

Program: Bachelor of Science in Civil Engineering Technology (BSCET)

Date: June 5, 2015

Completed by: Professor Michael A. Mincic

Assessment contributors (other faculty involved in this program's assessment): Dr. Nirmal Das (deceased), Dr Sylvester Kalevela and adjunct professors

Please complete this form for each undergraduate, minor, certificate, and graduate program (e.g., B.A., B.S., M.S.) in your department. Please copy any addenda (e.g., rubrics) and paste them in this document, and submit it to the dean of your college/school as per the deadline established. The dean will forward it to me as an email attachment before June 2, 2014. You'll also find the form at the assessment website at <http://www.colostate-pueblo.edu/Assessment/ResultsAndReports/Pages/default.aspx>.

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 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.

Please describe the 2013-2014 assessment activities for the program in Part I. Use Column H to describe improvements planned for 2014-2015 based on the assessment process. In Part II, please describe activities engaged in during 2013-2014 designed to close-the-loop (improve the program) based on assessment activities and the information gathered in 2012-2013. Thank you

Please describe the 2014-2015 assessment activities for the program in Part I. Use Column H to describe improvements planned for 2015-2016 based on the assessment process. In Part II, please describe activities engaged in during 2014-2015 designed to close-the-loop (improve the program) based on assessment activities and the information gathered in 2013-2014. Thank you.

I. 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	B. When was this SLO last assessed? Please	C. What method was used for assessing the SLO? Please	D. Who was assessed? Please fully describe the student	E. What is the expected achievement level and	F. What were the results of the assessment?	G. What were the department's conclusions about student performance?	H. What changes/improvements to the <u>program</u> are planned based on this assessment?
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include the outcome(s) verbatim from the assessment plan.	indicate the semester and year.	include a copy of any rubrics used in the assessment process.	group(s) and the number of students or artifacts involved.	how many or what proportion of students should be at it?			
j. demonstrate an understanding of the impact of engineering technology solutions to society	Fall 2014 & Spring 2015	Oral Presentation in CET 455 and Final Project CET 456	Students enrolled in the CET 455 and CET 456 courses	Seventy five (75) percent of students achieve an overall score of 70 % in each of the courses.	Eighty five (85) percent of the students achieved an overall score of 70 percent or better.	The student projects all relected an understanding of the impact of engineering technology solutions to society. One project provided a small community with data to obtain funding for a new water system. All projects were community service with the results be given to the industry partner at no cost.	The department chair strongly encouraged the dean to plan for a full-time tenure track professor to lead this course for future years.
H. perform standard analysis and design of elements for structures, hydraulic and	Fall 2014 & Spring 2015	Oral Presentation in CET 455 and Final Project CET 456	Students enrolled in the CET 455 and CET 456 courses	Seventy five (75) percent of students achieve an overall score of 70 % in each of the courses.	One hundred (100) percent of the students doing a project of this nature	Outstanding projects were provided to the City of Pueblo and the Town of Branson Colorado demonstrating well planned and	The department chair strongly encouraged the dean to plan for a full-time tenure track professor to lead this course for future years

hydrologic systems, construction operations, and transportation systems.					achieved a score of 70% or better.	analyzed designs to solve the hydrological and transportation problems encountered by the agencies.	
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Comments: Evaluation of Generic Engineering Technology student learning outcome item “j” and Civil Engineering Technology student learning outcome item “H” were used for the 2015-2016 academic year. The collection of data hindered during this year due to the sudden passing of the instructor for the two courses being evaluated. Just prior to the begin of classes for the spring of 2016 and after the completion of the fall of 2015 courses Dr. Nirmal Das passed away. The fall data and instructors comments were never shared with the assessment team due to the situation, therefore the results shown reflect the final grade results for the CET 455 course. The CET 456 course was taken over by Dr. Sylvester Kalevela quite suddenly to minimize the impact of students with the given situation. The results shown are the reflection of final grades within the CET 456 and an analysis of the grades by the department chair, Professor Michael Mincic. Since the two instructors of courses were not available for feed back the results are for the observation of data by the department chair. Department chair Mincic was also an active evaluator in the presentation of the senior projects during the finals week of Spring 2016.

II. 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? Please indicate the semester and year.	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?

Comments: