

**B.S. in Biological and Agricultural Engineering (BAE)/Biological Systems Engineering (BSE)
Program Assessment Alignment Matrix**

Student Learning Outcomes (SLOs) or Program Outcomes/Required Courses/Experiences	BAE 101/131	BAE 231/331	BAE 545	BAE 536	BAE 640
B.S. BAE/BSE SLOs or Program Outcomes					
1. Ability to apply knowledge of math, science & engineering	X	A	A	X	A
2. Ability to design and conduct experiments, as well as to analyze and interpret data.		A		X	X
3. Ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability.	A	A	A	A	A
4. Ability to function on multi-disciplinary teams.	A	A		A	
5. Ability to identify, formulate, and solve engineering problems.	X	A	A	X	X
6. Understanding of professional and ethical responsibility.	A	A	X	A	X
7. Ability to communicate effectively.	X	X		A	A
8. Broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context.	X	A	X	X	X
9. Recognition of the need for, and an ability to engage in life-long learning.	A	X		A	
10. Knowledge of contemporary issues	A	X	A	A	X
11. Ability to use the techniques, skills, and modern engineering tools necessary for engineering practice.	X	A	X	A	A
University SLOs					
Knowledge	X	X	A	X	X
Critical thinking	X	X	X	A	X
Communication	A	X		X	X
Diversity	X	X	X	X	X
Academic and professional integrity	X	X	X	X	X

Revised and approved by BAE faculty on January 13, 2009.

X – courses or experiences in which students have the opportunity to learn the outcome.

A – courses or experiences in which student performance is used for program level assessment of the outcome.