



2015-2016 CSCI EETF Assessment Year End Report, June, 2016

Program Name(s)	EETF Faculty Rep	Department Chair
MS Biological Sciences		Don gailey

[NOTE: Items A, B, C, and D are identical to your Page 2 on your Annual Report for CAPR. Please simply cut and paste from there. Item E is unique to the CSCI EETF.]

A. Program Student Learning Outcomes

1. Demonstrate a broad and sophisticated understanding that contributes to biological concepts and principles across all levels of biological organization, from ions to ecosystems.
2. Demonstrate expertise in a specific area of biological science.
3. Independently apply the scientific method to formulate testable biological hypotheses, analyze empirical data, and synthesize the results of the analysis.
4. Clearly communicate the design and results of an observational or experimental analysis in a variety of formats, including the graduate thesis, scientific paper, scientific poster, and oral presentation.
5. Gather and evaluate primary scientific literature and judge the value of the information presented in relation to particular biological questions.

B. Program Student Learning Outcome(s) Assessed

We did not assess any program learning outcomes in AY 2015-2016. That said, we did use the Oral Defense Rubric (See Appendix) in two oral defenses to assess ease of use.

C. Summary of Assessment Process

Assessment of PLOs 2, 3, 4 and 5: The capstone experience for our M.S. graduate students in the Department of Biology is the University Thesis (see Curriculum Map in the Appendix). To complete this capstone experience, our M.S. degree students must write a University Thesis and successfully defend their research in an “Oral Defense” in front of a committee of at least three faculty members. Going forward we plan to assess both the University Thesis and the Oral Defense using the Rubrics included in the Appendix. First, each member of the committee will complete an “Oral Defense Assessment Form” during the defense. After the oral defense, the scores will be discussed then submitted to the graduate coordinator for analysis and inclusion in the annual report. Second, the major thesis advisor (this will be optional for the committee

members) will complete and submit a “Written Thesis Rubric” of the first draft of the thesis. This will give our department an idea of how proficient our students are at PLOs 2, 3, 4 and 5 in written format. Average scores above 80% for each PLO will signal success. Percentages that fall below 80% for specific PLOs will highlight areas where improvement is needed. Assessment of PLO1: With Semester Conversion, we have rewritten our roadmap to ensure that our students take our courses in the correct order. Graduate Seminar will be taken after the Core II courses have been completed. Thus, our M.S. degree students should be able to demonstrate a broad and sophisticated understanding of biological concepts and principles across all levels of biological organization by the time they enter this course. While the department is still in the process of working out final details, one idea is to assess student’s general knowledge in a one broad area of research by asking the student’s enrolled in this course to complete a written exam on the first day of this course. Broad areas of research include Cell and Molecular Biology, Ecology, Physiology and Microbiology. We offer graduate seminar in each of these areas.

D. Summary of Assessment Results

We do not have any results to present at this time. In our preliminary assessment of two oral defenses completed during the Fall of 2016 we find that the Oral Defense Rubric will be an effective method for assessing PLOs 2, 3, 4 and 5 for AY 2016-2017.