General Information (Student Learning Assessment Workspace)

Degree: Plant Pathology, Doctor
Department: Plant Pathology
College: Agriculture, Food and Environment
CIP: 26.0305
Major Begin Date: 01/01/1950

Here you can view the department homepage.

Here you can view the Mission Statement for the College of Agriculture, Food and Environment.
Standing Requirements

Mission Statement
The mission of the department is to improve humankind's understanding of plant disease through research and, utilizing this knowledge base, to educate students and residents of Kentucky about plant diseases. By these means, the department serves to promote plant health throughout the Commonwealth and encourage the use of science-based, economically practical disease management practices that seek to minimize environmental consequences.

Student Learning Outcomes

<table>
<thead>
<tr>
<th>Outcome</th>
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Assessment Plan

i. Introduction

The basic assessment approach includes using a variety of different assessments of graduate student performance, most based on a rating scale of 1 (poor); 2 (fair); 3 (good); 4 (very good); 5 (excellent). The assessments are done primarily by the major professor and by the advisory committee. Our world-class faculty members have high expectations that are in line with the professional expectations in our discipline, and their assessments reflect this. Data relevant to each assessment tool is collected every year and compiled by the program Director of Graduate Studies (DGS). Data collection is completed by the end of September so that analysis can be finished in time for the annual October 31 assessment deadline. Results of the analysis will be discussed by the Department of Plant Pathology Academic Program Committee in October or November of each year, and recommendations for improvements from that committee will be made to the full faculty at the December faculty meeting. These will be implemented immediately if they are approved by a majority vote.

Other Information:

The faculty of the Department of Plant Pathology extensively revised our curriculum in the Spring of 2006 after significant discussion, with graduate student input, led to agreement that our previous curriculum was not evenly covering all of the important and necessary information related to our learning outcomes. Three new required courses were added to the curriculum at that time. PPA 500 (Physiology of Plant Health and Disease) was added to provide essential background information and context for our new students, who come with diverse backgrounds and varying degrees of academic preparation and experience. PPA 500 also provides an important introduction to the norms of written and oral scientific communication in our discipline. PPA 600 (Critical Methods in Plant-Microbe Interactions) was added to provide exposure to current literature and issues and to practical applications in our discipline. PPA 600 emphasizes critical thinking, and oral and written communication skills. PPA 641 (Plant Disease, Population Biology, and Biotechnology) familiarizes students with the fundamentals of pathogen population biology, as well as with current issues in plant biotechnology. This course also emphasizes critical thinking and written communication skills. These three courses joined three existing courses, PPA 640 (Plant Disease Diagnosis), PPA 400G (Principles of Plant Pathology), and PPA 770 (Plant Pathology Seminar), to form our revised Graduate Core Curriculum. PPA 640 and PPA 400G teach critical core information, historical context, and principles of the discipline, as well as providing practical exposure to field and laboratory research practices. PPA 770 provides instruction and practice in oral scientific communication. In 2007, we added another class to our core curriculum, to further address deficits that were perceived by both students and faculty. This class, listed as a special topics course (PPA 784), addresses important aspects of professionalism including professional ethics and best practices for research and scholarship. In addition to these core classes we require our students to enroll in at least two of the four advanced topic courses that we offer: PPA 650 (Fungal Biology); PPA 670 (Plant Bacteriology); PPA 671 (Advanced Plant Virology); or PPA 672 (Advanced Plant Disease Resistance). All of these advanced courses include written and/or oral assignments. These are selected by the students based on their chosen area of specialization within Plant Pathology.

ii. Assessment Oversight, Resources

The College Learning Outcomes Assessment Coordinator is the Associate Dean for instruction - Dr. Larry Grabau.

The Unit Assessment Coordinator is the current serving DGS [at present, Dr. Lida Vaillancourt]. The DGS is assisted in the task of compiling data by Shirley Harris, staff associate in the Department of Plant Pathology.

iii. Assessment Methods and Measures

Ph.D. students are evaluated for their progress through the program and their performance in all learning outcomes annually by their major professors and by the members of their advisory committees (Forms 1 and 2 in the appendices below).
Mastery of learning outcome Critical Thinking and Problem Solving is also assessed for each student who enrolls in the PPA 770 seminar course and/or presents a seminar (including an exit seminar) during the assessment period, based on the average score for each student from their committee evaluation of that seminar (see Form 3 in the appendices below).

Ph.D. students sit for the Qualifying Examination after completion of their required course work. The Academic Advisory Committee administers the Qualifying Examination, with oversight by the DGS to ensure an equitable experience for all students. The Qualifying Examination is a comprehensive written and oral test of the student’s capabilities and achievements relevant to all learning outcomes. The written exam takes on week to complete. The oral examination follows the written and generally lasts about 3 hours. Students pass both parts of the exam on a majority opinion of their committee. The DGS breaks a tie, if necessary. Technical mastery of the program learning outcomes is evaluated based on quantitative assessment provided by each Advisory Committee member (see Form 5 in the appendices below). The written and oral exams are evaluated separately.

Ph.D. students write and defend a research dissertation. The defense includes a public oral presentation of the research findings. The dissertation defense provides a final opportunity to evaluate the student’s performance overall during their program and during the defense itself on each of the program learning outcomes by the major advisor and the advisory committee (see Form 4 in the appendices below).

iv. Data Collection and Review

Some of the data are collected at the time of outcome testing (e.g. during annual student academic committee meetings, or after the required student seminars) and some are collected once per year on a schedule (e.g. the annual student performance evaluation, due on June 30 of each year).

The DGS will coordinate collection of these data. Assessment forms will be provided by the DGS to the major professor or seminar coordinator, who will administer the evaluation and then return the completed forms to the DGS for data compilation. The DGS will obtain current GPA data for each student from the annual evaluation form (Form 1).

The benchmarks are both programmatic and individual. The programmatic benchmark is an average performance of all students on all outcome assessments of 3 or better (on a 5 point scale where 1 is poor and 5 is excellent). Other benchmarks include: All students maintaining an average GPA of 3.0 or greater; all students having an annual committee meeting; all students progressing achieving satisfactory yearly progress through their program goals (these latter two assessments come from form 1, attached). For individuals, the benchmark will be an average performance on all outcome assessments of 3 or better, and the target will be a consistent improvement in performance during progression through the degree program.

Data are collected by students themselves, the DGS, and the major advisors, and compiled by the DGS with the staff associate.

v. Assessment Cycle and Data Analysis

The University of Kentucky requires an annual assessment. However, given the time frame of five years for an average Ph.D. program, we would like to increase our assessment cycle to 3 years in order to obtain meaningful data. So far we have not been allowed to do this.

Data collection will be completed by September of each year so that analysis can be finished by the DGS and staff assistant in time for the annual October 31 assessment deadline. Results of the analysis will be shared with the Academic Program Committee in November of each year, and recommendations for improvements will be made by that committee and both the analysis and the suggested improvements will be presented to the full faculty at the January faculty meeting. Suggestions will be implemented immediately if they are approved by a majority vote.

Annual IAPs from Plant Pathology are sent, as required, to both the College Assessment Coordinator (CAC) and to the UK Office of Assessment (OA). The OA conducts a quality assessment of all IAPs at the campus level. The report on IAP quality is returned to the CAC who reviews that report, and may suggest adjustments before returning the report to the program. The DGS and departmental Academic Program Committee give all due consideration to the recommendations of the OA and CAC in their ongoing curriculum planning and assessment processes. During their periodic strategic planning and program review processes, the department examines the assessment data for indicators of student quality and achievement, and uses these data to inform the development of future strategies regarding the graduate program.
vi. Graduating Composition and Communication Requirement (GCCR)

The Graduation Composition and Communication Requirement (GCCR) is only required of undergraduate (Bachelor-level) degree programs. This program is exempt from the GCCR requirement.

vii. Teaching Effectiveness

Teaching evaluations are administered online for all instructor of record for all courses. These are available to the Department Chairperson.

If a faculty member consistently underperforms in their teaching evaluations, this is considered as part of their overall performance evaluation with the Department Chair, and the Department Chair may, at his discretion, refer the faculty member to available resources including the Center for the Enhancement of Learning and Teaching (CELT). It should be noted that our faculty generally perform at or above the college average, and some of our faculty have won prestigious college, university, and professional teaching awards.

viii. Post-Graduate Success

Our field is very small and in the past, we kept up with our students somewhat informally through our professional contacts and via social media and meet-and-greet events at our annual professional meeting. We are still in touch with most of our graduates, even from 20 and 30 years ago, who have remained in the profession. HOWEVER, recognizing that the professional success of our graduates has now become a very important assessment metric for evaluating our program success, we plan to institute a more formal instrument for tracking our students.

We will develop an exit survey this fall for students leaving the program that will be administered prior to their departure. This survey will include a request for information about their professional plans and immediate plans for relocation, as well as questions about their perceptions of the quality of their education in our department. This survey will be repeated at one and five years after graduation. The same survey will be administered to students who are leaving the program without graduating, but we will not follow up with those students.

ix. Appendices

Curriculum Map

Active Curriculum Maps

Plant Pathology, Doctor

Alignment Set: Plant Pathology, Doctor Outcome Set

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Last Modified: 03/22/2017 10:25:54 am EDT
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<th>Courses and Learning Activities</th>
<th>Knowledge Acquisition</th>
<th>Critical Thinking and Problem Solving</th>
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Outcome

Knowledge Acquisition
Students will demonstrate technical mastery of the core information and principles of the discipline, including essential factual information, historical context, current literature and issues, practical applications, and professional ethics.

Critical Thinking and Problem Solving
Students will demonstrate abilities to think critically, solve problems, work collaboratively, use technology (including information technology) effectively, and develop and carry out high quality, hypothesis driven research.

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