

Date: 7/17/2019

Program Name: Biology, B.S.

CIP Code: ??

Department: Biology

Domain	Program-Level Student Learning Outcome (From ALC or ALP)	Year 1	Year 2	Year 3	Year 4	Year 5
		2019-2020	2020-2021	2021-2022	2022-2023	2023-2024
<b>Content</b>	Recognize appropriate classification, with respect to anatomical, physiological, and ecological characteristics of marine microbes, plants, invertebrates, and vertebrates.	<b>Data Collection:</b> Gather baseline data in courses that introduce content knowledge from exams and baseline data from core required upper level courses that reinforce content knowledge.	<b>Improvement Plan:</b> Implement improved introductory Biology interventions (workshops, recitations, HIPs).	<b>Follow-Up Assessment - Data Collection:</b> Assess exam data that reinforce content knowledge from exams from core required upper level courses that reinforce content knowledge to assess improvement from year 1.		<b>Data Collection:</b> Gather baseline data in courses that introduce content knowledge from exams and baseline data from core required upper level courses that reinforce content knowledge.
<b>Critical Thinking</b>	Evaluate the physical, chemical and geological characteristics of the marine environment and how they impact marine biology function.		<b>Data Collection:</b> Gather baseline data from lab courses that assess experimental knowledge using exams or quizzes.	<b>Improvement Plan:</b> Implement improvement plan and interventions.	<b>Follow-Up Assessment - Data Collection:</b> Follow up from same lab courses that assess experimental knowledge using exams or quizzes.	
<b>Communication</b>	Use biological and marine environmental terminology correctly in oral and written form	<b>Data Collection:</b> Gather baseline data from courses that require paper report or presentation. Use rubric to assess baseline performance.	<b>Improvement Plan:</b> Implement communication improvement plan and interventions (workshops, recitations, HIPs).	<b>Follow-Up Assessment - Data Collection:</b> Assess communication performance using rubric from courses that require paper report or presentation.		<b>Data Collection:</b> Gather baseline data in courses that introduce content knowledge from exams and baseline data from core required upper level courses that reinforce content knowledge.
<b>Integrity / Values</b>	Recognize ethical challenges in using animals for marine biology research and ethical challenges of in situ experiments with potential environmental consequences in the field.		<b>Data Collection:</b> Assessment of student responses in a scientific ethics case study activity in BSC2844 (Biology Skills), which is required for all majors	<b>Improvement Plan:</b> Seek more involved case studies or speakers to discuss research ethics in the biological sciences	<b>Follow-Up Assessment - Data Collection:</b> Assessment of student responses in a scientific ethics case study activity to see if there were gains from previous data collection in BSC2844 (Biology Skills), which is required for all majors	

**Assessment Activity (Examples)**

Gather baseline data  
 (Revise rubric; gather data)  
 Implement actions for improvement  
 Follow-up assessment (impact data)

**Methods of Assessment**

<b>Direct Measures:</b> Exam questions Student paper (rubric) Presentation (rubric)	<b>Indirect Measures:</b> Focus group Exit interview Alumni survey	<b>External Direct Measures:</b> Supervisor/Employer feedback External Professional Exam
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