Educational Program Institutional Effectiveness Summary 2008 - 2011

Degree Program: Ph.D. Marine Biology  
College/School: College of Arts and Sciences  
Department: Biology and Marine Biology  
Submission Date: January 31, 2012

Student Learning Outcomes

A graduate student should be able to
1. develop a research plan.  
2. independently answer questions regarding their research field.  
3. communicate his or her research to a broadly-trained public audience.  
4. write up his or her research in the form of multiple manuscripts for publication in scientific journals.  
5. create new teaching materials.

Assessment Methods

All students
1. complete and defend a dissertation proposal: SLO 1  
2. complete written and oral comprehensive exams: SLO 2  
3. present dissertation research at a departmental seminar: SLO 3  
4. complete a multi-chapter dissertation: SLO 4  
5. complete a teaching practicum and formal lecture or laboratory presentation in an undergraduate course: SLO 5

Each assessment is completed by faculty using a multi-dimension rubric.

Summary of Assessment Results

The Ph.D. Marine Biology program, started in 2002, graduated eight students in this three-year time period.

SLO 1 was assessed in 2010-2011 using a four-dimension rubric. The sample size was small (n=4), with 100% of students performing at levels 4 or 5 on all dimensions except for literature synthesis, on which only one student did not reach level 4.

Data for SLO 2 were not collected at the program level for the first few years. As a measure to increase faculty response, all faculty assessment forms have been placed online and the Graduate Secretary for the department issues reminders and links for this and all other assessment tools at the times they should be completed.

**Since the start of the Fall 2011 semester we have now received 4 responses to this SLO. In 2011, 100% of scores were 4 or above on all dimensions except articulation and depth of knowledge, for which 75% of students performed at level 4 or better.**
SLO 3 was assessed in 2008-2009 and 2010-2011 using a four-dimension rubric. All faculty members in attendance at a seminar presentation are asked to submit scores. In 2008-2009 over 90% of scores received were 4 or above on all dimensions. In 2010-2011, 85% of scores were 4 or above on presentation quality and poise, but at lower levels on research and ability to answer questions (only 54% were scores of 4 or above). However, the 2010-2011 must be viewed with caution due to the small sample size.

SLO 4 was assessed in 2008-2009 and 2010-2011 using a five-dimension rubric. In 2008-2009 over 85% of students scored satisfactorily in all categories. In 2010-2011, 67% of students performed satisfactorily on dissertation quality, masterly of research, and likelihood of publication. It is important to recognize that only three students submitted dissertations in that academic year.

SLO 5 was assessed for one student in 2010-2001. The overall effectiveness of teaching was assessed as very good (level 5).

**Implemented Improvements Based on Assessment Results**

To improve the return rate of assessment forms, all faculty assessment forms have been placed online and the Graduate Secretary for the department issues reminders and links for this and all other assessment tools at the times they should be completed.

All assessment results to date were discussed at a faculty retreat in August 2011. No actions were recommended. We will continue to collect data on all SLOs and monitor student performance over several years, and with greater numbers, before making any changes to our program. Faculty members were also reminded of the importance of submitting assessment scores for advisees on all five measures. All assessment forms have been placed online to facilitate the process.

**Documentation** (attached)