

Program: Civil Engineering Technology (BSCET)
2012

Date: May 31,

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Please complete this form for each undergraduate, minor, certificate, and graduate program (e.g., B.A., B.S., M.S.) in your department and return it to Erin Frew, erin.frew@colostate-pueblo.edu as an email attachment before June 1, 2012. You'll also find the form at the assessment website at <http://www.colostate-pueblo.edu/Assessment/Resources/Pages/default.aspx>. Thank you.

Listed below are the CET student learning objectives:

Generic Engineering Technology student learning outcomes: Students who complete the CET program at CSU-Pueblo will have the ability to:

- a. apply knowledge, techniques, skills, and tools of the civil engineering discipline to engineering technology activities,
- b. select and apply a knowledge of mathematics, science, engineering, and technology to civil engineering technology problems,
- c. conduct standard tests and measurements; analyze and interpret experimental data; and apply experimental results to improve processes,
- d. design systems, components, or processes for civil engineering technology problems,
- e. function effectively as a members or leaders on a technical team,
- f. identify, analyze, and solve broadly-defined engineering technology problems,
- g. communicate effectively regarding subjects related to engineering technology activities,
- h. demonstrate a disposition to engage in self-directed continuing professional development,
- i. demonstrate an understanding of professional and ethical responsibilities,
- j. demonstrate an understanding of the impact of engineering technology solutions to society, and
- k. demonstrate commitment to quality, timeliness, and continuous improvement.

Civil Engineering Technology Discipline-Specific student learning outcomes: In order to enable graduates to attain the CET program educational objectives, CET students are trained to acquire specific skills and the ability to:

- A. utilize principles and appropriate technology to produce drawings, reports, quantity estimates, and other documents related to civil engineering;
- B. conduct standardized field and laboratory tests related to civil engineering;
- C. utilize surveying methods and equipment to perform land measurement or construction layout;
- D. apply fundamental computational methods and elementary analytical techniques to solve civil engineering technology problems.
- E. plan and prepare documents appropriate for design and construction;
- F. perform economic analyses and cost estimates related to design, construction, operations and maintenance of systems associated with civil engineering;
- G. select appropriate engineering materials and practices; and
- H. perform standard analysis and design of elements for structures, hydraulic and hydrologic systems, construction operations, and transportation systems.

A. Program student learning outcomes (SLOs) assessed in this cycle, processes, results, and recommendations.

A. Which of the program SLOs were assessed during this cycle? Please include the outcome(s) verbatim from the assessment plan.	B. When was this SLO last assessed?	C. What method was used for assessing the SLO? Please attach a copy of any rubrics used in the assessment process.?	D. Who was assessed? Please fully describe the student group.	E. What is the expected achievement level and how many students should be at it?	F. What were the results of the assessment?	G. What were the department's conclusions about student performance?	H. What changes/improvements to the program are planned based on this assessment?
e. function effectively as a members or leaders on a technical team	2011/12	Assessed through courses that contribute to the SLO	Students	Expected level of achievement is overall performance score of 70 % in each course that contributes to the SLO. Further, 70% of students must reach the expected score	80-90% of students work well in teams	Results are satisfactory	None
g. communicate effectively regarding subjects related to engineering technology activities	2011/12		Students		>75% students reached the 70% score	Many students have problems with preparing memos and letters.	Add preparation of memos and business letters to technical writing
E. plan and prepare documents appropriate for design and construction	2011/12		Students		>75% of students reached/exceede the overall 70% score for the assessed elements	Results are satisfactory	None

Comments:

The SLOs for the civil engineering technology program are derived partially from an external mandate of the accrediting agency. Therefore, the number of SLOs for the current (new) plan is much larger than the maximum recommended for programs at CSU-Pueblo.

It should be noted that the CET SLOs are in two sets. For convenience, one set of the SLOs is identified by lower case letters “a through k”; a second set of SLOs is identified by upper case letters “A through H”. A description of the SLOs has been provided in this report. Background information about the student learning objectives is provided in the 2012 edition of the CET assessment plan.

B. Follow-up (closing the loop) on results and activities from previous assessment cycles. In this section, please describe actions taken during this cycle that were based on, or implemented to address, the results of assessment from previous cycles.

A. What SLO(s) did you address? Please include the outcome(s) verbatim from the assessment plan.	B. When was this SLO last assessed?	C. What were the recommendations for change from the previous assessment?	D. Were the recommendations for change acted upon? If not, why?	E. What were the results of the changes? If the changes were not effective, what are the next steps or the new recommendations?
See Comments below	2010/11	No changes were recommended	N/A	N/A

Comments

The CET program underwent an ABET accreditation visit in November 2011. ABET will provide a final statement about the program in September 2012.