Course Description (principle topics covered):

Objectives:
- Demonstrate knowledge of biology and engineering
- Demonstrate effective written and communication skills
- Explore the impact of engineering solutions in a global, economic, environmental or societal context
- Demonstrate skills needed to engage in life-long learning
- Explore a contemporary issue with respect to the fields of biology and engineering

Content:
This course is focused on the biology needed to understand the associated processes in engineering applications as well as a fundamental approach for research in biology. This is a 3 credit lecture/inquiry-based course offered to first-year engineering students. The course serves to broaden engineering students’ understanding of the science of biology as it relates to engineering, stimulate interest in technical careers, address ABET science requirements and to address at least one common engineering program outcome related to life-long learning. Lectures utilize a significant internet-based content in order to keep the content from being too dry and to take advantage of recently published biological/engineering materials.

Required Texts/References:
None

Course Work/Expectations:
Because there is no text it is imperative that students attend lecture and take notes. The course will incorporate short quizzes, regular exams, group presentations and research papers. Throughout the course, students will learn and demonstrate their knowledge of biology and engineering, demonstrate effective written and verbal skills, as well as incorporate those skills needed to engage in life-long learning.

Comment:
This intent of this course is to engage engineering students and encourage them to explore the impact of engineering solutions to biological systems within the global, economic, societal and environmental arena.