Resources for Teaching a Combined Biotechnolgy/Biomedical Engineering Course

Extended Abstract

A traditional chemical engineering program must meet ABET requirements and introduce students to a variety of topics of interest through the use of elective courses, while being constrained in terms of total number of credit hours required to graduate. The topic of bioengineering can be divided into biotechnology and biomedical engineering. Course materials are more readily available in the topic area of biotechnology and some effort must be expended to make a broad introduction to both the biomedical and biotechnology topics in the same course. At the New Mexico State University we have developed such a course for three credits in our curriculum. The details are presented. The course level is such that it is suitable for students who have completed stoichiometry, but it can be readily enhanced to deal with students who have gone further in the chemical engineering curriculum.

Topics such a tissue engineering can be added from topical conference proceedings from AIChE. This allows students to see the leading edge of the field when they would not otherwise be readily able to do so.