

Assessment of Student Learning Plan (ASLP): Academic Programs

2014-15 Academic Year

According to the NEASC accreditation commission, our campus must show that we are engaged in a comprehensive and systematic approach to program review and the assessment of student learning across all academic programs. To comply with these national assessment standards, every academic department/program is being asked to document how they assess student learning in their program, and how they are using the results for improvement.

Please review your assessment process during this past academic year (2014-15), and complete this form the best way you can, then send to the Office of Academic Assessment.

*This completed ASLP will become a component of your department's Program Review process and may also be utilized as part of your department's Core course assessment work.

The information will be reviewed by USM's Assessment Committee, and placed into the Campus-wide Assessment Report for accreditation purposes.

* Please return form by intercampus mail or email to: Susan King, Office of Academic Assessment, Rm 628 Law Bldg, Portland campus. (Email) susank@usm.maine.edu (Phone) 780-4681

Due: May 29, 2015

A. College, Department/Program, Date

College CSTH
Department/Program Mathematics and Statistics
Date May 29, 2015

B. Contact Person for the Assessment Plan

Name and title Laurie Woodman, Chair

C. Degree Program

Name of Degree Program B.A. Mathematics

D. Assessment of Student Learning in Your Program

Step 1: Identify Student Learning Outcomes (What are students able to do by the end of your program?)

a. List 3-5 of the most important student learning outcomes for your program.

Over the course of studies as a major in mathematics, students will be able to:

- 1) Translate problems into an appropriate symbolic representation and solve;
- 2) Solve problems using techniques of differential and integral calculus;
- 3) Reason logically and construct and evaluate proofs.

b. Then, identify which student learning outcomes were assessed this past academic year.

This year we focused on placement testing and procedures for our entry level courses as described in part E and did not formally assess our student learning outcomes.

(One or more of the outcomes and corresponding assessment plans could come from your department's CORE Course Blueprint(s).)

Examples of Student Learning Outcome Statements:

1. Students will be able to demonstrate the varieties of historical scholarship dealing with societies throughout the world.
2. Students will be able to analyze a novel, short story, poem, or a significant piece of prose showing familiarity with the literary contexts of the particular genre being examined.
3. Students will demonstrate their understanding of the local, global, international, and intercultural issues related to internal and external marketing strategies.

Step 2: How and When were the Learning Outcomes assessed?

a. Briefly describe the assessment tools, measures, or forms of evidence that were utilized to demonstrate students' accomplishment of the learning outcomes selected.

Examples of direct measures (graded by using a rubric): comprehensive exams, performance tests, papers or essays, case studies, collection of student work/portfolios, presentations or exhibits, individual or group projects, research studies, internships/practicum, etc.

Examples of indirect measures: surveys or questionnaires, or documentation of focus groups, interviews, perceptions of advising or departmental services, and tracking performance or grade studies.

b. *Briefly describe when and how you implemented the assessment activity.*

Example: Outcome 1 was measured during the fall semester -- all majors completed a problem-solving case study during the ___ course. Case studies were graded on a rubric.
Example: Outcome 2 was measured during the spring semester -- all majors in the capstone course completed a research project. Research projects will be reviewed and graded by a group of faculty.

Step 3: Process of Using the Assessment results to Improve Student Learning

a. *Briefly describe your unit's process of reviewing the program assessment results, and how you expect to improve student learning.*

This year we reviewed and revised student learning outcomes, frequency of courses offered and approved the use of the College Level Math exam for placement into MAT 140 Precalculus and MAT 152 Calculus A.

Examples of improvements:

- 1) Improve the assessment plan; such as, revise student learning outcome(s), change the assessment method or measure, change the time-table for assessing the outcome, review the grading rubric, etc.
- 2) Improve an academic process; such as, frequency of courses offered, personnel related changes, a technology related improvement, revise departmental advising, implement a faculty training session.
- 3) Improve curriculum; such as, enforce prerequisites, change sequence of courses, review or revise course content, change where the outcomes are being assessed, revise proficiencies or development of new rubrics, etc.

E. Other Course Assessment Activities:

If your department/program is unable to complete any of the above steps, are you able to report any assessment-related activities at the Course-Level; for example: created grading rubrics to use in required courses, examined student progress in an entry-level course, developed a new course, redesigned a course to include community-based learning, etc.

Briefly explain.

This year our assessment activities focused on entry level multi-section courses. The first required course in the Mathematics major is MAT 152 Calculus A. Students who are not prepared for MAT 152 must start with MAT 108 College Algebra, MAT 140 Precalculus, or a developmental mathematics course (MAT 9 or MAT 101).

Previously students who were not required to take MAT 108 College Algebra (based on Accuplacer or SAT scores) self-selected Precalculus or Calculus. Due to our concerns about placement and success rates in initial and subsequent mathematics courses we pilot tested the College Level Math exam. This exam is used to determine placement into Precalculus or Calculus while the Accuplacer Math placement exam will continue to be used for placement in lower level math courses. Next year the College Level Math test and placement policies will be fully implemented and we will review success rates in each course based on placement recommendations and criteria.

Two years ago MAT 108 College Algebra was redesigned to enhance the curriculum and increase student success in MAT 108 and subsequent courses. Collection and analysis of data pertaining to this redesign continued this year.

Next year we will continue our work on this sequence of multi section courses (MAT 108, MAT 140, MAT 152) focusing on course placement and outcomes.

The department also participated in a Student Learning Outcomes (SLO)-Pilot Project with a section of each of the following multi-section courses:

MAT 210 Business Statistics

MAT 152 Calculus A

F. Are there “community engagement” activities integrated in your departmental curriculum?

a. Please indicate which of the components, listed below, are included in your program’s curriculum, and then indicate if the activities are required or optional for students in your major.

<u>Community Engagement Activity</u>	<u>Included</u>	<u>Required/Optional</u>	
Student Research (related to a community-based problem)	___	R	O
Student-Faculty Community Research Project	___	R	O
Internship, or a Field Experience	<u>yes*</u>	R	O
Independent Study (community-related project)	___	R	O
Capstone Course (community-related project)	___	R	O
Service-Learning (a component of a course)	___	R	O
Study Abroad, or an International Program	___	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
*Required for students in the Secondary Mathematics Education Concentration			
Other Activities (not mentioned above):			

b. Please list the courses (i.e. EDU 400) that have a “community engagement” activity in your program:

Entry-level courses:

Mid-level courses:

Upper-level courses: STA/OPR 575

Additional Comments:

Thanks for your cooperation!