



Academic Program Assessment Report for AY 2021-2022

(Due: June 1, 2022)

Completed by: Dr. Md Islam

Assessment contributors (other faculty involved): _____

Program: Civil Engineering Technology

Date report completed: 6/1/2022

Please describe the 2021-2022 assessment activities and follow-up for your program below. Please complete this form for each undergraduate major, minor, certificate, and graduate program (e.g., B.A., B.S., B.A.S, M.S.) in your department. Please copy any addenda (e.g., rubrics) and paste them in this document, save and submit it to both the Dean of your college/school and to the Executive Director for Assessment as an email attachment by June 1, 2022. You'll also find this form on the assessment website at <https://www.csupueblo.edu/assessment-and-student-learning/resources.html>. Thank you.

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 2019-2020 based on the assessment process.

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 <u>last</u> 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 <u>program</u> are planned based on this assessment?

<p>1. ability to apply knowledge, techniques, skills and modern tools of mathematics, science, engineering, and technology to solve broadly defined engineering problems appropriate to the discipline;</p>	<p>This is the first time this SLO is evaluated, as the SLO is newly adopted based on the new ABET SLOs.</p>	<p>CET 202 Quiz on Chap 3 Equilibrium Problem. Rubric is shown in Table 1.</p>	<p>All students attended the class.</p>	<p>75% students should attain 75% score.</p>	<p>71% of 100% of the students completed the learning module at the expected proficiency level.</p>	<p>As the target is not met, the instructor has been reached. Instructor's response was that due to online delivery during the COVID shutdown, the learning was slow at the beginning of the semester. This outcome will be carefully compared in the next cycle.</p>	<p>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.</p> <p>In the next assessment cycle, the improvement trend will be observed and continuous improvement will be expected.</p>
<p>2. ability to design systems, components, or processes meeting specified needs for broadly-defined engineering problems appropriate to the discipline;</p>	<p>This is the first time this SLO is evaluated, as the SLO is newly adopted based on the new ABET SLOs</p>	<p>CET 475, Chap 10 Water Resource Engineering multiple-choice question exam. The score is 100% or 0% depending on correct or incorrect selection.</p>	<p>All students attended the class.</p>	<p>75% students should attain 75% score.</p>	<p>80% of 100% of the students completed the learning module at the expected proficiency level.</p>	<p>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.</p>	<p>In the next assessment cycle, the improvement trend will be observed and continuous improvement will be expected.</p>
<p>3. ability to apply written, oral, and graphical communication in</p>	<p>This is the first time this SLO is evaluated,</p>	<p>CET 315, Lab Report 3 based on the laboratory</p>	<p>All students attended the class.</p>	<p>75% students should attain 75% score.</p>	<p>100% of 100% of the students completed the</p>	<p>As the target is met, nothing has been done now, but this result will</p>	<p>In the next assessment cycle, the improvement trend will be observed and</p>

broadly-defined technical and non-technical environments; and an ability to identify and use appropriate technical literature;	as the SLO is newly adopted based on the new ABET SLOs	testing on soil. Rubric is shown in Table 1.			learning module at the expected proficiency level.	be discussed in the next departmental meeting to find out how to maintain this achievement and how to improve continuously.	continuous improvement will be expected.
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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 get 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%

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 2019-2020 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 the outcome(s) verbatim from the assessment plan.	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?
1. ability to apply knowledge, techniques, skills and modern tools of mathematics, science, engineering, and technology to solve broadly defined engineering problems appropriate to the discipline;	- This is the first time.	Not applicable	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 evaluated 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.