# **Undergraduate Academic Assessment Plan**

Agricultural Operations

Management

College of Agricultural and Life Sciences

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# Agricultural Operations Management College of Agricultural and Life Sciences Undergraduate Academic Assessment Plan

#### **Mission Statement**

The mission of the Agricultural and Biological Engineering Department is to develop professionals, create and disseminate knowledge, and promote the application of engineering, science and management principles to meet societal needs with respect to agricultural, biological and land and water resource systems.

The Agricultural Operations Management program develops students that can combine emerging agricultural technologies with business principles so that they can apply cutting edge techniques to a wide variety of career paths. This supports the missions of the college and university to serve the nation's and the state's critical needs by contributing to a well-qualified and broadly diverse citizenry, leadership and workforce.

### **Student Learning Outcomes (SLOs)**

Existing SLOs in the 2012-13 undergraduate catalog:

- 1. Integrate specific technical knowledge with the overall management of agricultural businesses and operations.
- 2. Combine management and analytical techniques for agricultural operations.
- 3. Articulate analytical results clearly in an accepted style of presentation.

#### Revised SLOs for the 2013-14 undergraduate catalog:

#### Content

- 1. Describe fundamental concepts, skills, and processes in Agricultural Operations Management (AOM).
- 2. Apply fundamental concepts, skills, and processes in AOM.

#### Critical Thinking

- 1. Critically evaluate information or data in AOM.
- 2. Solve problems in AOM.

#### Communication

- 1. Communicate effectively in written form in a manner appropriate in AOM.
- 2. Communicate effectively orally in a manner appropriate in AOM.

New/Revised SLOs, 2013-14*	Link to 2011-12*, 2012-13* SLOs					
Content						
Describe fundamental concepts, skills, and processes in Agricultural Operations Management (AOM).	Integrate specific technical knowledge with the overall management of agricultural businesses and operations.					
Apply fundamental concepts, skills, and processes in AOM.						
Critical Thinking						
Critically evaluate information or data in AOM.	Combine management and analytical techniques					
Solve problems in AOM.	for agricultural operations.					
Communication						
Communicate effectively in written form in a manner appropriate in AOM.	Articulate analytical results clearly in an accepted style of presentation.					
Communicate effectively orally in a manner appropriate to AOM.	style of presentation.					

<sup>\*</sup>undergraduate catalog dates

# **Curriculum Map**

Curriculum Map for:

Agricultural Operations Management	College of Agricultural and Life Sciences

Key: <u>I</u> ntroduced	<b>R</b> einfo	orced	<u>A</u> sses	sed				
Courses SLOs	AEC 3033C	AEC 3030C	AOM 2520	AOM 3220	AOM 3734	AOM 4314	AOM 4455	Additional Assessments
Content Knowledge								
#1			I	I	R	R	A=Module 1 Completion Week 5	
#2				I	R	R	A=Module 2 Completion Week 10	
Critical Thinking								
#3			I	I	R	R	A=Module 1 Completion Week 5	
#4					I	R	A=Module 2 Completion Week 10	
Communication								
#5	I		A=Multiple rubric-graded papers					
#6		I	R				A=Group Presentation Week 15	

# **Assessment Cycle**

All SLOs will be assessed annually

## **Assessment Cycle Chart**

Assessment Cycle for:

<u>Agricultural Operations Management</u> <u>College of Agricultural and Life Sciences</u>

Analysis and Interpretation:

Improvement Actions:

Dissemination:

January – March, annually
Completed by June 30 each year
Completed by September 30 each year

Year	10-11	11-12	12-13	13-14	14-15	15-16
SLOs						
<b>Content Knowledge</b>						
#1			X	X	X	X
#2			X	X	X	X
<b>Critical Thinking</b>						
#3			X	X	X	X
#4			X	X	X	X
Communication						
#5	X		X	X	X	X
#6		X	Χ	X	X	X

#### **Methods and Procedures**

Each assessment requirement represents the successful completion of a specific course requirement. The AOM program is modifying a senior level course to serve as a capstone and primary assessment tool for the degree. This course, AOM4455 Agricultural Operations and Systems, will be taught by a select team of AOM faculty. Key AOM faculty plus the Chair and Undergraduate Coordinator, will develop course objectives, assessments and grading rubrics. These rubrics will be used to accurately assess student achievement for each module and the presentation. Overall student success will be measured by:

- a. Completion of all three modules
- b. Completion of presentation
- c. Passing grade in all three modules and presentation
- d. Overall attainment of C or better for the course.

An example of a grading rubric, for AOM2520 Global Sustainable Energy, follows. The data needed for assessment purposes will be collected by the individual instructors for each of these modules. The collected information will be stored by the Undergraduate Coordinator and the Student Records person, Wendell Porter and Robin Snyder, respectively. The data will be periodically analyzed by the Assessment Oversight Committee described below.

#### **Transportation Survey Grading Rubric**

	Not acceptable	Meets	Exceeds Expectations
		Expectations	
Format	(6 points)	(8 points)	(10 points)
	Poor table format,	Table data is easy	Table data is easy to read, well
	or no table at all	to read, well	formatted, could be dropped
		formatted	into a paper.
Survey	(6 points)	(8 points)	(10 points)
Completion	One or zero	Most modes of	All modes of transportation
	modes of	transportation	included and explained
	transportation	included, some	
	included, no	explanation	
	explanation	provided	
Project Data	(6 points)	(8 points)	(10 points)
	No clear method	Project data is	Project data is tabulated by
	of tabulating data	tabulated by group	individual student and group.
		only. For example	For example shows that as a
		shows that as a	group 20% of trips were auto.
		group 20% of trips	Also shows that Student 1 had
		were auto	40% of walking trips, 10% of
			auto, etc
Conclusion	(12 points)	(16 points)	(20 points)
Paragraph	Conclusion	Conclusion	Conclusion paragraph ties data
	paragraph does	paragraph ties data	and summary together,
	not tie data and	and summary	includes specific survey data
	summary together	together but does	such as average mpg
		not include specific	
		data	

# **Assessment Oversight**

This Academic Assessment Plan for the Agricultural Operations Management program will be overseen by a committee of at least five people including the program coordinator, the department chair and 3 additional faculty that teach in the program.

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