# 2017-2018 Assessment Cycle (College of Engineering) ENGR\_Civil Engineering BS

#### **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".

The mission of the Civil Engineering Department is to provide for a contemporary civil engineering education for the students, and is in keeping with the mission for all students as defined by the University. It provides a broad based civil engineering curriculum in structures, geotechnical, water resources, environmental, and transportation engineering, including a program designed to utilize learned technical skills, accompanied by communicative skills, teamwork and leadership qualities. This mission envisions graduates employable by local, national, and international firms and with a sound educational foundation for those who pursue advanced degrees.

In addition, the Department's Mission is designed to assist industries and government agencies through the application of civil engineering knowledge and an understanding of infrastructure needs and problems; developing required research programs with measurable results for implementation and with the expectation of improving the quality of life and economic well-being of this area.

The Civil Engineering undergraduate program is accredited by the Engineering Accreditation Commission of ABET, http://www.abet.org.

# Goals (University/Program tied to Curriculum)

### Standards/Outcomes

| Identifier          | Description  |
|---------------------|--|
| ABET-<br>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-<br>EAC.1.3.1  | > an ability to apply knowledge of mathematics, science, and engineering   |
| ABET-<br>EAC.1.3.10 | > a knowledge of contemporary issues   |
| ABET-<br>EAC.1.3.11 | > an ability to use the techniques, skills, and modern engineering tools necessary for engineering practice.   |
| ABET-<br>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-<br>EAC.1.3.2  | > an ability to design and conduct experiments, as well as to analyze and interpret data   |
| ABET-<br>EAC.1.3.3  | > an ability to design a system, component, or process to meet desired needs   |
| ABET-<br>EAC.1.3.4  | > an ability to function on multi-disciplinary teams   |
| ABET-<br>EAC.1.3.5  | > an ability to identify, formulate, and solve engineering problems  |
| ABET-<br>EAC.1.3.6  | > an understanding of professional and ethical responsibility  |
| ABET-<br>EAC.1.3.7  | > an ability to communicate effectively  |
| ABET-<br>EAC.1.3.8  | > the broad education necessary to understand the impact of engineering solutions in a global and societal context   |
| ABET-<br>EAC.1.3.9  | > a recognition of the need for, and an ability to engage in life-long learning  |

#### **Additional Standards/Outcomes**

| Identifier | Description  |
|------------|--|
| CIVE.BS1   | An ability to explain key concepts and problem-solving processes used in management. (Level 2)   |
| CIVE.BS2   | An ability to explain key concepts and problem-solving processes used in business. (Level 2)   |
| CIVE.BS3   | An ability to explain key concepts and problem-solving processes used in public policy, and public administration. (Level 2)                                 |
| CIVE.BS4   | An ability to explain the role of the leader, leadership principles, and attitudes conducive to effective professional practice of civil engineering. (Level |
|            |  |

## **Curriculum Map**

### Assessment Findings for the Assessment Measure level for Civil Engineering BS(Imported)

| Legend                 | A - Assessed          | A - Assessed   |                  |                                |                           |  |
|------------------------|-----------------------|--|------------------|--------------------------------|---------------------------|--|
| Course/Event           | Student Outcomes      | Student Outcomes Portfolio   |                  |                                |                           |  |
| Standard/Outcome       | ABET-EAC.1.3.1 >      | ABET-EAC.1.3.1 > an ability to apply knowledge of mathematics, science, and engineering  |                  |                                |                           |  |
| Assessment<br>Measures |                       |  |                  |                                |                           |  |
|                        | Assessment<br>Measure | Criterion  | Summary          | Attachments of the Assessments | Improvement<br>Narratives |  |
|                        | Direct - Portfolio    | Has the criterion 80% of the students will achieve a score of 3.5 or higher on a 5 point scale using a standard rubric. been met yet?  Met | 97.5%<br>success |                                |                           |  |
|                        |                       |  |                  |                                |                           |  |

| Legend           | A - Assessed   |
|------------------|--|
| Course/Event     | Student Outcomes Portfolio                           |
| Standard/Outcome | ABET-EAC.1.3.10 > a knowledge of contemporary issues |
| Assessment       |  |

| Measures |                       |  |               |                                   |                        |
|----------|-----------------------|--|---------------|-----------------------------------|------------------------|
|          | Assessment<br>Measure | Criterion  | Summary       | Attachments of the<br>Assessments | Improvement Narratives |
|          | Direct - Portfolio    | Has the criterion 80% of the students will achieve a score of 3.5 or higher on a 5 point scale using a standard rubric. been met yet?  Met | 95.8% success |                                   |                        |
|          |                       |  | ·             |                                   |                        |

| Legend                 | A - Assessed          | A - Assessed Student Outcomes Portfolio  |                   |                                |                           |  |
|------------------------|-----------------------|--|-------------------|--------------------------------|---------------------------|--|
| Course/Event           | Student Outcomes      |  |                   |                                |                           |  |
| Standard/Outcome       | ABET-EAC.1.3.11       | ABET-EAC.1.3.11 > an ability to use the techniques, skills, and modern engineering tools necessary for engineering practice.               |                   |                                |                           |  |
| Assessment<br>Measures |                       |  |                   |                                |                           |  |
|                        | Assessment<br>Measure | Criterion  | Summary           | Attachments of the Assessments | Improvement<br>Narratives |  |
|                        | Direct - Portfolio    | Has the criterion 80% of the students will achieve a score of 3.5 or higher on a 5 point scale using a standard rubric. been met yet?  Met | 93.3 %<br>success |                                |                           |  |
|                        |                       |  |                   |                                |                           |  |

| Legend                 | A - Assessed     |   |  |         |                    |             |
|------------------------|------------------|---|--|---------|--------------------|-------------|
| Course/Event           | Student Outcomes | Student Outcomes Portfolio  |  |         |                    |             |
| Standard/Outcome       | ABET-EAC.1.3.2 > | ABET-EAC.1.3.2 > an ability to design and conduct experiments, as well as to analyze and interpret data |  |         |                    |             |
| Assessment<br>Measures |                  |   |  |         |                    |             |
|                        | Assessment       | Criterion   |  | Summary | Attachments of the | Improvement |

| Measure            |  |                              | Assessments | Narratives |
|--------------------|--|------------------------------|-------------|------------|
| Direct - Portfolio | Has the criterion 80% of the students will achieve a score of 3.5 or higher on a 5 point scale using a standard rubric. been met yet?  Met | 92.5%<br>achieved<br>success |             |            |

| A - Assessed          | A - Assessed   |  |   |   |  |
|-----------------------|--|--|---|---|--|
| Student Outcomes      | Student Outcomes Portfolio   |  |   |   |  |
| ABET-EAC.1.3.3 >      | BET-EAC.1.3.3 > an ability to design a system, component, or process to meet desired needs   |  |   |   |  |
|                       |  |  |   |   |  |
| Assessment<br>Measure | Criterion  | Summary  | Attachments of the Assessments  | Improvement<br>Narratives   |  |
| Direct - Portfolio    | Has the criterion 80% of the students will achieve a score of 3.5 or higher on a 5 point scale using a standard rubric. been met yet?  Met | 93.3%<br>achieved<br>success   |   |   |  |
|                       | Student Outcomes ABET-EAC.1.3.3 >  Assessment Measure  | Student Outcomes Portfolio  ABET-EAC.1.3.3 > an ability to design a system, component, or process to  Assessment Measure  Direct - Portfolio Has the criterion 80% of the students will achieve a score of 3.5 or higher on a 5 point scale using a standard rubric. been met yet? | Student Outcomes Portfolio  ABET-EAC.1.3.3 > an ability to design a system, component, or process to meet desired ne  Assessment Measure  Direct - Portfolio Has the criterion 80% of the students will achieve a score of 3.5 or higher on a 5 point scale using a standard rubric. been met yet?  Summary  93.3% achieved success | Student Outcomes Portfolio  ABET-EAC.1.3.3 > an ability to design a system, component, or process to meet desired needs  Assessment Measure  Direct - Portfolio  Has the criterion 80% of the students will achieve a score of 3.5 or higher on a 5 point scale using a standard rubric. been met yet?  Summary  Attachments of the Assessments  93.3% achieved success |  |

| Legend                 | A - Assessed          |                                      |                |         |                                |                           |
|------------------------|-----------------------|--------------------------------------|----------------|---------|--------------------------------|---------------------------|
| Course/Event           | Student Outcomes      | Student Outcomes Portfolio           |                |         |                                |                           |
| Standard/Outcome       | ABET-EAC.1.3.4 >      | an ability to function on multi-disc | iplinary teams |         |                                |                           |
| Assessment<br>Measures |                       |                                      |                |         |                                |                           |
|                        | Assessment<br>Measure | Criterion                            |                | Summary | Attachments of the Assessments | Improvement<br>Narratives |

| Direct - Portfolio | Has the criterion 80% of the students will achieve a score of 3.5 or higher on a 5 point scale using a standard rubric. been met yet?  Met | 90.8%<br>achieved<br>success |  |
|--------------------|--|------------------------------|--|
|                    |  |                              |  |

| A - Assessed               |  |  |  |  |  |
|----------------------------|--|--|--|--|--|
| Student Outcomes Portfolio |  |  |  |  |  |
| ABET-EAC.1.3.5 >           | BET-EAC.1.3.5 > an ability to identify, formulate, and solve engineering problems  |  |  |  |  |
|                            |  |  |  |  |  |
| Assessment<br>Measure      | Criterion  | Summary  | Attachments of the Assessments   | Improvement<br>Narratives  |  |
| Direct - Portfolio         | Has the criterion 80% of the students will achieve a score of 3.5 or higher on a 5 point scale using a standard rubric. been met yet?  Met | 96.7%<br>achieved<br>success   |  |  |  |
|                            | Student Outcomes ABET-EAC.1.3.5 >  Assessment Measure  | Student Outcomes Portfolio  ABET-EAC.1.3.5 > an ability to identify, formulate, and solve engineering part of the students will achieve a score of 3.5 or higher on a 5 point scale using a standard rubric. been met yet? | Student Outcomes Portfolio  ABET-EAC.1.3.5 > an ability to identify, formulate, and solve engineering problems  Assessment Measure  Direct - Portfolio  Has the criterion 80% of the students will achieve a score of 3.5 or higher on a 5 point scale using a standard rubric. been met yet?  Summary  96.7% achieved success | Student Outcomes Portfolio  ABET-EAC.1.3.5 > an ability to identify, formulate, and solve engineering problems  Assessment Measure  Direct - Portfolio  Has the criterion 80% of the students will achieve a score of 3.5 or higher on a 5 point scale using a standard rubric. been met yet?  Summary  Attachments of the Assessments  96.7% achieved success |  |

| Legend                 | A - Assessed          |   |                  |                                |                           |  |  |
|------------------------|-----------------------|---|------------------|--------------------------------|---------------------------|--|--|
| Course/Event           | Student Outcomes      | tudent Outcomes Portfolio   |                  |                                |                           |  |  |
| Standard/Outcome       | ABET-EAC.1.3.6 >      | BET-EAC.1.3.6 > an understanding of professional and ethical responsibility   |                  |                                |                           |  |  |
| Assessment<br>Measures |                       |   |                  |                                |                           |  |  |
|                        | Assessment<br>Measure | Criterion   | Summary          | Attachments of the Assessments | Improvement<br>Narratives |  |  |
|                        | Direct - Portfolio    | Has the criterion 80% of the students will achieve a score of 3.5 or higher on a 5 point scale using a standard rubric. been met yet? | 90.8%<br>success |                                |                           |  |  |

|  | Met |  |  |
|--|-----|--|--|
|  |     |  |  |
|  |     |  |  |

| Legend                 | A - Assessed          |  |                              |                                |                           |  |
|------------------------|-----------------------|--|------------------------------|--------------------------------|---------------------------|--|
| Course/Event           | Student Outcomes      | Student Outcomes Portfolio   |                              |                                |                           |  |
| Standard/Outcome       | ABET-EAC.1.3.7 >      | an ability to communicate effectively  |                              |                                |                           |  |
| Assessment<br>Measures |                       |  |                              |                                |                           |  |
|                        | Assessment<br>Measure | Criterion  | Summary                      | Attachments of the Assessments | Improvement<br>Narratives |  |
|                        | Direct - Portfolio    | Has the criterion 80% of the students will achieve a score of 3.5 or higher on a 5 point scale using a standard rubric. been met yet?  Met | 90.8%<br>achieved<br>success |                                |                           |  |
|                        |                       |  |                              |                                |                           |  |

| Legend                 | A - Assessed          |  |               |                                |                        |  |  |
|------------------------|-----------------------|--|---------------|--------------------------------|------------------------|--|--|
| Course/Event           | Student Outcomes      | Student Outcomes Portfolio   |               |                                |                        |  |  |
| Standard/Outcome       | ABET-EAC.1.3.8 >      | the broad education necessary to understand the impact of $\boldsymbol{\varepsilon}$   | engineering s | olutions in a global and s     | ocietal context        |  |  |
| Assessment<br>Measures |                       |  |               |                                |                        |  |  |
|                        | Assessment<br>Measure | Criterion  | Summary       | Attachments of the Assessments | Improvement Narratives |  |  |
|                        | Direct - Portfolio    | Has the criterion 80% of the students will achieve a score of 3.5 or higher on a 5 point scale using a standard rubric. been met yet?  Met |               |                                |                        |  |  |

| Legend                 | A - Assessed          | A - Assessed   |         |                                |                           |  |  |
|------------------------|-----------------------|--|---------|--------------------------------|---------------------------|--|--|
| Course/Event           | Student Outcomes      | Student Outcomes Portfolio   |         |                                |                           |  |  |
| Standard/Outcome       | ABET-EAC.1.3.9 >      | ABET-EAC.1.3.9 > a recognition of the need for, and an ability to engage in life-long learning |         |                                |                           |  |  |
| Assessment<br>Measures |                       |  |         |                                |                           |  |  |
|                        |                       |  |         |                                |                           |  |  |
|                        | Assessment<br>Measure | Criterion  | Summary | Attachments of the Assessments | Improvement<br>Narratives |  |  |

| Legend                 | A - Assessed          |  |                              |                                |                           |  |  |
|------------------------|-----------------------|--|------------------------------|--------------------------------|---------------------------|--|--|
| Course/Event           | Student Outcomes      | tudent Outcomes Portfolio  |                              |                                |                           |  |  |
| Standard/Outcome       | CIVE.BS1 An abilit    | y to explain key concepts and problem-solving processe   | es used in manag             | ement. (Level 2)               |                           |  |  |
| Assessment<br>Measures |                       |  |                              |                                |                           |  |  |
|                        | Assessment<br>Measure | Criterion  | Summary                      | Attachments of the Assessments | Improvement<br>Narratives |  |  |
|                        | Direct - Portfolio    | Has the criterion 80% of the students will achieve a score of 3.5 or higher on a 5 point scale using a standard rubric. been met yet?  Met | 86.7%<br>achieved<br>success |                                |                           |  |  |
|                        |                       |  |                              |                                |                           |  |  |

| Legend                 | A - Assessed          |  |                              |                                |                           |  |
|------------------------|-----------------------|--|------------------------------|--------------------------------|---------------------------|--|
| Course/Event           | Student Outcomes      | Student Outcomes Portfolio   |                              |                                |                           |  |
| Standard/Outcome       | CIVE.BS2 An abilit    | y to explain key concepts and problem-solving processe   | es used in busine            | ss. (Level 2)                  |                           |  |
| Assessment<br>Measures |                       |  |                              |                                |                           |  |
|                        | Assessment<br>Measure | Criterion  | Summary                      | Attachments of the Assessments | Improvement<br>Narratives |  |
|                        | Direct - Portfolio    | Has the criterion 80% of the students will achieve a score of 3.5 or higher on a 5 point scale using a standard rubric. been met yet?  Met | 93.3%<br>achieved<br>success |                                |                           |  |

| Legend                 | A - Assessed          |  |                              |                                |                           |  |
|------------------------|-----------------------|--|------------------------------|--------------------------------|---------------------------|--|
| Course/Event           | Student Outcomes      | Student Outcomes Portfolio   |                              |                                |                           |  |
| Standard/Outcome       | CIVE.BS3 An abilit    | y to explain key concepts and problem-solving processe   | es used in public            | policy, and public administ    | ration. (Level 2)         |  |
| Assessment<br>Measures |                       |  |                              |                                |                           |  |
|                        | Assessment<br>Measure | Criterion  | Summary                      | Attachments of the Assessments | Improvement<br>Narratives |  |
|                        | Direct - Portfolio    | Has the criterion 80% of the students will achieve a score of 3.5 or higher on a 5 point scale using a standard rubric. been met yet?  Met | 92.5%<br>achieved<br>success |                                |                           |  |
|                        |                       |  |                              |                                |                           |  |

| Legend                 | A - Assessed          |  |                              |                                |                           |  |  |
|------------------------|-----------------------|--|------------------------------|--------------------------------|---------------------------|--|--|
| Course/Event           | Student Outcomes      | Student Outcomes Portfolio   |                              |                                |                           |  |  |
| Standard/Outcome       |                       | IVE.BS4 An ability to explain the role of the leader, leadership principles, and attitudes conducive to effective professional practice of civil ngineering. (Level 2) |                              |                                |                           |  |  |
| Assessment<br>Measures |                       |  |                              |                                |                           |  |  |
|                        | Assessment<br>Measure | Criterion  | Summary                      | Attachments of the Assessments | Improvement<br>Narratives |  |  |
|                        | Direct - Portfolio    | Has the criterion 80% of the students will achieve a score of 3.5 or higher on a 5 point scale using a standard rubric. been met yet?  Met                             | 94.2%<br>achieved<br>success |                                |                           |  |  |
|                        |                       |  |                              |                                |                           |  |  |

| Legend                 | A - Assessed                   |   |  |                                |                           |  |  |
|------------------------|--------------------------------|---|--|--------------------------------|---------------------------|--|--|
| Course/Event           | Capstone Experier              | Capstone Experience   |  |                                |                           |  |  |
| Standard/Outcome       | ABET-EAC.1.3.10                | > a knowledge of contemporary issues  |  |                                |                           |  |  |
| Assessment<br>Measures |                                |   |  |                                |                           |  |  |
|                        | Assessment<br>Measure          | Criterion   | Summary                                  | Attachments of the Assessments | Improvement<br>Narratives |  |  |
|                        | Direct - Written<br>Assignment | Has the criterion 80% of the students will achieve a score of 3.5 or higher on a 5 point scale using a standard rubric. been met yet? | Capstone course assessment not submitted |                                |                           |  |  |
|                        |                                | •   |  | ·                              |                           |  |  |

| Legend | A - Assessed |
|--------|--------------|

| Course/Event           | Capstone Experience            |   |  |                                |                           |  |  |
|------------------------|--------------------------------|---|--|--------------------------------|---------------------------|--|--|
| Standard/Outcome       | ABET-EAC.1.3.11                | ABET-EAC.1.3.11 > an ability to use the techniques, skills, and modern engineering tools necessary for engineering practice.          |  |                                |                           |  |  |
| Assessment<br>Measures |                                |   |  |                                |                           |  |  |
|                        | Assessment<br>Measure          | Criterion   | Summary                                  | Attachments of the Assessments | Improvement<br>Narratives |  |  |
|                        | Direct - Written<br>Assignment | Has the criterion 80% of the students will achieve a score of 3.5 or higher on a 5 point scale using a standard rubric. been met yet? | Capstone course assessment not submitted |                                |                           |  |  |
|                        |                                |   |  |                                |                           |  |  |

| Legend                 | A - Assessed                   |   |  |                                |                           |  |  |
|------------------------|--------------------------------|---|--|--------------------------------|---------------------------|--|--|
| Course/Event           | Capstone Experier              | ice   |  |                                |                           |  |  |
| Standard/Outcome       | ABET-EAC.1.3.2 >               | ABET-EAC.1.3.2 > an ability to design and conduct experiments, as well as to analyze and interpret data                               |  |                                |                           |  |  |
| Assessment<br>Measures |                                |   |  |                                |                           |  |  |
|                        | Assessment<br>Measure          | Criterion   | Summary                                  | Attachments of the Assessments | Improvement<br>Narratives |  |  |
|                        | Direct - Written<br>Assignment | Has the criterion 80% of the students will achieve a score of 3.5 or higher on a 5 point scale using a standard rubric. been met yet? | Capstone course assessment not submitted |                                |                           |  |  |
|                        |                                |   |  |                                |                           |  |  |

| Legend           | A - Assessed  |
|------------------|---|
| Course/Event     | Capstone Experience   |
| Standard/Outcome | ABET-EAC.1.3.3 > an ability to design a system, component, or process to meet desired needs |

| Assessment<br>Measures |                                |   |  |                                |                        |
|------------------------|--------------------------------|---|--|--------------------------------|------------------------|
|                        | Assessment<br>Measure          | Criterion   | Summary                                  | Attachments of the Assessments | Improvement Narratives |
|                        | Direct - Written<br>Assignment | Has the criterion 80% of the students will achieve a score of 3.5 or higher on a 5 point scale using a standard rubric. been met yet? | Capstone course assessment not submitted |                                |                        |
|                        |                                |   |  |                                |                        |

| Legend                 | A - Assessed                   |   |  |                                |                           |
|------------------------|--------------------------------|---|--|--------------------------------|---------------------------|
| Course/Event           | Capstone Experier              | nce   |  |                                |                           |
| Standard/Outcome       | ABET-EAC.1.3.4 >               | an ability to function on multi-disciplinary teams  |  |                                |                           |
| Assessment<br>Measures |                                |   |  |                                |                           |
|                        | Assessment<br>Measure          | Criterion   | Summary                                  | Attachments of the Assessments | Improvement<br>Narratives |
|                        | Direct - Written<br>Assignment | Has the criterion 80% of the students will achieve a score of 3.5 or higher on a 5 point scale using a standard rubric. been met yet? | Capstone course assessment not submitted |                                |                           |
|                        |                                |   |  |                                |                           |

| Legend                 | A - Assessed   |
|------------------------|--|
| Course/Event           | Capstone Experience  |
| Standard/Outcome       | ABET-EAC.1.3.6 > an understanding of professional and ethical responsibility |
| Assessment<br>Measures |  |

| Assessment<br>Measure          | Criterion   | Summary                                  | Attachments of the Assessments | Improvement<br>Narratives |
|--------------------------------|---|--|--------------------------------|---------------------------|
| Direct - Written<br>Assignment | Has the criterion 80% of the students will achieve a score of 3.5 or higher on a 5 point scale using a standard rubric. been met yet? | Capstone course assessment not submitted |                                |                           |
|                                |   |  |                                |                           |

| Legend                 | A - Assessed             |   |  |                                |                           |  |  |
|------------------------|--------------------------|---|--|--------------------------------|---------------------------|--|--|
| Course/Event           | Capstone Experie         | ence  |  |                                |                           |  |  |
| Standard/Outcome       | ABET-EAC.1.3.7           | ABET-EAC.1.3.7 > an ability to communicate effectively  |  |                                |                           |  |  |
| Assessment<br>Measures |                          |   |  |                                |                           |  |  |
|                        | Assessment<br>Measure    | Criterion   | Summary                                  | Attachments of the Assessments | Improvement<br>Narratives |  |  |
|                        | Direct -<br>Presentation | Has the criterion 80% of the students will achieve a score of 3.5 or higher on a 5 point scale using a standard rubric. been met yet? | Capstone course assessment not submitted |                                |                           |  |  |
|                        |                          |   |  |                                | <u>I</u>                  |  |  |

| Legend                 | A - Assessed          |   |  |         |                                |                        |  |
|------------------------|-----------------------|---|--|---------|--------------------------------|------------------------|--|
| Course/Event           | Capstone Experience   | Capstone Experience   |  |         |                                |                        |  |
| Standard/Outcome       | ABET-EAC.1.3.8 > t    | ABET-EAC.1.3.8 > the broad education necessary to understand the impact of engineering solutions in a global and societal context |  |         |                                |                        |  |
| Assessment<br>Measures |                       |   |  |         |                                |                        |  |
|                        | Assessment<br>Measure | Criterion   |  | Summary | Attachments of the Assessments | Improvement Narratives |  |

| Direct - Written<br>Assignment | Has the criterion 80% of the students will achieve a score of 3.5 or higher on a 5 point scale using a standard rubric. been met yet? | Capstone course assessment not submitted |  |
|--------------------------------|---|--|--|
|                                |   |  |  |

| Legend                 | A - Assessed                   |   |  |                                |                           |  |  |
|------------------------|--------------------------------|---|--|--------------------------------|---------------------------|--|--|
| Course/Event           | Capstone Experier              | Capstone Experience   |  |                                |                           |  |  |
| Standard/Outcome       | ABET-EAC.1.3.9 >               | a recognition of the need for, and an ability to eng  | age in life-long learning                |                                |                           |  |  |
| Assessment<br>Measures |                                |   |  |                                |                           |  |  |
|                        | Assessment<br>Measure          | Criterion   | Summary                                  | Attachments of the Assessments | Improvement<br>Narratives |  |  |
|                        | Direct - Written<br>Assignment | Has the criterion 80% of the students will achieve a score of 3.5 or higher on a 5 point scale using a standard rubric. been met yet? | Capstone course assessment not submitted |                                |                           |  |  |
|                        |                                | ,   | ,  |                                | 1                         |  |  |

| Legend                 | A - Assessed                   |   |  |                                |                        |  |  |
|------------------------|--------------------------------|---|--|--------------------------------|------------------------|--|--|
| Course/Event           | Capstone Experier              | nce   |  |                                |                        |  |  |
| Standard/Outcome       | CIVE.BS1 An abilit             | CIVE.BS1 An ability to explain key concepts and problem-solving processes used in management. (Level 2)                               |  |                                |                        |  |  |
| Assessment<br>Measures |                                |   |  |                                |                        |  |  |
|                        | Assessment<br>Measure          | Criterion   | Summary                                  | Attachments of the Assessments | Improvement Narratives |  |  |
|                        | Direct - Written<br>Assignment | Has the criterion 80% of the students will achieve a score of 3.5 or higher on a 5 point scale using a standard rubric. been met yet? | Capstone course assessment not submitted |                                |                        |  |  |

| A - Assessed                   |   |   |   |  |  |  |
|--------------------------------|---|---|---|--|--|--|
| Capstone Experier              | Capstone Experience   |   |   |  |  |  |
| CIVE.BS3 An abilit             | CIVE.BS3 An ability to explain key concepts and problem-solving processes used in public policy, and public administration. (Level 2) |   |   |  |  |  |
|                                |   |   |   |  |  |  |
| Assessment<br>Measure          | Criterion   | Summary   | Attachments of the Assessments  | Improvement<br>Narratives  |  |  |
| Direct - Written<br>Assignment | Has the criterion 80% of the students will achieve a score of 3.5 or higher on a 5 point scale using a standard rubric. been met yet? | Capstone course assessment not submitted  |   |  |  |  |
|                                | Capstone Experier CIVE.BS3 An abilit  Assessment Measure Direct - Written   | Capstone Experience  CIVE.BS3 An ability to explain key concepts and problem-solving pro  Assessment Measure  Direct - Written Assignment  Has the criterion 80% of the students will achieve a score of 3.5 or higher on a 5 point | Capstone Experience  CIVE.BS3 An ability to explain key concepts and problem-solving processes used in public policy processes.  Assessment | Capstone Experience  CIVE.BS3 An ability to explain key concepts and problem-solving processes used in public policy, and public administration.  Assessment Measure  Direct - Written Assignment  Has the criterion 80% of the students will achieve a score of 3.5 or higher on a 5 point  CIVE.BS3 An ability to explain key concepts and problem-solving processes used in public policy, and public administration.  Summary Attachments of the Assessments  Capstone course assessment not |  |  |

| Legend                 | A - Assessed                     |   |   |                                |   |  |  |
|------------------------|----------------------------------|---|---|--------------------------------|---|--|--|
| Course/Event           | FE Exam                          | E Exam  |   |                                |   |  |  |
| Standard/Outcome       | ABET-EAC.1.3.                    | BET-EAC.1.3.1 > an ability to apply knowledge of mathematics, science, and engineering                            |   |                                |   |  |  |
| Assessment<br>Measures |                                  |   |   |                                |   |  |  |
|                        | Assessment<br>Measure            | Criterion   | Summary   | Attachments of the Assessments | Improvement Narratives  |  |  |
|                        | Direct -<br>Standardized<br>Test | Has the criterion Civil Engineering graduates who take the FE exam will meet or exceed the national pass-rate for | Mathematics - Institutional/Comparator = 9.0/9.8 Statistics - Institutional/Comparator = 9.4/9.6 statics - Institutional/Comparator = 8.8/9.4 Dynamics - Institutional/Comparator = |                                | - Assessment Process: Continuous monitoring: Performance varies from year to year. With the exception of the fluid mechanics, the performance |  |  |

|  | the NCEES Fundamentals in Engineering (FE) Exam. been met yet? Not met | 8.3/10.0 Mechanics of Materials - Institutional/Comparator = 9.0/9.1 Fluid Mechanics - Institutional/Comparator = 9.0/9.1 | of those taking the FE in this cycle did not succeed in achieving the "comparator" performance. However, a 100% pass rate was achieved for the students taking the FE Exam. The performance over a number of years provides better direction. Thus, this FE Exam outcome performance will be further monitored. In the past, students have done well, however, most, if not all students to the mechanics courses with one instructor that emphasized repetition in the solution of problems. Currently there are several instructors with various approaches to teaching these |
|--|--|---|---|
|  |  |   |   |

| Legend   | A - Assessed          | ssessed   |   |                                |   |  |  |
|--|-----------------------|---|---|--------------------------------|---|--|--|
| Course/Event   | FE Exam               | am  |   |                                |   |  |  |
| Standard/Outcome   | ABET-EAC.1.3.3        | 3 > an ability to design a syste  | em, component, or process to meet desired nee   | ds                             |   |  |  |
| Assessment Measures  |                       |   |   |                                |   |  |  |
|  | Assessment<br>Measure | Criterion   | Summary   | Attachments of the Assessments | Improvement<br>Narratives   |  |  |
| Standardized Engineering grad Test who take the FE of meet or exceed the |                       | Has the criterion Civil Engineering graduates who take the FE exam will meet or exceed the national pass-rate for the | Hydraulics & Hydrology - Institutional/Comparator = 8.9/9.4 Structural Design - Institutional/Comparator = 9.3/8.8 Geotechnical Engineering - Institutional/Comparator = 10.4/9.1 |                                | - Assessment Process: Continuous monitoring: The FE Exam must be review over several testing cycles to identify |  |  |

| NCEES Fundamentals in<br>Engineering (FE) Exam.<br>been met yet?<br>Met | Transportation Engineering - Institutional/Comparator = 9.6/9.2 Environmental Engineering - Institutional/Comparator = 8.0/9.1 | definitive problems. Although 100% of the examinees - Assessment Process: Continuous monitoring: |
|---|--|--|
|   |  |  |

| Exam   |   |  |   |  |  |  |
|--|---|--|---|--|--|--|
| ET-EAC.1.3.5 > an ability to identify, formulate, and solve engineering problems   |   |  |   |  |  |  |
|  |   |  |   |  |  |  |
| Criterion  | Summary   | Attachments of the Assessments   | Improvement Narratives  |  |  |  |
| Has the criterion Civil Engineering graduates who take the FE exam will meet or exceed the national pass-rate for the NCEES Fundamentals in Engineering (FE) Exam. been met yet? | 100% of those taking the exam (6) passed.   |  |   |  |  |  |
| :<br>:   | Eriterion  las the criterion Civil Engineering graduates who take the FE exam will meet or exceed the national pass-rate for the NCEES Fundamentals in Engineering (FE) exam. been met yet? | Summary  Itas the criterion Civil Engineering graduates who take taking the exame will meet or exceed the national pass-rate or the NCEES Fundamentals in Engineering (FE) (6) passed. | Eriterion  Summary  Attachments of the Assessments  las the criterion Civil Engineering graduates who take the FE exam will meet or exceed the national pass-rate or the NCEES Fundamentals in Engineering (FE)  Exam. been met yet?  Attachments of the Assessments  100% of those taking the exam (6) passed. |  |  |  |

| Legend                 | A - Assessed          |  |             |                                |                        |
|------------------------|-----------------------|--|-------------|--------------------------------|------------------------|
| Course/Event           | FE Exam               |  |             |                                |                        |
| Standard/Outcome       | ABET-EAC.1.3.6 >      | > an understanding of professional and ethical res | ponsibility |                                |                        |
| Assessment<br>Measures |                       |  |             |                                |                        |
|                        | Assessment<br>Measure | Criterion  | Summary     | Attachments of the Assessments | Improvement Narratives |

| Direct -<br>Standardized<br>Test | Has the criterion Civil Engineering graduates who take the FE exam will meet or exceed the national pass-rate for the NCEES Fundamentals in Engineering (FE) Exam. been met yet?  Met | ETHICS -<br>Institutional/Comparator =<br>11.2/9.9 |  |
|----------------------------------|---|--|--|
|                                  |   |  |  |

| A - Assessed                       | - Assessed  |  |   |  |  |  |
|------------------------------------|---|--|---|--|--|--|
| Student Course S                   | tudent Course Survey  |  |   |  |  |  |
| ABET-EAC.1.3.1                     | 0 > a knowledge of contemporary   | y issues   |   |  |  |  |
|                                    |   |  |   |  |  |  |
| Assessment<br>Measure              | Criterion   | Summary  | Attachments of the Assessments  | Improvement<br>Narratives  |  |  |
| Indirect -<br>Survey -<br>students | Has the criterion 80% of the students will rate their own achievement at a level of 3.5 or higher on a 5 point scale. been met yet? | Department analysis of course-outcomes are incomplete within the time frame required for input. The submission of faculty's course reviews and the required department review of all course outcomes is difficult to achieve within the annual submission dates.   |   |  |  |  |
|                                    | Assessment Measure  Indirect - Survey -   | Student Course Survey  ABET-EAC.1.3.10 > a knowledge of contemporary  Assessment Measure  Criterion  Indirect - Survey - students Survey - | Student Course Survey  ABET-EAC.1.3.10 > a knowledge of contemporary issues  Assessment Measure  Criterion  Summary  Has the criterion 80% of the students will rate their own achievement at a level of 3.5 or higher on a 5 point scale. been met yet?  Department analysis of course-outcomes are incomplete within the time frame required for input. The submission of faculty's course reviews and the required department review of all course outcomes is difficult to achieve within | Student Course Survey  ABET-EAC.1.3.10 > a knowledge of contemporary issues  Assessment Measure  Criterion  Summary  Attachments of the Assessments  Indirect - Survey - students will rate their own achievement at a level of 3.5 or higher on a 5 point scale. been met yet?  Department analysis of course-outcomes are incomplete within the time frame required for input. The submission of faculty's course reviews and the required department review of all course outcomes is difficult to achieve within |  |  |

| Legend                 | A - Assessed   |
|------------------------|--|
| Course/Event           | Student Course Survey  |
| Standard/Outcome       | ABET-EAC.1.3.11 > an ability to use the techniques, skills, and modern engineering tools necessary for engineering practice. |
| Assessment<br>Measures |  |

| Assessment<br>Measure              | Criterion   | Summary  | Attachments of the Assessments | Improvement<br>Narratives |
|------------------------------------|---|--|--------------------------------|---------------------------|
| Indirect -<br>Survey -<br>students | Has the criterion 80% of the students will rate their own achievement at a level of 3.5 or higher on a 5 point scale. been met yet? | Department analysis of course-outcomes are incomplete within the time frame required for input. The submission of faculty's course reviews and the required department review of all course outcomes is difficult to achieve within the annual submission dates. |                                |                           |

| Legend                 | A - Assessed                       |   |  |                                |                           |
|------------------------|------------------------------------|---|--|--------------------------------|---------------------------|
| Course/Event           | Student Course S                   | Survey  |  |                                |                           |
| Standard/Outcome       | ABET-EAC.1.3.2                     | 2 > an ability to design and condu  | ct experiments, as well as to analyze and interpret o  | data                           |                           |
| Assessment<br>Measures |                                    |   |  |                                |                           |
|                        | Assessment<br>Measure              | Criterion   | Summary  | Attachments of the Assessments | Improvement<br>Narratives |
|                        | Indirect -<br>Survey -<br>students | Has the criterion 80% of the students will rate their own achievement at a level of 3.5 or higher on a 5 point scale. been met yet? | Department analysis of course-outcomes are incomplete within the time frame required for input. The submission of faculty's course reviews and the required department review of all course outcomes is difficult to achieve within the annual submission dates. |                                |                           |

| Legend       | A - Assessed          |
|--------------|-----------------------|
| Course/Event | Student Course Survey |

| Assessment<br>Measures | 7.521 2.10.11.0.0                  | an ability to accign a cyclem, c  | component, or process to meet desired needs  |                                |                           |
|------------------------|------------------------------------|---|--|--------------------------------|---------------------------|
|                        | Assessment<br>Measure              | Criterion   | Summary  | Attachments of the Assessments | Improvement<br>Narratives |
|                        | Indirect -<br>Survey -<br>students | Has the criterion 80% of the students will rate their own achievement at a level of 3.5 or higher on a 5 point scale. been met yet? | Department analysis of course-outcomes are incomplete within the time frame required for input. The submission of faculty's course reviews and the required department review of all course outcomes is difficult to achieve within the annual submission dates. |                                |                           |

| A - Assessed                       |   |  |   |  |  |  |
|------------------------------------|---|--|---|--|--|--|
| Student Course                     | Survey  |  |   |  |  |  |
| ABET-EAC.1.3.4                     | > an ability to function on multi-d   | lisciplinary teams   |   |  |  |  |
|                                    |   |  |   |  |  |  |
| Assessment Criterion Measure       |   | Summary  | Attachments of the Assessments  | Improvement<br>Narratives  |  |  |
| Indirect -<br>Survey -<br>students | Has the criterion 80% of the students will rate their own achievement at a level of 3.5 or higher on a 5 point scale. been met yet? | Department analysis of course-outcomes are incomplete within the time frame required for input. The submission of faculty's course reviews and the required department review of all course outcomes is difficult to achieve within the annual submission dates. |   |  |  |  |
|                                    | Assessment Measure  Indirect - Survey -   | Assessment Measure  Criterion  Has the criterion 80% of the students will rate their own achievement at a level of 3.5 or higher on a 5 point scale.   | Assessment Measure  Criterion  Indirect - Survey - students  Survey - students  Has the criterion 80% of the students will rate their own achievement at a level of 3.5 or higher on a 5 point scale. been met yet?  Survey - students will rate their own all course outcomes is difficult to achieve within | Assessment Measure  Criterion  Summary  Attachments of the Assessments  Indirect - Survey - students  Survey - students  or higher on a 5 point scale. been met yet?  Summary  Department analysis of course-outcomes are incomplete within the time frame required for input. The submission of faculty's course reviews and the required department review of all course outcomes is difficult to achieve within |  |  |

| Legend                 | A - Assessed                       |   |  |                                |                           |  |  |
|------------------------|------------------------------------|---|--|--------------------------------|---------------------------|--|--|
| Course/Event           | Student Course                     | Survey  |  |                                |                           |  |  |
| Standard/Outcome       | ABET-EAC.1.3.5                     | > an ability to identify, formulate,  | , and solve engineering problems   |                                |                           |  |  |
| Assessment<br>Measures |                                    |   |  |                                |                           |  |  |
|                        | Assessment Criterion Measure       |   | Summary  | Attachments of the Assessments | Improvement<br>Narratives |  |  |
|                        | Indirect -<br>Survey -<br>students | Has the criterion 80% of the students will rate their own achievement at a level of 3.5 or higher on a 5 point scale. been met yet? | Department analysis of course-outcomes are incomplete within the time frame required for input. The submission of faculty's course reviews and the required department review of all course outcomes is difficult to achieve within the annual submission dates. |                                |                           |  |  |

| A - Assessed                       |   |  |  |  |  |  |  |  |
|------------------------------------|---|--|--|--|--|--|--|--|
| Student Course                     | Student Course Survey   |  |  |  |  |  |  |  |
| ABET-EAC.1.3.6                     | 5 > an understanding of profession  | nal and ethical responsibility   |  |  |  |  |  |  |
|                                    |   |  |  |  |  |  |  |  |
| Assessment<br>Measure              | Criterion   | Summary  | Attachments of the Assessments   | Improvement<br>Narratives  |  |  |  |  |
| Indirect -<br>Survey -<br>students | Has the criterion 80% of the students will rate their own achievement at a level of 3.5 or higher on a 5 point scale. been met yet? | Department analysis of course-outcomes are incomplete within the time frame required for input. The submission of faculty's course reviews and the required department review of all course outcomes is difficult to achieve within the annual submission dates.   |  |  |  |  |  |  |
|                                    | Assessment Measure  Indirect - Survey -   | Student Course Survey  ABET-EAC.1.3.6 > an understanding of profession  Assessment Measure  Criterion  Indirect - Survey - students Studen | Student Course Survey  ABET-EAC.1.3.6 > an understanding of professional and ethical responsibility  Assessment Measure  Criterion  Summary  Indirect - Survey - students will rate their own achievement at a level of 3.5 or higher on a 5 point scale. been met yet?  Department analysis of course-outcomes are incomplete within the time frame required for input. The submission of faculty's course reviews and the required department review of all course outcomes is difficult to achieve within | Student Course Survey  ABET-EAC.1.3.6 > an understanding of professional and ethical responsibility  Assessment Measure  Criterion  Summary  Attachments of the Assessments  Indirect - Survey - students will rate their own achievement at a level of 3.5 or higher on a 5 point scale. been met yet?  Department analysis of course-outcomes are incomplete within the time frame required for input. The submission of faculty's course reviews and the required department review of all course outcomes is difficult to achieve within |  |  |  |  |

| Legend                 | A - Assessed                       |   |  |                                |                           |  |  |  |  |
|------------------------|------------------------------------|---|--|--------------------------------|---------------------------|--|--|--|--|
| Course/Event           | Student Course S                   | Survey  |  |                                |                           |  |  |  |  |
| Standard/Outcome       | ABET-EAC.1.3.7                     | BET-EAC.1.3.7 > an ability to communicate effectively   |  |                                |                           |  |  |  |  |
| Assessment<br>Measures |                                    |   |  |                                |                           |  |  |  |  |
|                        | Assessment<br>Measure              | Criterion   | Summary  | Attachments of the Assessments | Improvement<br>Narratives |  |  |  |  |
|                        | Indirect -<br>Survey -<br>students | Has the criterion 80% of the students will rate their own achievement at a level of 3.5 or higher on a 5 point scale. been met yet? | Department analysis of course-outcomes are incomplete within the time frame required for input. The submission of faculty's course reviews and the required department review of all course outcomes is difficult to achieve within the annual submission dates. |                                |                           |  |  |  |  |

| Legend                 | A - Assessed                       |   |  |                                |                           |  |  |  |
|------------------------|------------------------------------|---|--|--------------------------------|---------------------------|--|--|--|
| Course/Event           | Student Course S                   | tudent Course Survey  |  |                                |                           |  |  |  |
| Standard/Outcome       | ABET-EAC.1.3.8                     | BET-EAC.1.3.8 > the broad education necessary to understand the impact of engineering solutions in a global and societal context    |  |                                |                           |  |  |  |
| Assessment<br>Measures |                                    |   |  |                                |                           |  |  |  |
|                        | Assessment<br>Measure              | Criterion   | Summary  | Attachments of the Assessments | Improvement<br>Narratives |  |  |  |
|                        | Indirect -<br>Survey -<br>students | Has the criterion 80% of the students will rate their own achievement at a level of 3.5 or higher on a 5 point scale. been met yet? | Department analysis of course-outcomes are incomplete within the time frame required for input. The submission of faculty's course reviews and the required department review of all course outcomes is difficult to achieve within the annual submission dates. |                                |                           |  |  |  |

| Legend                 | A - Assessed                       | A - Assessed  |  |                                |                           |  |  |  |  |
|------------------------|------------------------------------|---|--|--------------------------------|---------------------------|--|--|--|--|
| Course/Event           | Student Course                     | Survey  |  |                                |                           |  |  |  |  |
| Standard/Outcome       | ABET-EAC.1.3.9                     | ) > a recognition of the need for, a  | and an ability to engage in life-long learning   |                                |                           |  |  |  |  |
| Assessment<br>Measures |                                    |   |  |                                |                           |  |  |  |  |
|                        | Assessment<br>Measure              | Criterion   | Summary  | Attachments of the Assessments | Improvement<br>Narratives |  |  |  |  |
|                        | Indirect -<br>Survey -<br>students | Has the criterion 80% of the students will rate their own achievement at a level of 3.5 or higher on a 5 point scale. been met yet? | Department analysis of course-outcomes are incomplete within the time frame required for input. The submission of faculty's course reviews and the required department review of all course outcomes is difficult to achieve within the annual submission dates. |                                |                           |  |  |  |  |

| Legend                 | A - Assessed                       |  |  |                                |                           |  |  |  |
|------------------------|------------------------------------|--|--|--------------------------------|---------------------------|--|--|--|
| Course/Event           | Student Course S                   | Student Course Survey  |  |                                |                           |  |  |  |
| Standard/Outcome       | CIVE.BS1 An ab                     | IVE.BS1 An ability to explain key concepts and problem-solving processes used in management. (Level 2) |  |                                |                           |  |  |  |
| Assessment<br>Measures |                                    |  |  |                                |                           |  |  |  |
|                        | Assessment<br>Measure              | Criterion  | Summary  | Attachments of the Assessments | Improvement<br>Narratives |  |  |  |
|                        | Indirect -<br>Survey -<br>students | Has the criterion 80% of the students will rate their own achievement at a level of 3.5                | Department analysis of course-outcomes are incomplete within the time frame required for input. The submission of faculty's course |                                |                           |  |  |  |

|  | or higher on a 5 point scale.<br>been met yet? | reviews and the required department review of all course outcomes is difficult to achieve within the annual submission dates. |  |
|--|--|---|--|
|  |  |   |  |

| Legend                 | A - Assessed                       |   |  |                                |                           |
|------------------------|------------------------------------|---|--|--------------------------------|---------------------------|
| Course/Event           | Student Course                     | Survey  |  |                                |                           |
| Standard/Outcome       | CIVE.BS2 An ab                     | ility to explain key concepts and բ   | problem-solving processes used in business. (Level   | 2)                             |                           |
| Assessment<br>Measures |                                    |   |  |                                |                           |
|                        | Assessment<br>Measure              | Criterion   | Summary  | Attachments of the Assessments | Improvement<br>Narratives |
|                        | Indirect -<br>Survey -<br>students | Has the criterion 80% of the students will rate their own achievement at a level of 3.5 or higher on a 5 point scale. been met yet? | Department analysis of course-outcomes are incomplete within the time frame required for input. The submission of faculty's course reviews and the required department review of all course outcomes is difficult to achieve within the annual submission dates. |                                |                           |

| Legend                 | A - Assessed          |                         |                   |                               |                   |                                |                           |
|------------------------|-----------------------|-------------------------|-------------------|-------------------------------|-------------------|--------------------------------|---------------------------|
| Course/Event           | Student Course S      | Survey                  |                   |                               |                   |                                |                           |
| Standard/Outcome       | CIVE.BS3 An abi       | lity to explain key cor | cepts and problem | -solving processes used in pu | ıblic policy, and | public administratio           | n. (Level 2)              |
| Assessment<br>Measures |                       |                         |                   |                               |                   |                                |                           |
|                        | Assessment<br>Measure | Criterion               | Sumi              | mary                          |                   | Attachments of the Assessments | Improvement<br>Narratives |

| Indirect -<br>Survey -<br>students | Has the criterion 80% of the students will rate their own achievement at a level of 3.5 or higher on a 5 point scale. been met yet? | Department analysis of course-outcomes are incomplete within the time frame required for input. The submission of faculty's course reviews and the required department review of all course outcomes is difficult to achieve within the annual submission dates. |  |  |
|------------------------------------|---|--|--|--|
|                                    |   |  |  |  |

| Legend                 | A - Assessed                       |  |  |                                |                           |  |
|------------------------|------------------------------------|--|--|--------------------------------|---------------------------|--|
| Course/Event           | Student Course                     | Survey   |  |                                |                           |  |
| Standard/Outcome       |                                    | IVE.BS4 An ability to explain the role of the leader, leadership principles, and attitudes conducive to effective professional practice of civil ngineering. (Level 2) |  |                                |                           |  |
| Assessment<br>Measures |                                    |  |  |                                |                           |  |
|                        | Assessment<br>Measure              | Criterion  | Summary  | Attachments of the Assessments | Improvement<br>Narratives |  |
|                        | Indirect -<br>Survey -<br>students | Has the criterion 80% of the students will rate their own achievement at a level of 3.5 or higher on a 5 point scale. been met yet?                                    | Department analysis of course-outcomes are incomplete within the time frame required for input. The submission of faculty's course reviews and the required department review of all course outcomes is difficult to achieve within the annual submission dates. |                                |                           |  |
|                        |                                    | ,  | the annual submission dates.   |                                |                           |  |

| Legend           | A - Assessed  |
|------------------|---|
| Course/Event     | Exit Interview  |
| Standard/Outcome | ABET-EAC.1.3.1 > an ability to apply knowledge of mathematics, science, and engineering |
| Assessment       |   |

| Measures | Assessment<br>Measure         | Criterion  | Summary                   | Attachments of the Assessments | Improvement<br>Narratives |
|----------|-------------------------------|--|---------------------------|--------------------------------|---------------------------|
|          | Indirect - Exit<br>Interviews | Has the criterion 80% of the students will rate their own achievement at graduation at a level of 3.5 or higher on a 5 point scale. been met yet?  Met | 4.3/5.0 rated achievement |                                |                           |
|          |                               |  |                           |                                |                           |

| Legend                 | A - Assessed                  |  |                        |                                |                           |  |  |
|------------------------|-------------------------------|--|------------------------|--------------------------------|---------------------------|--|--|
| Course/Event           | Exit Interview                | t Interview  |                        |                                |                           |  |  |
| Standard/Outcome       | ABET-EAC.1.3.10               | ET-EAC.1.3.10 > a knowledge of contemporary issues   |                        |                                |                           |  |  |
| Assessment<br>Measures |                               |  |                        |                                |                           |  |  |
|                        | Assessment<br>Measure         | Criterion  | Summary                | Attachments of the Assessments | Improvement<br>Narratives |  |  |
|                        | Indirect - Exit<br>Interviews | Has the criterion 80% of the students will rate their own achievement at graduation at a level of 3.5 or higher on a 5 point scale. been met yet?  Met | 3.7/5.0<br>achievement |                                |                           |  |  |
|                        |                               |  | •                      | -                              |                           |  |  |

| Legend                 | A - Assessed      |   |         |                    |             |  |  |
|------------------------|-------------------|---|---------|--------------------|-------------|--|--|
| Course/Event           | Exit Interview    |   |         |                    |             |  |  |
| Standard/Outcome       | ABET-EAC.1.3.11 > | BET-EAC.1.3.11 > an ability to use the techniques, skills, and modern engineering tools necessary for engineering practice. |         |                    |             |  |  |
| Assessment<br>Measures |                   |   |         |                    |             |  |  |
|                        | Assessment        | Criterion   | Summary | Attachments of the | Improvement |  |  |

| Measure                       |  | Assessments | Narratives |
|-------------------------------|--|-------------|------------|
| Indirect - Exit<br>Interviews | Has the criterion 80% of the students will rate their own achievement at graduation at a level of 3.5 or higher on a 5 point scale. been met yet?  Met |             |            |
|                               |  |             |            |

| Legend                 | A - Assessed                  |   |                                |                                |                        |  |  |
|------------------------|-------------------------------|---|--------------------------------|--------------------------------|------------------------|--|--|
| Course/Event           | Exit Interview                | xit Interview   |                                |                                |                        |  |  |
| Standard/Outcome       | ABET-EAC.1.3.2                | > an ability to design and conduct experiments, as well a   | s to analyze and int           | erpret data                    |                        |  |  |
| Assessment<br>Measures |                               |   |                                |                                |                        |  |  |
|                        | Assessment<br>Measure         | Criterion   | Summary                        | Attachments of the Assessments | Improvement Narratives |  |  |
|                        | Indirect - Exit<br>Interviews | Has the criterion 80% of the students will rate their own achievement at graduation at a level of 3.5 or higher on a 5 point scale. been met yet? | 4.2/5.0<br>achievement<br>rate |                                |                        |  |  |
|                        |                               | higher on a 5 point scale. been met yet?  | rate                           |                                |                        |  |  |

| Legend                 | A - Assessed          |  |  |         |                                |                           |
|------------------------|-----------------------|--|--|---------|--------------------------------|---------------------------|
| Course/Event           | Exit Interview        | xit Interview  |  |         |                                |                           |
| Standard/Outcome       | ABET-EAC.1.3.3 >      | BET-EAC.1.3.3 > an ability to design a system, component, or process to meet desired needs |  |         |                                |                           |
| Assessment<br>Measures |                       |  |  |         |                                |                           |
|                        | Assessment<br>Measure | Criterion  |  | Summary | Attachments of the Assessments | Improvement<br>Narratives |

| Indirect - Exit<br>Interviews | Has the criterion 80% of the students will rate their own achievement at graduation at a level of 3.5 or higher on a 5 point scale. been met yet?  Met | 4.2/5.0<br>achievement<br>rated |  |
|-------------------------------|--|---------------------------------|--|
|                               |  |                                 |  |

| Legend                 | A - Assessed                  |  |                             |                                |                           |  |  |
|------------------------|-------------------------------|--|-----------------------------|--------------------------------|---------------------------|--|--|
| Course/Event           | Exit Interview                | it Interview   |                             |                                |                           |  |  |
| Standard/Outcome       | ABET-EAC.1.3.4                | > an ability to function on multi-disciplinary teams   |                             |                                |                           |  |  |
| Assessment<br>Measures |                               |  |                             |                                |                           |  |  |
|                        | Assessment<br>Measure         | Criterion  | Summary                     | Attachments of the Assessments | Improvement<br>Narratives |  |  |
|                        | Indirect - Exit<br>Interviews | Has the criterion 80% of the students will rate their own achievement at graduation at a level of 3.5 or higher on a 5 point scale. been met yet?  Met | 4.3<br>achievement<br>rated |                                |                           |  |  |
|                        |                               |  |                             |                                |                           |  |  |

| Legend                 | A - Assessed       |  |                     |                                |                        |  |  |
|------------------------|--------------------|--|---------------------|--------------------------------|------------------------|--|--|
| Course/Event           | Exit Interview     |  |                     |                                |                        |  |  |
| Standard/Outcome       | ABET-EAC.1.3.5     | Γ-EAC.1.3.5 > an ability to identify, formulate, and solve engineering problems                          |                     |                                |                        |  |  |
| Assessment<br>Measures |                    |  |                     |                                |                        |  |  |
|                        | Assessment Measure | Criterion  | Summary             | Attachments of the Assessments | Improvement Narratives |  |  |
|                        | Indirect - Exit    | Has the criterion 80% of the students will rate their own achievement at graduation at a level of 3.5 or | 4.3/5.0 achievement |                                |                        |  |  |

|  | Met |  |  |
|--|-----|--|--|
|  |     |  |  |
|  |     |  |  |

| Legend                 | A - Assessed                  |  |                                 |                                |                           |  |  |  |
|------------------------|-------------------------------|--|---------------------------------|--------------------------------|---------------------------|--|--|--|
| Course/Event           | Exit Interview                | Exit Interview   |                                 |                                |                           |  |  |  |
| Standard/Outcome       | ABET-EAC.1.3.6                | > an understanding of professional and ethical responsib   | oility                          |                                |                           |  |  |  |
| Assessment<br>Measures |                               |  |                                 |                                |                           |  |  |  |
|                        | Assessment<br>Measure         | Criterion  | Summary                         | Attachments of the Assessments | Improvement<br>Narratives |  |  |  |
|                        | Indirect - Exit<br>Interviews | Has the criterion 80% of the students will rate their own achievement at graduation at a level of 3.5 or higher on a 5 point scale. been met yet?  Met | 4.3/5.0<br>achievement<br>rated |                                |                           |  |  |  |

| Legend                 | A - Assessed                  | - Assessed   |                           |                                |                           |  |  |  |
|------------------------|-------------------------------|--|---------------------------|--------------------------------|---------------------------|--|--|--|
| Course/Event           | Exit Interview                | kit Interview  |                           |                                |                           |  |  |  |
| Standard/Outcome       | ABET-EAC.1.3.7                | > an ability to communicate effectively  |                           |                                |                           |  |  |  |
| Assessment<br>Measures |                               |  |                           |                                |                           |  |  |  |
|                        | Assessment<br>Measure         | Criterion  | Summary                   | Attachments of the Assessments | Improvement<br>Narratives |  |  |  |
|                        | Indirect - Exit<br>Interviews | Has the criterion 80% of the students will rate their own achievement at graduation at a level of 3.5 or higher on a 5 point scale. been met yet?  Met | 4.0/5.0 rated as achieved |                                |                           |  |  |  |

| Legend                 | A - Assessed                  |  |                           |                                |                           |  |  |  |
|------------------------|-------------------------------|--|---------------------------|--------------------------------|---------------------------|--|--|--|
| Course/Event           | Exit Interview                | Exit Interview   |                           |                                |                           |  |  |  |
| Standard/Outcome       | ABET-EAC.1.3.8                | > the broad education necessary to understand the impact   | of engineering so         | lutions in a global and so     | cietal context            |  |  |  |
| Assessment<br>Measures |                               |  |                           |                                |                           |  |  |  |
|                        | Assessment<br>Measure         | Criterion  | Summary                   | Attachments of the Assessments | Improvement<br>Narratives |  |  |  |
|                        | Indirect - Exit<br>Interviews | Has the criterion 80% of the students will rate their own achievement at graduation at a level of 3.5 or higher on a 5 point scale. been met yet?  Met | 3.7/5.0 noted as achieved |                                |                           |  |  |  |

| Legend                 | A - Assessed                  | Assessed   |                           |                                |                           |  |  |  |
|------------------------|-------------------------------|--|---------------------------|--------------------------------|---------------------------|--|--|--|
| Course/Event           | Exit Interview                | xit Interview  |                           |                                |                           |  |  |  |
| Standard/Outcome       | ABET-EAC.1.3.9                | > a recognition of the need for, and an ability to engage in li  | fe-long learning          |                                |                           |  |  |  |
| Assessment<br>Measures |                               |  |                           |                                |                           |  |  |  |
|                        | Assessment<br>Measure         | Criterion  | Summary                   | Attachments of the Assessments | Improvement<br>Narratives |  |  |  |
|                        | Indirect - Exit<br>Interviews | Has the criterion 80% of the students will rate their own achievement at graduation at a level of 3.5 or higher on a 5 point scale. been met yet?  Met | 4.5/5.0 rated as achieved |                                |                           |  |  |  |
|                        |                               |  |                           | •                              |                           |  |  |  |

| Legend                 | A - Assessed                  | A - Assessed   |                           |                                |                           |  |  |  |
|------------------------|-------------------------------|--|---------------------------|--------------------------------|---------------------------|--|--|--|
| Course/Event           | Exit Interview                | Exit Interview   |                           |                                |                           |  |  |  |
| Standard/Outcome       | CIVE.BS1 An abil              | ity to explain key concepts and problem-solving processes  | used in managem           | nent. (Level 2)                |                           |  |  |  |
| Assessment<br>Measures |                               |  |                           |                                |                           |  |  |  |
|                        | Assessment<br>Measure         | Criterion  | Summary                   | Attachments of the Assessments | Improvement<br>Narratives |  |  |  |
|                        | Indirect - Exit<br>Interviews | Has the criterion 80% of the students will rate their own achievement at graduation at a level of 3.5 or higher on a 5 point scale. been met yet?  Met | 3.8/5.0 rated as achieved |                                |                           |  |  |  |
|                        |                               |  |                           |                                |                           |  |  |  |

| Legend                 | A - Assessed                  |  |                          |                                |                           |  |  |
|------------------------|-------------------------------|--|--------------------------|--------------------------------|---------------------------|--|--|
| Course/Event           | Exit Interview                | xit Interview  |                          |                                |                           |  |  |
| Standard/Outcome       | CIVE.BS2 An abil              | ity to explain key concepts and problem-solving processes u  | sed in business.         | (Level 2)                      |                           |  |  |
| Assessment<br>Measures |                               |  |                          |                                |                           |  |  |
|                        | Assessment<br>Measure         | Criterion  | Summary                  | Attachments of the Assessments | Improvement<br>Narratives |  |  |
|                        | Indirect - Exit<br>Interviews | Has the criterion 80% of the students will rate their own achievement at graduation at a level of 3.5 or higher on a 5 point scale. been met yet?  Not met | 3.3/5.0 below<br>3.5/5.0 |                                |                           |  |  |
|                        |                               |  |                          |                                |                           |  |  |

| Legend                 | A - Assessed                  |  |                                |                                |                           |  |  |
|------------------------|-------------------------------|--|--------------------------------|--------------------------------|---------------------------|--|--|
| Course/Event           | Exit Interview                | Exit Interview   |                                |                                |                           |  |  |
| Standard/Outcome       | CIVE.BS3 An abi               | ity to explain key concepts and problem-solving processes  | used in public polic           | cy, and public administra      | ation. (Level 2)          |  |  |
| Assessment<br>Measures |                               |  |                                |                                |                           |  |  |
|                        | Assessment<br>Measure         | Criterion  | Summary                        | Attachments of the Assessments | Improvement<br>Narratives |  |  |
|                        | Indirect - Exit<br>Interviews | Has the criterion 80% of the students will rate their own achievement at graduation at a level of 3.5 or higher on a 5 point scale. been met yet?  Not met | 3.3/5.0 not<br>meeting 3.5/5.0 |                                |                           |  |  |

| Legend                 | A - Assessed                          |  |                           |                                |                        |  |  |  |
|------------------------|---------------------------------------|--|---------------------------|--------------------------------|------------------------|--|--|--|
| Course/Event           | Exit Interview                        | xit Interview  |                           |                                |                        |  |  |  |
| Standard/Outcome       | CIVE.BS4 An abilit engineering. (Leve | E.BS4 An ability to explain the role of the leader, leadership principles, and attitudes conducive to effective professional practice of civil ineering. (Level 2) |                           |                                |                        |  |  |  |
| Assessment<br>Measures |                                       |  |                           |                                |                        |  |  |  |
|                        | Assessment<br>Measure                 | Criterion  | Summary                   | Attachments of the Assessments | Improvement Narratives |  |  |  |
|                        | Indirect - Exit<br>Interviews         | Has the criterion 80% of the students will rate their own achievement at graduation at a level of 3.5 or higher on a 5 point scale. been met yet?  Met             | 4.0/5.0 rated as achieved |                                |                        |  |  |  |

| Legend | A - Assessed |
|--------|--------------|

| Course/Event           | Employer Survey   |   |                                      |                                |                           |  |  |
|------------------------|---|---|--------------------------------------|--------------------------------|---------------------------|--|--|
| Standard/Outcome       | ABET-EAC.1.3.1 > an ability to apply knowledge of mathematics, science, and engineering |   |                                      |                                |                           |  |  |
| Assessment<br>Measures |   |   |                                      |                                |                           |  |  |
|                        | Assessment<br>Measure   | Criterion   | Summary                              | Attachments of the Assessments | Improvement<br>Narratives |  |  |
|                        | Indirect - Survey<br>- employer   | Has the criterion The employers surveyed will rate the achievement of 80 %the graduates they have hired at a level of 3.5 or higher on a 5 point scale. been met yet? | Employers<br>survey not<br>conducted |                                |                           |  |  |
|                        |   |   | •                                    |                                | •                         |  |  |

| Legend                 | A - Assessed                    |   |                                      |                                |                           |  |  |
|------------------------|---------------------------------|---|--------------------------------------|--------------------------------|---------------------------|--|--|
| Course/Event           | Employer Survey                 | mployer Survey  |                                      |                                |                           |  |  |
| Standard/Outcome       | ABET-EAC.1.3.10                 | BET-EAC.1.3.10 > a knowledge of contemporary issues   |                                      |                                |                           |  |  |
| Assessment<br>Measures |                                 |   |                                      |                                |                           |  |  |
|                        | Assessment<br>Measure           | Criterion   | Summary                              | Attachments of the Assessments | Improvement<br>Narratives |  |  |
|                        | Indirect - Survey<br>- employer | Has the criterion The employers surveyed will rate the achievement of 80 %the graduates they have hired at a level of 3.5 or higher on a 5 point scale. been met yet? | Employers<br>survey not<br>conducted |                                |                           |  |  |
|                        |                                 | ,   |                                      | ,                              |                           |  |  |

| Legend           | A - Assessed   |
|------------------|--|
| Course/Event     | Employer Survey  |
| Standard/Outcome | ABET-EAC.1.3.11 > an ability to use the techniques, skills, and modern engineering tools necessary for engineering practice. |

| Assessment<br>Measures |                                 |   |                                      |                                |                           |
|------------------------|---------------------------------|---|--------------------------------------|--------------------------------|---------------------------|
|                        | Assessment<br>Measure           | Criterion   | Summary                              | Attachments of the Assessments | Improvement<br>Narratives |
|                        | Indirect - Survey<br>- employer | Has the criterion The employers surveyed will rate the achievement of 80 %the graduates they have hired at a level of 3.5 or higher on a 5 point scale. been met yet? | Employers<br>survey not<br>conducted |                                |                           |
|                        |                                 |   |                                      |                                |                           |

| Legend                 | A - Assessed                    |   |                                      |                                |                           |
|------------------------|---------------------------------|---|--------------------------------------|--------------------------------|---------------------------|
| Course/Event           | Employer Survey                 |   |                                      |                                |                           |
| Standard/Outcome       | ABET-EAC.1.3.2 >                | an ability to design and conduct experiments, as well as to   | analyze and inte                     | erpret data                    |                           |
| Assessment<br>Measures |                                 |   |                                      |                                |                           |
|                        | Assessment<br>Measure           | Criterion   | Summary                              | Attachments of the Assessments | Improvement<br>Narratives |
|                        | Indirect - Survey<br>- employer | Has the criterion The employers surveyed will rate the achievement of 80 %the graduates they have hired at a level of 3.5 or higher on a 5 point scale. been met yet? | Employers<br>survey not<br>conducted |                                |                           |
|                        |                                 |   | •                                    |                                |                           |

| Legend                 | A - Assessed  |
|------------------------|---|
| Course/Event           | Employer Survey   |
| Standard/Outcome       | ABET-EAC.1.3.3 > an ability to design a system, component, or process to meet desired needs |
| Assessment<br>Measures |   |

| Indirect - Survey - employer - conducted - Employers - survey not - conducted | Assessment<br>Measure | Criterion   | Summary    | Attachments of the Assessments | Improvement Narratives |
|--|-----------------------|---|------------|--------------------------------|------------------------|
|  | 1                     | achievement of 80 %the graduates they have hired at a | survey not |                                |                        |

| Legend                 | A - Assessed                    |   |                                      |                                |                           |
|------------------------|---------------------------------|---|--------------------------------------|--------------------------------|---------------------------|
| Course/Event           | Employer Survey                 |   |                                      |                                |                           |
| Standard/Outcome       | ABET-EAC.1.3.4 >                | an ability to function on multi-disciplinary teams  |                                      |                                |                           |
| Assessment<br>Measures |                                 |   |                                      |                                |                           |
|                        | Assessment<br>Measure           | Criterion   | Summary                              | Attachments of the Assessments | Improvement<br>Narratives |
|                        | Indirect - Survey<br>- employer | Has the criterion The employers surveyed will rate the achievement of 80 %the graduates they have hired at a level of 3.5 or higher on a 5 point scale. been met yet? | Employers<br>survey not<br>conducted |                                |                           |
|                        |                                 | •   | ,                                    |                                |                           |

| Legend                 | A - Assessed          |   |               |                                |                           |
|------------------------|-----------------------|---|---------------|--------------------------------|---------------------------|
| Course/Event           | Employer Survey       |   |               |                                |                           |
| Standard/Outcome       | ABET-EAC.1.3.5 >      | an ability to identify, formulate, and solve engineer | ring problems |                                |                           |
| Assessment<br>Measures |                       |   |               |                                |                           |
|                        | Assessment<br>Measure | Criterion   | Summary       | Attachments of the Assessments | Improvement<br>Narratives |

| Indirect - Survey<br>- employer | Has the criterion The employers surveyed will rate the achievement of 80 %the graduates they have hired at a level of 3.5 or higher on a 5 point scale. been met yet? | Employers<br>survey not<br>conducted |  |
|---------------------------------|---|--------------------------------------|--|
|                                 |   |                                      |  |

| Legend                 | A - Assessed                    |   |                                      |                                |                           |
|------------------------|---------------------------------|---|--------------------------------------|--------------------------------|---------------------------|
| Course/Event           | Employer Survey                 |   |                                      |                                |                           |
| Standard/Outcome       | ABET-EAC.1.3.6 >                | an understanding of professional and ethical responsibility   |                                      |                                |                           |
| Assessment<br>Measures |                                 |   |                                      |                                |                           |
|                        | Assessment<br>Measure           | Criterion   | Summary                              | Attachments of the Assessments | Improvement<br>Narratives |
|                        | Indirect - Survey<br>- employer | Has the criterion The employers surveyed will rate the achievement of 80 %the graduates they have hired at a level of 3.5 or higher on a 5 point scale. been met yet? | Employers<br>survey not<br>conducted |                                |                           |
|                        |                                 | I .   | <u> </u>                             |                                | <u> </u>                  |

| Legend                 | A - Assessed                    |   |                                      |                                |                           |
|------------------------|---------------------------------|---|--------------------------------------|--------------------------------|---------------------------|
| Course/Event           | Employer Survey                 |   |                                      |                                |                           |
| Standard/Outcome       | ABET-EAC.1.3.7 >                | an ability to communicate effectively   |                                      |                                |                           |
| Assessment<br>Measures |                                 |   |                                      |                                |                           |
|                        | Assessment<br>Measure           | Criterion   | Summary                              | Attachments of the Assessments | Improvement<br>Narratives |
|                        | Indirect - Survey<br>- employer | Has the criterion The employers surveyed will rate the achievement of 80 %the graduates they have hired at a level of 3.5 or higher on a 5 point scale. been met yet? | Employers<br>survey not<br>conducted |                                |                           |

| Legend                 | A - Assessed                    |   |                                      |                                |                           |
|------------------------|---------------------------------|---|--------------------------------------|--------------------------------|---------------------------|
| Course/Event           | Employer Survey                 |   |                                      |                                |                           |
| Standard/Outcome       | ABET-EAC.1.3.8 >                | the broad education necessary to understand the impact of   | of engineering so                    | lutions in a global and soc    | ietal context             |
| Assessment<br>Measures |                                 |   |                                      |                                |                           |
|                        | Assessment<br>Measure           | Criterion   | Summary                              | Attachments of the Assessments | Improvement<br>Narratives |
|                        | Indirect - Survey<br>- employer | Has the criterion The employers surveyed will rate the achievement of 80 %the graduates they have hired at a level of 3.5 or higher on a 5 point scale. been met yet? | Employers<br>survey not<br>conducted |                                |                           |

| Legend                 | A - Assessed                    |   |                                      |                                |                           |  |  |
|------------------------|---------------------------------|---|--------------------------------------|--------------------------------|---------------------------|--|--|
| Course/Event           | Employer Survey                 | Employer Survey   |                                      |                                |                           |  |  |
| Standard/Outcome       | ABET-EAC.1.3.9 >                | a recognition of the need for, and an ability to engage in lif  | e-long learning                      |                                |                           |  |  |
| Assessment<br>Measures |                                 |   |                                      |                                |                           |  |  |
|                        | Assessment<br>Measure           | Criterion   | Summary                              | Attachments of the Assessments | Improvement<br>Narratives |  |  |
|                        | Indirect - Survey<br>- employer | Has the criterion The employers surveyed will rate the achievement of 80 %the graduates they have hired at a level of 3.5 or higher on a 5 point scale. been met yet? | Employers<br>survey not<br>conducted |                                |                           |  |  |

| Legend                 | A - Assessed                    |   |                                      |                                |                           |  |
|------------------------|---------------------------------|---|--------------------------------------|--------------------------------|---------------------------|--|
| Course/Event           | Employer Survey                 |   |                                      |                                |                           |  |
| Standard/Outcome       | CIVE.BS1 An ability             | CIVE.BS1 An ability to explain key concepts and problem-solving processes used in management. (Level 2)   |                                      |                                |                           |  |
| Assessment<br>Measures |                                 |   |                                      |                                |                           |  |
|                        | Assessment<br>Measure           | Criterion   | Summary                              | Attachments of the Assessments | Improvement<br>Narratives |  |
|                        | Indirect - Survey<br>- employer | Has the criterion The employers surveyed will rate the achievement of 80 %the graduates they have hired at a level of 3.5 or higher on a 5 point scale. been met yet? | Employers<br>survey not<br>conducted |                                |                           |  |

| Legend                 | A - Assessed                    |   |                                      |                                |                           |  |
|------------------------|---------------------------------|---|--------------------------------------|--------------------------------|---------------------------|--|
| Course/Event           | Employer Survey                 | Employer Survey   |                                      |                                |                           |  |
| Standard/Outcome       | CIVE.BS2 An ability             | το explain key concepts and problem-solving processes ι   | sed in business.                     | (Level 2)                      |                           |  |
| Assessment<br>Measures |                                 |   |                                      |                                |                           |  |
|                        | Assessment<br>Measure           | Criterion   | Summary                              | Attachments of the Assessments | Improvement<br>Narratives |  |
|                        | Indirect - Survey<br>- employer | Has the criterion The employers surveyed will rate the achievement of 80 %the graduates they have hired at a level of 3.5 or higher on a 5 point scale. been met yet? | Employers<br>survey not<br>conducted |                                |                           |  |
|                        |                                 |   |                                      | -                              |                           |  |

| Legend                 | A - Assessed                    |   |                                      |                                |                           |
|------------------------|---------------------------------|---|--------------------------------------|--------------------------------|---------------------------|
| Course/Event           | Employer Survey                 |   |                                      |                                |                           |
| Standard/Outcome       | CIVE.BS3 An ability             | to explain key concepts and problem-solving processes u   | sed in public pol                    | icy, and public administrat    | ion. (Level 2)            |
| Assessment<br>Measures |                                 |   |                                      |                                |                           |
|                        | Assessment<br>Measure           | Criterion   | Summary                              | Attachments of the Assessments | Improvement<br>Narratives |
|                        | Indirect - Survey<br>- employer | Has the criterion The employers surveyed will rate the achievement of 80 %the graduates they have hired at a level of 3.5 or higher on a 5 point scale. been met yet? | Employers<br>survey not<br>conducted |                                |                           |
|                        |                                 | I   | <u> </u>                             | 1                              | <u> </u>                  |

| Legend                 | A - Assessed                    |  |                                      |                                |                           |  |  |
|------------------------|---------------------------------|--|--------------------------------------|--------------------------------|---------------------------|--|--|
| Course/Event           | Employer Survey                 | Employer Survey  |                                      |                                |                           |  |  |
| Standard/Outcome       |                                 | CIVE.BS4 An ability to explain the role of the leader, leadership principles, and attitudes conducive to effective professional practice of civil engineering. (Level 2) |                                      |                                |                           |  |  |
| Assessment<br>Measures |                                 |  |                                      |                                |                           |  |  |
|                        | Assessment<br>Measure           | Criterion  | Summary                              | Attachments of the Assessments | Improvement<br>Narratives |  |  |
|                        | Indirect - Survey<br>- employer | Has the criterion The employers surveyed will rate the achievement of 80 %the graduates they have hired at a level of 3.5 or higher on a 5 point scale. been met yet?    | Employers<br>survey not<br>conducted |                                |                           |  |  |
|                        |                                 | level of 3.3 of Higher off a 3 point scale. Been met yet:  | Conducted                            |                                |                           |  |  |

| Legend                 | A - Assessed                  | A - Assessed   |   |                                |                        |  |
|------------------------|-------------------------------|--|---|--------------------------------|------------------------|--|
| Course/Event           | Alumni Survey TES             | Alumni Survey TEST   |   |                                |                        |  |
| Standard/Outcome       | ABET-EAC.1.3.1 >              | an ability to apply knowledge of mathematics, science  | ce, and engineering                       |                                |                        |  |
| Assessment<br>Measures |                               |  |   |                                |                        |  |
|                        | Assessment<br>Measure         | Criterion  | Summary                                   | Attachments of the Assessments | Improvement Narratives |  |
|                        | Indirect - Survey<br>- alumni | Has the criterion 80% of the alumni surveyed will rate their own ability at a level of 3.5 or higher on a 5 point scale. been met yet? | Alumni survey not conducted in this cycle |                                |                        |  |
|                        |                               |  |   |                                |                        |  |

| Legend                 | A - Assessed                  | A - Assessed   |   |                                |                        |  |  |
|------------------------|-------------------------------|--|---|--------------------------------|------------------------|--|--|
| Course/Event           | Alumni Survey TES             | T  |   |                                |                        |  |  |
| Standard/Outcome       | ABET-EAC.1.3.10 >             | ABET-EAC.1.3.10 > a knowledge of contemporary issues   |   |                                |                        |  |  |
| Assessment<br>Measures |                               |  |   |                                |                        |  |  |
|                        | Assessment<br>Measure         | Criterion  | Summary                                   | Attachments of the Assessments | Improvement Narratives |  |  |
|                        | Indirect - Survey<br>- alumni | Has the criterion 80% of the alumni surveyed will rate their own ability at a level of 3.5 or higher on a 5 point scale. been met yet? | Alumni survey not conducted in this cycle |                                |                        |  |  |
|                        |                               |  |   |                                |                        |  |  |

| Alumni Survey TES             |  |  |  |  |
|-------------------------------|--|--|--|--|
| , danini Carvey ILO           | 1  |  |  |  |
| ABET-EAC.1.3.11 >             | an ability to use the techniques, skills, and modern   | engineering tools nece   | essary for engineering pra   | actice.  |
|                               |  |  |  |  |
| Assessment<br>Measure         | Criterion  | Summary  | Attachments of the Assessments   | Improvement Narratives   |
| Indirect - Survey<br>- alumni | Has the criterion 80% of the alumni surveyed will rate their own ability at a level of 3.5 or higher on a 5 point scale. been met yet? | Alumni survey not conducted in this cycle  |  |  |
|                               | Assessment<br>Measure<br>Indirect - Survey   | Assessment Measure Indirect - Survey - alumni  Criterion  Criterion  Has the criterion 80% of the alumni surveyed will rate their own ability at a level of 3.5 or higher on | Assessment Measure  Indirect - Survey - alumni  Criterion  Criterion  Summary  Alumni survey not conducted in this | MeasureAssessmentsIndirect - Survey - alumniHas the criterion 80% of the alumni surveyed will rate their own ability at a level of 3.5 or higher onAlumni survey not conducted in this |

| Legend                 | A - Assessed                  |  |   |                                |                           |
|------------------------|-------------------------------|--|---|--------------------------------|---------------------------|
| Course/Event           | Alumni Survey TES             | Т  |   |                                |                           |
| Standard/Outcome       | ABET-EAC.1.3.2 >              | an ability to design and conduct experiments, as we  | ll as to analyze and inte                 | erpret data                    |                           |
| Assessment<br>Measures |                               |  |   |                                |                           |
|                        | Assessment<br>Measure         | Criterion  | Summary                                   | Attachments of the Assessments | Improvement<br>Narratives |
|                        | Indirect - Survey<br>- alumni | Has the criterion 80% of the alumni surveyed will rate their own ability at a level of 3.5 or higher on a 5 point scale. been met yet? | Alumni survey not conducted in this cycle |                                |                           |
|                        |                               |  |   |                                |                           |

| Legend       | A - Assessed       |
|--------------|--------------------|
| Course/Event | Alumni Survey TEST |

| Standard/Outcome | ABET-EAC.1.3.3 >              | an ability to design a system, component, or process   | s to meet desired need                    | S                              |                           |
|------------------|-------------------------------|--|---|--------------------------------|---------------------------|
| Assessment       |                               |  |   |                                |                           |
| Measures         |                               | Ta.: .   | ١   | A                              | 1                         |
|                  | Assessment<br>Measure         | Criterion  | Summary                                   | Attachments of the Assessments | Improvement<br>Narratives |
|                  | Indirect - Survey<br>- alumni | Has the criterion 80% of the alumni surveyed will rate their own ability at a level of 3.5 or higher on a 5 point scale. been met yet? | Alumni survey not conducted in this cycle |                                |                           |
|                  |                               |  |   |                                |                           |

| Legend                 | A - Assessed                  |  |   |                                |                           |
|------------------------|-------------------------------|--|---|--------------------------------|---------------------------|
| Course/Event           | Alumni Survey TES             | ST   |   |                                |                           |
| Standard/Outcome       | ABET-EAC.1.3.4 >              | an ability to function on multi-disciplinary teams   |   |                                |                           |
| Assessment<br>Measures |                               |  |   |                                |                           |
|                        | Assessment<br>Measure         | Criterion  | Summary                                   | Attachments of the Assessments | Improvement<br>Narratives |
|                        | Indirect - Survey<br>- alumni | Has the criterion 80% of the alumni surveyed will rate their own ability at a level of 3.5 or higher on a 5 point scale. been met yet? | Alumni survey not conducted in this cycle |                                |                           |
|                        |                               |  |   |                                |                           |

| Legend           | A - Assessed   |
|------------------|--|
| Course/Event     | Alumni Survey TEST   |
| Standard/Outcome | ABET-EAC.1.3.5 > an ability to identify, formulate, and solve engineering problems |
| Assessment       |  |

| Measures |                               |  |   |                                |                        |
|----------|-------------------------------|--|---|--------------------------------|------------------------|
|          | Assessment<br>Measure         | Criterion  | Summary                                   | Attachments of the Assessments | Improvement Narratives |
|          | Indirect - Survey<br>- alumni | Has the criterion 80% of the alumni surveyed will rate their own ability at a level of 3.5 or higher on a 5 point scale. been met yet? | Alumni survey not conducted in this cycle |                                |                        |
|          |                               |  |   |                                |                        |

| Legend                 | A - Assessed                  |  |   |                                |                           |
|------------------------|-------------------------------|--|---|--------------------------------|---------------------------|
| Course/Event           | Alumni Survey TES             | Т  |   |                                |                           |
| Standard/Outcome       | ABET-EAC.1.3.6 >              | an understanding of professional and ethical respon  | sibility                                  |                                |                           |
| Assessment<br>Measures |                               |  |   |                                |                           |
|                        | Assessment<br>Measure         | Criterion  | Summary                                   | Attachments of the Assessments | Improvement<br>Narratives |
|                        | Indirect - Survey<br>- alumni | Has the criterion 80% of the alumni surveyed will rate their own ability at a level of 3.5 or higher on a 5 point scale. been met yet? | Alumni survey not conducted in this cycle |                                |                           |
|                        |                               |  |   |                                |                           |

| Legend                 | A - Assessed      |                                       |         |                    |             |
|------------------------|-------------------|---------------------------------------|---------|--------------------|-------------|
| Course/Event           | Alumni Survey TES | Т                                     |         |                    |             |
| Standard/Outcome       | ABET-EAC.1.3.7 >  | an ability to communicate effectively |         |                    |             |
| Assessment<br>Measures |                   |                                       |         |                    |             |
|                        | Assessment        | Criterion                             | Summary | Attachments of the | Improvement |

| Measure                       |  |   | Assessments | Narratives |
|-------------------------------|--|---|-------------|------------|
| Indirect - Survey<br>- alumni | Has the criterion 80% of the alumni surveyed will rate their own ability at a level of 3.5 or higher on a 5 point scale. been met yet? | Alumni survey not conducted in this cycle |             |            |
|                               |  |   |             |            |

| Legend                 | A - Assessed                  |  |   |                                |                           |
|------------------------|-------------------------------|--|---|--------------------------------|---------------------------|
| Course/Event           | Alumni Survey TES             | T  |   |                                |                           |
| Standard/Outcome       | ABET-EAC.1.3.8 >              | the broad education necessary to understand the im   | pact of engineering so                    | lutions in a global and so     | cietal context            |
| Assessment<br>Measures |                               |  |   |                                |                           |
|                        | Assessment<br>Measure         | Criterion  | Summary                                   | Attachments of the Assessments | Improvement<br>Narratives |
|                        | Indirect - Survey<br>- alumni | Has the criterion 80% of the alumni surveyed will rate their own ability at a level of 3.5 or higher on a 5 point scale. been met yet? | Alumni survey not conducted in this cycle |                                |                           |
|                        |                               | •  |   | •                              | •                         |

| Legend                 | A - Assessed          |   |                  |                         |                                |                           |
|------------------------|-----------------------|---|------------------|-------------------------|--------------------------------|---------------------------|
| Course/Event           | Alumni Survey TES     | Т                                       |                  |                         |                                |                           |
| Standard/Outcome       | ABET-EAC.1.3.9 >      | a recognition of the need for, and an a | bility to engage | e in life-long learning |                                |                           |
| Assessment<br>Measures |                       |   |                  |                         |                                |                           |
|                        | Assessment<br>Measure | Criterion                               |                  | Summary                 | Attachments of the Assessments | Improvement<br>Narratives |

| Indirect - Survey<br>- alumni | Has the criterion 80% of the alumni surveyed will rate their own ability at a level of 3.5 or higher on a 5 point scale. been met yet? | Alumni survey not conducted in this cycle |  |
|-------------------------------|--|---|--|
|                               |  |   |  |

| Legend                 | A - Assessed                  |  |   |                                |                           |
|------------------------|-------------------------------|--|---|--------------------------------|---------------------------|
| Course/Event           | Alumni Survey TES             | T  |   |                                |                           |
| Standard/Outcome       | CIVE.BS1 An ability           | to explain key concepts and problem-solving proce  | sses used in managem                      | ent. (Level 2)                 |                           |
| Assessment<br>Measures |                               |  |   |                                |                           |
|                        | Assessment<br>Measure         | Criterion  | Summary                                   | Attachments of the Assessments | Improvement<br>Narratives |
|                        | Indirect - Survey<br>- alumni | Has the criterion 80% of the alumni surveyed will rate their own ability at a level of 3.5 or higher on a 5 point scale. been met yet? | Alumni survey not conducted in this cycle |                                |                           |
|                        |                               |  |   |                                |                           |

| Legend                 | A - Assessed        |  |         |                                |                        |  |  |
|------------------------|---------------------|--|---------|--------------------------------|------------------------|--|--|
| Course/Event           | Alumni Survey TES   | T  |         |                                |                        |  |  |
| Standard/Outcome       | CIVE.BS2 An ability | IVE.BS2 An ability to explain key concepts and problem-solving processes used in business. (Level 2) |         |                                |                        |  |  |
| Assessment<br>Measures |                     |  |         |                                |                        |  |  |
|                        |                     |  | _       |                                |                        |  |  |
|                        | Assessment Measure  | Criterion  | Summary | Attachments of the Assessments | Improvement Narratives |  |  |

| Legend                 | A - Assessed  |  |   |                                |                           |
|------------------------|---|--|---|--------------------------------|---------------------------|
| Course/Event           | Alumni Survey TEST  |  |   |                                |                           |
| Standard/Outcome       | CIVE.BS3 An ability to explain key concepts and problem-solving processes used in public policy, and public administration. (Level 2) |  |   |                                |                           |
| Assessment<br>Measures |   |  |   |                                |                           |
|                        | Assessment<br>Measure   | Criterion  | Summary                                   | Attachments of the Assessments | Improvement<br>Narratives |
|                        | Indirect - Survey<br>- alumni   | Has the criterion 80% of the alumni surveyed will rate their own ability at a level of 3.5 or higher on a 5 point scale. been met yet? | Alumni survey not conducted in this cycle |                                |                           |

| A - Assessed   |  |   |   |  |
|--|--|---|---|--|
| Alumni Survey TEST   |  |   |   |  |
| CIVE.BS4 An ability to explain the role of the leader, leadership principles, and attitudes conducive to effective professional practice of civil engineering. (Level 2) |  |   |   |  |
|  |  |   |   |  |
| Assessment<br>Measure  | Criterion  | Summary   | Attachments of the Assessments  | Improvement Narratives   |
| Indirect - Survey<br>- alumni  | Has the criterion 80% of the alumni surveyed will rate their own ability at a level of 3.5 or higher on a 5 point scale. been met yet? | Alumni survey not conducted in this cycle   |   |  |
|  | Alumni Survey TES CIVE.BS4 An ability engineering. (Level  Assessment Measure Indirect - Survey  | Alumni Survey TEST  CIVE.BS4 An ability to explain the role of the leader, leadership principle engineering. (Level 2)  Assessment Measure  Indirect - Survey - alumni  Has the criterion 80% of the alumni surveyed will rate their own ability at a level of 3.5 or higher on | Alumni Survey TEST  CIVE.BS4 An ability to explain the role of the leader, leadership principles, and attitudes conducengineering. (Level 2)  Assessment Measure  Indirect - Survey - alumni  Alumni survey not conducted in this | Alumni Survey TEST  CIVE.BS4 An ability to explain the role of the leader, leadership principles, and attitudes conducive to effective profession engineering. (Level 2)  Assessment Measure  Indirect - Survey - alumni  Alumni Surveyed will rate their own ability at a level of 3.5 or higher on conducted in this |

# **Summary of Improvement Narratives**

# Improvement Narrative List

## Assessment Findings for the Assessment Measure level

| Standard/Outcome         | ABET-EAC.1.3.1 > an ability to apply knowledge of mathematics, science, and engineering |  |  |
|--------------------------|---|--|--|
| Legend                   | A   |  |  |
| Course/Event             | FE Exam   |  |  |
| Assessment<br>Measure    | Direct - Standardized Test  |  |  |
| Assessment Findings      | Not met   |  |  |
| Improvement<br>Narrative |   |  |  |
|                          | Improvement Type  | Summary  |  |
|                          | Assessment Process:<br>Continuous monitoring  | Performance varies from year to year. With the exception of the fluid mechanics, the performance of those taking the FE in this cycle did not succeed in achieving the "comparator" performance. However, a 100% pass rate was achieved for the students taking the FE Exam. The performance over a number of years provides better direction. Thus, this FE Exam outcome performance will be further monitored. In the past, students have done well, however, most, if not all students to the mechanics courses with one instructor that emphasized repetition in the solution of problems. Currently there are several instructors with various approaches to teaching these subjects. |  |

| Standard/Outcome | ABET-EAC.1.3.3 > an ability to design a system, component, or process to meet desired needs |  |
|------------------|---|--|
| Legend           | A   |  |
| Course/Event     | FE Exam   |  |

| Assessment Measure       | Direct - Standardized Test                |   |  |  |
|--------------------------|---|---|--|--|
| Assessment Findings      | Met                                       |   |  |  |
| Improvement<br>Narrative |   |   |  |  |
|                          | Improvement Type                          | Summary   |  |  |
|                          | Assessment Process: Continuous monitoring | The FE Exam must be review over several testing cycles to identify definitive problems.  Although 100% of the examinees |  |  |
|                          | Assessment Process: Continuous monitoring |   |  |  |
|                          |   |   |  |  |

## 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

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)

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.

There is some variation between the current and the previous, but not significant. There are on-going discussions regarding pre-requites, etc and the curriculum design for semester loads and course sequence.

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 perception of the faculty, in general, is that student performance has improved in the class. This attributed to improved advising and enforcement of prerequsites/. Also individual faculty have made modifications to instructional materials and presentation that seems to improve student performance.

## Attachments (optional)

Upload any documents which support the assessment process.