

Academic Programs Assessment Plan

Marine Science

August 2011 – August 2012

Academic Program

() Formative Assessment

(X) Summative Assessment

Assessment Period Covered

Spring 2012

Date Submitted

Institutional Mission/Strategic Goal:

Mission: Historically diverse, uniquely Micronesian and globally connected, the College of Micronesia-FSM is a continuously improving and student centered institute of higher education. The college is committed to assisting in the development of the Federated States of Micronesia by providing academic, career and technical educational opportunities for student learning.

Strategic Goal (which strategic goal(s) most support the services being provided):

The Marine Science Program promotes Strategic Goals 1, 2, and 7.

Academic Program Mission Statement :

The mission of the Marine Science AS degree program is to generate students who demonstrate a fundamental knowledge of the world ocean, who identify the important influence the world ocean has on planet Earth and daily human life, who can evaluate human actions and how these can impact marine and global ecosystems, who can apply the scientific process, and who are prepared to apply learned concepts to serve as effective stewards in Micronesia and/or transfer to a 4-year degree program.

Academic Program Outcomes:

Students will be able to:

1. Demonstrate fundamental knowledge of geological, geomorphological, physical, chemical, and biological oceanography.
2. Apply fundamental knowledge of marine sciences towards identifying and critically analyzing and outlining potential solutions for local, regional and global problems relating to marine systems.
3. Apply the scientific process to formulate hypotheses, design experiments, and collect and analyze data from which valid scientific conclusions are drawn.
4. Communicate effectively, in written and oral forms, utilizing the language and concepts of marine science.

Evaluation questions	Data sources	Sampling	Analysis
Are students able to state the factors that influence the primary productivity in the oceans, illustrate how it affects the biomass of living forms in the ocean realm, and describe the relationship of these processes to fisheries and global food production in general.	Examination	MR 240 MR 120 MR 201 MR 210	Evaluation of examination questions to determine the level of student knowledge gained.
Do students communicate biological/scientific	Submitted Projects/lab reports	MR 240 MR 254	Rubrics used to score these projects and/or lab

Evaluation questions	Data sources	Sampling	Analysis
information effectively in written, oral, or visual presentation formats?			reports
Are our program graduates finding employment and/or transferring to 4-year degree programs?	Data may come potentially from Universities, employers, but most effectively from our own tracking (small, close-knit island community; easy to follow our graduates)	Survey graduating students. Contact universities. Contact regional employers.	Expanding on the baseline data collected last year. Reporting of any observed trends relating to our graduates, maintaining communication lines with our graduates (personally tracking their progress)
Are students able to demonstrate knowledge of the diversity of marine life?	Laboratory and field activities	MR 230 Ichthyology MR 120 Marine Biol.	Lab practical quizzes and tests used to identify specimens to their correct taxonomic classifications will be analyzed by marine instructors.
Are students able to apply fundamental knowledge of marine sciences towards identifying and critically analyzing and outlining potential solutions for local, regional and global problems relating to marine systems.	Project	MR 201: Aquaculture	Students will design a sustainable aquaculture business feasible for regional application. Projects will be scored by rubric.

Timeline

Activity	Who is Responsible?	Date
Develop and administer standard pre and post exams to explore comprehension and learning of fundamental concepts in geological, geomorphological, physical, and chemical oceanography, including a rubric for any short answer questions.	Marine Science Instructors	Spring or Summer 2012
Develop and administer a standard pre and post exam to explore comprehension of fundamental concepts in marine biology including a rubric for any short answer questions	Marine Science Instructors	Spring or Summer 2012
Continue to collect and collate data on our previous program graduates. Survey students we expect to graduate. Initiate further transfer opportunities for our students abroad.	Marine Science Instructors	Spring or Summer 2012
Develop rubrics, collect reports and projects, score reports and projects, and report on results.	Marine Science Instructors	Spring or Summer 2012

Comments: