

Annual Assessment Report

Academic Year: 2013/14

Department: Microbiology and Immunology

Program(s): Microbiology

Assessment reports are to be submitted annually to report assessment activities and results by program. The reports are due every summer with a deadline of September 15th each year.

The use of this template is entirely optional.

Note: These reports have been required by MSU policy since 2004.

1. What Was Done

Based on our assessment plan, we evaluated program Learning Outcomes 2 and 5 this year.

- 2: Our graduates will be able to experimentally design and test a hypothesis
- 5. Our graduates will be able to verbally communicate microbiological concepts

2. What Data Were Collected

2. An assignment from our Research Methods in Microbiology (BIOM 455) course was collected, and a random sample of the assignment was scored using our 'Microbiology Assessment Form Learning Objective 2' scoring rubric (a copy of the form is attached).

5. Presentations from our capstone course (BIOM 494) and Educational Methods course (BIOM 497) were evaluated from a random sample of the student presentations and scored using our 'Microbiology Assessment Form for Learning Objective 5' scoring rubric. (a copy of form is attached).

3. What Was Learned

- 2. Students scored above the threshold on all aspects of 'experimental design and hypothesis testing.
- 5. While the majority of the aspects of communication on the scoring rubric scored at or above our threshold values, we identified some weakness in the ability to explain information, make critical judgments and effectively interpret scientific information in some students.

4. How We Responded

2. Our assessment indicated that no changes are needed regarding learning objective 2.

5. Additional emphasis on organization of information, making critical judgments and effective interpretation of scientific information will be covered in the Educational methods and Capstone courses.

Microbiology Assessment Form Scoring Rubric: Learning Objective 2

Course: _____

Semester _____

Evaluator: _____

Dept. of Evaluator _____

Type of Learning Activities(s) Assessed: choose one of the following:

Written examination

Written assignment

In class activities (role play, class discussion, presentations)

Performance of Lab Procedure

Out of class activities (projects)

Other (please specify)

Learning Objective Assessed:

2. Experiment Design & Test Hypothesis

Learning Objective	Performance Level				
Student should:					
<i>a. demonstrate an ability to formulate hypotheses and design experiments based on the scientific method</i>	1	2	3	4	5
<i>b. analyze and interpret results from a variety of microbiological methods and apply these methods to analogous situations</i>	1	2	3	4	5
<i>c. show they can <u>make critical judgements</u> about scientific material</i>	1	2	3	4	5

1 = Not Done

*2 = **Performed but with poor execution – threshold level (see note below)**

3 = Adequate Performance; Met Expectations

4 = Performance Well Executed; Exceeds Expectation

5 = Performance Excellent; Exceeds Expectations Plus

❖ **threshold level:** if student performance falls below this threshold faculty action will be taken to improve the program.

Microbiology Assessment Form Scoring Rubric: Learning Objective 5

Course: _____

Semester _____

Evaluator: _____

Dept. of Evaluator _____

Type of Learning Activities(s) Assessed: choose one of the following:

Written examination

Written assignment

In class activities (role play, class discussion, presentations)

Performance of Lab Procedure

Out of class activities (projects)

Other (please specify)

Learning Objective Assessed:

5. Verbally Communicate about a fundamental and modern microbiological concepts

Learning Objective	Performance Level
Student should:	
a. show they can effectively <u>explain information</u> related to Microbiology	1 2 3 4 5
b. show they can <u>summarize information</u> related to Microbiology	1 2 3 4 5
c. show they can <u>make critical judgements</u> about scientific material	1 2 3 4 5
d. show they can <u>effectively interpret scientific information</u>	1 2 3 4 5

1 = Not Done

❖ **2 = Performed but with poor execution – threshold level (see note below)**

3 = Adequate Performance; Met Expectations

4 = Performance Well Executed; Exceeds Expectation

5 = Performance Excellent; Exceeds Expectations Plus

❖ **threshold level:** if student performance falls below this threshold faculty action will be taken to improve the program.