2017-2018 Assessment Cycle (College of Engineering) ENGR_Chemical 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".

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-EAC.1.3.1	> an ability to apply knowledge of mathematics, science, and engineering
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 (Chemical Engineering)(Imported)

Legend	A - Assessed
Course/Event	Oral Exam
Standard/Outcome	MS Engineering.MSE1 An ability to demonstrate breadth of knowledge across the general field 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? Met	All students achieved a score of 3 or better on their oral exam using a standard rubric.		

Legend	A - Assessed
Course/Event	Oral Exam
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.
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?	All students achieved a score of 3 or better on their oral exam using a standard rubric		

		Met			

Legend	A - Assessed
Course/Event	Oral Exam
Standard/Outcome	MS Engineering.MSE3 An ability to demonstrate competence in solving practical problems in the field 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? Met	All students achieved a score of 3 or better on their oral exam using a standard rubric.		

Legend	A - Assessed
Course/Event	Oral Exam
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 exam using a standard rubric. been met yet? Met	All students achieved a score of 3 or better on their oral exam using a standard rubric.		

Legend	A - Assessed
Course/Event	Thesis / Report
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.
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	All students achieved a score of 3 or better on their oral exam using a standard rubric.		

Legend	A - Assessed
Course/Event	Thesis / Report
Standard/Outcome	MS Engineering.MSE3 An ability to demonstrate competence 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	All students achieved a score of 3 or better on their oral exam using a standard rubric.		

Legend	A - Assessed
Course/Event	Thesis / Report
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 - 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	All students achieved a score of 3 or better on their oral exam using a standard rubric.		

Legend	A - Assessed
Course/Event	MCHE 508
Standard/Outcome	MS Engineering.MSE1 An ability to demonstrate breadth of knowledge across the general field 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 presentation using a standard rubric. been met yet? Not met	Data were not collected.		- Assessment Process: Data Collection changed: The department needs to coordinate with the faculty member teaching MCHE 508 to obtain the results of the final oral presentation.

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? Not met	Data not collected.		- Assessment Process: Data Collection changed: The department needs to coordinate with the faculty member teaching MCHE 508 to obtain the results of the final oral presentation.

Summary of Improvement Narratives

Improvement Narrative List

Assessment Findings for the Assessment Measure level

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	Not met

Improvement Narrative	

Improvement Type	Summary
Assessment Process: Data Collection changed	The department needs to coordinate with the faculty member teaching MCHE 508 to obtain the results of the final oral presentation.

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	Not met
Improvement Narrative	

Improvement Type	Summary
Assessment Process: Data Collection changed	The department needs to coordinate with the faculty member teaching MCHE 508 to obtain the results of the final oral presentation.

Reflection

Reflection

The primary purpose of assessment is to use data to inform decisions and improve programs and operations; this is an on-going process of defining goals and expectations, collecting results, analyzing data, comparing current and past results and initiatives, and making decisions based on these reflections. Recalling this purpose, respond to the questions below.

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 (selected)
Discussed informally
Other (explain in text box below)

Changes to the graduate programs based on observed weakness are discussed in faculty meetings. Implementation of changes is discussed at the department and College levels.

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

Frequently (>4 times per cycle)
Periodically (2-4 times per cycle) (selected)
Once per cycle
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 (selected)
Departmental assessment committee
Other faculty / staff (selected)
Other (please explain in text box below)

4) Consider the impact of prior applied changes. Specifically, compare current results to previous results to evaluate the impact of a previously reported change. Demonstrate how the use of results improved student learning and/or operations.

Discussions of graduate program issues with faculty at the department and College level have resulted in the implementation of several changes: (1) Requirement of 3 core courses in chemical engineering (advanced thermodynamics, advanced transport phenomena, advanced reaction engineering) and the graduate seminar for all students, (2) announcement of thesis defenses to the whole department 2 weeks before the defense, and (3)adding content to G level and CHEE 597 (independent study courses. These changes enhance the preparation of the students beyond the BS degree and enhance their preparation and ability to answer questions during the defense.

5) Over the past three assessment cycles, what has been the overall impact of "closing the loop"? Provide examples of improvements in student learning, program quality, or department operations that are directly linked to assessment data and follow-up analysis.

Closing the loop has been directly linked to presentations in the graduate seminar and the communication between the faculty member teaching the seminar and the advisor for a particular student regarding the ability of the student to communicate research results, and answer questions that demonstrate independence of thought, clarity, and understanding of material beyond a BS level.

Attachments (optional)
Upload any documents which support the assessment process.