

APPLIED AND AGRICULTURAL BIOLOGY - MASTER OF SCIENCE

The Master of Science degree program in Agricultural Biology is designed to produce graduates with the academic and research background needed to facilitate effective, innovative, and environmentally sound protection of plants and animals from a wide and varied spectrum of pests.

Students are prepared for careers in research, extension, teaching, private consulting, industry, and government or to continue in a broad range of Doctoral programs. Specific career opportunities include positions as agricultural consultants, technical and sales representatives for industry, state departments of agriculture and USDA specialists, agricultural extension agents, industry research and environmental technicians.

Prefix	Title	Credits
Program Requirements		
EPWS 590	Graduate Seminar ²	2
<i>Electives</i> ²		12
<i>Experimental Statistics</i> ³		3
<i>Courses within EPPWS</i>		13
EPWS 462	Parasitology	
EPWS 471	Plant Mineral Nutrition	
EPWS 486	Plant Virology	
EPWS 492	Diagnosing Plant Disorders	
EPWS 502	General Entomology	
EPWS 505	Advanced Integrated Pest Management	
EPWS 511	Introduction to Weed Science (f)	
EPWS 514	Plant Physiology	
EPWS 520	Environmental Behavior of Pesticides (so)	
EPWS 525	Advanced Scientific Writing	
EPWS 549	Special Problems	
EPWS 551	Special Topics ⁴	
EPWS 560	Ecology and Management of Invasive Plant Species	
EPWS 573	Fungal Biology	
EPWS 599	Master's Thesis ⁵	
Total Credits		30

Additional Requirements- Outlines for Master of Science degree plans are generated by the student in consultation with the major professor and with input from the student's assigned graduate committee.

- A minimum of 30 credit hours of graduate work is required of which:
 - a. At least 15 credits must be in courses numbered 500 or above.
 - b. At least 15 credits must be in EPWS courses.
 - c. At least half of the credits (exclusive of thesis) must be taken with other than a single professor.
- Designated hours to be completed:
 1. Students must take at least four but not more than six credits in EPWS 599 Master's Thesis. Students enrolled in EPWS 599 may be asked to present progress updates.
 2. At least three credit hours in graduate-level Experimental Statistics (A ST 505 Statistical Inference I, A ST 506 Statistical Inference II, A ST 509 Statistical Models for Complex Data Structures, A ST 511 Statistical Methods for Data Analytics, A ST 515 Statistical Analysis with R, A ST 540 Predictive Analytics).

¹ All graduate students are required to enroll in two (2) credits of Entomology, Plant Pathology and Weed Science seminars. Typically, a student will take one seminar credit during the first semester of graduate school and present their thesis proposal plan. Each student will take the second seminar credit in their last semester and present a public exit seminar just prior to the defense of their thesis work

² *Outlines for M.S. degree plans are generated by the student in consultation with the major professor and with input from the student's assigned graduate committee.*

³ Exact course is selected with professor and/ or committee based off previous statistics experience.

⁴ Maximum of 4 credits per semester. No more than 9 credits toward a degree.

⁵ Maximum of 9 credits per semester. No more than 6 credits toward a degree.