



**2024 Academic
Program Assessment
Report**

**Civil Engineering
Technology**

**Program current
assessment plan
here:**

https://www.csupueblo.edu/assessment-and-student-learning/_doc/2022/2022-plans/civil-engineer

**Program prior
assessment report
here:**

https://www.csupueblo.edu/assessment-and-student-learning/_doc/2023/civil-engr-tech-assessment-report-2023.pdf

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Date Report Completed:	May 31, 2024
Faculty members involved in this Assessment:	Hasan Faisal, Md Islam, Mike Mincic, Husam Alshareef

Please describe this year's assessment activities and follow-up for your program below. (Separate sheet for each)

**Brief Statement of Program
Mission and Goals:**

The objective of the Civil Engineering Technology (CET) program is to provide an integrated educational experience that prepares graduates to apply established engineering principles and standards of practice in developing solutions to civil engineering problems. The program is designed to prepare graduates for successful careers in civil engineering by providing them with the ability to contribute to engineering teams in various practice areas including design, construction, operating and maintaining elements or systems of the built environment such as buildings, water supply infrastructures, flood mitigation systems, and highways

I. Assessment of Student Learning Outcomes (SLOs) in this cycle. Including

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. 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.	New SLOs. Aspects of the SLOs have previously been assessed under different titles.	Quizzes and mid term test questions CET 315, CET 222 and CET 206	All students enrolled in classes : CET 315, CET 222 and CET 206	At least 75% of sampled students should attain 75% of the score	Target met for CET 315, and CET 206. Not met for CET 222	Problems in CET 222 alone but overall average above target for the SLO	The faculty should incorporate more interactive and in class examples and analysis of the dynamic system problems.
2. Ability to design systems, components, or processes meeting specified needs for broadly defined engineering problems appropriate to the discipline.	New SLOs. Aspects of the SLOs have previously been assessed under different titles.	CET 412 Midterm Q1 CET 404 Midterm CET 315 Final Exam questions	All students enrolled in classes : CET 412, CET 404 and CET 315	At least 75% of sampled students should attain 75% of the score	Target met for CET 412, and CET 404. In all cases, Not met for CET 315	Problems in CET 315 only. Overall average was above target for the SLO	For CET 315 Soil Mechanics Technology: The faculty will incorporate more interactive and in-class design examples and design tools for foundations, retaining walls and other geotechnical engineering elements.
3. Ability to apply written, oral, and graphical communication in broadly-defined technical and non-technical environments; and an ability to identify and use appropriate technical literature.	New SLOs. Aspects of the SLOs have previously been assessed under different titles.	CET 208 Lab Reports, CET 315 Final Project Report and Poster	All students enrolled in classes : CET 208 and CET 315	At least 75% of sampled students should attain 75% of the score	Target met for assessment data in both classes and in each class.	Student performance met the performance target.	No action required at this time
4. Ability to conduct standard tests, measurements, and experiments and to analyze and interpret the results to improve processes.	AY 2022-2023	CET 208 Concrete Lab Reports, CET 315 Final Project Report and Poster	All students enrolled in classes : CET 208 and CET 315	At least 75% of sampled students should attain 75% of the score	Target met for assessment data in both classes and in each class.	Student performance met the performance target	No action required at this time
5. Ability to function effectively as a member as well as a leader on technical teams.	AY 2022-2023	CET 208 Peer Evaluation CET 456 Instructor Survey and Peer Evaluation	All students enrolled in classes : CET 208 and CET 456 – Senior Project class	At least 75% of sampled students should attain 75% of the score	Target met for assessment data in both classes and in each class.	Student performance met the performance target.	No action required at this time

II. Closing the Loop. Describe at least one data-informed change to your

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?
1. An ability to apply knowledge, techniques, skills and modern tools of mathematics, science, engineering and technology to solve broadly defined engineering problems	Fall 2020 and 2021	Enhance teaching methods in in CET 202 and possible integrate skill building	The instructor worked more examples in class to demonstrate multiples ways of solving problems.	There is evidence that the trigonometry problem is due to lack of foundation in the subject matter. Students are not properly prepared.

Comments on part II:

The program needs to identify appropriate pre-requisites and, if possible, review some trigonometry in house.