

Plant Science PhD Outcomes Assessment

January 24, 2008

Rubric A: Assessment of Learning Outcomes Following Dissertation Proposal Defense/Comprehensive Exam. Shaded rows = Outcome 1 subscores, unshaded = Outcome 2.

ELEMENTS OF LEARNING OUTCOME	Level of achievement				
	1 poor	2	3 fair	4	5 excellent
Graduates will have a basic understanding of all aspects of Plant Science, including the areas of Ecology,					
and Genetics,					
and Anatomy and Morphology,					
and Classification and Taxonomy,					
and Physiology.					
Graduates will have a comprehensive understanding of their area of specialty.					
Graduates will be able to conceive an independent research project.					
Graduates will be able to determine appropriate field and/or laboratory research methods to address that research project.					

Note: Each member of the Proposal Defense/Qualifying Exam committee should complete this rubric and return it to the Plant Science PhD Program coordinator.

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Rubric B: Assessment of Learning Outcomes following Dissertation Defense*

ELEMENTS OF LEARNING OUTCOME	Level of Achievement				
	1 poor	2	3 fair	4	5 excellent
Outcome 1: Demonstrate a sound foundation across the disciplines					
Understands the history and fundamentals of plant science					
Able to defend knowledge against challenges and criticisms					
Able to judge which ideas are worth keeping and which are outmoded					
Outcome 2: Demonstrate the capacity to conceive independent research					
Able to ask interesting and important questions					
Able to formulate appropriate strategies for investigating these questions					
Able to conserve most important ideas and findings from past and current work					
Outcome 3: Demonstrate the ability to conduct and complete independent research					
Able to conduct investigations with high degree of competence					
Able to analyze and evaluate results of investigations					
Able to generate new knowledge					
Outcome 4: Possess the knowledge, skills and attitudes to be effective stewards					
Able to transform that knowledge to a variety of audiences					
Able to communicate results to others to advance the field					
Able to represent and communicate ideas effectively					
Understands other disciplines					
Understands differences between disciplinary views of the world					
Can communicate across traditional boundaries					
Demonstrates sense of responsibility to apply knowledge, skills, findings, and insights if the service of problem solving or greater understanding					
Has adopted a sense of purpose that is larger than oneself, i.e., a steward of the discipline rather than just a manager of one's own career					

Note: Each member of the Dissertation Defense examining committee should complete this rubric and return it to the Plant Science PhD Program coordinator.

* Modified from Chris Golde, "Preparing Stewards of the Discipline" in July 2006 *Carnegie Perspectives*