



# Evidence of Assessment Implementation

## Spring 2013 (Due March 8<sup>th</sup>, 2013)

Division: Math and Science

Course/Service: Microbiology Biosc 004

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Title: Faculty ext. 5347

Date: March 7, 2013

| SLO  | 2011- 2012 Assessment Results  | Use of Results:<br>Formative: (F) used for improvement or Summative (S) used to summarize overall value to the college? | What collective dialogue has occurred as a result of the assessment activity?<br>Specifically, what discussions have faculty within the program/service engaged in regarding how well students are learning in their courses or after services as a whole?<br>What dialogue has taken place about how to improve student learning? | Did the dialogue lead/contribute to the development or revision of a Program Review Goal? What changes or improvements were made to the course/service? |
|--|--|---|--|---|
| Compare and contrast the characteristics and diversity of microbial life forms.                                  | Average score of 73% on set of exam questions on nature of prokaryotic and eukaryotic life forms.<br><br>Goal: 80%                 | F   | A discussion between me and Thais Winsome took place on 3/1/13. Subjects discussed included improved dialogue between FT and PT faculty, and standardization between sections of the course. We also discussed the addition of homework assignments and in-class activities to further engage students.                            | Homework assignments on cell structure and function have been developed so that students can interact more with the material.                           |
| Compare and contrast commensal, opportunistic, and pathological relationships between humans and microorganisms. | Section 1: 48% answered questions concerning this SLO correctly. Section 2: 75.9% answered questions concerning this SLO correctly | F   | There is a clear difference between the two sections with regard to this SLO. As stated above, Thais and I discussed ways to standardize sections of the course to improve student   | As course coordinator, I will work more closely with PT faculty to standardize course content.  |

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|  | Goal: 80%   |   | success.  |  |
| Describe, evaluate and apply proper methods of microbial control, as required by case study analysis or laboratory protocol.   | Average score of 88% on set of exam questions on microbial control<br><br>Goal: 80%     | S |   | Goal was met; no changes necessary.  |
| Compare and contrast microbial metabolic pathways, differentiate between aerobic and anaerobic organisms, and explain implications of microbial metabolic requirements of human disease. | Average score of 65% on set of exam questions on microbial metabolism.<br><br>Goal: 80% | F | Thais and I discussed ways to improve comprehension of microbial metabolism, a subject that is often difficult for this population of students. | Animations of metabolic pathways have been added to lectures, and homework assignments and in-class activities have been developed.                  |
| Summarize the basic principles of prokaryotic genetics, including DNA replication, the processes of transcription and translation, and methods of horizontal gene transfer in bacteria.  | This SLO was not assessed during the 2011-2012 academic year.                           |   |   | This SLO will be assessed in the 2012-2013 AY.   |
| Explain the role of the immune system in challenging infection.  | Average score of 78.8% on set of exam questions on the immune system.<br><br>Goal: 80%  | F | Thais and I discussed ways to simplify the complexity of the immune system so students understand and retain core concepts.                     | Homework assignments and in-class activities have been developed to further engage students and increase comprehension.                              |
| Correctly perform aseptic technique and follow protocols in the microbiology laboratory.   | This SLO was not assessed during the 2011-2012 academic year.                           |   |   | In the 2012-2013 AY, this SLO will be assessed based on successful identification of an unknown organism, using lab techniques learned all semester. |