

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: October 2025

Expanded Statement of Institutional Purpose	Intended Objectives/Outcomes	Assessment Criteria and Procedures	Implementation (what, when, who)
MISSION STATEMENT: The faculty at the Department of Marine Biology is dedicated to providing exceptional high-latitude research and educational experiences and support for our students. CORE VALUES: <u>A core part of Alaska:</u> Alaska's marine ecosystems are the focal point of our research and education endeavors, and we emphasize field work and relevance to stakeholders. <u>Core team values:</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. <u>Education at our core:</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.	1) Graduates will be competent scientists and adequately prepared to enter a PhD program and/or succeed in the job market in their chosen field.	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. Students will present their proposed research in a public forum followed by a closed-door exam. The comprehensive exam is administered by the student's advisory committee and an additional member of the Marine Biology faculty not part of the student's committee. It is expected that 50% of our students will pass this exam after the first try and that 95% will pass after the second. 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 50% of our students will submit and eventually publish their thesis research to a peer-reviewed journal for publication within 3 years of graduation. Students will defend their thesis research in a public forum, followed by a closed-door session. The students' advisory committee will question the student on their research and discuss final points to be addressed in the thesis document before submission to the department chair. Students will present at least one public presentation on their thesis research outside of the College of Fisheries and Ocean Sciences. It is expected that 75% of students will present their research at a local, national, or international conference at least once during their tenure in CFOS. Students are strongly encouraged to	The Department of Marine Biology will collect data on comprehensive exam outcomes as part of graduate school forms. Successful completion of the required coursework (MBI 610, 615, and OCN 650) with passing grades according to program requirements, as well as electives relevant to the students' thesis research. Successful completion of courses, such as MBI 601, 602, participation in the 3-minute thesis competition, workshops (e.g., through EPSCoR). The Department of Marine Biology student committees and the Department Chair will assess research competence and written communication skills by reviewing all theses submitted each year. The Department of Marine Biology will collect data on student-authored publications in the peer-reviewed literature, local, national, and international conference attendance and presentations by students. Student success in proposal/fellowship self-funding and external awards are especially useful indicators of science competency, as these grant opportunities are highly competitive and evaluated by individuals outside of CFOS. The Department of Marine Biology will collect data on student success in the job market following graduation.

		compete for grants and fellowship support for their thesis research to demonstrate scientific relevance, subject area expertise, and strong written communication skills. We anticipate that 75% of students will have success in supporting their thesis research with at least one award during their tenure at CFOS. 50% of students will take advantage of at least one professional development, e.g., MBI 601, 602, 3-minute thesis competition, workshops (e.g., through EPSCoR) or outreach opportunities (e.g., science fair, Research Day, presentations to tribal councils). 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.	
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	2) Graduates will have excellent oral and written communication skills. They will have mastery of the core knowledge of marine science and be an expert in the subject area of their thesis.	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. The comprehensive exam is administered by the student's advisory committee and an additional member of the Marine Biology faculty not part of the student's committee. It is expected that 50% of our students will pass this exam after the first try, and that 95% will pass after the second attempt. 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 50% of our students will submit and eventually publish their thesis research to a peer-reviewed journal for publication within 3 years of graduating. Students will present at least one public presentation on their thesis research outside of the College of Fisheries and Ocean Sciences. It is expected that 75% of students will present their research at a local, national, or international conference at least once during their tenure in	The Department of Marine Biology will collect data on comprehensive exam outcomes as part of graduate school forms. Successful completion of the required coursework (MBI 610, 615, and OCN 650) with passing grades according to program requirements, as well as electives relevant to the students' thesis research. Successful completion of courses, such as MBI 601, 602, participation in the 3-minute thesis competition, workshops (e.g., through EPSCoR). The Department of Marine Biology student committees and the Department Chair will assess research competence and written communication skills by reviewing all M.S. theses submitted each year. The Department of Marine Biology will collect data on student-authored publications in the peer-reviewed literature. Publications are evaluated by independent reviewers (not CFOS associated or immediate colleagues), who will assess scientific rigor, analytical competence, and effective written communication of the thesis
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		CFOS. Students are strongly encouraged to compete for grants and fellowship support for their thesis research to demonstrate scientific relevance, subject area expertise, and strong written communication skills. We anticipate that 75% of students will have success in supporting their thesis research with at least one award during their tenure at CFOS. 50% of students will take advantage of at least one professional development, e.g., MBI 601, 602, 3-minute thesis competition, workshops (e.g., through EPSCoR) or outreach opportunities (e.g., science fair, Research Day, presentations to tribal councils).	research. The Department of Marine Biology will gather data on student attendance and presentations at local, national, and international conferences. Presentation at conferences requires social and networking skills, expertise in the students' scientific subject area, and excellent oral communication skills. Data on student success in proposal/fellowship self-funding and external awards are especially useful indicators of science competency and written communication skills, as these grant opportunities are highly competitive and evaluated by individuals outside of CFOS.
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	3) Graduates will be capable of accomplishing rigorous scientific research.	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 50% of our students will submit and eventually publish their thesis research to a peer-reviewed journal for publication within 3 years of graduating. Students will present at least one public presentation on their thesis research outside of the College of Fisheries and Ocean Sciences. It is expected that 75% of students will present their research at a local, national, or international conference at least once during their tenure in CFOS. Students are strongly encouraged to compete for grants and fellowship support for their thesis research to demonstrate scientific relevance, subject area expertise, and strong written communication skills. We anticipate that 75% of students will have success in supporting their thesis research with at least one award during their tenure at CFOS.	The Department of Marine Biology will collect data on student-authored publications in the peer-reviewed literature. Publications are evaluated by independent reviewers (not CFOS associated or immediate colleagues), who will assess scientific rigor, analytical competence, and effective written communication of the thesis research. The Department of Marine Biology will gather data on student attendance and presentations at local, national, and international conferences. Presentation at conferences requires social and networking skills, expertise in the students' scientific subject area, and excellent oral communication skills. Data on student success in proposal/fellowship self-funding and external awards are especially useful indicators of science competency and written communication skills, as these grant opportunities are highly competitive and evaluated by individuals outside of CFOS.
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