

Doctor of Plant Medicine Academic Assessment Plan

College of Agricultural and Life Sciences
Dr. Amanda Hodges
achodges@ufl.edu

Office of the Provost

*University of
Florida*

*Institutional
Assessment*

*Continuous Quality
Enhancement*

Table of Contents

Academic Assessment Plan for Doctor of Plant Medicine	3
A. Mission	3
B. Student Learning Outcomes and Assessment Measures	4
C. Research.....	4
D. Assessment Timeline.....	5
E. Assessment Cycle	5
F. Measurement Tools.....	6
G. Assessment Oversight.....	7
Figure 1. Example Rubric for the DPM Final Oral Exam.....	10

Academic Assessment Plan for Doctor of Plant Medicine

College of Agricultural and Life Sciences

A. Mission

The mission of UF's Doctor of Plant Medicine (DPM) Program, established in 1999, is to provide all segments of agriculture with rapid, accurate, and scientifically sound diagnoses and management strategies for all types of plant health problems through the activities of broadly trained Plant Doctors.

The DPM program integrally supports the teaching, research and scholarship, and service mission of the University of Florida. DPM is a national and international model for integrated, multidisciplinary Plant Doctor training. Our program developed as a direct result of stakeholder demands for a new doctoral-level Plant Doctor profession. DPM is symbolic of the UF mission to serve state and national critical needs by contributing to a well-qualified and broadly trained workforce. Florida's diverse climate, agriculture, and ornamental plant industry provides an ideal location for graduate training in the Plant Doctor profession. The integrated nature of DPM relates to the teaching mission of the College of Agriculture and Life Sciences (CALs) by collaboratively supporting the discipline-based departments of Plant Pathology, Entomology and Nematology, Agronomy, Soil and Water Science, Horticultural Sciences, and Environmental Horticulture within UF's Institute of Food and Agricultural Sciences (UF/IFAS). The DPM program provides improved practical, hands-on field and laboratory knowledge for sustainable and environmentally friendly agricultural and landscape pest management practices through our highly trained Plant Doctor professionals. Our DPM graduates are improving the quality of human life through their support of industry, clientele, applied research, teaching, and cooperative extension activities.

B. Student Learning Outcomes and Assessment Measures

SLO Type	Student Learning Outcome	Assessment Method	Degree Delivery
Knowledge	Master the subject matter and concepts related to the prevention, diagnosis and management of plant health problems of all types.	Students will pass (achieve a grade of 80% or higher) each of the standardized, written comprehensive exams in plant pathology, entomology/nematology and plant/soil/weed science. These exams will be evaluated by a group of faculty utilizing a rubric designed by faculty.	Campus
Skills	Integrate the subject matter and concepts learned during their program of study to solve plant health problems.	Students will achieve a passing grade (80% or higher) on the comprehensive oral exam administered by their supervisory committee which tests their ability to solve plant health problems of all types. Evaluation of the comprehensive oral examination will be based on a rubric developed by the faculty.	Campus
Professional Behavior	Exhibit professionalism in the practice of plant medicine by maintaining client confidentiality, keeping up to date on plant health management practices through continuing education and seeking the assistance of their colleagues when necessary.	Students will demonstrate professionalism in the practice of plant medicine through their performance in core and elective internships and the comprehensive oral exam administered by their supervisory committee. Observation by the faculty of professional behavior during their internships and the comprehensive oral examination will be based on a rubric developed by faculty and shared by the faculty with the supervisory committee.	Campus

C. Research

The Doctor of Plant Medicine (DPM) Program is not a research-based degree. Students participate in research-related activities through internships and clinical pesticide trials. Students are able to locate and interpret the latest plant health research results available through current research-based publications.

D. Assessment Timeline

Doctor of Plant Medicine

College of Agricultural and Life Sciences

Assessment SLOs	Written Comprehensive Exams	Final Oral Comprehensive Exam	Internships	Annual Student Evaluation
Knowledge				
#1	X	X		
Skills				
#2		X	X	X
Professional Behavior				
#3		X	X	X

E. Assessment Cycle

The Assessment Cycle for the Doctor of Plant Medicine (DPM) program is in transition due to a 2012 leadership change.

Assessment Cycle for:

Doctor of Plant Medicine

Analysis and Interpretation:

Program Modifications:

Dissemination:

College of Agricultural and Life Sciences

Completed by July 1 Annually

Completed by September 1 Every Three Years

Completed by September 1 Every Three Years

SLOs	Year	10-11	11-12	12-13	13-14	14-15	15-16
Content Knowledge							
Written Comprehensive Exams				X	X	X	X
Skills							
Oral Comprehensive Exam				X	X	X	X
Internships				X	X	X	X
Annual Student Evaluation				X	X	X	X
Professional Behavior							
Oral Comprehensive Exam				X	X	X	X
Internships				X	X	X	X
Annual Student Evaluation				X	X	X	X

F. Measurement Tools

Written Comprehensive Exams

Designated members of the faculty within the core DPM disciplines coordinate the final written exams. Exam coordinators are listed within Assessment Oversight (section G). The final written exams are administered during the final 12 to 18 months of a student's degree program. Students must receive an 80% or higher in order to pass the knowledge-based written exams. Plant, soil, and weed sciences exam scores must collectively result in an 80% or higher score.

Final Oral Comprehensive Exam

DPM students have an advisory committee consisting of at least one member from each of the core disciplines-Entomology/Nematology; Plant Pathology; and Plant/Weed/Soil Sciences. Following the successful completion of all written comprehensive exams, the student's advisory committee administers a final oral examination. An example of the current rubric for the DPM final oral examination is provided as Figure 1. All of the SLOs: content knowledge, critical thinking skills, and professional behavior are assessed in the final oral examination.

Internships

DPM students complete several core and elective internships. Due to the hands-on nature of the DPM program, high quality internships are vital for further critical thinking skills development. Additionally, internships are an excellent opportunity for DPM students to model and practice professional, ethical scientific behavior. During 2013, the DPM Faculty Advisory Committee will develop and implement a rubric for the assessment and improvement of the DPM internship experience.

Annual Student Evaluation

DPM students have an advisory committee consisting of at least one member from each of the core disciplines-Entomology/Nematology; Plant Pathology; and Plant/Weed/Soil Sciences. Interactions between DPM students and their advisory committee are critical for student professional development. Each DPM student advisory committee generally meets at least once per year; however, more frequent meetings may occur depending upon the needs of the student. During 2013, the DPM Faculty Advisory Committee will develop and implement a rubric for the annual assessment of DPM students in regards to their critical thinking skills and professional behavior. Each student will be provided with their assessment, and also have an opportunity to provide a self-assessment response commentary.

G. Assessment Oversight

Primary program and assessment oversight is provided by DPM Director, Dr. Amanda Hodges. Designated discipline faculty coordinate the comprehensive written exams as indicated in the table below. DPM Director, Dr. Amanda Hodges also interfaces with an Internal Faculty Advisory Committee, various discipline DPM faculty mentors, and an External Advisory Committee.

Name	Responsibility	Department Affiliation	Email Address	Phone Number
Dr. Amanda Hodges, DPM Director	Overall Program and Assessment Coordination	Entomology and Nematology	achodges@ufl.edu	352-273-3957
Dr. Heather McAuslane	Entomology and Nematology Written Exam Coordinator	Entomology and Nematology	hjmca@ufl.edu	352-273-3923
Dr. Greg MacDonald	Plant, Soils, and Weed Science Written Exam Coordinator	Agronomy	pineacre@ufl.edu	352-294-1594
Dr. Jerry Bartz	Plant Pathology Written Exam Coordinator	Plant Pathology	softbart@ufl.edu	352-273-4671

Figure 1. Example Rubric for the DPM Final Oral Exam

DPM Final Oral Exam

Student _____

Date _____

Committee member _____

		Exemplary (4)	Proficient (3)	Marginal (2)	Unacceptable (1)
<p>SLO 1 Students will master the subject matter and concepts related to the prevention, diagnosis and management of plant health problems of all types. (minimum-12, maximum-48)</p>	<p>General knowledge in entomology and nematology</p>	<ul style="list-style-type: none"> ○ All information presented is both accurate and relevant ○ Questions are answered fully ○ Proper use of terminology and/or citations ○ Insightful interpretation of the content 	<ul style="list-style-type: none"> ○ Nearly all information presented is accurate and relevant ○ Questions are essentially answered ○ Proper use of terminology and/or citations ○ Demonstrates clear understanding of the content 	<ul style="list-style-type: none"> ○ Many inaccuracies and some misinterpretation of content and largely irrelevant ○ Questions not adequately answered ○ Improper use of terminology and/or citations ○ Misinterpretation of content 	<ul style="list-style-type: none"> ○ Inaccurate or misinterpreted content and almost entirely irrelevant ○ Questions not answered ○ Misuse of terminology and/or citations ○ Gross misinterpretation of content

SLO 1 Students will master the subject matter and concepts related to the prevention, diagnosis and management of plant health problems of all types. (minimum-12, maximum-48)		Exemplary (4)	Proficient (3)	Marginal (2)	Unacceptable (1)
	General knowledge in plant pathology	<ul style="list-style-type: none"> ○ All information presented is both accurate and relevant ○ Questions are answered fully ○ Proper use of terminology and/or citations ○ Insightful interpretation of the content 	<ul style="list-style-type: none"> ○ Nearly all information presented is accurate and relevant ○ Questions are essentially answered ○ Proper use of terminology and/or citations ○ Demonstrates clear understanding of the content 	<ul style="list-style-type: none"> ○ Many inaccuracies and some misinterpretation of content and largely irrelevant ○ Questions not adequately answered ○ Improper use of terminology and/or citations ○ Misinterpretation of content 	<ul style="list-style-type: none"> ○ Inaccurate or misinterpreted content and almost entirely irrelevant ○ Questions not answered ○ Misuse of terminology and/or citations ○ Gross misinterpretation of content
	General knowledge in plant, soil, and weed sciences	<ul style="list-style-type: none"> ○ All information presented is both accurate and relevant ○ Questions are answered fully ○ Proper use of terminology and/or citations ○ Insightful interpretation of the content 	<ul style="list-style-type: none"> ○ Generally relevant and accurate information ○ Questions are essentially answered ○ Proper use of terminology and/or citations ○ Demonstrates clear understanding of the content 	<ul style="list-style-type: none"> ○ Many inaccuracies; Content irrelevant, and misinterpreted ○ Questions not adequately answered ○ Improper use of terminology and/or citations ○ Misinterpretation of content 	<ul style="list-style-type: none"> ○ Content Inaccurate, irrelevant, and misinterpreted ○ Questions not answered ○ Misuse of terminology and/or citations ○ Gross misinterpretation of content

		Exemplary (4)	Proficient (3)	Marginal (2)	Unacceptable (1)
SLO 2 Students will integrate the subject matter and concepts learned during their program of study to solve plant health problems. (minimum 9, maximum 36)	Confidence	<ul style="list-style-type: none"> Confident in verbal communication skills 	<ul style="list-style-type: none"> Usually confident in verbal communication skills 	<ul style="list-style-type: none"> Somewhat confident in verbal communication skills 	<ul style="list-style-type: none"> Rarely confident in verbal communication skills
	Clarity	<ul style="list-style-type: none"> Provides logically developed, thoughtful answers consistently Language is eloquent 	<ul style="list-style-type: none"> Provides logical answers most of the time Language is straightforward 	<ul style="list-style-type: none"> Answers may not be logical all the time Language is awkward 	<ul style="list-style-type: none"> Answers are confusing, illogical Language is poor
	Critical Thinking	<ul style="list-style-type: none"> Valid judgments based on evidence Analysis of material is insightful and conclusions are fully defensible Synthesis of content is clearly evident Response is deeply reflective and evaluative 	<ul style="list-style-type: none"> Nearly all judgments are valid and based on evidence Analysis of material is accurate and conclusions are defensible Content synthesized well for the most part Response is reflective and evaluative 	<ul style="list-style-type: none"> Judgments are occasionally invalid Analysis of material is inaccurate and conclusions are rarely defensible Merely recalls information, lists and defines but rarely synthesizes content Responses are rarely evaluative 	<ul style="list-style-type: none"> Invalid judgments based on evidence provided Indefensible conclusions No synthesis evident Response is not reflective or evaluative

		Exemplary (4)	Proficient (3)	Marginal (2)	Unacceptable (1)
SLO 2	Critical Thinking	<ul style="list-style-type: none"> ○ Exhibits advanced thinking and conceptualization ○ Logical flow of ideas 	<ul style="list-style-type: none"> ○ Exhibits clear thinking and conceptualization ○ Ideas tend to flow logically 	<ul style="list-style-type: none"> ○ Little ability to detect patterns or conceptualize ○ Flow of ideas is rarely logical 	<ul style="list-style-type: none"> ○ No advanced thinking or conceptualization ○ Illogical flow of ideas
SLO 3 Students will exhibit professionalism in the practice of plant medicine by maintaining client confidentiality, keeping up to date on plant health management practices through continuing education and seeking the assistance of their colleagues when necessary. (minimum 3, maximum 12)	Student behavior during final DPM oral examination	<ul style="list-style-type: none"> ○ Student is professional and courteous through the oral examination ○ Student is respectful and considerate of client confidentiality concerns ○ Student is knowledgeable, but knows when to seek assistance from others 	<ul style="list-style-type: none"> ○ Student is generally professional and courteous throughout the oral examination ○ Student is generally respectful and considerate of client confidentiality concerns ○ Student is knowledgeable, and generally knows when to seek assistance from others 	<ul style="list-style-type: none"> ○ Student is defensive and rarely courteous during the oral examination ○ Student is rarely respectful or considerate of client confidentiality concerns ○ Student is overconfident, and will often provide an incorrect answer instead of seeking self-improvement or assistance 	<ul style="list-style-type: none"> ○ Student is rude and directs personal attacks at committee members ○ Student is not respectful or considerate of client confidentiality concerns ○ Student is overconfident and will provide an incorrect answer instead of seeking self-improvement or assistance

SLO Achievement

These scores do not determine whether the student passes or fails the D.P.M. final exam. You can use the scores in your decision but there is no cut-off score below which the student fails the exam. All committee members should fill out a form and copies should be delivered to the DPM Program Assistant, Elena Alyanaya ealyanaya@ufl.edu for deposit in the student's file. Supervisory committee chair - please share the results of this evaluation with your student, either summarizing their strengths/weaknesses or showing the individual score sheets. The total maximum score is 96.

SLO 1 (knowledge of disciplines) = _____ (maximum 48, minimum 12)

SLO 2 (critical thinking and communication skills) = _____ (maximum 36, minimum 9)

SLO 3 (professional behavior) = _____ (maximum 12, minimum 3)

Additional comments