

## Academic Learning Compact

***Degree Program: Biological Systems Engineering (BS) (CIP Code 14.0301)***

Intended Program Student Learning Outcomes	Direct and Indirect Measures	
	Direct Method of Assessment	Indirect Method of Assessment
<b>Outcome 1: [Communication Skills]</b> Students will have an ability to communicate effectively with a range of audiences.	<b><u>Direct Measure(s)</u></b> Grading with criteria or rubric	<b><u>Indirect Measure(s)</u></b> N/A
<b>Outcome 2: [Critical Thinking Skills]</b> Students will have an ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics.	<b><u>Direct Measure(s)</u></b> <ul style="list-style-type: none"> <li>• Grading with criteria or rubric</li> <li>• Senior thesis or major capstone project</li> </ul>	<b><u>Indirect Measure(s)</u></b> N/A
<b>Outcome 3: [Critical Thinking Skills]</b> Students will have an ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors.	<b><u>Direct Measure(s)</u></b> Senior thesis or major capstone project	<b><u>Indirect Measure(s)</u></b> N/A
<b>Outcome 4: [Content/Discipline Knowledge and Skills]</b> Students will have an ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions	<b><u>Direct Measure(s)</u></b> Exam (Item Analysis)	<b><u>Indirect Measure(s)</u></b> N/A
<b>Outcome 5: [Content/Discipline Knowledge and Skills]</b> Students will have an ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives	<b><u>Direct Measure(s)</u></b> Grading with criteria or rubric	<b><u>Indirect Measure(s)</u></b> N/A
<b>Outcome 6: [Content/Discipline Knowledge and Skills]</b> Students will have an ability to acquire and apply new knowledge as needed, using appropriate learning strategies	<b><u>Direct Measure(s)</u></b> N/A	<b><u>Indirect Measure(s)</u></b> Alumni survey