<div style="border:1px solid black; text-align:center; font-weight:bold;">

Course Outcomes Guide

</div>

Directions: Please complete this form to document your progress toward improving student learning. For each item, indicate your progress and your anticipated next steps. Thank you!

Course/Program Title: BTC-102 Introduction to Applied Biotechnology/ Biotechnology Program

Date: September 8, 2011

Course/Program Team: Alicia Manfre, Mylynh Nguyen, Judith Peisen

Expected Learning Outcomes

1. Explore laboratory science skills required in the research field by participating in a research project guided by the Faculty Supervisor that utilizes sound scientific research procedures.

2. Explore career opportunities in Biotechnology and develop an understanding of the skills required to achieve a career in the area of their choice.

3. Maintain a working record of new skills and tasks learned while working at the InnovaBio-MD site.

Assessment (How do or will students demonstrate achievement of each outcome? Please attach a copy of your assessment electronically.)

- Explore laboratory science skills by participating in a research project that utilizes sound scientific research procedures
  - Research projects will be selected by faculty supervisor and tailored to the skill level of the students enrolled in the course
  - Research notebooks will be kept by the student to document what skills they learn during the course of the semester.
- Explore career opportunities in Biotechnology and develop an understanding of the skills required to achieve a career in the area of their choice
  - Students are required to write a paper describing a career in biotechnology and explore the skill set required to work in that particular job
- Maintain a working record of new skills and tasks learned while working at the InnovaBio-MD site
  - Research notebooks will be kept by the student to document each new skill learned and each task done during the course of the semester
  - A reflective journal will be kept by the students to maintain a record of how the student feels about the skills/tasks done during the class

Validation (What methods have you used or will you use to validate your assessment?)

- Notebooks are reviewed by faculty supervisor periodically throughout the semester.
    - Notebooks for students who took course during Summer 2011 were collected and reviewed five times during the 10 week semester.
        - Same thing is currently being done for Fall 2011 students
    - The notebooks that were collected properly documented each new skill learned and task accomplished during the semester.
    - Journal reflections were collected at the end of the semester and put into the folder for each student enrolled in BTC102 during Summer of 2011.
        - Same thing is currently being done for Fall 2011 students
- The faculty supervisor will have weekly meetings with the InnovaBio-MD Lab Assistant to determine if the student is learning the skills being taught in the lab
    - During the summer of 2011, the faculty supervisor met with the InnovaBio-MD Lab Assistant to discuss the progress of each BTC102 student throughout the semester. Through these meetings it was possible to determine where changes were necessary to facilitate student learning and encourage learning.
- The paper describing a career in biotechnology was written by each student.
    - Feedback from the students indicated that this assignment was helpful in allowing them to determine which skills they will need to pursue a biotechnology career.

Results (What do your assessment data show? If you have not yet assessed student achievement of your learning outcomes, when is assessment planned?)

This is a lab-based course, and does not have any traditional exams. 100% of the students who took the course passed and were successful in learning new skills and techniques.

Follow-up (How have you used or how will you use the data to improve student learning?)

In Progress

Budget Justification (What resources are necessary to improve student learning?)

We need a full-time staff member committed to helping faculty complete the SLOA documentation and guide us through how to do this.