

Student Learning Outcomes Assessment Summary

MS Marine Biology

College of Fisheries and Ocean Sciences

AYs 2016/17 & 2017/18

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1. Assessment information collected

1. Comprehensive examinations*
2. Audience evaluations of oral thesis defense, with rankings on a scale of 1-5 (1 being excellent, 5 being poor)*
3. Review of graduate theses by Department Chair (rankings: Acceptable, Good, Very good, Outstanding)
4. Presentations and publications by graduates*
5. First employment of graduates*
6. Exit interview questionnaires collected from graduates to assess satisfaction with program and educational outcomes (rankings: not satisfied, mostly satisfied, very satisfied)*

** Notes and background: Since the last submission of a SLOA summary a number of significant changes have occurred that influence the MS and PhD Marine Biology SLOAA summary (and plan). Most notably SFOS has transitioned to CFOS, which has seen the development of individual departments led by department chairs (i.e. transitioned from the GPMSL head that previously oversaw the GPMSL programs to Department heads). In the past year the Department of Marine Biology has also seen the transition to a new Department Chair (Dr. Matthew Wooller). In the past academic year the Department of Marine Biology Chair and Faculty have developed a series google forms to automate the collection of data. The Department of Marine Biology has also reviewed and updated its SLOA plans for both the MS and PhD programs. This included the development of a departmental mission statement, and core values, which are aimed at guiding the departments OA objectives. Therefore the faculty in the Department of Marine Biology have worked to modify both the SLOA summary and plan this year.*

2. Conclusions drawn from the information summarized above

Between 2015 and present 12 students took their comprehensive exams. By 2018 all of these students have passed and the department has now transitioned to a new comprehensive exam format (details below). No students failed their comprehensive exam since 2015. Of the 12 students that took their comprehensive exams since 2015, 6 passed on their first and 6 passed with a conditional pass. The students that received a conditional pass have all now fully passed their comprehensive exams.

Between 2015 and present 16 students graduated during this time period, following successful defense of their theses. In the past year the department has developed and transitioned to collecting data via Google forms on evaluations of student defenses by

peers and faculty. The first few minutes before a student is to make a defense presentation the audience will be directed towards an online link where they will receive the google form. The audience, composed of peers and faculty, will then have access to a google form that will allow easy and quick assessment of the presenting student's performance. Questions on the form have been geared to acquire quantitative metrics assessing student performance.

All students have given multiple public presentations of their work. Students have gone on to PhD programs, employment by management agencies, and working as research technicians.

Students reported mostly positive experiences in their exit interviews, when submitted. The Department of Marine Biology has also, in the last year, developed a google form to aid in the acquisition of information related to their exit interview. This includes information about their employment and publications of their work since graduation. All students reported excellent research experiences and training. Of the 16 students that graduated since 2015 5 are employed in academia, 6 are employed in state or federal agencies and 5 are employed in marine science related private companies (1 = unknown).

3. Curricular changes resulting from conclusions drawn above

A new MA in Marine Science was created to address the needs of students who want an advanced degree for professional advancement but don't necessarily need the more involved research experience that is involved in the MS. This option may also attract students who are working full time, e.g. in management agencies, allowing them to take classes and complete a graduate degree in a timely manner while still continuing to work.

The MS comprehensive exam requirement was evaluated in some detail, in an effort to address complaints about its effectiveness, as well as low first-time success rates particularly among Marine Biology MS students. Over the last 2 years the Department of Marine Biology discussed the structure of MS comprehensive exam. It was determined that the comprehensive exam structure would shift to a similar structure to the Marine Biology PhD program, where students prepare a public presentation of their research. The exam consists of a public defense of the student's proposed thesis plan, followed by a closed-door oral examination administered by the student's advising committee plus one additional outside examiner from the Marine Biology department. This examiner can include any research or tenure-track faculty member in Marine Biology, and will be assigned by the Academic Programs Office. The exam is administered after the student has completed the three required core courses (Marine Biology, Biological Oceanography, and Physiology of Marine Organisms), and has produced, at minimum, a solid working draft of their thesis proposal. The description of

the exam is included in the student handbook supplied to the students from the Academic Programs Office. One student (Audrey Rowe), who was already in the M.S. Marine Biology program, was given the option of either taking the old or new comprehensive exam format. She opted for the new format and found the experience to be positive and constructive.

Overall, enrollment, graduation rates and student satisfaction have been excellent in the MS Marine Biology program. Students continue to enjoy opportunities to participate in a variety of research and outreach activities, and go on to find good jobs in their fields.

4. Identify the faculty members involved in reaching the conclusions drawn above and agreeing upon the curricular changes resulting

The Chair of the Department of Marine Biology is responsible for completing dissertation evaluation forms and reviewing exit interviews and accomplishment forms. All attendees are invited to complete defense evaluations. This report was prepared using archived data from during the previous department chair (Sarah Hardy) prior to Dr. Wooller starting as department chair in 2017. Wooller has reviewed dissertations since spring 2017 first-hand. The GPMSL Outcomes Assessment Committee has in the past contributed to program review, but has transitioned to being reviewed by the Chair of the Department of Marine Biology along with the faculty in the Department of Marine Biology (resulting from the organizational restructuring of SFOS to CFOS).