

# Assessment of Student Learning Plan (ASLP): Engineering Program

2016-17 Academic Year

## A. College, Department, Date

College      \_\_CSTH\_\_\_\_\_  
Department   \_\_Engineering\_\_\_\_\_  
Date          \_\_6/14/2017\_\_\_\_\_

## B. Contact Person for the Assessment Plan

Name and title \_\_Mariusz Jankowski\_\_\_\_\_

## C. Degree Program

Name of Degree Program \_\_BSEE, BSME\_\_\_\_\_

## 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/No

Yes, <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/No

Yes

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

**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**

- d. 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 annually. AY 2017 assessment meeting was held 6/6/2017.*

- e. *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 one or two annual meetings to review all department assessment activities and student learning outcomes.*

- b. *What specific 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.

The following ABET outcomes broadly address community engagement:

(f). understand the professional and ethical responsibilities of a practicing engineer;

(h). understand the role and impact of engineering solutions in the broader societal context;

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.

<u>Community Engagement Activity</u>	<u>Required/Optional</u>
Student Research (related to a community-based problem)	O
Student-Faculty Community Research Project	O
Internship, or a Field Experience	O
Independent Study (community-related project)	O
Capstone Course (community-related project)	R
Service-Learning (course-based)	R
Study Abroad, or an International Program	O
Interdisciplinary Collaborative Project (community related)	O
Student Leadership Activities (related to a team project)	O
Students/Faculty Community Leadership (advisory boards, committees, conference presentations)	O
Other Activities (not mentioned above):	

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

Mid-level courses: EGN 304; Upper-level courses: EGN 402