2017-2018 Assessment Cycle (College of Engineering) ENGR_Systems Engineering PhD

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".
Systems Engineering is geared toward the rapid design and development of large and complex systems. Systems Engineering integrates all the specialty and sub-specialty groups of engineering disciplines into a team whose efforts result in a structured development process that proceeds from concept to production to operation. Example systems include coastal ecosystems, water treatment facilities, computer networks, visualization platforms, deep-water drilling operations, highway safety systems, biofuels production facilities, robotic units, refineries, fiber optic networks, aircraft, vehicle control systems, biomass gasification units, management of utilities during disaster events, and power grids. Each of the five engineering departments at UL Lafayette participates in the offering of the Systems Engineering Ph.D. degree with a discipline concentration within each department. This innovative program builds upon the research-based learning experience associated with most Engineering Ph.D. programs by adding the additional learned skill set of Systems Engineering principals. The graduate of this program is expected to be highly appealing to both industry and academic positions.

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
PhD Engineering.1	An ability to demonstrate breadth of knowledge across the general field of engineering.
PhD Engineering.2	An ability to demonstrate depth of knowledge in an area of specialization beyond the level of a B.S. degree in engineering.
PhD Engineering.3	An ability to demonstrate competence in solving practical problems in the field of engineering.

Curriculum Map

Assessment Findings for the Assessment Measure level for Systems Engineering PhD(Imported)

Legend	A - Assessed
Course/Event	Oral Exam
Standard/Outcome	PhD Engineering.1 An ability to demonstrate breadth of knowledge across the general field of engineering.
Assessment Measures	

Assessment Measure	Criterion	Summary	Attachments of the	Improvement Narratives

	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? Met	Eight students were assessed. All achieved a score of 3.0 or better. The average was 4.2.	

Legend	A - Assessed
Course/Event	Oral Exam
Standard/Outcome	PhD Engineering.2 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? Met	Eight students were assessed. All achieved a score of 3.0 or better. The average was 4.4.		

Legend	A - Assessed
Course/Event	Oral Exam
Standard/Outcome	PhD Engineering.3 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	Eight students were assessed. All achieved a score of 3.0 or better. The average was		

	standard rubric. been met yet? Met	3.8.		

Legend	A - Assessed
Course/Event	Thesis / Report
Standard/Outcome	PhD Engineering.1 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 - Report (Other)	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	Eight students were assessed. All achieved a score of 3.0 or better. The average was 4.3.		

Legend	A - Assessed
Course/Event	Thesis / Report
Standard/Outcome	PhD Engineering.2 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 - Report (Other)	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	Eight students were assessed. All achieved a score of 3.0 or better. The average was 4.4.		

Legend	A - Assessed
Course/Event	Thesis / Report
Standard/Outcome	PhD Engineering.3 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 - Report (Other)	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	Eight students were assessed. All achieved a score of 3.0 or better. The average was 4.0.		

Summary of Improvement Narratives
Improvement Narrative List

Assessment Findings for the Assessment Measure level
No improvement narratives have been added.

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

Graduate coordinators were informed of policy changes via email and also in informal meetings and communications.

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 (selected)
Departmental assessment committee
Other faculty / staff
Other (please explain in text box below) (selected)

Graduate Coordinators were also informed.

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.

We continue to work as a team to build a strong PhD program in systems engineering. In this assessment cycle, we believed that the quality of the dissertation prepared by the students has improved. The number of students enrolled in our program also increased. The communication between our faculty and students improved significantly, and this is one area that works well. We do not see anything as "working less well" .

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.

The quality of the program has improved as a result of teamwork among the faculty who serve as PhD advisers and committee members.

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