



Program Name	Date Completed
BSCET	06/01/2026
Report Completed By	Report Contributors
Hasan Faisal	Faculty teaching CET, CM and CE courses (Drs. Kalevela, Islam, Faisal, Sidorova, Gulzar, Zhang)
Brief Statement of Program Mission and Goals	
<p>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.</p>	

**Table I Closing the Loop**

Report on at least one data-informed change to your curriculum during AY 2025-2026 that was implemented to improve student learning, in response to prior assessment cycles or other data.

<p><b>A. Describe issues or SLOs addressed in the AY 2025-2026 cycle. Paste SLOs verbatim below.</b></p> <p><b>SLO 1</b> 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><b>SLO 2</b> Ability to design systems, components, or processes meeting specified needs for broadly defined engineering problems appropriate to the discipline.</p> <p><b>SLO 3</b> 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.</p> <p><b>SLO 4</b> Ability to conduct standard tests, measurements, and experiments and to analyze and interpret the results to improve processes.</p> <p><b>SLO 5</b> Ability to function effectively as a member as well as a leader on technical teams.</p>
<p><b>B. In which prior academic year and semester was this SLO last assessed to generate data that informed the change(s) this year?</b></p> <p>Spring 2025</p>



**C. What were the recommendations for change in the previous cycle?**

The CET program met with all the faculties to discuss improvements based on assessment results. Next year, the program will continue monitoring all SLOs and make changes to simplify the performance indicators and make them more focused and connected to the SLOs. Because some SLOs and indicators are linked with Civil Engineering and Construction Management programs, the faculty will align these improvements with the next academic calendar.

In addition, the BSCET faculty team is also working on proposals to add new courses and improvement in the program curriculum. These efforts aim to strengthen the overall assessment process and enhance student learning outcomes. These proposals include adding additional technical courses that align with industry needs and improve students' readiness for professional practice. In particular, the team is considering adding a math course to strengthen students' quantitative skills, which are essential for success in the field of civil engineering technology. These new courses are intended to complement the existing curriculum, provide more elective choices, and give students opportunities to apply their learning in real-world contexts.

**D. How were the recommendations for change acted upon?**

The recommendations from the previous assessment cycle were implemented by incorporating CE 361 Construction Engineering into the BSCET Student Learning Outcome (SLO) mapping (Exhibit A) and assessment plan. Previously, CE 361 was not included in the program's SLO assessment process. During AY 2025-2026, the course was formally mapped to the appropriate student outcomes and included as a direct assessment measure. Assessment instruments, performance indicators, and evaluation criteria were developed and incorporated into the program assessment process to ensure that student achievement in the course could be systematically measured and evaluated.

**E. How did the change(s) implemented impact student learning? If the change was not effective, what are the next steps or new recommendations?**

The implementation of this change had a positive impact on student learning and the overall assessment process. Assessment results from CE 361 showed that 100% of students met the established performance target, exceeding the program benchmark of 75% (Exhibit B). The addition of CE 361 provided an additional direct measure of student achievement and strengthened assessment coverage of the program outcomes related to construction engineering, project planning, and professional practice.

The results indicate that students demonstrated strong competency in the assessed outcomes and that the inclusion of CE 361 was effective. In addition to improving assessment coverage, the change provided the program with more comprehensive data for evaluating student performance across the curriculum.



**Enter Comments on Table I Closing the Loop Below**

CE 361 Construction Engineering was added to the BSCET SLO mapping and assessment plan for the first time in AY 2025-2026. Assessment results showed that 100% of students met the performance target, exceeding the program benchmark of 75%. The course will continue to be assessed in future cycles to support continuous improvement.



Program Name	Date Completed
<b>BSCET</b>	<b>06/01/2026</b>
Report Completed By	Report Contributors
<b>Hasan Faisal</b>	Faculty teaching CET, CM and CE courses (Drs. Kalevela, Islam, Faisal, Sidorova, Gulzar, Zhang)

Table II Annual assessment of Student Learning Outcomes (SLOs) in AY 2025-26

1. Include information to share assessment processes, results, and recommendations for improved student learning. Copy this table for each assessed outcome.

<b>A. Program SLO(s) assessed in this cycle. Copy the SLOs verbatim from the assessment plan.</b>
<p><b>SLO 1</b> 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><b>SLO 2</b> Ability to design systems, components, or processes meeting specified needs for broadly defined engineering problems appropriate to the discipline.</p> <p><b>SLO 3</b> 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.</p> <p><b>SLO 4</b> Ability to conduct standard tests, measurements, and experiments and to analyze and interpret the results to improve processes.</p> <p><b>SLO 5</b> Ability to function effectively as a member as well as a leader on technical teams.</p>
<b>B. Semester and year this SLO was previously reported on before this cycle.</b>
Spring 2025
<b>C. Describe the assessment method for this SLO(s).</b>
<p>Student learning outcomes were assessed using direct measures embedded within key courses across the BSCET curriculum.</p> <p>SLO 1 was assessed through quizzes and examinations in CET 315 Soil Mechanics Technology, CET 222 Dynamics, and CET 206 Strength of Materials.</p> <p>SLO 2 was assessed using CE 361 Construction Engineering, CET 404 Structural Steel Design, and CET 415 Water and Sewer System Design.</p> <p>SLO 3 was assessed through laboratory reports, final projects, and poster presentations in CET 208 Concrete and Asphalt Materials and CET 415 Water and Sewer System Design.</p> <p>SLO 4 was assessed using laboratory activities and data analysis assignments in CET 315 Soil Mechanics Technology and CET 208 Concrete and Asphalt Materials.</p> <p>SLO 5 was assessed through peer evaluations and instructor evaluations of team based projects in CET 456 Senior Project.</p>



<b>D. Described student group(s) assessed. Provide the number of students or number of artifacts assessed.</b>
<ul style="list-style-type: none"> <li>• SLO 1: CET 315 (4) + CET 222 (9) + CET 206 (9) = 22 students</li> <li>• SLO 2: CE 361 (8) + CET 404 (6) + CET 415 (13) = 27 students</li> <li>• SLO 3: CET 208 (23) + CET 415 (13) = 36 student</li> <li>• SLO 4: CET 315 (4) + CET 208 (23) = 27 student</li> <li>• SLO 5: CET 456 (5) = 5 students</li> </ul>
<b>E. Explain the expected proficiency level and proportion of students who should reach this level.</b>
At least 75% of sampled students should attain 75% of the score
<b>F. Provide Assessment results and number of students who met defined proficiency level.</b>
<p>SLO 1: Average of 67.6% (21 student artifacts) achieved the proficiency level of 75% or higher.  SLO 2: Average of 84.1% (22 student artifacts) achieved the proficiency level of 75% or higher.  SLO 3: Average of 81.2% (57 student artifacts) achieved the proficiency level of 75% or higher.  SLO 4: Average of 87.3% (27 student artifacts) achieved the proficiency level of 75% or higher.  SLO 5: Average of 100% (15 student artifacts) achieved the proficiency level of 75% or higher.</p>
<b>G. Describe what the results or trends indicate about student performance.</b>
Overall, students demonstrated satisfactory achievement of the assessed Student Learning Outcomes, with four of the five outcomes meeting or exceeding the established performance target. SLO 1 fell below the target and will continue to be monitored, with improvement actions planned to enhance student performance in future assessment cycles.
<b>H. Describe program level changes/improvements planned for next AY (2026-2027?) which are informed by this assessment.</b>
<p>Based on the assessment results, the BSCET program will continue to strengthen student learning through increased use of interactive learning activities, applied engineering problem solving, and design based instructional approaches across the curriculum.</p> <p>To address the deficiency identified in SLO 1, CET 222 Dynamics will be assigned to a full time ranked faculty member in AY 2026-2027, and additional active learning strategies will be incorporated to improve student engagement and performance.</p> <p>The program will also continue to emphasize technical communication and report writing skills while monitoring the effectiveness of recently implemented curriculum and assessment improvements, including the addition of CE 361 Construction Engineering to the SLO assessment process.</p> <p>In addition, the program will expand assessment coverage of SLO 5 by incorporating additional courses beyond CET 456 to provide a broader evaluation of students' teamwork, leadership, and collaboration skills throughout the curriculum.</p>



**Enter Comments on Table II AY 2026 Assessment Below**

Assessment results indicate that the BSCET program continues to demonstrate strong student achievement across the Student Learning Outcomes. The program will continue to monitor student performance, expand assessment coverage where appropriate, and implement continuous improvement efforts to further enhance student learning and success.

## Exhibit A

### Mapping courses to the Student Learning Outcomes

Courses	SOs	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;	2. ability to design systems, components, or processes meeting specified needs for broadly-defined engineering problems appropriate to the	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;	4. ability to conduct standard tests, measurements, and experiments and to analyze and interpret the results to improve processes;	5. ability to function effectively as a member as well as a leader on technical teams.
CET 101 Intro to CET		X				
CET 102 Surveying I		X		X	X	X
CET 103 Surveying II		X		X	X	
CET 115 Civil Drafting I		X				
CET 116 Civil Drafting II		X				
CET 202 Statics		X				
CET 206 Strength of Materials		X		X	X	
CET 207 Construction Materials and Methods.		X				
CET 208 Concrete and Asphalt				X	X	X
CET 222 Dynamics		X	X			
CET 226 Application of Computers		X				
CET 305 Construction Cost Est. II				X		
CET 315 Soil Mechanics Tech.		X	X	X	X	X
CET 316 Structural Analysis		X				
CET 317 Hydraulics		X		X	X	
CE 361 Construction Engineering			X			X
CET 372 Traffic Analysis and Control		X	X	X	X	
CET 404 Structural Steel Design			X			
CET 405 Reinforced Concrete Design			X			
CET 412 Hydrology			X			
CET 415 Water and Sewer Sys Des			X	X		
CET 455 Design Seminar			X			X
CET 456 Senior Project			X			X
CET 473 Highway Design			X			

## Exhibit B

Student Outcomes: 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.**

<b>Performance Indicators (PI)</b>	<b>Courses where PI is assessed</b>	<b>Specific Method of Assessment</b>	<b>Cycle when PI assessed</b>	<b>Yeas and Semester when data were collected</b>	<b>Target</b>
Chooses a mathematical model of a system or process appropriate for required accuracy	CE 315	Quiz 3 and Midterm	Yearly	Spring 2026	75% students should attain at least 75% score
Applies mathematical principles to achieve analytical or numerical solution to model equations	CET 222	Quiz 2 and Quiz 5	Yearly	Spring 2026	75% students should attain at least 75% score
Examines approaches to solving an engineering technology problem to choose the more effective approach	CET 206	Quiz 4	Yearly	Spring 2026	75% students should attain at least 75% score

**Summary of Aggregated Assessment Data (across all PIs)**

Course	Semester	Total Number of Students	Number of Students who met the Target	% of students who met the target
CET 315	Spring 2026	4	4	100%
		4	2	50%
Aggregate				75%
Target				75%

Course	Semester	Total Number of Students	Number of Students who met the Target	% of students who met the target
CET 222	Spring 2026	9	5	55.5%
		9	2	22.2%
Aggregate				38.8%
Target				75%

Course	Semester	Total Number of Students	Number of Students who met the Target	% of students who met the target
CET 206	Spring 2026	9	8	89%
Aggregate				89%
Target				75%

Here CET 315 Soil Mechanics technology, CET 222: Dynamics and CET 206 Strength of Materials

**Actions for Continuous Improvement:**

CET 315 Soil Mechanics Technology: met the performance target. Student performance will be monitored periodically until next assessment cycle.

CET 222 Dynamics: The faculty will incorporate more interactive or a new faculty will teach the course.

CET 206 Strength of Materials: Actions for Continuous Improvement:

**Results of Actions for Improvement:**

CET 222 Dynamics: Due to a faculty shortage, the course was taught by an adjunct faculty member for part of the semester and by a ranked faculty member during the final weeks. To enhance student engagement and improve the learning experience, the School has decided to assign a full time ranked faculty member to teach the course next spring and incorporate more interactive learning activities.

**Assessment Instruments:**

The evaluation steps are collected and saved with the department office.

Student Outcomes: 2. **Ability to design systems, components, or processes meeting specified needs for broadly defined engineering problems appropriate to the discipline.**

<b>Performance Indicators (PI)</b>	<b>Courses where PI is assessed</b>	<b>Specific Method of Assessment</b>	<b>Cycle when PI assessed</b>	<b>Yeas and Semester when data were collected</b>	<b>Target</b>
Problem statement shows understanding of the problem	CE 361	Midterm	Yearly	Spring 2026	75% students should attain at least 75% score
Solution procedure and methods are defined.	CET 404	Quiz 1	Yearly	Spring 2026	75% students should attain at least 75% score
Problem solution is appropriate and within reasonable constraints	CET 415	Quiz 3	Yearly	Spring 2026	75% students should attain at least 75% score

**Summary of Aggregated Assessment Data (across all PIs)**

<b>Course</b>	<b>Semester</b>	<b>Total Number of Students</b>	<b>Number of Students who met the Target</b>	<b>% of students who met the target</b>
CE 361	Spring 2026	8	8	100%
Aggregate				100%
Target				75%

<b>Course</b>	<b>Semester</b>	<b>Total Number of Students</b>	<b>Number of Students who met the Target</b>	<b>% of students who met the target</b>
CET 404	Spring 2026	6	5	83%
Aggregate				83%
Target				75%

<b>Course</b>	<b>Semester</b>	<b>Total Number of Students</b>	<b>Number of Students who met the Target</b>	<b>% of students who met the target</b>
CET 415	Spring 2026	13	9	69.23%
Aggregate				69.23%
Target				75%

Here CET 415 Water and Sewer System Design, CET 404 Structural Steel Design and CE 361 Construction Engineering

**Actions for Continuous Improvement:**

CET 415 Water and Sewer System: The faculty will incorporate more interactive and in class design examples and design tools for foundations, retaining walls and other geotechnical elements.

CET 404 Structural Steel Design met the performance target. Student performance will be monitored periodically until the next assessment cycle.

CET 315 Soil Mechanics Technology met the performance target. Student performance will be monitored periodically until the next assessment cycle.

**Results of Actions for Improvement:**

CET 415 Water and Sewer System: The faculty will incorporate more interactive and in class design examples and design tools for foundations, retaining walls and other geotechnical elements.

**Assessment Instruments:**

The evaluation steps and student work samples are collected and saved with the department.

Student Outcomes: 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.**

<b>Performance Indicators (PI)</b>	<b>Courses where PI is assessed</b>	<b>Specific Method of Assessment</b>	<b>Cycle when PI assessed</b>	<b>Yeas and Semester when data were collected</b>	<b>Target</b>
Writing conforms to appropriate technical style	CE 208	ICE 10 (Lab Report)	Yearly	Spring 2026	75% students should attain at least 75% score
Appropriate usage of graphics	CET 415	Final Project	Yearly	Spring 2026	75% students should attain at least 75% score
Grammar and editorial aspects	CET 208	ICE 11 (Lab Report)	Yearly	Spring 2026	75% students should attain at least 75% score
Oral: body language and clarity of speech	CET 415	Final Project Poster Presentation	Yearly	Spring 2026	75% students should attain at least 75% score

**Summary of Aggregated Assessment Data (across all PIs)**

Course	Semester	Total Number of Students	Number of Students who met the Target	% of students who met the target
CET 208	Spring 2026	23	20	87%
Aggregate				87%
Target				75%

Course	Semester	Total Number of Students	Number of Students who met the Target	% of students who met the target
CET 415	Spring 2026	13	10	76.9%
Aggregate				76.9%
Target				75%

Course	Semester	Total Number of Students	Number of Students who met the Target	% of students who met the target
CET 208	Spring 2026	23	14	61%
Aggregate				61%
Target				75%

Course	Semester	Total Number of Students	Number of Students who met the Target	% of students who met the target
CET 415	Spring 2024	13	13	100%
Aggregate				100%
Target				75%

Here CET 208 Concrete and Asphalt Materials and CET 315 Soil Mechanics Technology

**Actions for Continuous Improvement:**

Student performance met the performance target. Student performance will be monitored periodically until the next assessment cycle.

CET 208: the faculty will place additional emphasis on teaching students how to properly prepare laboratory reports and technical reports, including report organization, data presentation, analysis, discussion, and professional engineering documentation practices.

**Results of Actions for Improvement:**

CET 208: the faculty will place additional emphasis on teaching students how to properly prepare laboratory reports and technical reports, including report organization, data presentation, analysis, discussion, and professional engineering documentation practices.

**Assessment Instruments:**

The evaluation steps and student work samples are collected and saved with the department.

Student Outcomes: 4. **Ability to conduct standard tests, measurements, and experiments and to analyze and interpret the results to improve processes.**

<b>Performance Indicators (PI)</b>	<b>Courses where PI is assessed</b>	<b>Specific Method of Assessment</b>	<b>Cycle when PI assessed</b>	<b>Yeas and Semester when data were collected</b>	<b>Target</b>
Observes good lab practice and operates instrumentation with ease	CET 315	Lab 5: Soil Compaction	Yearly	Spring 2026	75% students should attain at least 75% score
Determines data that are appropriate to collect and selects appropriate equipment, protocols, etc. for measuring the appropriate variables to get required data experimental results including the use of statistics to account for possible experimental error	CET 208	ICE 10	Yearly	Spring 2026	75% students should attain at least 75% score
Uses appropriate tools to analyze data and verifies and validates experimental results including the use of statistics to account for possible experimental error	CET 315	Lab 3: Soil Plasticity	Yearly	Spring 2026	75% students should attain at least 75% score

**Summary of Aggregated Assessment Data (across all PIs)**

<b>Course</b>	<b>Semester</b>	<b>Total Number of Students</b>	<b>Number of Students who met the Target</b>	<b>% of students who met the target</b>
CET 315	Spring 2026	4	4	100%
Aggregate				100%
Target				75%

<b>Course</b>	<b>Semester</b>	<b>Total Number of Students</b>	<b>Number of Students who met the Target</b>	<b>% of students who met the target</b>
CET 208	Spring 2026	23	20	87%
Aggregate				87%
Target				75%

<b>Course</b>	<b>Semester</b>	<b>Total Number of Students</b>	<b>Number of Students who met the Target</b>	<b>% of students who met the target</b>
CET 315	Spring 2026	4	3	75%
Aggregate				75%
Target				75%

Here CET 208 Concrete and Asphalt Materials and CET 315 Soil Mechanics Technology

**Actions for Continuous Improvement:**

Student performance met the performance target. Student performance will be monitored periodically until the next assessment cycle.

**Results of Actions for Improvement:**

No action needed

**Assessment Instruments:**

The evaluation steps and student work samples are collected and saved with the department.

Student Outcomes: 5. Ability to function effectively as a member as well as a leader on technical teams.

<b>Performance Indicators (PI)</b>	<b>Courses where PI is assessed</b>	<b>Specific Method of Assessment</b>	<b>Cycle when PI assessed</b>	<b>Yeas and Semester when data were collected</b>	<b>Target</b>
Recognize participant roles in a team setting	CET 456	Peer Evaluation of Final Project	Yearly	Spring 2026	75% students should attain at least 75% score
Integrate input from all team members and makes decision	CET 456	Instructor Survey of Final Project	Yearly	Spring 2026	75% students should attain at least 75% score
Improves communications among teammates and ask for feedback	CET 456	Peer Evaluation	Yearly	Spring 2026	75% students should attain at least 75% score

**Summary of Aggregated Assessment Data (across all PIs)**

<b>Course</b>	<b>Semester</b>	<b>Total Number of Students</b>	<b>Number of Students who met the Target</b>	<b>% of students who met the target</b>
CET 456	Spring 2026	5	5	100%
Aggregate				100%
Target				75%

<b>Course</b>	<b>Semester</b>	<b>Total Number of Students</b>	<b>Number of Students who met the Target</b>	<b>% of students who met the target</b>
CET 456	Spring 2026	5	5	100%
Aggregate				100%
Target				75%

<b>Course</b>	<b>Semester</b>	<b>Total Number of Students</b>	<b>Number of Students who met the Target</b>	<b>% of students who met the target</b>
CET 456	Spring 2026	5	5	100%
Aggregate				100%
Target				75%

Here CET 208 Concrete and Asphalt Materials and CET 456 Senior Project

**Actions for Continuous Improvement:**

Student performance met the performance target. Student performance will be monitored periodically until the next assessment cycle.

**Results of Actions for Improvement:**

No action needed

**Assessment Instruments:**

The evaluation steps and student work samples are collected and saved with the department.