Mission / Purpose

The Department of Civil, Construction, and Environmental Engineering is dedicated to advancing the profession through its innovative, student-centered education and research programs. The faculty and staff are committed to preparing graduates for entry into the profession, educating future leaders of the profession, and conducting and disseminating meaningful basic and applied research for the betterment of the state, nation, and global communities.

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

SLO 1: Foundational
(Foundational) Apply foundational knowledge of mathematics, science, humanities, and social sciences in professional practice

Related Measures

M 1: Foundational - Portfolios
Average evaluation of foundational topic materials in graduation portfolios
Source of Evidence: Academic direct measure of learning - other
Target:
Average of 3 or better on a 5-point Likert scale.

SLO 2: Technical
(Technical) Synthesize technical knowledge of engineering science and analysis to identify, formulate, and solve relevant engineering problems.

Related Measures

M 2: Technical - Portfolio
Average evaluation on technical topic materials in graduation portfolios
Source of Evidence: Portfolio, showing skill development or best work
Target:
Average of 3 or better on a 5-point Likert scale.

SLO 3: Design
(Design) Synthesize technical knowledge of engineering design to identify, formulate, and solve relevant engineering problems.

Related Measures

M 3: Design - Portfolio
Average evaluation of design materials in graduation portfolios
Source of Evidence: Portfolio, showing skill development or best work
Target:
Average of 3 or better on 5 point Likert scale

SLO 4: Professional
(Professional) Exhibit the professional practice skills needed to be successful in engineering or related career

Related Measures

M 4: Professional - Portfolio
Average evaluation of professional practice materials in graduation portfolios.
Source of Evidence: Portfolio, showing skill development or best work
Target:
An average score of 3 or better on a 5-point Likert scale

Other Outcomes, with Any Associations and Related Measures, Targets, Findings, and Action Plans

OthOtcm 5: Program Value
The program will be highly valued by its program graduates and other key constituencies it serves.

Related Measures

M 5: FE - pass rate
Trend in the pass rate for students taking the FE.
Source of Evidence: Academic direct measure of learning - other
Target:
Improve student performance on the FE exam and eventually exceed the national average pass rate
Mission / Purpose

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

SLO 1: Foundational
(Foundational) Apply foundational knowledge of mathematics, science, humanities, and social sciences in professional practice

Related Measures

M 2: Foundational - Portfolios
Average evaluation of foundational topic materials in graduation portfolios
Source of Evidence: Academic direct measure of learning - other

Target:
Average of 3 or better on a 5-point Likert scale.

Finding (2012-2013) - Target: Met
An average evaluation score of 3.2 on foundational outcomes for 2012-13 graduates exceeds the target of 3.0.

SLO 2: Technical
(Technical) Synthesize technical knowledge of engineering science and analysis to identify, formulate, and solve relevant engineering problems.

Related Measures

M 5: Technical - Portfolio
Average evaluation on technical topic materials in graduation portfolios
Source of Evidence: Portfolio, showing skill development or best work

Target:
Average of 3 or better on a 5-point Likert scale

Finding (2012-2013) - Target: Met
An average evaluation score of 3.2 on the technical outcomes for 2012-13 graduates exceeds the target of 3.0.

SLO 3: Design
(Design) Synthesize technical knowledge of engineering design to identify, formulate, and solve relevant engineering problems.

Related Measures

M 8: Design - Portfolio
Average evaluation of design materials in graduation portfolios
Source of Evidence: Portfolio, showing skill development or best work

Target:
Average of 3 or better on 5 point Likert scale

Finding (2012-2013) - Target: Met
An average evaluation score of 3.4 on the design outcomes for 2012-13 graduates exceeds the target of 3.0.

SLO 4: Professional
(Professional) Exhibit the professional practice skills needed to be successful in engineering or related career

Related Measures

M 12: Professional - Portfolio
Average evaluation of professional practice materials in graduation portfolios.
Source of Evidence: Portfolio, showing skill development or best work

Target:
An average score of 3 or better on a 5-point Likert scale

Finding (2012-2013) - Target: Met
An average evaluation score of 3.5 on the professional outcomes for 2012-13 graduates exceeds the target of 3.0.
OthOtcm 8: Program Value
The program will be highly valued by its program graduates and other key constituencies it serves.

Related Measures

**M 14: FE - pass rate**
Trend in the pass rate for students taking the FE.

Source of Evidence: Academic direct measure of learning - other

**Target:**
Improve student performance on the FE exam and eventually exceed the national average pass rate

**Finding (2012-2013) - Target: Met**
For 2012-2013, the program exceeded the national pass rate for the first time in program history. However, only three students took the exam (about one-third of those eligible). Additional student participation is needed.
Mission / Purpose

The Department of Civil, Construction, and Environmental Engineering is dedicated to advancing the profession through its innovative, student-centered education and research programs. Our faculty and staff are committed to preparing graduates for entry into the profession, educating future leaders of the profession, and conducting and disseminating relevant basic and applied research for the betterment of the state, nation, and global community.

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

SLO 1: Discipline Knowledge
(Discipline Knowledge) Apply foundational knowledge of mathematics, science, humanities, and social sciences in the professional practice of civil or construction engineering

Related Measures

M 1: Percent correct
Percent correct on the mathematics and science questions of the FE.
Source of Evidence: Academic direct measure of learning - other

M 2: Graduation portfolios
Average evaluation of foundational topic materials in graduation portfolios
Source of Evidence: Academic direct measure of learning - other

SLO 2: Skills/Abilities
(Skills/Abilities) Synthesize technical knowledge of engineering science and analysis to identify, formulate, and solve civil or construction engineering problems.

Related Measures

M 4: Percent correct
Percent correct on the mathematics and science questions of the FE 2
Source of Evidence: Academic direct measure of learning - other

M 5: Average evaluation
Average evaluation of design materials in graduation portfolios.
Source of Evidence: Portfolio, showing skill development or best work

M 6: Student survey
Student survey on ability to synthesize and apply technical knowledge.
Source of Evidence: Academic direct measure of learning - other

SLO 3: Synthesize technical knowledge
Synthesize technical knowledge of engineering design to identify, formulate, and solve civil or construction engineering problems.

Related Measures

M 7: Percent correct
Percent correct on the mathematics and science questions of the FE 3
Source of Evidence: Academic direct measure of learning - other

M 8: Average evaluation
Average evaluation of design materials in graduation portfolios 3
Source of Evidence: Portfolio, showing skill development or best work

M 9: Student survey
Student survey on ability to design.
Source of Evidence: Academic direct measure of learning - other

M 10: Student survey
Student survey on ability to design 3
Source of Evidence: Academic direct measure of learning - other

SLO 4: Professional practice skills
Demonstrate the professional practice skills needed to be successful in civil or construction engineering

Related Measures
M 11: Percent correct
Percent correct on the mathematics and science questions of the FE.
Source of Evidence: Academic direct measure of learning - other

M 12: Average evaluation
Average evaluation of professional practice materials in graduation portfolios.
Source of Evidence: Portfolio, showing skill development or best work

M 13: Student Survey
Student survey on professional practice skills.
Source of Evidence: Academic direct measure of learning - other

SLO 5: The FE as an assessment tool
(An Improvement Outcome Derived from the 2010-11 Assessment Findings) The FE as an assessment tool. The department is instituting an integrated FE experience that will include practice exams and mentoring. The practice exam results will allow students to become acquainted with the exam format and structure as well as target their studies to their weak areas. Likewise faculty will assess practice exam results to direct specific course content toward practice and improvement in weak areas

Related Measures

M 14: Trend in the pass rate
Trend in the pass rate for departmental students taking the FE.
Source of Evidence: Academic direct measure of learning - other

M 15: Performance on practice exams
Performance on departmental FE practice exams
Source of Evidence: Performance (recital, exhibit, science project)

Other Outcomes, with Any Associations and Related Measures, Targets, Findings, and Action Plans

OthOtcm 6: Recognized quality
The program will improve and sustain a high level of recognized quality.

OthOtcm 7: Program enrollments & degree completions
The program will build and sustain an optimal level of annual program enrollments and degree completions.

OthOtcm 8: Program value
The program will be highly valued by its program graduates and other key constituencies it serves.