

# Civil & Environmental Engineering Technology Canino School of Engineering Technology 2018 Assessment Report

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## Mission

The Canino School of Engineering Technology (CSOET) at SUNY Canton is committed to providing an educational experience that prepares students for a career in a technologically oriented society. The curricula are focused on providing career skills reviewed by industry partners and accreditation agencies. Our programs provide opportunities for every student to find a suitable starting point for their academic endeavor. Graduates have the ability to work in teams, think critically, utilize the tools of their trade or industry, and communicate effectively.



# Program Assessment vs ISLO Assessment

## Introduce

- Course 1
- CLO 1
- CLO 2
- CLO 3
- CLO 4
- CLO 5
- CLO 6

## Reinforce

- Course 2
- CLO 1
- CLO 2
- CLO 3
- CLO 4
- CLO 5

## Emphasize

- Course 3
- CLO 1
- CLO 2
- CLO 3
- CLO 4
- CLO 5
- CLO 6
- CLO 7

## Program SO7 - Communication

- Course 3, CLO 7
- Course 6, CLO 8
- Course 11, CLO 4
- Course 14, CLO 1

*Assess the Program SO's at the program level. At the time of graduation or the end of a sequence has the SO been met?*

## Program 2488, SO7 - Communication

- Course 3, CLO 7
- Course 6, CLO 8
- Course 11, CLO 4
- Course 14, CLO 1

## ISLO 1 - Communication

- Program 2488, Course 3, CLO 7
- Program 517, Course 5, CLO 4
- Program 162, Course 7, CLO 5
- ...

*Assess the Institutional ISLO's at the institutional level. How is the university as a whole meeting the ISLO?*

*Just like we don't look at a single course to see if a Program SO has been met, we should not look at a single program to see if the ISLO has been met. If an ISLO is not met we may have to look back to the program level.*



**\*\* Programs report on their program SOs, not the ISLOs. The university will report to us on the ISLOs. \*\***

# What was assessed?

Student Outcome (ISLO)	Timeline					
	Cycle 3			Cycle 4		
	Spring '16 - Fall '16	Spring '17 - Fall '17	Spring '18 - Fall '18	Spring '19 - Fall '19	Spring '20 - Fall '20	Spring '21 - Fall '21
SO#1 (ISLO 5)	X			X		
SO#2 (ISLO 3)	X			X		
SO#3 (ISLO 2+5)	X			X		
SO#4 (ISLO 2+5)	X			X		
SO#5 (ISLO 4)		X			X	
SO#6 (ISLO 2)		X			X	
SO#7 (ISLO 1)		X			X	
SO#8 (ISLO 5)		X			X	
SO#9 (ISLO 4)			X			X
SO#10 (ISLO 4)			X			X
SO#11 (ISLO 5)			X			X

# What was assessed? Student learning outcomes list:

- *SO9 (ISLO 4/ABET i) – Professionalism, Ethics, and Diversity*
  - *Students have developed an understanding of and have a commitment to address professional, ethical, and diversity issues and responsibilities.*
- *SO10 (ISLO 4/ABET j) – Societal and Global Context*
  - *Students have knowledge of the impact of engineering technology in a societal and global context.*
- *SO11 (ISLO 5/ABET k) – Quality, Timeliness, and Continuous Improvement*
  - *Students have a commitment to quality, timeliness, and continuous improvement.*

# Where were outcomes assessed?

- *SO9 (ISLO 4/ABET i) – Professionalism, Ethics, and Diversity*

SO	Performance Indicator	Course Measure
SO#9 (ABET i) (ISLO 4)	a - Understand professionalism, ethics, and diversity as related to the roles and responsibilities of individuals, public institutions, and private organizations	Professionalism
		<ul style="list-style-type: none"> <li>CONS 477 (no CLO Sp18, new CLO F18 - CLO9) - Reflective Narrative (professionalism)</li> <li>ASCE bridge team - Mead Paper (professionalism)</li> <li>CONS 322 (no CLO) - select HW assignment - is it in the correct format such that it demonstrates over the course of 4-6 semesters the students have learned the proper HW format?</li> <li>CONS 391 (CLO - ?) - term paper on professionalism</li> <li>CONS 274 (CLO1) - bidding/letting (professionalism)</li> <li>CONS 477 (no CLO) - Reflective Narrative (ethics)</li> <li>SOET 377 (CLO 2 - on ethics)</li> </ul>
		Ethics
		<ul style="list-style-type: none"> <li>CONS 391 (CLO - ?) - codes (ethics)</li> <li>ASCE bridge team - Mead Paper (ethics)</li> <li>CONS 274 (CLO2) - ethical issues</li> <li>CONS 391 (CLO - ?) - term paper on ethics</li> </ul>
		Diversity
		<ul style="list-style-type: none"> <li>SOET 377 (CLO3 - diversity)</li> <li>CONS 274 (CLO 1) - use of WBE and MBE for public bidding and award (diversity)</li> </ul>

# Where were outcomes assessed?

- *SO9 (ISLO 4/ABET i) – Professionalism, Ethics, and Diversity*

SO	Performance Indicator	Course Measure
SO#9 (ABET i) (ISLO 4)	b - Understand the roles and responsibilities of individuals, public institutions, and private organizations	CONS 477 (no CLO) - CONS 280 (no CLO) - presentation during lab related to emerging global advances in cementitious materials CONS 386 (CLO a) / CONS 387 (CLO I - Lab on this topic) CONS 274 (CLO3) - roles and responsibilities CONS 274 (CLO1) - bidding/letting CONS 391 (CLO - ?)



# Where were outcomes assessed?

- *SO10 (ISLO 4/ABET j) – Societal and Global Context*

SO	Performance Indicator	Course Measure
SO#10 (ABET j) (ISLO 4)	Have knowledge of the impact of engineering technology solutions in a societal and global context	CONS 477 (no CLO) - Reflective Narrative CONS 387 (no CLO) - HW assignment related to global awareness - Cape Town, South Africa water crisis SOET 377 (CLO4 - global awareness) CONS 391 (CLO - ?)





# Where were outcomes assessed?

- *SO11 (ISLO 5/ABET k) – Quality, Timeliness, + Continuous Improvement*

SO	Performance Indicator	Course Measure
SO#11 (ABET k) (ISLO 5)	a - submit deliverables on time	<p>CONS 477 - No CLO</p> <p>CONS 203 (?) Team map project</p> <p>CONS 222 (CLO?)- final project</p> <p>SOET 250 (CLO?) - weekly chapters</p>
	b - Prepare a schedule in CPM format, BIM, or other format/software	<p>CONS 274 (8) critical path</p> <p>CONS 274 (9) scheduling software</p> <p>SOET 250 9 - use software to create schedule</p> <p>SOET 352 (CLO?) - use Navis in BIM to do scheduling</p> <p>CONS 477 (2) - develop schedule in CPM format</p>
	c - Develop and follow a plan for a project	<p>CONS 477 (2) - Schedule - did they stick to it? Reflective Narrative</p> <p>SOET 250 (6)</p>
	d - Demonstrate continuous improvement	<p>CONS 387 (CLO12, but not) - term project poster - draft to final, no direct CLO but have evaluation for draft and final</p> <p>CONS 387 (CLO12, but not) - term project abstract - draft to final, no direct CLO but have evaluation for draft and final</p> <p>CONS 386 (CLO 0, but not) - term project - draft to final, no direct CLO but have evaluation for draft and final</p> <p>CONS 386 (CLO 0, but not) - term project - draft to final, no direct CLO but have evaluation for draft and final</p> <p>CONS 477 (5, but not) - draft to final report, no direct CLO but have evaluation for draft and final</p> <p>CONS 322 (no CLO) - select HW assignment - is it in the correct format such that it demonstrates over the course of 4-6 semesters the students have learned the proper HW format?</p>

# How was the assessment accomplished?

- Student work assessed:
  - Homework/Laboratory assignments
  - exam question(s)
  - projects
- Measurement strategy:
  - % of students who scored  $>$  determined % score (e.g. 70% of students will score 70% or greater)
  - Rubrics used for reports, presentations, etc.
- Sample size:
  - Variable depending on class
  - Ranged from 4-30s



# Assessment results: What have the data told us?

SO	Performance Indicator	Course Measure	Assessment Results		Evaluation		
			Target Achievement	Target for Perf. Ind.	And SO	Perf. Ind.	SO
SO#9 (ABET i) (ISLO 4)	a - professionalism, ethics, and diversity	CONS 477 (no CLO Sp18, CLO9 F18)	Sp18: <b>Exceeded</b> F18: <b>Exceeded</b>				
		ASCE bridge team	<b>Met</b>	> 70% =			
		CONS 322 (no CLO)	<b>No findings inputted</b>	Met	<b>Met</b>		
		CONS 391 (CLO - ?)	<b>Exceeded</b>				
		CONS 274 (CLO1)	<b>Not Met</b>				
		CONS 477 (no CLO)	Sp18: <b>Exceeded</b> F18: <b>Exceeded</b>				
		SOET 377 (CLO 2)	<b>Exceeded</b>	> 70% =			
	CONS 391 (CLO - ?)	<b>Exceeded</b>	Met	<b>Met</b>			
	ASCE bridge team	<b>Met</b>					
	CONS 274 (CLO2)	<b>Exceeded</b>			<b>~Met</b>		
	SOET 377 (CLO3)	<b>Exceeded</b>	> 70% =				
	CONS 274 (CLO )	<b>Not assessed</b>	Met	<b>Not Met</b>			
	b - roles and responsibilities of individuals, public institutions, and private organizations	CONS 477 (no CLO) -	Sp18: <b>Not assessed</b> F18: <b>Exceeded</b>				
		CONS 280 (no CLO)	<b>Not assessed</b>	> 70% =			
CONS 387 (CLO I )		Sp18 - CONS 387: <b>Exceeded</b>	> 70% =				
CONS 274 (CLO3)		<b>Met</b>	Met	<b>Met?</b>			
CONS 274 (CLO1)		<b>Not Met</b>					
CONS 391 (CLO - ?)	<b>Not assessed</b>						

# Assessment results: What have the data told us?

- *SO9 (ISLO 4/ABET i) – Professionalism, Ethics, and Diversity*
  - *~Met*
  - *Not a strong “Met” – a bit questionable*
  - *More items that would have liked have no course assessment data*
  - *Were they not done or just not assessed?*
  - *Not directly related to course learning outcomes so it’s easy to forget these program assessment items*
  - *Could be that few courses are covering this content or separately assessing it*



# Assessment results: What have the data told us?

SO	Performance Indicator	Course Measure	Assessment Results	Evaluation		
			Target Achievement	Target for Perf. Ind. And SO	Perf. Ind.	SO
SO#10 (ABET j) (ISLO 4)	Have knowledge of the impact of engineering technology solutions in a societal and global context	CONS 477 (no CLO)	Sp18: <b>Exceeded</b> F18: <b>Exceeded</b>	> 70% = Met < 70% = Not Met	<b>Met</b>	<b>Met</b>
		CONS 387 (no CLO)	<b>Met</b> <b>Exceeded</b>			
		SOET 377 (CLO4)				
		CONS 391 (CLO - ?)	<b>Not assessed</b>			



# Assessment results: What have the data told us?

- *SO10 (ISLO 4/ABET j) – Societal and Global Context*
  - *Met*
  - *Do not have a robust data set*



# Assessment results: What have the data told us?

SO	Performance Indicator	Course Measure	Assessment Results		Evaluation	
			Target Achievement	Target for Perf. Ind. And SO	Perf. Ind.	
SO#11 (ABET k) (ISLO 5)	a - submit deliverables on time	CONS 477 - No CLO	Sp18: <b>Exceeded</b>	> 70% = Met	<b>Not Met</b>	
		CONS 203 (?) Team map project	<b>No findings inputted</b>			
		CONS 222 (CLO?)- final project	<b>No findings inputted</b>			
		SOET 250 (CLO?) - weekly chapters	<b>No findings inputted</b>			
	b - Prepare a schedule in CPM format, BIM, or other format/software	CONS 274 (8) critical path	<b>Met</b>	> 70% = Met	<b>Met?</b>	
		CONS 274 (9) scheduling software	<b>Met</b>			
		SOET 250 9 - use software to create schedule	<b>Not assessed</b>			
		SOET 352 (CLO?) - use Navis in BIM to do scheduling	<b>No findings inputted</b>			
		CONS 477 (2) - develop schedule in CPM format	Sp18: <b>Exceeded</b> F18: <b>Exceeded</b>			

# Assessment results: What have the data told us?

SO	Performance Indicator	Course Measure	Assessment Results Evaluation		
			Target Achievement	Target for Perf. Ind. And SO	Perf. Ind.
SO#11 (ABET k) (ISLO 5)	c - Develop and follow a plan for a project	CONS 477 (2) - Schedule - did they stick to it?	Sp18: <b>Exceeded</b>	> 70% = Met	<b>Not Met</b>
		Reflective Narrative	F18: <b>Exceeded</b> Not assessed		
	d - Demonstrate continuous improvement	SOET 250 (6)			
		CONS 387 (CLO12, but not) - term project poster - draft to final, no direct CLO but have evaluation for draft and final	<b>Exceeded</b>		
		CONS 387 (CLO12, but not) - term project abstract - draft to final, no direct CLO but have evaluation for draft and final	<b>Exceeded</b>		
CONS 386 (CLO 0, but not) - term project - draft to final, no direct CLO but have evaluation for draft and final	<b>Exceeded</b>				
	CONS 386 (CLO 0, but not) - term project - draft to final, no direct CLO but have evaluation for draft and final	<b>Exceeded</b>	> 70% = Met	<b>Met</b>	
	CONS 477 (5, but not) - draft to final report, no direct CLO but have evaluation for draft and final	Sp18: <b>Exceeded</b> F18: <b>Exceeded</b>			
	CONS 322 (no CLO) - select HW assignment - is it in the correct format such that it demonstrates over the course of 4-6 semesters the students have learned the proper HW format?	<b>No findings inputted</b>			



# Assessment results: What have the data told us?

- *SO11 (ISLO 5/ABET k) – Quality, Timeliness, and Continuous Improvement*
  - **Not Met**
  - *Did meet 2 of 4 PI's: scheduling and continuous improvement*
  - *Did not meet 2 of 4 PI's: developing a plan and timeliness*
  - *Could be lack of assessment*
  - *Do very well with continuous improvement – drafts, review, and revisions of work. It's easy to measure*
  - *Others PI's are more difficult to assess*

# Assessment results: What have the data told us?

- General:
  - SO9 (ISLO 4/ABET i) – Professionalism, Ethics, and Diversity: **~Met**
  - SO10 (ISLO 4/ABET j) – Societal and Global Context: **Met**
  - SO11 (ISLO 5/ABET k) – Quality, Timeliness, and Continuous Improvement: **Not Met**
  - Not all course assessment data was provided, which made it hard to assess at the program level
  - Not sure how valid our overall SO evaluations are – are those with “Not Met” truly not met?
  - These SO’s are challenging to assess



# Assessment results: What have the data told us?

- Cycle Summary Results:

Student Outcome (ISLO)	Timeline					
	Cycle 3		Cycle 4			
	Spring '16 - Fall '16	Spring '17 - Fall '17	Spring '18 - Fall '18	Spring '19 - Fall '19	Spring '20 - Fall '20	Spring '21 - Fall '21
SO#1 (ISLO 5)	Met			X		
SO#2 (ISLO 3)	Met			X		
SO#3 (ISLO 2+5)	Exceeded			X		
SO#4 (ISLO 2+5)	Met			X		
SO#5 (ISLO 4)		Met			X	
SO#6 (ISLO 2)		Met			X	
SO#7 (ISLO 1)		Exceeded			X	
SO#8 (ISLO 5)		Met			X	
SO#9 (ISLO 4)			~Met			X
SO#10 (ISLO 4)			Met			X
SO#11 (ISLO 5)			Not Met			X

# Assessment results: What have the data told us?

- ISLO's:

	ISLO's	Program SO's	Outcome
ISLO 1	Communication:	SO7	Exceeded
ISLO 2	Critical Thinking:	SO3, SO4, SO6	Exceeded, Met, Met
ISLO 3	Foundation Skills	SO2	Met
ISLO 4	Social Responsibility Industry, Professional, Discipline-Specific	SO5, SO9, SO10 SO1, SO3, SO4, SO8,	Met, ~Met, Met
ISLO 5	Knowledge and Skills	SO11	Met, Met, Met, Met, Not Met

**\*\* Don't think ISLO's should be evaluated at the program level – should be at institutional level, using program assessment data \*\***

# Assessment results: What have the data told us?

- What the Program Assessment Didn't Show:
  - Program assessment does not show problems that relate to introductory level/pre-req. courses, which impact retention (e.g. CONS 172+CONS 272).
  - Currently working with faculty to summarize key assessment results for this evaluation



Data-driven decisions: How the program has or plans to “close the loop” based on these results.

- Reassess SO’s 9, 10, and 11 in the upcoming cycle
- Program Taskstream to include program SO related assessment needs that are not course learning outcomes
- Evaluate course curriculum to better align with these program SO’s
- Develop new curricular content
- Develop better rubrics to properly assess



# What resources were used or have been requested to close the loop?

- **TIME**

- Need time for:

- Faculty to collectively evaluate course learning outcomes and Course ↔ Program outcome assessment mapping
- Faculty to assess their courses
- Faculty to import their course data into Taskstream
- Program coordinator to generate the required assessment reports.
- Faculty to collectively evaluate program assessment data and discuss continuous improvement action items
- Faculty to improve their courses and work on continuous improvement action items

- There is not enough time due to:

- Collective and increasing demands put upon faculty (e.g. heavy teaching loads, recruiting, committees, service, assessment, scholarly activity, new program development, etc.)

- Request consideration of the following:

- 3 credit hour release time EACH SEMESTER for the Program Coordinators
- All faculty's load to be considered full-time (12 credits or 15-17 contact hours) be reevaluated – consider reducing cumulative contact hour load of 30-34 /academic year to 24 /academic year, in-line with other 4-year comprehensives.

# What resources were used or have been requested to close the loop?

- **Allocation of department funds:**

- Must maintain or increase current budget – given previous year's cuts! We don't have enough \$ to run classes!
- We will start to "Not Meet" program SOs if we don't have the materials we need. Our Program assessment this year and last did not show the budget strain because it's not related to labs/equipment/materials.
- Need to replenish materials used for testing and experiments and get new equipment in order to keep Meeting SO1, SO3, and SO4

- **Additional Funds Requested Based on Program Assessment:**

- \$2,100 for scanners: ~ \$300/scanner x 7 faculty in department, to improving assessment process (time and ensuring data is obtained)
- No funds needed related to SO's 9, 10, and 11
- \$ for classroom code books related to previous year's assessment (getting quote)
- Program discussion is currently ongoing regarding course assessment that indicated a need for funding that was not detected at the program level of assessment. Any needs not yet identified will be presented in the final report.



# Follow-Up on Previous Continuous Improvement Action Items

- Sp'15-F'15:
  - ...
- Sp'16-F'16
  - ...

Coming soon! Need to meet and discuss with faculty.



# Follow-Up on Previous Resource Allocations

- **Sp'15-F'15**
  - Funding Received: for structural design code books.
  - How Used: Timber and steel design code books were purchased and are now being used.
  - Still needed: Not all of funds were used within allotted time. Code books for reinforced concrete still needed.
- **Sp'16-F'16**
  - Funding Received: for faculty plotter.
  - How Used: Plotter is up and functional in Nevaldine South. Great!
- **Sp'17-F'17**
  - Funding Received: None requested

**THANK YOU!**

# Attachments: 2018 SLO Findings



# SO #9 - Assessment Findings Data

SO	Performance Indicator	Course Measure	Target	Assessment Results		Evaluation	
				Summary of Findings	Target Achievement	Target for Perf. Ind. And SO	Perf. Ind.
SO#9 (ABET i) (ISLO 4)	a - Understand professionalis m, ethics, and diversity as related to the roles and responsibilities of individuals, public institutions, and private organizations	CONS 477 (no CLO Sp18, new CLO F18 - CLO9) - Reflective Narrative (professionalism)	70% will score 70% or better	Sp18: 4/5 (85%) scored > 70% F18: 2/2 (100%) scored > 70% Reflective Narrative - both got 100% overall and on this specific section	Sp18: Exceeded F18: Exceeded	> 70% = Met	Met
		ASCE bridge team - Mead Paper (professionalism)	Will prepare and present well at ASCE regional competition.	Sp18: Sara O'Duffy presented paper on "How does the personal and professional use of social media relate to the ASCE Code of Ethics?" Performed and answered questions very well in front of judge panel.	Met		
		CONS 322 (no CLO) - select HW assignment - is it in the correct format such that it demonstrates over the course of 4-6 semesters the students have learened the proper HW format?	No findings inputted	No findings inputted	No findings inputted		
		CONS 391 (CLO - ?) - term paper on professionalism	70% will score 70% or better	7/13 students achieved 100%	Exceeded		
	CONS 274 (CLO1) - bidding/letting (professionalism)	70% of students will provide correct responses to questions 2,6,15,22	15/26 answered questions correctly that related to project delivery and contracts. students have a hard time understanding the role that each party plays in a construction contract.	Not Met			

# SO #9a - Assessment Findings Data

SO	Performance Indicator	Course Measure	Assessment Results		Evaluation				
			Target	Summary of Findings	Target Achievement	Target for Perf. Ind. And SO	Perf. Ind.	Perf. Ind.	
SO#9 (ABET i) (ISLO 4)	a - Understand professionalism, ethics, and diversity as related to the roles and responsibilities of individuals, public institutions, and private organizations	CONS 477 (no CLO) - Reflective Narrative (ethics)	70% will score 70% or better	Sp18: 4/5 (85%) scored > 70% F18: 2/2 (100%) scored > 70% Reflective Narrative - both got 100% overall and on this specific section	Sp18: Exceeded F18: Exceeded				
		SOET 377 (CLO 2 - assignment on ethics)	80% of students are expected to score 80% or higher on case studies	85% of students scored 90% or higher on case analysis for moral issues and respect for code of ethics. Target was exceeded and therefore improvement is not needed at this time. Number of students : 21	Exceeded				
		CONS 391 (CLO - ?) - codes (ethics)	70% will score 70% or better	7/13 students achieved 100%	Exceeded		> 70% =	Met	Met
		ASCE bridge team - Mead Paper (ethics)	Will prepare and present well at ASCE regional competition.	Sp18: Sara O'Duffy presented paper on "How does the personal and professional use of social media relate to the ASCE Code of Ethics?" Performed and answered questions very well in front of judge panel.	Met				
		CONS 274 (CLO2) - ethical issues	70% of students will be able to determine ethical problems as they relate to construction	23/26 students responded adequately and demonstrated their understanding of the role that ethics can play in construction. 3 students did not submit for a grade.	Exceeded				



# SO #9a - Assessment Findings Data

SO	Performance Indicator	Course Measure	Assessment Results		Evaluation Target for Perf. Ind. Perf. And SOInd.		
			Target	Summary of Findings	Target Achievement	Perf. Ind. Perf. And SOInd.	
SO#9 (ABET i) (ISLO 4)	a - Understand professionalism, ethics, and diversity as related to the roles and responsibilities of individuals, public institutions, and private organizations	SOET 377 (CLO3 - diversity)	80% of students are expected to score 80% or higher on case studies assignment.	85% of students scored 90% or higher on case analysis. Target was exceeded, and as such, there will be no course improvement. Number of students: 20	Exceeded	> 70% = Met	Met ?
		CONS 274 (CLO ) - use of WBE and MBE for public bidding and award (diversity)	Not Assessed	Not Assessed	Not Assessed		



# SO #9b - Assessment Findings Data

SO	Performance Indicator	Course Measure	Assessment Results			Evaluation	
			Target	Summary of Findings	Target Achievement	Target for Perf. Ind. And SO Ind.	Perf.
SO#9 (ABET i) (ISLO 4)	b - Understand the roles and responsibilities of individuals, public institutions, and private organizations	CONS 477 (no CLO) - 70% will score 70% or better	70% will score 70% or better	Sp18: Not assessed F18: 2/2 (100%) scored > 70% Final report - both got 95% standards and regulations + contacted DEC for information regarding permitting, discussed process	Sp18: Not assessed F18: Exceeded	> 70% = Met	Not Met
		CONS 280 (no CLO) - 70% will score 70% or better	70% will score 70% or better	Not done this F18 offering, so not evaluated	Not Assessed		
		CONS 387 (CLO I - Lab on this topic) 70% will score 70% or better	70% will score 70% or better	Sp18 - CONS 387 - CLO1: 18/29 (94.74%) scored > 70% class average = 93.68% +/- 22.90%	Sp18 - CONS 387: Exceeded		
		CONS 274 (CLO3) - roles and responsibilities	80% of students will produce a flow diagram that correctly portrays the relationships involved	21/26 students submitted and received at least a min. grade of 80% for this activity. additional real world examples would be beneficial for the students to be exposed to.	Met		
		CONS 274 (CLO1) - bidding/letting	70% of students will provide correct responses to questions 2,6,15,22	15/26 answered questions correctly that related to project delivery and contracts. students have a hard time understanding the role that each party plays in a construction contract.	Not Met		
	CONS 391 (CLO - ?)	Not assessed	Not assessed	Not assessed			

# SO #10 - Assessment Findings Data

SO	Performance Indicator	Course Measure	Assessment Results		Evaluation	
			Target	Summary of Findings	Target Achievement	Target for Perf. Ind. And Perf. SO Ind.
SO#10 (ABET j) (ISLO 4)	Have knowledge of the impact of engineering technology solutions in a societal and global context	CONS 477 (no CLO) - 70% will score Reflective Narrative	70% or better	SP18: 4/5 (85%) scored > 70% F18: 2/2 (100%) scored > 70% Reflective Narrative - both got 100% overall and on this specific section	Sp18: Exceeded F18: Exceeded	> 70% = Met Met
		CONS 387 (no CLO) - 70% of students HW related to global awareness - Cape Town, South Africa water crisis	70% of students will score > 70%	15 of 19 (78.95%) scored > 70% class average = 75.37% +/- 21.72%	Met	
		SOET 377 (CLO4 - global awareness)	80% of students are expected to score 80% or higher for both term paper and PowerPoint presentation.	90% of students scored 85% or higher on student research papers with Global Engineering Ethics component. The expected target was exceeded, and there is no need for improvement plans. NO. of students in class: 23	Exceeded	
		CONS 391 (CLO - ?)	Not assessed	Not assessed	Not assessed	



# SO #11a - Assessment Findings Data

SO	Performance Indicator	Course Measure	Assessment Results			Evaluation		
			Target	Summary of Findings	Target Achievement	Target for Perf. Ind. And Perf. SO	Ind.	
SO#11 (ABET k) (ISLO 5)	a - submit deliverables on time		70% will score 70% or better	SP18: 4/5 (85%) scored > 70% F18: 2/2 (100%) scored > 70% Reflective Narrative - both got B+ . students correctly stated that about 3/4 of deadlines were met. However, project did change and evolve. Met key deadlines and final deadlines.	Sp18: Exceeded F18: Met	> 70% = Met	Not Met	
		CONS 477 - No CLO better	No findings inputted	No findings inputted	No findings inputted			
		CONS 203 (?) Team map project	No findings inputted	No findings inputted	No findings inputted	No findings inputted		
		CONS 222 (CLO?)-	No findings inputted	No findings inputted	No findings inputted	No findings inputted		
		SOET 250 (CLO?) -	No findings inputted	No findings inputted	No findings inputted			



# SO #11b - Assessment Findings Data

SO	Performance Indicator	Course Measure	Assessment Results			Evaluation	
			Target	Summary of Findings	Target Achievement	Target for Perf. Ind. And Perf. SO Ind.	
SO#11 (ABET k) (ISLO 5)	b - Prepare a schedule in CPM format, BIM, or other format/software	CONS 274 (8) critical path	70% of students will be able to create a logic network, identify the critical path through network, and adjust for float.	22/26 students were able to develop a logic network and identify the critical path through the network. 16/26 students were able to correctly identify an activities free float.	Met		
			70% of students will score at least 70%	Students were given a project to schedule using Microsoft Project, the project was initialized during lecture. Students were required to complete the scheduling as a project outside of class. 24/26 students produced a simple Gantt chart in MS Project.	Met		
		CONS 274 (9) scheduling software					> 70% = Met < 70% = Not Met
		SOET 250 9 -	75% will score 75 or better	New textbook no longer cover this topic, unable to assess this measure	Not assessed		
		SOET 352 (CLO?) -	No findings inputted	No findings inputted Sp18: 5/5 (100%) scored > 70% F18: 2/2 (100%) scored > 70%	No findings inputted Sp18: Exceeded F18: Exceeded		
	CONS 477 (2) -	70% will score 70% or better	In Project Proposal - score of 90% in correct format				



# SO #11c - Assessment Findings Data

SO	Performance Indicator	Course Measure	Assessment Results		Evaluation		
			Target	Summary of Findings	Target Achievement	Target for Perf. Ind. And SO	Perf. Ind.
SO#11 (ABET k) (ISLO 5)	c - Develop and follow a plan for a project	CONS 477 (2) - Schedule - did they stick to it? Reflective Narrative	70% will score 70% or better	Sp18: 5/5 (100%) scored > 70% F18: 2/2 (100%) scored > 70% Project Proposal - 90% students developed a project proposal and followed it	Sp18: Exceeded F18: Exceeded	> 70% = Met < 70% = Not Met	Not Met
		SOET 250 (6)	75% will score 75 or better	Unable to assess this measure, textbook changed and this was no included	Not assessed		



# SO #11d - Assessment Findings Data

SO	Performance Indicator	Course Measure	Assessment Results		Evaluation	
			Target	Summary of Findings	Target Achievement	Target for Perf. Ind. And SO Perf. Ind.
SO#11	d - Demonstrate continuous improvement	CONS 387 (CLO12, but not) - term project poster - draft to final, no direct CLO but have evaluation for draft and final	70% will improve their score	<p>Draft poster only 11 of 19 (57.89%) scored &gt; 70% class average = 68.74% +/- 20.61%</p> <p>Final poster (graphical) had 18 of 19 (94.74%) scoring &gt; 70% class average = 87.59% +/- 22.08%</p> <p>Final poster (technical content) had 17 of 19 (89.47%) scoring &gt; 70% class average = 82.28% +/- 21.07%</p> <p>great improvement by most: 18/19 improved score by average increase of 16.20% (-5.40 to 49.58%)</p>	Exceeded	
		CONS 387 (CLO12, but not) - term project abstract - draft to final, no direct CLO but have evaluation for draft and final	70% will improve their score	<p>Draft abstract only 10 of 19 (752.63%) scored &gt; 70% class average = 71.42% +/- 20.31%</p> <p>Final abstract had 18 of 19 (94.74%) scoring &gt; 70% class average = 90.95% +/- 23.37%</p> <p>great improvement by most - 100% of class improved score by average increase of 19.53% (0-50%)</p>	Exceeded	
		CONS 386 (CLO 0, but not) - term project - draft to final, no direct CLO	70% will improve	<p>Draft fact sheet only 19 of 23 (82.61%) scored &gt; 70% class average = 77.06% +/- 18.20%</p> <p>Final fact sheet had 22 of 23 (95.65%) scoring &gt; 70% class average = 84.925% +/- 19.56%</p> <p>great improvement by most: 21 of 23 (91%) improved scored by average increase in score of 7.86% / 2.57 to</p>	Exceeded	> 70% = Met