

Assessment of Student Learning Plan (ASLP): Engineering Programs

2015-16 Academic Year

A. College, Department, Date

College CSTH
Department Engineering
Date 4/29/2016

B. Contact Person for the Assessment Plan

Name and title Mariusz Jankowski

C. Degree Program

Name of Degree Program Electrical Engineering, Mechanical Engineering

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? **Yes**

i. If yes, please indicate the url:

http://usm.maine.edu/engineering/abet-accreditation_

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).

All

- c. Do you have a **matrix or curriculum map** showing when your student learning outcomes are assessed and in which courses?

Yes

**Mapping of BSEE required courses to ABET student outcomes a-k
(approved in the 12/8/2015 faculty meeting)**

symbol marks outcomes addressed and assessed by a course

Course	Title	a	b	c	d	e	f	g	h	i	j	k
Gen-Ed	USM's general education curriculum				<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>	
ELE 217	Circuits II: System Dynamics							<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	
ELE 219	Circuits Laboratory				<input checked="" type="checkbox"/>							
EGN 301	Junior Design Project			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	
EGN 304	Engineering Economics						<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	
ELE 314	Linear Signals and Systems	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>						<input checked="" type="checkbox"/>
ELE 323	Electromechanical Energy Conversion	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>							<input checked="" type="checkbox"/>		
ELE 342	Electronics I: Devices and Circuits		<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>						<input checked="" type="checkbox"/>
ELE 343	Electronics II: Electronic Design			<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>				
EGN 402	Senior Design Project			<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		
	Semester of evaluation	F	F	S	S	F	S	S	S	F	S	F

Mapping of BSME required courses to ABET student outcomes a-k

(approved in the 12/8/2015 faculty meeting)

symbol marks outcomes addressed and assessed by a course

Course	Title	a	b	c	d	e	f	g	h	i	j	k
Gen-Ed	USM's general education curriculum				<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>	
ELE 217	Circuits II: System Dynamics							<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	
ELE 219	Circuits Laboratory				<input checked="" type="checkbox"/>							
MEE 230	Thermodynamics I: Laws and Principles							<input checked="" type="checkbox"/>				
MEE 251	Strength of Materials	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>						
MEE 259	Statics and Strength of Materials Laboratory		<input checked="" type="checkbox"/>									<input checked="" type="checkbox"/>
EGN 301	Junior Design Project			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	
EGN 304	Engineering Economics						<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	
ELE 323	Electromechanical Energy Conversion	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>							<input checked="" type="checkbox"/>		
MEE 360	Fluid Mechanics	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>									<input checked="" type="checkbox"/>
MEE 372	Computer-Aided Design of Machine Elements					<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>
MEE 373	Dynamics of Machines and Mechanisms			<input checked="" type="checkbox"/>								
EGN 402	Senior Design Project			<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		
	Semester of evaluation	F	F	S	S	F	S	S	S	F	S	F

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.*

We use course embedded assessments in multiple required courses (see tables above), accumulate the data and review collectively twice annually.

- 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).

The current assessment activities were implemented in 2008, updated in 2014, and continue to be revised as needed.

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).

Hold two annual meetings to review all department assessment activities and student learning outcomes.

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

See ABET 2015 Self Study

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

September 2015

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.*

See ABET 2015 Self Study

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 what community engagement activities are included in your program's curriculum, and whether 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)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Student-Faculty Community Research Project	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Internship, or a Field Experience	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Independent Study (community-related project)	<input type="checkbox"/>	<input type="checkbox"/>
Capstone Course (community-related project)	<input checked="" type="checkbox"/>	R
Service-Learning (course-based)	<input type="checkbox"/>	
Study Abroad, or an International Program	<input type="checkbox"/>	
Interdisciplinary Collaborative Project (community related)	<input type="checkbox"/>	
Student Leadership Activities (related to a team project)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Students/Faculty Community Leadership (advisory boards, committees, conference presentations)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Other Activities (not mentioned above):		

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

Entry-level courses:

Mid-level courses:

Upper-level courses: