Assessment Grant Initiative Implementation Report

Awardees of all grants are asked to share their assessment projects and results with the greater UMaine community. Therefore, we are asking awardees to submit a brief summary of their findings to OA the year following their award. Please complete the form below and give a summary of your findings. This summary should be less than 500 words and report on the results of the project, any challenges encountered during implementation, and future plans. This summary will be posted on the OIRA website.

Title of Proposal: Determining and scoring program artifacts to assess learning outcomes

Department or Program: School of Biology and Ecology

Faculty Member(s) or Staff Member(s): Lynn Atkins, Farahad Dastoor

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Project Summary (500 words or less):

To assess program outcomes for each of the six majors, we examined curriculum maps specific to each of the three disciplines. Analysis of the maps revealed that there were very diverse pathways that similar students could take to satisfy the major and not all of the pathways would cover each program learning objective equally. On the whole, the majority of the students (>90%) that have graduated since 2011 have been exposed to each of the program learning objectives. However, the level to which they have been exposed, the order of the exposure and their ultimate mastery of the material is still to be determined.

We determined linchpin courses that cover the breadth of learning objectives for each major using student data from 2011 through December 2021. These linchpin courses represent courses taken by the majority of students that cover the desired program learning objectives that are being evaluated in this first data collection cycle. We will be examining Program Learning Objectives 1, 2 and 3 during the spring and fall semesters of 2023. The linchpin courses include Bio 200 (required first year student course), Bio 350: Genetics and Bio 365: Evolution (required second year courses) and Capstone classes (typically senior year). To adequately cover the required program learning objectives of interest, we will also be taking data from Bio 377: Medical Physiology (for those in the Biology or Zoology degrees, typically taken in junior year) and Bio 452: Plant Physiology for those in the Botany degree. Currently, we are identifying assessments/assignments in each of these classes that will evaluate the required program learning outcomes. Rubrics for these learning outcomes are in development. We will begin collecting data this spring and next fall for PLO 1-3, then in the next cycle (2024) we will collect data for PLOs 4-6. In 2025, we will assess the last three PLOs (7-9). This is intended to be an iterative process so that, over time, our degree programs are improved to provide even better learning outcomes for our majors.

Signature of Applicant: 

Date: 9/23/2022