

**Appendix 3: Student Learning Outcomes Assessment
Graduate Program in Marine Sciences and Limnology
M.S. in Marine Biology**

Mission Statement: The Graduate Program in Marine Sciences and Limnology (GPMSL) is committed to providing quality graduate education through student-faculty collaboration in research and scholarly endeavor.

Goal Statement: Our goals are to assure that our graduates 1) are competent scientists, and adequately prepared to succeed in the job market in their chosen field, 2) are prepared to teach Marine Sciences at the community college or lower division undergraduate level, 3) are prepared to enter a PhD program, 4) have excellent oral and written communication skills, 5) have mastery of the core knowledge of marine science and be an expert in the subject area of their dissertation or thesis, 5) be capable of accomplishing rigorous scientific research, and 6) be satisfied with the quality of their educational and research experiences.

Graduates will have a strong fundamental understanding of the physics, biology, chemistry, and geology of the oceans; a rigorous, in-depth knowledge of their specialty; understanding of the principles that guide the design and execution of high-quality research; and experience in the design and execution of original research. Graduates will be able to teach and to communicate scientific issues to the public.

Intended Outcomes/Objectives	Assessment Criteria and Procedures	Implementation
<ol style="list-style-type: none"> 1. Graduates will be competent scientists, and adequately prepared to succeed in the job market in their chosen field. 2. Graduates will be prepared to teach Marine Sciences at the community college or lower division undergraduate level. 3. Graduates will be prepared to enter a Ph.D. program. 4. Graduates will have excellent oral and written communication skills. 5. Graduates will have mastery of the core knowledge of marine science, and be an expert in the subject area of their thesis. 6. Graduates will be capable of accomplishing rigorous scientific research. 7. Graduates will be satisfied with the quality 	<ol style="list-style-type: none"> A. All students must pass a written Comprehensive Exam assessing broad disciplinary knowledge, the ability to apply that knowledge to interdisciplinary problems in the marine sciences, and in-depth knowledge of the field of specialization [for all outcomes except 7]. B. Students are required to write a thesis interpreting the results of original research [for outcomes 1, 3, 4, 5, and 6]. C. Students are required to pass an oral defense of the thesis, which includes a public presentation [for outcomes 2, 3, 4, 5, and 6]. D. Students will present at least one public presentation on their dissertation research outside of SFOS. This can include presentations elsewhere within UAF [for all outcomes except 7]. 	<ol style="list-style-type: none"> I. The Comprehensive Exams administered during each year will be evaluated, collectively, by the GPMSL Outcomes Assessment Committee (OAC). Every three years, the OAC will look for temporal trends in performance on exams from the past five years. II. The Department Head of GPMSL will assess research competence and written communication skills by reviewing all M.S. theses submitted each year. The OAC will review these evaluations. III. A representative of the OAC will prepare a written evaluation of each student's communication skills and the scientific content of the oral thesis defense. These evaluations will be reviewed by the OAC annually. IV. GPMSL will compile information on

<p>of their educational and research experiences.</p>	<p>E. 50% of graduates will submit a manuscript based on their Master’s research to a peer-reviewed scientific journal within 1 year of graduating. 25% of graduates will be first author on a peer-reviewed scientific article within 3 years of graduating [for all outcomes except 7].</p> <p>F. 80% of graduates seeking employment or continued education in marine sciences, or other fields relevant to their education, will succeed within one year of graduation [for all outcomes].</p> <p>G. 80% of graduates will be satisfied, overall, with the education they received through GPMSL [for all outcomes].</p>	<p>graduates’ presentation and publication record. Every year, the OAC will review these data to examine their overall success.</p> <p>V. GPMSL will compile information on graduates’ first. Every three years, the OAC will examine the data for trends in employment success or type.</p> <p>VI. One and three years after graduation, GPMSL will ask graduates to complete a questionnaire, addressing their job search, employment, and satisfaction with the education received through GPMSL. Completed questionnaires will be reviewed by the OAC annually.</p>
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