



**CSU
PUEBLO**

**2021 Academic Program
Assessment Report**
**Civil Engineering
Technology**

**Program current
assessment plan here:**
**Program prior
assessment report here:**

https://www.csupueblo.edu/assessment-and-student-learning/_doc/results-and-reports/2018/assessment-plans/CET-2018-Assessment-Plan.pdf
https://www.csupueblo.edu/assessment-and-student-learning/_doc/2020/report/cet-assessment-report-2020.pdf

Report Completed By:	Md Islam
Date Report Completed:	June 1, 2021
Faculty members involved in this Assessment:	Kevin Sparks

Please describe this year's assessment activities and follow-up for your program below. (Separate sheet for each undergraduate major, stand-alone minor, certificate, and graduate program in your department.) Please also submit any addenda such as rubrics which are not available in your assessment plan. The reports will be available to the Dean of your college/school and to the Executive Director for Assessment as well as faculty peer reviewers.

Brief Statement of Program Mission and Goals:
The Civil Engineering Technology (CET) program at Colorado State University-Pueblo is to provide an integrated educational experience so that its graduates are:
Prepared to apply established engineering principles and standards of practice in developing solutions to civil engineering problems, and
Prepared for successful careers in civil engineering by providing them with the ability to contribute to engineering teams in various practice areas including (a) engineering analysis and design, (b) construction planning and management, (c) experimentation, (d) technical documentation, and (e) systems operations or maintenance.

I. Assessment of Student Learning Outcomes (SLOs) in this cycle. Including processes, results, and recommendations for improved student learning. Use Column H to describe improvements planned for the year based on the assessment process.

A. Your program SLOs are pasted here verbatim from your assessment plan. Please enter info in columns B-H only for those assessed during this annual cycle.	B. When was this SLO last reported on prior to this cycle? (semester and year)	C. What method was used for assessing the SLO? Please include a copy of any rubrics used in the assessment process.	D. Who was assessed? Please fully describe the student group(s) and the number of students or artifacts involved (N).	E. What is the expected proficiency level and how many or what proportion of students should be at that level?	F. What were the results of the assessment? (Include the proportion of students meeting proficiency.)	G. What were the department's conclusions about student performance?	H. What changes/improvements to the program are planned based on this assessment?
1. An ability to select and apply the knowledge, techniques, skills and modern tools of the discipline to broadly-defined engineering technology activities	2017-2018	Exam 2 of CET 404; Open-book, written exam. Rubric is shown in Figure 1.	All students attended the class	75% students should attain 75% score	80% of 100% of the students completed the learning module.	As the target is met, nothing has been done now, but this result will be discussed in the next departmental meeting to find out how to maintain this achievement and how to improve continuously.	In the next assessment cycle, the improvement trend will be observed and continuous improvement will be expected.
2. An ability to select and apply a knowledge of mathematics, science, engineering and technology to engineering technology problems that require the application of principles and applied procedures or methodologies	2017-2018	HW on Chap 3 in the class of CET 202. Rubric is shown in Figure 2.	All students attended the class	75% students should attain 75% score	83 of 100% of the students completed the learning module which included an instructional series on the concept of a ethics in civil engineering.	As the target is met, nothing has been done now, but this result will be discussed in the next departmental meeting to find out how to maintain this achievement and how to improve continuously.	In the next assessment cycle, the improvement trend will be observed and continuous improvement will be expected.
3. An ability to conduct standard tests and measurements; to conduct, analyze and interpret experiments; and to apply experimental results to improve processes	2017-2018	Lab report of CET 206. Rubric is shown in Table 1.	All students attended the class	75% students should attain 75% score	100% attained 75%.	As the target is met, nothing has been done now, but this result will be discussed in the next departmental meeting to find out how to maintain this achievement and how to improve continuously.	In the next assessment cycle, the improvement trend will be observed and continuous improvement will be expected.

4. Utilize principles, hardware, and software that are appropriate to produce drawings, reports, quantity estimates, and other documents related to civil engineering	2017-2018	HW on Pavement Software in CET 473. Rubric is shown in Table 1.	All students attended the class	75% students should attain 75% score	56% attained 75%	As the target is not met, the instructor will be advised by the program chair to revise his lecture content and lecture style. In the next assessment cycle, the improvement trend will be especially observed and possible remedy will be discussed in a program meeting.	In the next assessment cycle, the improvement trend will be observed and continuous improvement will be expected.
5. Conduct standardized field and laboratory tests related to civil engineering	2017-2018	A field survey and its report from CET 102. Rubric is shown in Table 1.	All students attended the class	75% students should attain 75% score	82% attained 75%.	As the target is met, nothing has been done now, but this result will be discussed in the next departmental meeting to find out how to maintain this achievement and how to improve continuously.	In the next assessment cycle, the improvement trend will be observed and continuous improvement will be expected.

Comments on part I: All SLOs assessed during this cycle met the expected achievement level. In the next assessment cycle, the improvement trend will be especially observed and possible a revision of the target will be discussed in a program meeting.

II. Closing the Loop. Describe at least one data-informed change to your curriculum during the year cycle. These are those that were based on, or implemented to address, the results of assessment from previous cycles.

A. What SLO(s) or other issues did you address in this cycle? Please include SLOs verbatim from the assessment plan, as above.	B. When was this SLO last assessed to generate the data which informed the change? Please indicate the semester and year.	C. What were the recommendations for change from the previous assessment column H and/or feedback?	D. How were the recommendations for change acted upon?	E. What were the results of the changes? If the changes were not effective, what are the next steps or the new recommendations?
Outcome c (CET Sepcific)- Utilize surveying methods appropriate for land measurement and/or construction layout;	2019-2020	Instructor will work to enhance teaching methods and possibly integrate skill building modules possibly through Blackboard. In the next assessment cycle, the improvement trend will be especially observed and possible remedy will be discussed in a program meeting.	Instructor put more effort on the topic to make sure students achieved this SLO.	It is expected to improve on this SLO. The SLO is scheduled to be assessed in the next cycle.

Comments on part II: In the next assessment cycle, the improvement trend will be especially observed and possible remedy will be discussed in a program meeting.

Table 1. Grading Rubric for Different Performance Indicators

	Good	Fair	Poor	Unable
Observes good lab practice and operates instrumentation with ease	100%	75%	50%	0%
Determines data that are appropriate to collect and selects appropriate equipment, protocols, etc. for measuring the appropriate variables to meet required data	100%	75%	50%	0%
Uses appropriate tools to analyze data and verifies and validates experimental results including the use of statistics to account for possible experimental error	100%	75%	50%	0%