

**Revised Template for
 Assessment Plans for Student Learning Outcomes
 Kansas State University**

BY:

- Check the box if your program's student learning outcomes have been modified since November 2003. If so, please email the revised outcomes (apr@ksu.edu) or attach a hard copy to this document.

A. College, Department, and Date of this Submission

College: Agriculture
 Department: Plant Pathology
 Date of Submission: November 1, 2004

B. Contact Person(s) for the Assessment Plans

William Bockus, Professor
 Karen Garrett, Assistant Professor

C. Program – degree, minor, or certification

Ph.D. in Plant Pathology

D. Assessment Plans for the Student Learning Outcome(s) that will be addressed in the Next Three Years**1. Student Learning Outcome(s)**

Of the 7 standards (student learning outcomes) prescribed by our department, the following three will be focused on for our three-year assessment plan.

- **Technical Competence:** Students are expected to recognize a number of plant diseases and pathogens by sight; have a broad appreciation for how diseases develop at the organism, population and molecular levels; demonstrate excellent experimental skills and ability to use scientific equipment in applied or basic research in plant pathology.
- **Problem Solving Abilities:** Students will demonstrate ability to identify original and important problems in plant pathology; formulate scientific hypotheses; choose appropriate approaches; design and execute experiments, interpret results; and critically evaluate their own findings and those of others; demonstrate through their work their contributions to extension or theoretical concepts in the field of plant pathology; demonstrate originality and independent thinking.
- **Communication Skills:** Students will be expected to communicate effectively. They will be able to present research ideas and results with colleagues through appropriate media (posters, oral presentations, research papers etc.); write and defend dissertation; write and publish research manuscripts; and demonstrate basic teaching skills in a classroom setting.

The identified student learning outcomes in this assessment plan address the following University-wide Student Learning Outcomes (check all that apply):

XX Knowledge XX Critical Thinking XX Communication Diversity

XX Academic and Professional Integrity

- At this point in time, at least one of the selected learning outcomes is conceptually different from the university's learning outcomes (e.g., more specific to the program).

2. How will the learning outcome(s) be assessed? Who will be assessed?

Standards (Learning Outcomes)	Direct Measures	Indirect Measures	Who will be assessed?
Technical Competence	PLPTH 730 Plant Nematology PLPTH 835 Plant Virology PLPTH 840 Plant Pathogenic Bacteria PLPTH 845 Plant Pathogenic Fungi PLPTH 905 Ecology & Epidemiology PLPTH 910 Molecular Plant/Microbe Interact.		All students who enroll in the course(s)
	Thesis research		All students
	Courses outside plant pathology		All students who enroll in the course(s)
		Student entrance and exit surveys	All students
Problem Solving	PLPTH 730 Plant Nematology PLPTH 835 Plant Virology PLPTH 840 Plant Pathogenic Bacteria PLPTH 845 Plant Pathogenic Fungi PLPTH 905 Ecology & Epidemiology PLPTH 910 Molecular Plant/Microbe Interact.		All students who enroll in the course(s)
	Thesis research		All students
	Courses outside plant pathology		All students who enroll in the course(s)
	PLPTH 870 Seminar		All students
	Preliminary exam		All students
	Thesis defense		All students
		Student entrance and exit surveys	All students
	Communication Skills	PLPTH 730 Plant Nematology PLPTH 835 Plant	

	Virology PLPTH 840 Plant Pathogenic Bacteria PLPTH 845 Plant Pathogenic Fungi PLPTH 905 Ecology & Epidemiology PLPTH 910 Molecular Plant/Microbe Interact.		
	Thesis research		All students
	PLPTH 870 Seminar		All students
	Thesis defense		All students
		Student entrance and exit surveys	All students

Note: A Rubric has been developed for the PLPTH 870 Seminar course and additional Rubrics are being developed to assess term paper/grant proposal writing skills, thesis defense, and a survey to be used for entering and exiting students.

3. When will this outcome be assessed? When will the results of the assessment(s) be discussed?

Standards (Learning Outcomes)	2005	2006	2007	Baseline Created?
Technical Competence	PLPTH 835 PLPTH 840 PLPTH 910 Thesis research Student entrance and exit surveys	PLPTH 730 PLPTH 845 PLPTH 905 Thesis research Student entrance and exit surveys	PLPTH 835 PLPTH 840 PLPTH 910 Thesis research Student entrance and exit surveys	Yes, each year beginning with 2005 (see note below)
Problem Solving	PLPTH 835 PLPTH 840 PLPTH 910 Thesis research Student entrance and exit surveys PLPTH 870 Preliminary exam Thesis defense	PLPTH 730 PLPTH 845 PLPTH 905 Thesis research Student entrance and exit surveys PLPTH 870 Preliminary exam Thesis defense	PLPTH 835 PLPTH 840 PLPTH 910 Thesis research Student entrance and exit surveys PLPTH 870 Preliminary exam Thesis defense	Yes, each year beginning with 2005
Communication Skills	PLPTH 835 PLPTH 840 PLPTH 910 Thesis	PLPTH 730 PLPTH 845 PLPTH 905 Thesis	PLPTH 835 PLPTH 840 PLPTH 910 Thesis	Yes, each year beginning with 2005

	research Student entrance and exit surveys PLPTH 870 Thesis defense	research Student entrance and exit surveys PLPTH 870 Thesis defense	research Student entrance and exit surveys PLPTH 870 Thesis defense	
--	--	--	--	--

Note: All of the Rubrics and surveys that are used will have a question dealing with the level of the student (entering, year 1, year 2, year 3, or year 4+). This will enable comparisons of students who have finished with those who are just starting.

4. What is the unit's plan for improving students' learning?

Standards (Learning Outcomes)	Improvement plan
Technical Competence	Data will be discussed first by the Departmental Course & Curriculum Committee and then by the entire Plant Pathology Faculty. If weaknesses are discovered, changes will be discussed to address those weaknesses.
Problem Solving	Particular emphasis will be given to assessment that is done by the student's Thesis Research Committee. For an individual student, it will be up to the Committee to recommend additional practice or courses that would improve the problem-solving skills of a student. If a general weakness is discovered among many students in the program, additional emphasis on problem solving will be incorporated into the required courses for the degree.
Communication Skills	Different types of communication skills (scientific writing, poster development, computer skills, presenting a scientific seminar, etc.) are taught in different courses. If a weakness is detected in any of those specific areas, additional emphasis will be given to help improve that area in the appropriate course(s).