A. Program MISSION Statement: What body of knowledge and/or what skills and qualities will graduates from this program possess upon completion of the degree?

The mission of the Bachelor of Science in Construction Engineering is to prepare individuals to become a professional engineer and an effective member of an engineering-architect-contractor team.

(Program Educational Outcomes and Student Learning Outcomes are based upon the ABET Criteria for Accrediting Engineering Programs.)

By graduation, Construction Engineering students will demonstrate:

a) an ability to apply knowledge of mathematics, science, and engineering
b) an ability to design and conduct experiments, as well as to analyze and interpret data
c) an ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability
d) an ability to function on multidisciplinary teams
e) an ability to identify, formulate, and solve engineering problems
f) an understanding of professional and ethical responsibility
g) an ability to communicate effectively
h) the broad education necessary to understand the impact of engineering solutions in a global,
i) economic, environmental, and societal context a recognition of the need for, and an ability to engage in life-long learning
j) a knowledge of contemporary issues
k) an ability to use the techniques, skills, and modern engineering tools necessary for engineering practice.

B. Does this program have any culminating experience or capstone course that would capture the cumulative knowledge and accomplishments of graduates of your program? If so, please describe the process by which faculty participate in the design and evaluation of the course and its products/experiences.

The program has a capstone course but not all SLOs will be assessed in this course.

CONE 471 - Construction Engineering Internship (3 SCH)

Occupational experience in the construction engineering field. Work experience is cooperatively planned by the faculty and employer to fulfill the student’s objectives

The Construction Engineering degree was approved and implemented in 2010. There have been no students take this course to date.
In the attached pages, please provide the learning outcomes the faculty as a whole expects from graduates from the program. While you may choose as many outcomes as you wish, it is often a good strategy to focus on the most important goals for students in the first few years of your Student Assessment Program. For example, two or three of the most critical goals would be a good starting point. Please complete questions 1-6 for each Student Learning Outcome you are assessing or plan to evaluate in the next review period on the attached sheet.
STUDENT LEARNING OUTCOME # 1

(The Construction Engineering program was approved and implemented in 2010. There have been no graduates to date to assess. The program assessment was developed around efforts to validate and enhance the program)

1. STUDENT LEARNING OUTCOME (SLO): What will a student be able to do, what knowledge, skills, values will they have, etc., upon graduation from the program that will be assessed? A Student Learning Outcome is a clear concise statement that describes how students can demonstrate their mastery of some element of the academic program goals.

A construction industry advisory board will be established with representatives from regional construction / civil engineering companies.

2. LINKS TO CURRICULUM & PROGRAM FACULTY. What courses support this SLO? How do all program faculty participate in setting the goals, content and learning outcomes of these courses? How do all program faculty participate in analyzing and making recommendations based on the results of student assessments?

Program faculty are all ex-officio members of the industry advisory board. The Industry Advisory Board (IAB) is comprised of industry representatives and employers from the field of construction / civil engineering. The IAB reviews key elements and provides guidance for the program, including the approval of the curriculum and program outcomes. The IAB is required by ABET.

3. ACTION PLAN: STRATEGIES/METHODS FOR OBSERVING STUDENT LEARNING. How will data be collected, analyzed, shared? How will faculty observe the accomplishment of this outcome? Please provide specific descriptions for how, when, how often, what course(s), what student performances will be observed, collected and analyzed. Please provide or attach any descriptions of your ACTION PLAN OR PROCESS addressing the who, what, when, where questions for the assessment program.

Industry representatives from regional construction companies will review the Construction Engineering curriculum to validate that graduates can achieve the program goals/objectives as well as the skills and/or knowledge required by new employees in their companies.

4. CRITERIA FOR SUCCESS: MEASURES & TARGETS. What are the standards of progress or criteria used for judging success for the student learning assessment observations? Please attach any assessment tools, standards (rubrics) or other documents used to judge success or achievement of the outcome.

The Construction Engineering IAB will be established and convened in 2011-2012. The members will represent regional construction / civil engineering companies.

These two additional reports for questions 5&6 below will be due in May 11, 2012
5. ACHIEVEMENT SUMMARY: FINDINGS & RESULTS. What are the results of the assessment of this learning objective thus far? Be sure to include the year of the assessment, attach any relevant reports, data tables, etc. Please be specific in your descriptions. Indicating that n% students took a test or passed an oral exam is not an example of assessment findings.

6. PROGRAM ENHANCEMENT. How has assessment data been used? Please give examples over the last 3 years. What are the specific mechanisms for communicating results and changing courses, curriculum, learning activities within a course, etc

Review and Approval Signatures & Date:
Program Coordinator if applicable ____________________________
Department Chair: _________________________________________
Dean ___________________________________________________________________