

Assessing the minor programs (Dr. Chris Little, Plant Pathology Minor Coordinator, Department of Plant Pathology, College of Agriculture)

Summary: In the College of Agriculture, the Minor in Plant Pathology currently enrolls approximately 2-4 students per year. However, student learning outcomes (SLOs) and assessment strategies are employed to assess students and improve content offerings within the academic unit. This presentation will address three strategies for assessment of minor programs: (1) assess no more than two SLOs, if practical; (2) quantitatively assess large student populations and qualitatively assess the minor subset; and (3) create a class content improvement feedback loop using quantitative survey and qualitative capstone course assessments. Example data will be provided from the Minor in Plant Pathology as a framework for group discussion.

Assessment is the systematic collection and analysis of information to improve student learning. (1) Systematic, (2) Built upon the unit mission, (3) Continuous and cumulative, (4) Multi-faceted, (5) Pragmatic, (6) Faculty-designed and implemented. (See Table 1, below.)

Strategies* for assessment of minor programs: (1) Assess no more than **two SLOs** (if practical); (2) **Quantitatively** assess large student populations and **qualitatively** assess the minor subset; (3) Create a “**class content improvement feedback loop**” using quantitative survey and qualitative capstone course assessments. [***DISCLAIMER:** *These are the strategies that have been adopted for the Plant Pathology Minor program -- one size doesn't necessarily fit all. We're still figuring it out, too.*]

Table 1. What can you assess?

Student Learning	Knowledge of the discipline.	Skills	Values
Student Attitudes and Perceptions	Advising Campus facilities Course schedules Grad school prep	Curriculum Mentoring Teaching	Campus climate Co-curricular Student services
Unit/University Processes	Advising Library services IT services Student orientations	Counseling Ombudsmanship Financial aid Transcripts	Graduation checks Tutoring Health care

CSU, Bakersfield, PACT Outcomes Assessment Handbook (1999)

Bloom's Taxonomy (Bloom, 1964)

Knowledge > Comprehension > Application > Analysis > Synthesis > Evaluation

Assessment Practices: (1) **Direct methods** = Requires students to display their knowledge and skills as they respond to the assessment instrument. Objective tests, essays, presentations, etc.; (2) **Indirect methods** = Requires students to reflect in their learning rather than demonstrate it. Surveys, exit interviews, etc. (Polumba and Banta, 1999)

(Strategy 1) Limit SLOs for minor programs: (i) **Two “degree program” SLOs:** Quantitative assessment (metric 1), Qualitative exit interview (metric 2); Additional SLOs should be added if certification or other special requirements are associated with the minor or secondary degree program. (ii) **University SLOs: Knowledge, Critical Thinking, Communication, Diversity, Academic and Professional Integrity.** (*Have to fit into the alignment matrix.*)

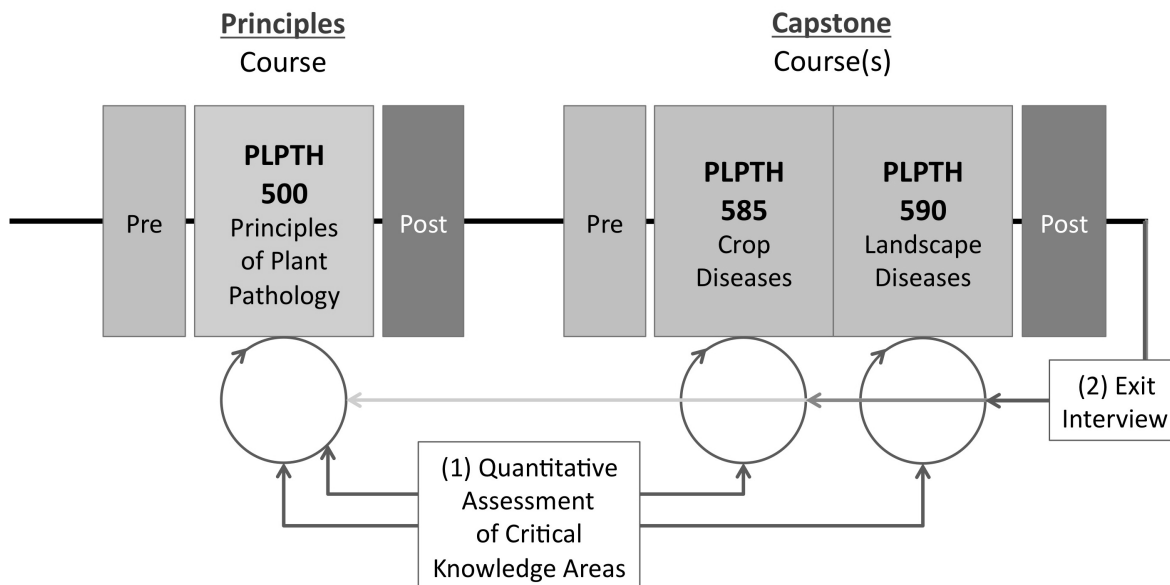
(Strategy 2) Use quantitative and qualitative assessments: Metrics: (i) **Quantitative surveys:** Pre-class surveys (“pre-test”), Post-class surveys (“post-test”); (ii) **Exit interviews:** Questions about the student's learning process(es) and experience (not the critical knowledge areas, themselves). *We're still working on this part. Won't discuss today.*

Base the quantitative assessment upon content in the core courses required for your minor (Figure 1, below). Think of two types of core courses/experiences: (1) **Principles** courses, (2) **Capstone*** courses. (*May be a "capstone experience" or other activity that precedes student matriculation.)

Levels of quantitative assessment: 1. Whole class population (a. Principles course, b. Capstone course); 2. Cohort population (Minor enrollees); 3. Individuals; (4.) Temporal ("Pre-Post, Pre-Post")

(Strategy 3) Create a "course content improvement feedback loop".

Figure 1. Quantitative Assessment of Critical Knowledge Areas (1) and Qualitative Assessment (2) in a "Course Content Improvement Feedback Loop" (Program improvement is multidirectional.)



Pre-/Post-test Items (aka. "Critical Knowledge Areas"): What are the CKAs for your discipline?

Pre-/Post-test item analysis of CKAs: What CKAs improve, remain the same, or get worse? Will need to figure out why these results occur and how to feed this back into the core principles and capstone courses.

Table 2. Summary: How do you link assessment outcomes, methods, and results?

Program Objective	Outcome Criteria	Assessment Measure	Population	Use
Cognitive Knowledge (eg. CKAs)	Students demonstrate mastery of basic knowledge.	Quantitative assessments (pre-/post-class surveys)	Students enrolled in courses (principles and capstone(s))	Assessment reports; "class content improvement feedback loop"
Student Perceptions (Integration)	Student understand the goals and objectives of their program and can fit these within their own career goals.	Qualitative assessments (exit interviews)	Minor enrollees	Assessment reports; unit review; "class content improvement feedback loop"

UM-Amherst, OAPA PROGRAM-Based Review and Assessment (2001)

For more information: Chris Little, Plant Pathology Minor Coordinator, Department of Plant Pathology (crlittle@ksu.edu) (785-532-1395); Office of Assessment, KSU (assessment@ksu.edu) (785-532-5712) (<http://www.k-state.edu/assessment/>)