

Program Learning Outcomes

Biological Systems Engineering

Program Educational Objectives

- apply life sciences in engineering at the biochemical, cellular, organismal, and macro levels,
- solve biological systems engineering problems while employed in the private or public sector,
- consider the environmental consequences of their engineering activities,
- communicate effectively with professional colleagues and public constituencies,
- act in an ethical manner, and
- continue their education in a changing professional world.

Student Outcomes

1. an ability to apply knowledge of mathematics, science, and engineering
2. an ability to design and conduct experiments, as well as to analyze and interpret data
3. an 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
4. an ability to function on multi-disciplinary teams
5. an ability to identify, formulate, and solve engineering problems
6. an understanding of professional and ethical responsibility
7. an ability to communicate effectively
8. the broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context
9. a recognition of the need for, and an ability to engage in life-long learning
10. a knowledge of contemporary issues
11. an ability to use the techniques, skills, and modern engineering tools necessary for engineering practice.