

**Agricultural Technology Management (ATM) Minor  
Assessment of Student Learning Plan  
Kansas State University**

**A. College, Department, and Date**

College: Agriculture  
Department: Biological and Agricultural Engineering  
Date: October 2, 2009

**B. Contact Person(s) for the Assessment Plans**

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**C. Degree Program**

ATM Minor

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

The BAE Department offers a minor program in Agricultural Technology Management (ATM). Students who are enrolled in any primary undergraduate major will be admitted as a candidate for the ATM minor program upon filing a notice of intent with the BAE Department.

The BAE Department faculty has identified two student learning outcomes (SLOs) for the Agricultural Technology Management (ATM) minor program:

- Ability to apply basic principles of mathematics, science, and technology to agricultural systems.
- Ability to identify, formulate, and solve agricultural system problems.

Table 1 summarizes the relationship of the above outcomes to the KSU SLOs. In the three-year assessment plan that is detailed in this document, the faculty will consider both outcomes.

Table 1. Relationship to KSU student learning outcomes.

Program SLOs	KSU Undergraduate SLOs					Conceptually different from KSU SLOs
	Knowledge	Critical Thinking	Communication	Diversity	Academic & Professional Integrity	
Ability to apply basic principles of mathematics, science, and technology to agricultural systems.	X					
Ability to identify, formulate, and solve agricultural system problems.	X	X				

**2. How will the learning outcome(s) be assessed? What groups will be included in the assessment?**

Outcome assessment will involve student work in selected ATM courses as the primary means of assessment. To earn an undergraduate minor in ATM, the student is required to complete a minimum of 15 credit hours consisting of the following courses: (a) ATM 160 - Introduction to Agricultural Systems and Technology (3 credit hours); and (b) an additional 12 credit hours of ATM courses, including at least six credit hours of courses that are 500 level or above. The assessment plan will consider at least two of the courses in each student's program of study. Examples of the student work include course assignments, problem sets, laboratory notebooks and/or reports, technical reports, and specific exam questions. The specific course activity will be identified in advance by the instructor in consultation with the ATM Program Assessment Committee. Also, all students in the ATM minor program will be considered.

Table 2. Assessment measures.

Program SLOs	Measures		Who will be assessed?
	Direct <sup>1</sup>	Indirect	
Ability to apply basic principles of mathematics, science, and technology to agricultural systems.	Assignment or activity in one of the ATM courses in the student's program of study.		All students in the ATM minor program.
Ability to identify, formulate, and solve agricultural system problems.	Assignment or activity in one of the ATM courses in the student's program of study.		

**3. When will these outcomes be assessed? When and in what format will the results of the assessment be discussed?**

The two outcomes will be assessed annually, in concert with the assessment of SLOs for the ATM program. The ATM Program Assessment Committee, in cooperation with instructors of the selected courses, will annually collect and summarize assessment data. Course instructors will collect, summarize, and submit assessment information to the ATM Program Assessment Committee.

**4. What is the unit's process for using assessment results to improve student learning?**

The assessment process will involve the ATM Program Assessment Committee, Teaching Faculty, BAE Faculty, and Department Head. The ATM Program Assessment Committee will review all assessment materials submitted by the course instructors, present the findings to the BAE Teaching Faculty, and recommend changes that may be needed to improve student learning. Recommendations may deal with changes in curriculum, pedagogies, and advising strategy; refinement of the assessment tools, assessment process, and SLOs; among others. The BAE Teaching Faculty will review the Assessment Committee's findings and recommendations in terms of overall curriculum impacts, formulate a report and recommendations, and present the recommendations to the BAE Faculty regarding implementation of program and/or curriculum changes. The Faculty will consider each of the Teaching Faculty's recommendations and decide on the appropriate action. The Department Head will implement the improvement decisions by the Faculty, in accordance with University guidelines.