University of Louisiana at Lafayette

Detailed Assessment Report
2015-2016 Civil Engineering MS
As of: 11/18/2016 09:25 AM CENTRAL
(Includes those Action Plans with Budget Amounts marked *One-Time, Recurring, No Request*.)

Mission / Purpose

The Master of Science in civil engineering program couples research and academics, so the graduate student can climb the job ladder faster or pursue your doctorate for a career in academia. We seek to mold scholars who will advance engineering knowledge and improve the material conditions of humankind.

Student Learning Outcomes/Objectives, with Any Associations and Related Measures, Targets, Findings, and Action Plans

SLO 1: Breadth of Knowledge
An ability to demonstrate breadth of knowledge across the general field of engineering.

Related Measures

M 1: Thesis Defense
Students are required to defend their thesis before a committee of Gradaute Faculty members. The committee members evaluate the presentation and ask questions to determine the students breadth of knowledge, depth of knowledge, ability to solve practical problems, and ability to succeed in a Ph.D. program. The committee members evaluate the student's performance based on a rubric and assign a score between 1 and 5 for each outcome, where 5 is the best score.

Source of Evidence: Presentation, either individual or group

Target:
Students will achieve an average score of 3 or better on the scale of 1 - 5.

Finding (2015-2016) - Target: Met
13 faculty evaluations of the students' thesis yielded an average score of 4.4/5.0

Related Action Plans (by Established cycle, then alpha):

Consider Revising Expectations
Because performance was significantly above minimum expectations, the graduate faculty will consider revising the minimum expectations for this outcome.

Established in Cycle: 2009-2010
Implementation Status: Planned
Priority: High

Relationships (Measure | Outcome/Objective):
    Measure: Evaluation of Final Exam | **Outcome/Objective:** Breadth of Knowledge
    Measure: Thesis Defense | **Outcome/Objective:** Breadth of Knowledge

Responsible Person/Group: Dr. Gang

M 2: Oral Exam

A committee of Graudate Faculty members evaluates the oral exam to determine the students depth of knowledge, ability to solve practical problems, and ability to succeed in a Ph.D. program. The committee members evaluate the student's thesis based on a rubric and assign a score between 1 and 5 for each outcome, where 5 is the best score.

Source of Evidence: Senior thesis or culminating major project

Target:
Students will achieve an average score of 3 or better on the scale of 1 - 5.

Finding (2015-2016) - Target: Met
15 faculty evaluations of oral examinations yielded an average score of 4.1/5.0

M 3: Evaluation of Final Exam
The student's thesis committee evaluates the student's performance on the final exam of one or more selected courses to get evidence of the student's breadth of knowedge, depth of knowledge, ability to solve practical problems, and their ability to enter and succeed in a Ph.D. program. The committee members rate the student's performance using a rubric and assigns a score between 1 and 5, with 5 being the best score.

Source of Evidence: Academic direct measure of learning - other

Target:
Students will achieve an average score of 3 or better on the scale of 1 - 5.

Finding (2015-2016) - Target: Not Reported This Cycle
No students (non-thesis) took the final exam in this cycle

Related Action Plans (by Established cycle, then alpha):

Consider Revising Expectations
Because performance was significantly above minimum expectations, the graduate faculty will consider revising the minimum expectations for this outcome.

Established in Cycle: 2009-2010
Implementation Status: Planned
Priority: High

Relationships (Measure | Outcome/Objective):
　　　Measure: Evaluation of Final Exam | **Outcome/Objective:** Breadth of Knowledge
　　　Measure: Thesis Defense | **Outcome/Objective:** Breadth of Knowledge

Responsible Person/Group: Dr. Gang

SLO 2: Depth of Knowledge
An ability to demonstrate depth of knowledge in an area of specialization beyond the level of a B.S. degree in engineering.

Related Measures

M 1: Thesis Defense
Students are required to defend their thesis before a committee of Gradaute Faculty members. The committee members evaluate the presentation and ask questions to determine the students breadth of knowledge, depth of knowledge, ability to solve practical problems, and ability to succeed in a Ph.D. program. The committee members evaluate the student's performance based on a rubric and assign a score between 1 and 5 for each outcome, where 5 is the best score.

Source of Evidence: Presentation, either individual or group

Target:
Students will achieve an average score of 3 or better on the scale of 1 - 5.

Finding (2015-2016) - Target: Met

15 faculty evaluations of the students' thesis yielded an average score of 4.2/5.0

Related Action Plans (by Established cycle, then alpha):

Consider Revision Expectations

Because performance was significantly above minimum expectations, the graduate faculty will consider revising the minimum expectations for this outcome.

Established in Cycle: 2009-2010
Implementation Status: Planned
Priority: High

Relationships (Measure | Outcome/Objective):
>**Measure:** Evaluation of Final Exam | **Outcome/Objective:** Depth of Knowledge
>**Measure:** Thesis Defense | **Outcome/Objective:** Depth of Knowledge

Responsible Person/Group: Dr. Gang

M 2: Oral Exam

A committee of Graudate Faculty members evaluates the oral exam to determine the students depth of knowledge, ability to solve practical problems, and ability to succeed in a Ph.D. program. The committee members evaluate the student's thesis based on a rubric and assign a score between 1 and 5 for each outcome, where 5 is the best score.

Source of Evidence: Senior thesis or culminating major project

Target:
Students will achieve an average score of 3 or better on the scale of 1 - 5.

Finding (2015-2016) - Target: Met
15 faculty evaluations of oral examinations yielded an average score of 4.5/5.0

M 3: Evaluation of Final Exam

The student's thesis committee evaluates the student's performance on the final exam of one or more selected courses to get evidence of the student's breadth of knowedge, depth of knowledge, ability to solve practical problems, and their ability to enter and succeed in a Ph.D. program. The committee members rate the student's performance using a rubric and assigns a score between 1 and 5, with 5 being the best score.

Source of Evidence: Academic direct measure of learning - other

Target:
Students will achieve an average score of 3 or better on the scale of 1 - 5.

Finding (2015-2016) - Target: Not Reported This Cycle
No students (non-thesis) took the final exam in this cycle.

Related Action Plans (by Established cycle, then alpha):

Consider Revision Expectations

Because performance was significantly above minimum expectations, the graduate faculty will consider revising the minimum expectations for this outcome.

Established in Cycle: 2009-2010
Implementation Status: Planned
Priority: High

Relationships (Measure | Outcome/Objective):
>**Measure:** Evaluation of Final Exam | **Outcome/Objective:** Depth of Knowledge
>**Measure:** Thesis Defense | **Outcome/Objective:** Depth of Knowledge

Responsible Person/Group: Dr. Gang

SLO 3: Ability to Solve Practical Problems

An ability to demonstrate competence in solving practical problems in the field of engineering.

Related Measures

M 1: Thesis Defense

Students are required to defend their thesis before a committee of Gradaute Faculty members. The committee members evaluate the presentation and ask questions to determine the students breadth of knowledge, depth of knowledge, ability to solve practical problems, and ability to succeed in a Ph.D. program. The committee members evaluate the student's performance based on a rubric and assign a score between 1 and 5 for each outcome, where 5 is the best score.

Source of Evidence: Presentation, either individual or group

Target:
Students will achieve an average score of 3 or better on the scale of 1 - 5.

Finding (2015-2016) - Target: Met
15 faculty evaluations of the students' thesis yielded an average score of 4.4/5.0

Related Action Plans (by Established cycle, then alpha):

More Stringent Course Selection Process

Although minimum expectations were met for this outcome (ability to solve practical problems), the scores were sufficiently close to the minimum to merit attention. Additional attention will be devoted to student advising and the selection of courses in the students' degree plan to insure that they get enough expereince solving practical problems.

Established in Cycle: 2009-2010
Implementation Status: Planned
Priority: High

Relationships (Measure | Outcome/Objective):
Measure: Evaluation of Final Exam | **Outcome/Objective:** Ability to Solve Practical Problems
Measure: Thesis Defense | **Outcome/Objective:** Ability to Solve Practical Problems

Responsible Person/Group: Dr. Gang

M 2: Oral Exam

A committee of Graudate Faculty members evaluates the oral exam to determine the students depth of knowledge, ability to solve practical problems, and ability to succeed in a Ph.D. program. The committee members evaluate the student's thesis based on a rubric and assign a score between 1 and 5 for each outcome, where 5 is the best score.

Source of Evidence: Senior thesis or culminating major project

Target:
Students will achieve an average score of 3 or better on the scale of 1 - 5.

Finding (2015-2016) - Target: Met
15 faculty evaluations of oral examinations yielded an average score of 4.5/5.0

M 3: Evaluation of Final Exam

The student's thesis committee evaluates the student's performance on the final exam of one or more selected courses to get evidence of the student's breadth of knowedge, depth of knowledge, ability to solve practical problems, and their ability to enter and succeed in a Ph.D. program. The committee members rate the student's performance using a rubric and assigns a score between 1 and 5, with 5 being the best score.

Source of Evidence: Academic direct measure of learning - other

Target:
Students will achieve an average score of 3 or better on the scale of 1 - 5.

Finding (2015-2016) - Target: <u>Not Reported This Cycle</u>
No students (non-thesis) took the final exam in this cycle.

Related Action Plans (by Established cycle, then alpha):

More Stringent Course Selection Process
Although minimum expectations were met for this outcome (ability to solve practical problems), the scores were sufficiently close to the minimum to merit attention. Additional attention will be devoted to student advising and the selection of courses in the students' degree plan to insure that they get enough expereince solving practical problems.

Established in Cycle: 2009-2010
Implementation Status: Planned
Priority: High

Relationships (Measure | Outcome/Objective):
Measure: Evaluation of Final Exam | **Outcome/Objective:** Ability to Solve Practical Problems
Measure: Thesis Defense | **Outcome/Objective:** Ability to Solve Practical Problems

Responsible Person/Group: Dr. Gang

SLO 4: Ability to Succeed in a Ph.D. Program
An ability to demonstrate readiness to enter and succeed in an engineering PhD program.

Related Measures

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Source of Evidence: Presentation, either individual or group

Target:
Students will achieve an average score of 3 or better on the scale of 1 - 5.

Finding (2015-2016) - Target: <u>Met</u>
15 faculty evaluations of the students' thesis yielded an average score of 4.1/5.0

Related Action Plans (by Established cycle, then alpha):

Be More Selective During Admissions Process
These scores are well above the 3.0 minimum showing that the students exhibited an ability to do further graduate work. The scores are, however, close to the minimum expectations suggesting that the Department should probably be more selective of incoming students.

Established in Cycle: 2009-2010
Implementation Status: Planned
Priority: High

Relationships (Measure | Outcome/Objective):
Measure: Evaluation of Final Exam | **Outcome/Objective:** Ability to Succeed in a Ph.D. Program

Measure: Thesis Defense | **Outcome/Objective:** Ability to Succeed in a Ph.D. Program

Responsible Person/Group: Dr. Gang

Admision

Due to the limited TA/GA/RA lines, the majority of the admitted applicants did not register. The admission policy will be changed from this evaluation cycle. All the faculty are encouraged to recruit high-quality graduate students. The GAC committee will focus on the applicants that recruited by the faculty. At the same time, all the applicants who meet the graduate school criteria will be admitted to this program.

Established in Cycle: 2015-2016
Implementation Status: In-Progress
Priority: Medium

Relationships (Measure | Outcome/Objective):
Measure: Evaluation of Final Exam | **Outcome/Objective:** Ability to Succeed in a Ph.D. Program
Measure: Oral Exam | **Outcome/Objective:** Ability to Succeed in a Ph.D. Program
Measure: Thesis Defense | **Outcome/Objective:** Ability to Succeed in a Ph.D. Program

Projected Completion Date: 08/2017

M 2: Oral Exam

A committee of Graudate Faculty members evaluates the oral exam to determine the students depth of knowledge, ability to solve practical problems, and ability to succeed in a Ph.D. program. The committee members evaluate the student's thesis based on a rubric and assign a score between 1 and 5 for each outcome, where 5 is the best score.

Source of Evidence: Senior thesis or culminating major project

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Established in Cycle: 2015-2016
Implementation Status: In-Progress
Priority: Medium

Relationships (Measure | Outcome/Objective):
Measure: Evaluation of Final Exam | **Outcome/Objective:** Ability to Succeed in a Ph.D. Program
Measure: Oral Exam | **Outcome/Objective:** Ability to Succeed in a Ph.D. Program
Measure: Thesis Defense | **Outcome/Objective:** Ability to Succeed in a Ph.D. Program

Projected Completion Date: 08/2017

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Established in Cycle: 2009-2010
Implementation Status: Planned
Priority: High

Relationships (Measure | Outcome/Objective):
> **Measure:** Evaluation of Final Exam | **Outcome/Objective:** Ability to Succeed in a Ph.D. Program
> **Measure:** Thesis Defense | **Outcome/Objective:** Ability to Succeed in a Ph.D. Program

Responsible Person/Group: Dr. Gang

Admision
Due to the limited TA/GA/RA lines, the majority of the admitted applicants did not register. The admission policy will be changed from this evaluation cycle. All the faculty are encouraged to recruit high-quality graduate students. The GAC committee will focus on the applicants that recruited by the faculty. At the same time, all the applicants who meet the graduate school criteria will be admitted to this program.

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Relationships (Measure | Outcome/Objective):
> **Measure:** Evaluation of Final Exam | **Outcome/Objective:** Ability to Succeed in a Ph.D. Program
> **Measure:** Oral Exam | **Outcome/Objective:** Ability to Succeed in a Ph.D. Program
> **Measure:** Thesis Defense | **Outcome/Objective:** Ability to Succeed in a Ph.D. Program

Projected Completion Date: 08/2017

Analysis Questions and Analysis Answers

How were assessment results shared and evaluated within the unit?
The assessment results were sent to all faculty members and discussed at the department meeting.

Identify which action plans [created in prior cycle(s)] were implemented in this current cycle. For each of these implemented plans, were there any measurable or perceivable

effects? How, if at all, did the findings appear to be affected by the implemented action plan?

Because all the goals have been achieved in the prior cycle, no action plan was created. Therefore, no action plan was implemented in this current cycle.

What has the unit learned from the current assessment cycle? What is working well, and what is working less well in achieving desired outcomes?

All the evaluation criteria are good. The plans are working well in achieving the outcomes.