ASSESSMENT REPORT
EE 483, CONCEPTS IN BIOTECHNOLOGY
SPRING SEMESTER 2006
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Course Prerequisites

Senior standing in an engineering discipline or in computer science

Course Structure

Twenty-six 75-minute lectures, weekly quizzes, two research projects

Recommended Changes

Spring 2006 was the first time Concepts in Biotechnology was offered. As such, there were no recommended changes.

Performance Assessment

At this time Concepts in Biotechnology is a special topics course, and no ABET criteria are officially associated with it. However, three ABET criteria were identified that align with the course objectives. These are the following:

  g) An ability to communicate effectively

  h) A broad education necessary to understand the impact of engineering solutions in global/societal context

  i) A recognition of need for and ability to engage in lifelong learning

In addition, some of the course material contributes to satisfying Criterion f), understanding of professional and ethical responsibility. The course objectives are:

  - To give engineering and computer science students the knowledge they need to work effectively as engineers and computer scientists in the biotechnology industry

  - To help students develop lifelong learning skills

  - To help students improve their presentation and communication skills

The first objective is directly related to Criterion h). The material covered in the course demonstrates to students how engineering and computer science impact the biotechnology industry. The biotechnology industry is going to have a tremendous global impact, and engineers and computer science are going to play a large role in the development of the biotechnology industry.
The second and third objectives are met in the course by assigning two research projects to each student. The main topic for each project is determined by the instructor, but students choose a sub-topic of interest to them personally. The research required by the projects is meant for students to learn how to obtain information from the sources available to them. A formal presentation of each project is required which is presented orally and critiqued by the entire class. The course objectives associated with the research projects apply to ABET Criteria g) and i).

Recommendations

There are no recommendations related to satisfying ABET criteria.