

UNIVERSITY OF ALASKA FAIRBANKS  
**Student Learning Outcomes Assessment Plan**  
 College of Fisheries and Ocean Sciences M.S. in Marine Biology  
 Department of Marine Biology CFOS

Date: 2018

Expanded Statement of Institutional Purpose	Intended Objectives/Outcomes	Assessment Criteria and Procedures	Implementation (what, when, who)
<p><b>MISSION STATEMENT:</b></p> <p>The faculty at the Department of Marine Biology is dedicated to providing exceptional high-latitude research and education experiences and support for our students.</p> <p><b>CORE VALUES:</b></p> <p><u><b>A core part of Alaska:</b></u> Alaska's marine ecosystems are the focal point of our research and education endeavors, and we emphasize field work and relevance to stakeholders.</p> <p><u><b>Core team values:</b></u> Our collaborative team is dedicated to research, service, education and balancing a strong work ethic with a good sense of humor and love of life.</p> <p><u><b>Education at our core:</b></u> We are on a quest for knowledge, are committed to education, and strive to provide exceptional high-latitude experiences and support for our students.</p>	<p>1) Graduates will be competent scientists, and adequately prepared to succeed in the job market in their chosen field.</p>	<p>All students must pass a Comprehensive Exam assessing interdisciplinary knowledge in the field of Marine Biology and in-depth knowledge of their field of specialization. It is expected that 50% of our students will pass this exam after the first try and that 95% will pass after the second.</p> <p>Students are required to write a thesis interpreting the results of original research. The quality of the research and written thesis is equal to what would be expected from a peer-reviewed journal article. It is expected that 75% of our students will submit their thesis research to a peer-reviewed journal for publication.</p> <p>Students will present their thesis in a public forum, followed by a closed-session questioning by the student's advisory committee. Quality of thesis presentations will be equal to what is expected from a presentation at a scientific conference. 90% of our students will give presentations that are deemed conference quality by their peers.</p> <p>Students will present at least one public presentation on their thesis research outside of the College of Fisheries and Ocean Sciences. This can include presentations elsewhere within UAF. 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</p>	<p>The Department of Marine Biology will collect quantifiable data concerning comprehensive exam outcomes with Google form "Comprehensive Exam". The form is designed so that quantifiable outcomes are automatically collated and available for SLOA. Data from these forms will be evaluated each year, collectively, by the Department of Marine Biology Faculty. Every three years, the Department of Marine Biology Faculty will look for temporal trends in performance on exams from the past five years.</p> <p>The Department of Marine Biology Chair will assess research competence and written communication skills by reviewing all M.S. theses submitted each year. The Chair will complete Google form "Thesis Evaluation", which will automate the collection of quantifiable outcomes. The Department of Marine Biology Faculty will review the results from these evaluations.</p> <p>Thesis presentation quality will be assessed with Department of Marine Biology Google form "Thesis Defense", which will be completed by the audience during the defense, aiming for representation in the responses by graduate students and faculty. The form allows to evaluate and quantify each student's communication skills and the scientific content of the oral thesis defense. This procedure will automate the collection of quantifiable outcomes. These evaluations will be reviewed by the Department of Marine Biology</p>

		<p>on a peer-reviewed scientific article within 3 years of graduating.</p> <p>80% of graduates will be satisfied, overall, with the education they received through GPMSL.</p> <p>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.</p> <p>80% of graduates will find that the education they received through their Marine Biology degree prepared them well for their continued professional endeavors.</p>	<p>Faculty annually.</p> <p>Upon graduation, each student will be asked to fill out the Department of Marine Biology Google form "Exit Interview". The questionnaire includes quantifiable questions about satisfaction with their education as well as research accomplishments (presentations, publications). Every year, the Department of Marine Biology Faculty will review these data to examine their overall success. Every three years, the Department of Marine Biology Faculty will examine the data for trends in employment success or type.</p> <p>One and three years after graduation, Department of Marine Biology faculty will ask graduates to complete a "Post-Graduation Questionnaire" (prepared as a Google form by the Department of Marine Biology), addressing their job search, employment, and satisfaction with the education received through the Department of Marine Biology. Completed forms will be reviewed by the Department of Marine Biology Faculty annually.</p>
	<p>2) Graduates will be prepared to teach Marine Sciences at the community college or lower division undergraduate level.</p>	<p>All students must pass an oral Comprehensive Exam assessing interdisciplinary knowledge in the field of Marine Biology, and in-depth knowledge of their field of specialization. It is expected that 50% of our students will pass this exam after the first try and that 95% will pass after the second.</p> <p>Students are required to pass an oral defense of the thesis, which includes a public presentation.</p> <p>Students will present at least one public presentation on their dissertation research outside of SFOS. This can include presentations elsewhere within UAF</p>	<p>The Comprehensive Exams administered during each year will be evaluated, collectively, by the Department of Marine Biology Faculty. Every three years, the Department of Marine Biology faculty will look for temporal trends in performance on exams from the past five years.</p> <p>The Marine Biology Department Chair will assess research competence and written communication skills by reviewing all M.S. theses submitted each year. The Department of Marine Biology Faculty will review these evaluations.</p> <p>A representative of the Department of Marine Biology Faculty will prepare a written evaluation of each student's</p>

		<p>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</p> <p>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</p> <p>80% of graduates will be satisfied, overall, with the education they received through GPMSL.</p>	<p>communication skills and the scientific content of the oral thesis defense. These evaluations will be reviewed by the Department of Marine Biology Faculty annually. The Department of Marine Biology will compile information on graduates' presentation and publication record. Every year, the Department of Marine Biology Faculty will review these data to examine their overall success.</p> <p>One and three years after graduation, Department of Marine Biology faculty will ask graduates to complete a "Post-Graduation Questionnaire" (prepared as a Google form by the Department of Marine Biology), addressing their job search, employment, and satisfaction with the education received through the Department of Marine Biology. Completed forms will be reviewed by the Department of Marine Biology Faculty annually.</p>
	3) Graduates will be prepared to enter a Ph.D. program.	<p>All students must pass an oral 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. It is expected that 50% of our students will pass this exam after the first try and that 95% will pass after the second.</p> <p>Students are required to write a thesis interpreting the results of original research</p> <p>Students are required to pass an oral defense of the thesis, which includes a public presentation. Students will present at least one public presentation on their dissertation research outside of SFOS. This can include presentations elsewhere within UAF</p> <p>50% of graduates will submit a manuscript based on their Master's research to a peer-</p>	<p>The Comprehensive Exams administered during each year will be evaluated, collectively, by the Department of Marine Biology Faculty. Every three years, the Department of Marine Biology faculty will look for temporal trends in performance on exams from the past five years.</p> <p>The Marine Biology Department Chair will assess research competence and written communication skills by reviewing all M.S. theses submitted each year. The Department of Marine Biology Faculty will review these evaluations.</p> <p>A representative of the Department of Marine Biology Faculty 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 Department of Marine Biology Faculty annually. The Department of Marine Biology will compile information on graduates' presentation and publication record. Every year,</p>

		<p>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</p> <p>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</p> <p>80% of graduates will be satisfied, overall, with the education they received through GPMSL</p>	<p>the Department of Marine Biology Faculty will review these data to examine their overall success.</p> <p>One and three years after graduation, Department of Marine Biology faculty will ask graduates to complete a "Post-Graduation Questionnaire" (prepared as a Google form by the Department of Marine Biology), addressing their job search, employment, and satisfaction with the education received through the Department of Marine Biology. Completed forms will be reviewed by the Department of Marine Biology Faculty annually.</p>
	4) Graduates will have excellent oral and written communication skills.	<p>All students must pass a 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.</p> <p>Students are required to write a thesis interpreting the results of original research</p> <p>Students are required to pass an oral defense of the thesis, which includes a public presentation.</p> <p>Students will present at least one public presentation on their dissertation research outside of SFOS. This can include presentations elsewhere within UAF</p> <p>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</p> <p>80% of graduates seeking employment or continued education in marine sciences, or other fields relevant to their</p>	<p>The Comprehensive Exams administered during each year will be evaluated, collectively, by the Department of Marine Biology Faculty. Every three years, the Department of Marine Biology faculty will look for temporal trends in performance on exams from the past five years.</p> <p>The Marine Biology Department Chair will assess research competence and written communication skills by reviewing all M.S. theses submitted each year. The Department of Marine Biology Faculty will review these evaluations.</p> <p>A representative of the Department of Marine Biology Faculty 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 Department of Marine Biology Faculty annually. The Department of Marine Biology will compile information on graduates' presentation and publication record. Every year, the Department of Marine Biology Faculty will review these data to examine their overall success.</p> <p>One and three years after graduation, Department of Marine</p>

		<p>education, will succeed within one year of graduation</p> <p>80% of graduates will be satisfied, overall, with the education they received through GPMSL</p>	<p>Biology faculty will ask graduates to complete a "Post-Graduation Questionnaire" (prepared as a Google form by the Department of Marine Biology), addressing their job search, employment, and satisfaction with the education received through the Department of Marine Biology. Completed forms will be reviewed by the Department of Marine Biology Faculty annually.</p>
	<p>5) Graduates will have mastery of the core knowledge of marine science, and be an expert in the subject area of their thesis.</p>	<p>All students must pass a 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.</p> <p>Students are required to write a thesis interpreting the results of original research</p> <p>Students are required to pass an oral defense of the thesis, which includes a public presentation.</p> <p>Students will present at least one public presentation on their dissertation research outside of SFOS. This can include presentations elsewhere within UAF</p> <p>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</p> <p>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</p> <p>80% of graduates will be satisfied, overall, with the education they received through GPMSL.</p>	<p>The Comprehensive Exams administered during each year will be evaluated, collectively, by the Department of Marine Biology Faculty. Every three years, the Department of Marine Biology faculty will look for temporal trends in performance on exams from the past five years.</p> <p>The Marine Biology Department Chair will assess research competence and written communication skills by reviewing all M.S. theses submitted each year. The Department of Marine Biology Faculty will review these evaluations.</p> <p>A representative of the Department of Marine Biology Faculty 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 Department of Marine Biology Faculty annually. The Department of Marine Biology will compile information on graduates' presentation and publication record. Every year, the Department of Marine Biology Faculty will review these data to examine their overall success.</p> <p>One and three years after graduation, Department of Marine Biology faculty will ask graduates to complete a "Post-Graduation Questionnaire" (prepared as a Google form by the Department of Marine Biology), addressing their job search, employment, and satisfaction with the education</p>

			received through the Department of Marine Biology. Completed forms will be reviewed by the Department of Marine Biology Faculty annually.
	6) Graduates will be capable of accomplishing rigorous scientific research.	<p>All students must pass a 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.</p> <p>Students are required to write a thesis interpreting the results of original research.</p> <p>Students are required to pass an oral defense of the thesis, which includes a public presentation Students will present at least one public presentation on their dissertation research outside of SFOS. This can include presentations elsewhere within UAF</p> <p>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</p> <p>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.</p> <p>80% of graduates will be satisfied, overall, with the education they received through GPMSL</p>	<p>The Comprehensive Exams administered during each year will be evaluated, collectively, by the Department of Marine Biology Faculty. Every three years, the Department of Marine Biology faculty will look for temporal trends in performance on exams from the past five years.</p> <p>The Marine Biology Department Chair will assess research competence and written communication skills by reviewing all M.S. theses submitted each year. The Department of Marine Biology Faculty will review these evaluations.</p> <p>A representative of the Department of Marine Biology Faculty 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 Department of Marine Biology Faculty annually. The Department of Marine Biology will compile information on graduates' presentation and publication record. Every year, the Department of Marine Biology Faculty will review these data to examine their overall success.</p> <p>One and three years after graduation, Department of Marine Biology faculty will ask graduates to complete a "Post-Graduation Questionnaire" (prepared as a Google form by the Department of Marine Biology), addressing their job search, employment, and satisfaction with the education received through the Department of Marine Biology. Completed forms will be reviewed by the Department of Marine Biology Faculty annually.</p>
	7) Graduates will be satisfied with the quality of their educational and research experiences.	80% of graduates seeking employment or continued education in marine sciences,	One and three years after graduation, Department of Marine Biology faculty will ask graduates

		<p>or other fields relevant to their education, will succeed within one year of graduation</p> <p>80% of graduates will be satisfied, overall, with the education they received through GPMSL</p>	<p>to complete a "Post-Graduation Questionnaire" (prepared as a Google form by the Department of Marine Biology), addressing their job search, employment, and satisfaction with the education received through the Department of Marine Biology. Completed forms will be reviewed by the Department of Marine Biology Faculty annually.</p>
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