# 2016-2017 Assessment Cycle (College of Engineering) ENGR\_Civil Engineering MS

## **Mission**

Welcome to the "Mission" tab. First, review the University's Mission, Values, and Vision statements provided below. Then, in the section labeled "Department / Program Mission", type in the current mission for your department, program, or unit. Click "Save" when you are finished.

#### **University Mission**

The University of Louisiana at Lafayette offers an exceptional education informed by diverse worldviews grounded in tradition, heritage, and culture. We develop leaders and innovators who advance knowledge, cultivate aesthetic sensibility, and improve the human condition.

#### **University Values**

We strive to create a community of leaders and innovators in an environment that fosters a desire to advance and disseminate knowledge. We support the mission of the university by actualizing our core values of equity, integrity, intellectual curiosity, creativity, tradition, transparency, respect, collaboration, pluralism, and sustainability.

## **University Vision**

We strive to be included in the top 25% of our peer institutions by 2020, improving our national and international status and recognition.

## **Program Mission**

## **Program Mission**

If applicable, provide the program's mission in the space provided. If none exists, write "None Available in 2016-2017". None Available in 2016-2017

## **Goals (University/Program tied to Curriculum)**

### Standards/Outcomes

Identifier	Description
ABET- EAC.1.3	CRITERION: Program Outcomes and Assessment Although institutions may use different terminology, for purposes of Criterion 3, program outcomes are intended to be statements that describe what students are expected to know or be able to do by the time of graduation from the program.
ABET-	> an ability to apply knowledge of mathematics, science, and engineering

EAC.1.3.1	
ABET- EAC.1.3.10	> a knowledge of contemporary issues
ABET- EAC.1.3.11	> an ability to use the techniques, skills, and modern engineering tools necessary for engineering practice.
ABET- EAC.1.3.12	Each program must have an assessment process with documented results. Evidence must be given that the results are applied to the further development and improvement of the program. The assessment process must demonstrate that the outcomes of the program, including those listed above, are being measured.
ABET- EAC.1.3.2	> an ability to design and conduct experiments, as well as to analyze and interpret data
ABET- EAC.1.3.3	> an ability to design a system, component, or process to meet desired needs
ABET- EAC.1.3.4	> an ability to function on multi-disciplinary teams
ABET- EAC.1.3.5	> an ability to identify, formulate, and solve engineering problems
ABET- EAC.1.3.6	> an understanding of professional and ethical responsibility
ABET- EAC.1.3.7	> an ability to communicate effectively
ABET- EAC.1.3.8	> the broad education necessary to understand the impact of engineering solutions in a global and societal context
ABET- EAC.1.3.9	> a recognition of the need for, and an ability to engage in life-long learning

## **Additional Standards/Outcomes**

Identifier	Description
MS Engineering.MSE1	An ability to demonstrate breadth of knowledge across the general field of engineering.
MS Engineering.MSE2	An ability to demonstrate depth of knowledge in an area of specialization beyond the level of a B.S. degree in engineering.
MS Engineering.MSE3	An ability to demonstrate competence in solving practical problems in the field of engineering.
MS Engineering.MSE4	An ability to demonstrate readiness to enter and succeed in an engineering PhD program.

# **Curriculum Map**

## Assessment Findings for the Assessment Measure level for MSE (Civil Engineering)

Legend	A - Assessed				
Course/Event	Oral Exam				
Standard/Outcome	MS Engineering. engineering.	MSE2 An ability to demonstrate depth of R	knowledge in an area of specialization	beyond the level of a B.	S. degree in
Assessment Measures					
	Assessment Measure	Criterion	Summary	Attachments of the Assessments	Improvement Narratives
	Direct - Presentation	Has the criterion 80% of students will achieve a score of 3 or better on their oral exam using a standard rubric. been met yet?  Met	18 faculty evaluations of oral examinations yielded an average score of 4.58/5.0 for all the graduates (100%)		

Legend	A - Assessed				
Course/Event	Oral Exam				
Standard/Outcome	MS Engineering.	MSE3 An ability to demonstrate	e competence in solving practic	al problems in the fie	eld of engineering.
Assessment Measures					
	Assessment Measure	Criterion	Summary	Attachments of the Assessments	Improvement Narratives
	Direct - Presentation	Has the criterion 80% of students will achieve a score of 3 or better on their oral exam using a standard rubric. been met yet?	18 faculty evaluations of oral examinations yielded an average score of 4.50/5.0 for all the graduates (100%)		- Professional development/training: Communicate with our senior undergraduate students to identify the most likely candidates.

A - Assessed				
Oral Exam				
MS Engineering.	MSE4 An ability to demonstrate readiness	to enter and succeed in an engineeri	ng PhD program.	
Assessment Measure	Criterion	Summary	Attachments of the Assessments	Improvement Narratives
Direct - Presentation	Has the criterion 80% of students will achieve a score of 3 or better on their oral exam using a standard rubric. been met yet?  Met	18 faculty evaluations of oral examinations yielded an average score of 4.40/5.0 for all the graduates (100%)		
	Oral Exam  MS Engineering.  Assessment Measure  Direct -	Oral Exam  MS Engineering.MSE4 An ability to demonstrate readiness  Assessment Measure  Direct - Presentation  Has the criterion 80% of students will achieve a score of 3 or better on their oral exam using a standard rubric. been met yet?	Oral Exam  MS Engineering.MSE4 An ability to demonstrate readiness to enter and succeed in an engineering.  Assessment Measure  Direct - Presentation  Has the criterion 80% of students will achieve a score of 3 or better on their oral exam using a standard rubric. been met yet?  Summary  18 faculty evaluations of oral examinations yielded an average score of 4.40/5.0 for all the graduates (100%)	Oral Exam  MS Engineering.MSE4 An ability to demonstrate readiness to enter and succeed in an engineering PhD program.  Assessment Measure  Criterion  Summary  Attachments of the Assessments  Direct - Presentation  Has the criterion 80% of students will achieve a score of 3 or better on their oral exam using a standard rubric. been met yet?  It is faculty evaluations of oral examinations yielded an average score of 4.40/5.0 for all the graduates (100%)

Legend	A - Assessed				
Course/Event	Thesis / Report				
Standard/Outcome	MS Engineering.I engineering.	MSE2 An ability to demonstrate d	lepth of knowledge in an area of s	pecialization beyond t	he level of a B.S. degree in
Assessment Measures					
	Assessment Measure	Criterion	Summary	Attachments of the Assessments	Improvement Narratives
	Direct - Thesis	Has the criterion 80% of students will achieve a score of 3 or better on their oral	18 faculty evaluations of oral examinations yielded an average score of 4.30/5.0 for		- Assessment Process: Continuous monitoring: Compare the findings with that

exam using a standard rubric. been met yet? Met	all the graduates (100%)	of the next assessment cycle.

Legend	A - Assessed						
Course/Event	Thesis / Report	Thesis / Report					
Standard/Outcome	MS Engineering.N	ASE3 An ability to demonstrate competer	nce in solving practical problems in the	field of engineering.			
Assessment Measures							
	Assessment Measure	Criterion	Summary	Attachments of the Assessments	Improvement Narratives		
	Direct - Thesis	Has the criterion 80% of students will achieve a score of 3 or better on their oral exam using a standard rubric. been met yet?  Met	18 faculty evaluations of oral examinations yielded an average score of 4.53/5.0 for all the graduates (100%)				

Legend	A - Assessed				
Course/Event	Thesis / Report				
Standard/Outcome	MS Engineering.	MSE4 An ability to de	emonstrate readiness to ente	er and succeed in an engineering	PhD program.
Assessment Measures					
	Assessment Measure	Criterion	Summary	Attachments of the Assessments	Improvement Narratives

Direct - Thesis	Has the criterion 80% of students will achieve a score of 3 or better on their oral exam using a standard rubric. been met yet?	18 faculty evaluations of oral examinations yielded an average score of 4.27/5.0 for all the graduates (100%)	- Assessment Process: Targets / Criteria for Success changed: Add teaching components to the evaluation criteria to make the student ready for the PhD program

A - Assessed				
MCHE 508				
MS Engineering	.MSE1 An ability to demonstrate bro	eadth of knowledge across t	he general field of er	ngineering.
Assessment Measure	Criterion	Summary	Attachments of the Assessments	Improvement Narratives
Direct - Presentation	Has the criterion 80% of students will achieve a score of 3 or better on their oral presentation using a standard rubric. been met yet?	100% of the students received a final grade B or above, which is equivalent to 3.75 on a 5.0 grading scale.		- Assessment Process: Continuous monitoring: Check the students' progress during the time that the students are taking the class instead of after graduation
	MCHE 508 MS Engineering  Assessment Measure  Direct -	MCHE 508  MS Engineering.MSE1 An ability to demonstrate brown  Assessment Measure  Criterion  Direct - Presentation  Has the criterion 80% of students will achieve a score of 3 or better on their oral presentation using a standard rubric. been met yet?	MCHE 508  MS Engineering.MSE1 An ability to demonstrate breadth of knowledge across to the students of the students of the students will achieve a score of 3 or better on their oral presentation using a standard rubric. been met yet?  MS Engineering.MSE1 An ability to demonstrate breadth of knowledge across to the students of the students of the students or above, which is equivalent to 3.75 on a 5.0 grading scale.	MCHE 508  MS Engineering.MSE1 An ability to demonstrate breadth of knowledge across the general field of er  Assessment Measure  Criterion  Summary  Attachments of the Assessments  Direct - Presentation  Has the criterion 80% of students will achieve a score of 3 or better on their oral presentation using a standard rubric. been met yet?  100% of the students received a final grade B or above, which is equivalent to 3.75 on a 5.0 grading scale.

Legend	A - Assessed
Course/Event	MCHE 508
Standard/Outcome	MS Engineering.MSE4 An ability to demonstrate readiness to enter and succeed in an engineering PhD program.
Assessment	

Measures					
	Assessment Measure	Criterion	Summary	Attachments of the Assessments	Improvement Narratives
	Direct - Presentation	Has the criterion 80% of students will achieve a score of 3 or better on their oral presentation using a standard rubric. been met yet?  Met	100% of the students received a final grade B or above, which is equivalent to 3.75 on a 5.0 grading scale.		- Assessment Process: Continuous monitoring: Check the students' progress during the time that the students are taking the class instead of after graduation

# **Summary of Improvement Narratives**

**Improvement Narrative List** 

## **Assessment Findings for the Assessment Measure level**

Standard/Outcome	MS Engineering.MSE3 An ability to demonstrate competence in solving practical problems in the field of engineering.		
Legend	A		
Course/Event	Oral Exam		
Assessment Measure	Direct - Presentation		
Assessment Findings	Met		
Improvement Narrative			
	Improvement Type	Summary	
	Professional development/training	Communicate with our senior undergraduate students to identify the most likely candidates.	

Standard/Outcome	MS Engineering.MSE2 An ability to demonstrate depth of knowledge in an area of specialization beyond the level of a B.S. degree in engineering.		
Legend	A		
Course/Event	Thesis / Report		
Assessment Measure	Direct - Thesis		
Assessment Findings	Met		
Improvement Narrative			
	Improvement Type	Summary	
	Assessment Process: Continuous monitoring	Compare the findings with that of the next assessment cycle.	

Standard/Outcome	MS Engineering.MSE4 An ability to demonstrate readiness to enter and succeed in an engineering PhD program.		
Legend	A		
Course/Event	Thesis / Report		
Assessment Measure	Direct - Thesis		
Assessment Findings	Met		
Improvement Narrative			
	Improvement Type	Summary	
	Assessment Process: Targets / Criteria for Success changed	Add teaching components to the evaluation criteria to make the student ready for the PhD program	

Standard/Outcome	MS Engineering.MSE1 An ability to demonstrate breadth of knowledge across the general field of engineering.		
Legend	A		
Course/Event	MCHE 508		
Assessment Measure	Direct - Presentation		

Assessment Findings	Met		
Improvement Narrative			
	Improvement Type	Summary	
	Assessment Process: Continuous monitoring	Check the students' progress during the time that the students are taking the class instead of after graduation	

Standard/Outcome	MS Engineering.MSE4 An ability to demonstrate readiness to enter and succeed in an engineering PhD program.		
Legend	A		
Course/Event	MCHE 508		
Assessment Measure	Direct - Presentation		
Assessment Findings	Met		
Improvement Narrative			
	Improvement Type	Summary	
	Assessment Process: Continuous monitoring	Check the students' progress during the time that the students are taking the class instead of after graduation	

## Reflection

## Reflection

1) How were assessment results shared in the unit?

Please select all that apply; if "other", please use the text box to elaborate. Distributed via email (selected)
Presented formally at staff/department/committee meeting

Discussed informally
Other (explain in text box below)

### 2) How frequently were assessment results shared in the unit?

Frequently (>4 times per cycle)
Periodically (2-4 times per cycle)
Once per cycle (selected)
Results were not shared this cycle

### 3) With whom were assessment results shared?

Please select all that apply.

Department Head (selected)

Dean / Asst. or Assoc. Dean

Departmental assessment committee (selected)

Other faculty / staff (selected)

Other (please explain in text box below)

The assessment results were sent to the department faculty in the civil engineering department. They were requested to provide feedback and identify ways to improve our program.

## 4) What were the measurable or perceivable effects on your current (2016-2017) findings based on prior action plans (created in 2015-2016)?

Last year we planned to improve the quality of the research conducted by our students. Most of the students graduated in this cycle has published one journal/proceeding paper.

## 5) What has the unit learned from the current assessment cycle?

We learned that we need to recruit good students to join our program. We also learned that we need to recruit research-oriented faculty members who plan to stay in Lafayette to work with our students. We do not see any strategy or effort "working less well" in this cycle.