

Crafton Hills College - Outcomes Assessment Report

Program/Service Area: Microbiology

Year: 2011-2012

For the past 6 semesters microbiology collected and analyzed data for one (Micro 102) or two (Micro 150) SLOs. Specifically the SLOs addressed include the following:

1. Microbiology 150 – term paper/research paper assignment. These are the criteria that were evaluated for this assignment:

Term paper meets all assigned requirements (e.g. 8 Pages min, typed, double-spaced, appropriate 12-pt. font)

Term paper references appropriate sources, such as scientific journals no more than 2 years old
The paper presents an accurate, comprehensive, and critical treatment of the selected topic. The student demonstrates an understanding of the major issues, and conclusions presented are appropriate and relevant to contemporary microbiology.

After collecting and analyzing the data for this SLO over the past 6 semesters we have concluded that this outcome is really not providing much in the way of meaningful information. Collection of data for this SLO will be suspended. A new SLO is being developed and will be implemented beginning Spring semester of 2012. The new SLO will be “tested” on the day-time microbiology sections during and adjusted as necessary. This new SLO involves an entrance “exam” (approx. 10 questions) to gauge the student’s understanding of some basic microbiology concepts (food safety, for example), and an exit exam to determine if their understanding of microbiology has improved.

2. Microbiology 102 and 150 Second Unknown. This project is the culmination of concepts and skills the student learned over the semester. It takes place during the last few weeks of class. The student is assigned a bacterial culture and they must apply their skills to determine the identity of their “unknown” microbe. They will be given a list of “possibilities” to research using a book entitled Bergey’s Manual of Determinative Bacteriology. This information will be used to create a flow chart showing how the student will rule out all of the possibilities except for their bacterium. The SLO for this project is evaluated using the following criteria:

Students will collect information and create a flow chart.

Students will successfully navigate through the flow chart.

This SLO has provided some interesting information. I have seen some meaningful differences in student performance on this project. As a result of this information I have made some changes in how I organize and present the introduction to the project. I have also observed a correlation between success on this project and success in the course.

We will continue to collect and analyze SLO data in the microbiology program and adjust the course material and delivery as necessary.