Overview

The mission of the Department of Plant Pathology is to provide instruction, extension, and research directed toward all aspects of plant diseases, including causes, protection, prevention, and control, as they affect commercial crop and landscape plants in Washington and worldwide. The mission is accomplished by providing quality graduate education, conducting applied and basic research for the state and the scientific community at large, and disseminating information to the public through extension education.

The Department of Plant Pathology offers M.S. and Ph.D. programs. The Department has had a long-standing policy that a student must first obtain an M.S. degree before pursuing a Ph.D. degree. The primary reason for this policy is to insure that only students who are academically capable and prepared for in-depth research as evidenced by prior grades, courses, and research experience are admitted to the Ph.D. program. Moreover, most students entering the graduate program have a limited background, or no background, in plant pathology owing to the few undergraduate programs in the discipline in the nation and worldwide. However, in recognition that some students may display an unusually high aptitude for graduate study and research, the Department has developed a policy to describe circumstances under which a student may bypass the M.S. degree and proceed directly to the Ph.D. This policy is described in the Plant Pathology Graduate Student Handbook, which is updated annually and provided to all continuing and incoming students. The handbook is also available online at:

http://plantpath.wsu.edu/pdf/Student%20Handbook%2007_08.pdf

Objectives

1. To enable students earning the M.S. and Ph.D. in Plant Pathology to understand and apply the scientific method to plant pathological problems, to develop critical thinking and professional skills needed for successful careers in the public and private sectors at a national and international level. In addition, students earning the Ph.D. will conduct novel research in an independent manner (i.e., with limited input from their major advisor) and be able to interpret and write up their research for publication in peer-reviewed journals.

2. To maintain a leadership role in plant pathology and related disciplines at the state, national and international levels.

Requirements

For the M.S. degree, students are expected to fulfill all of the academic requirements of WSU, present two seminars (PlP 515) to the Department of Plant Pathology, attend the weekly departmental seminar series during the academic year to learn about plant

pathology research and other issues outside of their thesis project, conduct research, and prepare and defend an acceptable thesis under the direction of their major advisor and advisory committee in an oral examination.

For the Ph.D. degree, students must fulfill all of the academic requirements of WSU for the Ph.D. degree, present two seminars to the Department of Plant Pathology (PlP 515), pass an oral preliminary examination after completion of the majority of their coursework, and conduct independent, original research and prepare an acceptable dissertation with oversight and advising from their major advisor and advisory committee. Successful defense of the dissertation in an oral examination is required.

Outcomes for each of the program's objectives are:

1. To enable students earning the M.S. and Ph.D. in Plant Pathology to understand and apply the scientific method to plant pathological problems, to develop critical thinking and professional skills needed for successful careers in public and private sectors, the program provides training and coursework to help students develop the following skills:

    a. Understanding, interpretation and synthesis of scientific literature pertaining to plant pathology and related disciplines
    b. Formulating hypotheses; developing experimental designs to test these hypotheses; establishing and maintaining experiments
    c. Collecting data in an objective way and conducting appropriate statistical analyses
    d. Interpretation and presentation of research results in oral and written formats
    e. Presentation of research at professional meetings and local commodity meetings
    f. Publication of research in peer-reviewed scientific journals and other discipline-appropriate outlets such as commodity newsletters

2. To maintain a leadership role in plant pathology and related disciplines at the state, national and international levels, the program aims to:

    a. Attract, retain and train high quality graduate students
    b. Place students earning the M.S. into positions including extension agents, state and federal plant pathologists, instructors at the community college level, support scientists in public or private sector research programs, and PhD programs
    c. Place students earning the Ph.D. as leaders of scientific research programs in the public or private sector including industry, and faculty positions at the University level.

Outcomes Assessment Plan

Data will be collected via several different mechanisms, including application statistics; annual review of graduate students (see attached document); an evaluation rubric (see attached documents) for oral preliminary examinations (Ph.D.), thesis defense examinations (M.S.), and dissertation defense examinations (Ph.D.); graduate student exit interviews with department chair; and job placement statistics. Data will be summarized in a report provided annually to the Graduate School. The means by which the specific outcomes will be assessed is detailed in the following table.

Objective 1. To enable students earning the M.S. and Ph.D. in Plant Pathology to understand and apply the scientific method to plant pathological problems, to develop critical thinking and professional skills needed for successful careers in public and private sectors.

Outcome	Data	Source	Collected
1a. Understanding and interpretation of scientific literature pertaining to plant pathology and related disciplines	Course grades in plant pathology classes; rubric completed at oral preliminary exams and thesis/dissertation defense exams.	Faculty teaching plant pathology courses; thesis advisory committee members	Annually
1b-d. Formulating hypotheses; experimental design; establishing and maintaining experiments; collecting data and conducting appropriate statistical analyses; interpretation and presentation of research results in oral and written formats.	Rubric completed at oral preliminary exams and thesis/dissertation defense exams; annual evaluations of graduate students	Thesis advisory committee members; major advisor	Annually
1e & f. Presentation of research at professional meetings[1], publication of	Annual evaluations of graduate students	Major advisors	Annually

research in peer-reviewed scientific journals and other outlets appropriate to the discipline[2].			

[1] Meetings sponsored by professional societies, government organizations and commodity groups
[2] Examples include trade journals, commodity newsletters, conference proceedings

Objective 2. To maintain a leadership role in plant pathology and related disciplines at the state, national and international levels.

Outcome	Data	Source	Collected
2a. Attract, retain and train high quality graduate students	Application statistics (number of applicants, percentage of applicants accepted, GPAs of accepted students)	Plant Pathology Program Coordinator; Graduate School	Annually
2b. Place students earning the M.S. into positions discipline appropriate positions including Ph.D. programs.	Job placement statistics	Faculty advisors; exit interviews with Department Chair	Annually
2c. Place students earning the Ph.D. as leaders of scientific research programs in the public or private sector and academic positions.	Job placement statistics	Faculty advisors; exit interviews with Department Chair	Annually

PLANT PATHOLOGY EVALUATION RUBRIC: THESIS OR DISSERTATION DEFENSE

Candidate:_____ Degree:_____

Title:_____
_____

Evaluator:_____Date:_____

Criteria	Poor	Competent	Excellent
Understands and is able to interpret scientific literature relevant to research topic			
Demonstrates ability to independently formulate hypotheses, develop experimental design, establish and maintain experiments			
Demonstrates ability to collect data and conduct appropriate statistical analyses			
Demonstrates ability to defend research methodology and interpretation and to entertain alternative interpretations			
Demonstrates ability to interpret and present research results in oral and written formats			
Demonstrates ability to obtain funding to support professional travel and/or research			

Comments:

PLANT PATHOLOGY EVALUATION RUBRIC: ORAL PRELIMINARY EXAM

Candidate:_____

Title:_____
_____

Evaluator:_____Date:_____

Criteria	Poor	Competent	Excellent
Demonstrates familiarity with and understanding of the primary literature relevant to the discipline			
Able to synthesize knowledge from courses and primary literature and apply this to a novel research question			
Demonstrates breadth of understanding of scientific principles outside of, but relevant to, the field of plant pathology			
Demonstrates ability to answer questions pertaining to understanding scientific problems involving plant diseases, plant pathogens, and emerging methodology			
Demonstrates ability to apply the principles and terminology of the discipline to a novel problem			

Comments:

Graduate Student Annual Review for 2013-2014

Agriculture, Crop and Soil Sciences, Horticulture, Plant Pathology

The evaluation period for the annual review is August or Jan to May for first year students (coinciding with their starting term), and May to May for all other students. **Each student is responsible for completing Sections A and B and providing a curriculum vita (CV). The student will forward both electronically to their advisor in advance of the review meeting.** The student's advisor will complete Section C and D and review it with the student at the annual review meeting. The student is responsible for arranging the annual review meeting. **The fully signed annual review and electronic CV is due by May 15, 2014. (see page 5).**

This form must be typed

Section A

Name:	
Year Entered:	
Degree Objective (MS or PhD):	
Degree Program:	
Advisor:	
Co-Advisor:	
Campus Advisor (if applicable):	
Other Committee Members:	
Number of committee meetings since last review:	
Date of most recent committee meeting:	

Program of Study approval date: _____ , *or anticipated filing date:* _____

Thesis/Dissertation subject/title:

Cumulative GPA: _____ Term GPA: _____ Term: _____

Seminar Date(s): _____ _____ _____

Thesis/Dissertation proposal approval date: _____ , *or anticipated date:* _____

PhD Preliminary exam completion date: _____ . *or anticipated date*: _____

Section B. Self-Evaluation

Summarize your academic and research progress and plans. Please address the following items:

1. What academic/research goals did you propose to accomplish in your last review?
2. What have you accomplished since your last review?
    a. Discuss your academic and research progress
    b. Describe your publications to date. Please list published manuscripts and book chapters, manuscripts in preparation (and expected date of submission), abstracts (professional papers and posters presented).
    c. List professional activities such as awards/scholarships, meetings attended, abstracts/papers published, presentations given, and teaching experience.
    d. Discuss your departmental and professional stewardship.
3. What are your greatest challenges and how will you overcome them?

Discuss your future directions and goals as follows:

1. Overall.
2. For the next review period.

Section C. Advisor Assessment

Performance, Skill Ratings	Excellent	Good	Average	Fair	Poor	NA
Academic Performance						
Research Performance						
Work Habits						
Technical Skills						
Rate of Progress						
Communication Skills						
Teaching Performance						
Overall Rating						

Please provide an assessment of your student's research progress and accomplishments for the current review period (or research potential for a first year student). Comment on the student's strengths and weaknesses and provide specific recommendations or requirements on areas that need improvement. Consider the student's understanding of the scientific literature, recent proposal defense (PhD), seminar performance, and other research benchmarks.

Outline specific conditions or expectations that must be fulfilled prior to the next review and discuss the student's probable success in completing their degree requirements in a timely manner. If the probability is not good, please indicate why.

Section D. Recommendations

Overall Evaluation is ____ satisfactory or ____ unsatisfactory

*If the evaluation is **unsatisfactory**:*

Enrollment should be ____ *continued or* ____ *discontinued*

*Conditions or recommendations for continued enrollment if evaluation is **unsatisfactory**:*

Signature of Advisor: _____ Date: _____

Student of Student: _____ Date: _____

My signature above acknowledges this evaluation has been discussed with me.

Comments on review by student (optional):

Once this evaluation has been signed by both advisor and student…

1) ***Both parties should retain a copy.***
2) ***The annual review form (<u>with original signatures inasmuch as possible</u>) must be filed with the Department Chair. To do this, return the original to Deb Marsh for processing <u>no later than the May 15, 2014 deadline.</u>***
3) ***Also forward an electronic copy of your CV to Deb Marsh <u>in pdf format</u>.***

Deb Marsh, Academic Coordinator
Johnson Hall Graduate Center, Rm 125
PO Box 646420, Pullman, WA 99164-6420
marshdj@wsu.edu

An advance copy of the signed form may be scanned/emailed to Deb Marsh, but the original signed copy must follow in the mail.