
or ESWS 552	Pedology	
ESWS 797	Research	6
Total Hours		**9**

Horticulture Area of Emphasis

Code	Title	Hours
Select one of the following:		**2-3**
PLSC 550	Grants and Grantsmanship	
PLSC 553	Organic Crop Production	
PLSC 560	Plant Biochemistry	
HORT 797	Research	6
Total Hours		**8**

Plant Pathology/Environmental Microbiology Area of Emphasis

Code	Title	Hours
Select one of the following:		**4**
PPTH 503 & 503L	Mycology and Mycology Laboratory	
PPTH 730	Physiology of the Fungi	
AEM 797	Research	6
Total Hours		**10**

Major Learning Outcomes

PLANT AND SOIL SCIENCES

1. Students will demonstrate detailed knowledge of their particular research area and fundamental knowledge of other areas of Plant and Soil Sciences relevant to their field of study.
2. Students will demonstrate the ability to read and understand, peer-reviewed scientific literature relevant to their research.
3. Students will employ technical skills in the laboratory, greenhouse, and/or field to acquire novel, high-quality data, and analytical skills to interpret the data to draw conclusions that are valid and meaningful.
4. Students will communicate effectively in writing and orally about scientific concepts and the results of their research.
5. Graduates of the program will be employed in a relevant professional position within one year of completing their degrees.