

M.S. in Plant Pathology Academic Assessment Plan 2012-2013

College of Agricultural and Life Sciences
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Office of the Provost

*University of
Florida*

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2012-2013 Academic Assessment Plan for M.S. in Plant Pathology

College of Agricultural and Life Sciences

A. Mission

The Department of Plant Pathology strives to be the premier source of fundamental and applied knowledge of diseases on many crops including citrus, ornamentals, vegetable crops, turf grass, temperate field crops, sugar cane and tropical crops. The research is focused on endemic and exotic plant pathogens, their epidemiology, plant-microbe interactions, and development of disease control strategies including those that are environmentally sustainable. This vision will be realized through our mission to develop and implement creative, cutting-edge and integrated research programs; a comprehensive curriculum at the BS, MS and PhD levels; a training program for MS and PhD students in modern scientific concepts and technologies relating to plant pathology; and highly effective extension, outreach, and public service programs.

The mission of the Department of Plant Pathology contributes to the missions of the college and the university by developing scientific knowledge in agriculture and the life sciences, enhancing the quality of life by making this information accessible, and providing undergraduate and graduate students with a high-quality education that results in knowledge and abilities for gainful employment and additional education, productive citizenship, and lifelong learning in the areas of food, agriculture, natural resources and life sciences as they relate to human resources, the environment, individual communities, and a global society.

Our unique role within IFAS comes from our contributions of fundamental knowledge to the plant and microbial sciences and our integration of that knowledge into studies of plant pathogens. A key element of plant pathology (and our mission within IFAS) is our capacity to integrate knowledge from our own and other disciplines into a holistic approach toward the diagnosis and management of plant diseases, and disseminate this knowledge to the clientele interested in solving practical plant disease problems.

B. Student Learning Outcomes and Assessment Measures

SLO	Student Learning Outcome	Assessment Method	Degree Delivery
Knowledge #1	Describe and explain the literature, theories and ideas of plant pathology.	1) Student performance in courses is reviewed semiannually by the faculty adviser and Supervisory Committee. The Supervisory Committee assesses the student's ability to evaluate the primary literature using a faculty-developed rubric. 2) Assessment during the proposal seminar and thesis defense by the	Campus

		Supervisory Committee using a faculty-developed rubric.	
Skills #2	Utilize the scientific method to conduct experimental research.	Semiannual evaluation by the Supervisory Committee using a faculty-developed rubric.	Campus
Skills #3	Communicate effectively in oral and written form.	Assessment of written and oral communication in research proposals, departmental seminars, research presentations, publications, committee meetings and thesis defense using a faculty-developed rubric.	Campus
Skills #4	Develop, organize and deliver instruction.	1) Evaluation of performance as a teaching assistant by the faculty instructor included in the semiannual evaluation using a faculty-developed rubric.	Campus
Professional Behavior #5	Exhibit professional behavior and ethical practices in the conduct of research and scholarship.	1) Adherence to the UF Honor Code throughout the degree program; 2) Observations of professional behavior by faculty and reported to the Supervisory Committee and reviewed at the semiannual evaluation.	Campus

C. Research

The **Plant Pathology Department at the University of Florida** is an exciting place to study all aspects of plant disease and plant-microbe interactions! We conduct research on a broad range of subjects including plant defense responses, plant and microbial genetic engineering, disease management, microbial evolution, ecology, epidemiology, systematics, and functional genomics. Many faculty members participate in the [Plant Molecular and Cellular Biology](#) graduate program, the [Emerging Pathogens Institute](#), and the [Doctor of Plant Medicine Program in addition to the Plant Pathology Graduate Program](#).

The principal goal of the Plant Pathology Graduate Program is to prepare students for careers in science by providing broad based training in plant pathology and in allied disciplines essential to the individual student's area of specialization. Because specialization within plant pathology draws increasingly on advances in the underlying biological and physical sciences, students are encouraged to include courses in supporting disciplines, offered by other campus Departments. However, for the MS degree, the fundamentals are laid for broad knowledge and understanding of plant pathology. Therefore, the course requirements for the MS degree are less flexible than those for the PhD degree. Many students completing a Master's Degree continues with a Ph.D. program at UF or elsewhere, whereas others find technical positions, often in industry or agricultural extension programs.

The expectations for MS research are: (1) to obtain basic training in working with the main pathogen groups (fungi, bacteria and viruses); (2) to obtain basic training in experimental design and statistical analysis; (3) to conceptualize and complete an original research project under the

guidance of the supervisory committee; (4) to present a research proposal in a colloquium series and the research results in a seminar; and (5) to submit a MS thesis to the Graduate School.

In addition to the MS degree, a non-thesis Masters by Exam degree can be offered at the request of a student who does not write a thesis. The Plant Pathology Graduate Program offers graduate courses in 'General Plant Pathology', 'Plant Virology', 'Bacterial Plant Pathogens', 'Fungal Plant Pathogens', 'Mycology', 'Host-parasite Interactions', 'Epidemiology of Plant Disease', 'Applied Population Genetic Analysis of Microbes', 'Theory and Practice of Plant Disease Control', 'Professional Internship in Plant Disease Clinic' and 'Citrus Pathology'. The first four courses are required for MS students. In addition, MS students need to take a colloquium series and attend the departmental seminar every semester (4 in total). The colloquium series is focused successively on 'Oral Presentations', 'Grant Writing', 'Critical Reading and Writing', and 'Methods Selection and Critique'. This last topic is specifically focused on experimental design and statistical analysis. Through this colloquium series, all graduate students are trained in the basics of the conduct of research.

D. Assessment Timeline

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Assessment SLOs	Proposal, & Thesis Defense	Communication Review Evaluation	Graduate Student Progress Evaluation	Teaching Evaluations (Faculty & Student)
Knowledge				
#1	X		X	
Skills				
#2			X	
#3		X		
#4			X	X
Professional Behavior				
#5			X	

E. Assessment Cycle

Assessment Cycle for:
M.S. in Plant Pathology

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Analysis and Interpretation:

___ May – June, annually ___

Program Modifications:

Completed by ___ July 1 of each year ___

Dissemination:

Completed by ___ September 1_ of each year ___

SLOs	Year	12-13	13-14	14-15	15-16
Content Knowledge					
#1		X	X	X	X
Skills					
#2		X	X	X	X
#3		X	X	X	X
#4		X	X	X	X
Professional Behavior					
#5		X	X	X	X

F. Measurement Tools

The Department of Plant Pathology has a PLANT PATHOLOGY GRADUATE STUDENT PROGRESS EVALUATION form (rubric) for the graduate advisor to fill out twice a year regarding the graduate student assessment for the past 6 months. It covers academic performance in courses, research productivity including competence, work ethic, and various other factors including complying with deadlines. (Please see attachment at bottom of document).

G. Assessment Oversight

Name	Department Affiliation	Email Address	Phone Number
Jeffrey B. Jones, Graduate Coordinator	Plant Pathology	jbjones@ufl.edu	273-4673
Ariana Van Bruggen, Graduate Faculty	Plant Pathology	ahcvanbruggen@ufl.edu	273-9396

Attachment

PLANT PATHOLOGY GRADUATE STUDENT PROGRESS EVALUATION

From _____ To _____

Low

Highest

1 2 3 4 5 N/A

Student proficiency in classroom academics						
Describes and explains concepts in plant pathology based on current literature						
Student proficiency in conducting research utilizing the scientific method						
Student proficiency in oral and written communication.						
Develops, organizes and delivers instruction related to teaching responsibilities in a timely and competent manner						
Accomplishes thesis/dissertation research in a scientific and innovative manner with minimal supervision						
Completes other research responsibilities assigned by supervisor on a timely basis						
Complies with work schedule established by supervisor						

Adheres to departmental and University requirements regarding deadlines for submission of forms related to registration and academic progress						
Overall work performance						

1 = unsatisfactory, 2 = weak, needs improvement, 3 = average, 4 = commendable, 5 = outstanding, N/A = not applicable.

List courses and grades for this term:

What assistantship and/or thesis/dissertation duties did student perform this term?

Comments: (Use this space to note any observations of and/or issues with the Student Honor Code or professional behavior. Additional room for comments on the back of this form)

Supervisor Name

Date

The signature of the graduate student does not mean that he/she agrees with the evaluation, but means only that he/she has seen the evaluation.

Graduate Student

UFID

Date