Assessment of Student Learning Plan (ASLP): Biology

2017-18 Academic Year

University of Southern Maine

A. College, Department, Date

College College of Science, Technology, and Health
Department Biological Sciences
Date June 1, 2018

B. Contact Person for the Assessment Plan

Name and title David Champlin, Chair

C. Degree Program

Name of Degree Program Biological Sciences

D. Assessment of Student Learning: Program Assessment

Step 1: Identify the Student Learning Outcomes (SLO's)

a. *Do you have your student learning outcomes published on your department's website?* No

   i. *If yes, please indicate the url: _____*
   ii. *If no, please list 3-5 of the most important student learning outcomes for your program.* ***What will students know by the end of your program?***

1. Our graduates will have a basic understanding of the expansive field of modern biology, from molecules to ecosystems. In addition, they will understand the basic principles of chemistry, physics, and mathematics that form the foundation on which all of biology rests.

2. Students will develop quantification skills and lab/field skills which they can apply to collecting and interpreting data.
3. Students will acquire more sophisticated critical thinking and analytical reading skills, combined with science communication skills and an appreciation of how research advances our understanding of the biological sciences.

4. We also have a fairly comprehensive list of specific learning outcomes for each of the major areas of our degree, which is in our last self-study (2018).

b. *Please identify* ***which of your student learning outcome(s) were assessed this past academic year***. *(One or more of the outcomes and corresponding assessment plans could come from your department's CORE Course Blueprint(s).*

None at the department-wide level. Assessment at the level of individual courses is conducted by some instructors.

c. *Do you have a **matrix or curriculum map** showing when your student learning outcomes are assessed and in which courses?* No

i. *If yes, do you have this map published on your website? Please indicate url or attach a copy of the curriculum map.*

2. *Map of Student Learning Goals/Outcomes*. HB = Human Biology

Goal	Outcome introduced	Outcome reinforced	Outcome mastered
Foundations	BIO 105/106, 107, 109 CHY 113/114/115/116 PHY 111/114 MAT 152D, 220	BIO 111, 211 (HB) CHY 251/252/253/254 PHY 112/116	Upper level courses
Evolution	BIO 105, 107, 109	BIO 217	Upper level courses
Genetics	BIO 105	BIO 201	Cell biology and physiology courses
Specialization	Upper level courses	Upper level courses	Upper level courses
Lab/field skills	BIO 106, 107	Upper level courses	Upper level courses
Scientific communication	BIO 106	BIO 107	Upper level courses
Scientific worldview	BIO 105, 107	General education clusters, seminar	Undergraduate research experiences
	Chemistry, Physics, Math/Stats courses	series, student organizations	

The above table refers to student experiences, not to our assessment of them. However, preparedness in the upper level classes is an indicator of learning outcomes in the lower level courses.

Step 2: Assessment Methods Selected and Implemented

a. *Identify which direct measures (other than course grades), that were used to determine whether students achieved the stated learning outcomes for the degree.*

At this point we use course grades as an indicator of proficiency. We do not have a systematic degree-wide assessment program.

b. *Briefly describe when you implemented the assessment activity, and if a scoring rubric was used to evaluate the expected level of student achievement. (This information may be shown on your curriculum map).*

Step 3: Using the Assessment results to Improve Student Learning

a. *Briefly describe your unit's process of reviewing the program assessment results (i.e. annual process by faculty committee, etc).*

We do not have this implemented yet.

b. *What specific changes have been or will be made to improve student learning, as a result of using the program assessment results?*

Develop improved methods of assessment. Institute a regular review process that covers department-wide outcomes. Appoint a committee to review learning outcomes and progress.

c. *Date of most recent program review/self-study?* 2018

E..Course Assessment Activities: *Is your program able to report any assessment-related activities at the Course-Level… (i.e. created grading rubrics to use in required courses, examined student progress in entry-level courses, developed a new course, etc)? Please briefly explain any assessment projects.*

This is done by some faculty for specific courses but hasn't been done at the level of the whole program yet.

F. Community Engagement Activities in your departmental curriculum:

a. Does your department have a student learning outcome that is related to any community engagement activities? If so, please state the outcome.

b. Please indicate if any of the community engagement activities listed below are included in your program's curriculum, by noting which activities are required or optional for students in your major.

Community Engagement Activity	*Included*	*Required/Optional*	
Student Research (related to a community-based problem)	_O_	R	O
Student-Faculty Community Research Project	_O_	R	O
Internship, or a Field Experience	_O_	R	O
Independent Study (community-related project)	_O_	R	O
Capstone Course (community-related project)	___	R	O
Service-Learning (course-based)	___	R	O
Study Abroad, or an International Program	_O_	R	O
Interdisciplinary Collaborative Project (community related)	___	R	O
Student Leadership Activities (related to a team project)	___	R	O
Students/Faculty Community Leadership (advisory boards, committees, conference presentations)	___	R	O

Other Activities (not mentioned above): We have a number of students that participate in the STEM ambassador program and volunteer teach in local schools.

c. Please list any courses (i.e. EDU 400) that have a community engagement activity in your program.

Entry-level courses: Bio 107 (Poster session open to the public- required)

Mid-level courses: Bio 282 (Students engaged in outreach projects with local high schools and middle schools-required)

Upper-level courses: BIO407 various independent project based activities