Civil & Environmental Engineering Technology Canino School of Engineering Technology 2017Assessment Report

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SUNY CANTON

What was assessed? Student learning outcomes list:

- *SO5 (ISLO 4/ABET e) Team Leader/Member*
 - Students have the ability to function effectively as a member or leader of a technical team.
- SO6 (ISLO 2/ABET f) Solve Problems
 - Students have the ability to identify, analyze, and solve broadlydefined engineering technology problems.
- SO7 (ISLO 1/ABET g) Communication Skills
 - Students should be able to effectively and professionally communicate...verbal, written, and graphical techniques...ability to identify and use technical literature.
- SO8 (ISLO 5/ABET h) Continuous Professional Development
 - Students should have an understanding for and ability to engage in self-directed continuous professional development.

• *SO5 (ISLO 4/ABET e) – Team Leader/Member*

SO#5 (ABET e) (ISLO 4)	a - Team leader	CONS 101 (j/10) - function on team as member/leader CONS 203 (h) - function on team as member/leader
		CONS 477 (no CLO) – function as team leader
	b - Team member	CONS 101 (j/10) - function on team as member/leader CONS 203 (h) - function on team as member/leader ASCE bridge team - bridge building competition at regionals CONS 477 (no CLO) – function as team member

Where were outcomes assessed? SO6 (ISLO 2/ABET f) – Solve Problems

a - Identify, CONS 477 (4-Fall'17) – identify and propose a solution to a problem analyze, and solve problems CONS 324 (b) – Analyze and select tension members (x-bracing, truss for Civil Eng. members, and threaded rocs) IAW AISC Tech. CONS 370 (c)- Determine the required size of timber beams. CONS 477 (4-Spring '17) – identify and propose a solution to a SO#6 b - Identify, problem analyze, and (ABET f) CONS 385(d) - stream analysis problems (hydrographs and duration solve problems (ISLO 2) curves) for CONS 385 (j) - Apply Theis and Jacob methods to describe groundwater flow and determine aquifer properties Environmental CONS 386(k) - interpret water guality data from lab to solve water Eng. Tech. quality related problem

CONS 322 (g) - calculating flow through hydraulic devices, perform calibration tests and prepare instructions for application of data

• SO7 (ISLO 1/ABET g) - Communication Skills

a - Verbal CONS 477 (6) - oral presentation commun- CONS 385(I) - term project ication CONS 386(o) - term project CONS 324 (b) – Analyze and select tension members (xbracing, truss members, and threaded rocs) IAW AISC **SO#7** CONS 370 (c)- Determine the required size of timber beams. (ABET g) b - Written CONS 477 (5) - prepare standard report (ISLO 1) commun- CONS 385(I) - term project ication CONS 386(o) - term project CONS 324 (b) – Analyze and select tension members (xbracing, truss members, and threaded rocs) IAW AISC CONS 370 (c)- Determine the required size of timber beams.

• SO7 (ISLO 1/ABET g) - Communication Skills

CONS 477 (No CLO) {PLANS/ MAPS/ SPREADSHEETS/ POWERPOINT/ GRAPHS+PLOTS} CONS 385(I) - term project {POSTER/FACT SHEET} CONS 386(o) - term project {POSTER/FACT SHEET} CONS 203 (e) - draw map with Civil 3D {MAP} CONS 203 (e) - draw map with Civil 3D {MAP} CONS 322 (g) - calibration plot {GRAPH/DATA PLOT} CONS 222 (e) - used Excel to make estimating spreadsheet CONS 350 (f) - map in GIS {MAP} SOET 250 (1) - design using BIM {graphic in REVIT} SOET 116 (f) - CADD software, portfolio {CADD DRAWING}

• SO7 (ISLO 1/ABET g) - Communication Skills

,		CONS 477 (1) - perform basic research
SO#7		CONS 385(I) - term project
	d - use of	CONS 386(o) - term project
	technical	CONS 324 (b) – Analyze and select tension members (x-
g)	literature	bracing, truss members, and threaded rocs) IAW AISC
(ISLO 1)		CONS 370 (c)- Determine the required size of timber
		beams.

• SO8 (ISLO 5/ABET h) - Contin. Prof. Development

a - Participate ASCE bridge team - membership stats - Annual Report in industry ASCE bridge team - Mead Paper related ASCE bridge team - resume and job prep meetings activities while at school ASCE bridge team - fall/spring regional conference SO#8 CONS 477 (1) - perform basic research b - Gain (ABET h) familiarity CONS 385(I) - term project with and show CONS 386(o) - term project (ISLO 5) willingness to CONS 274 (4) - use of ENR article. read industry CONS 324 (b) – Analyze and select tension members (xrelated bracing, truss members, and threaded rocs) IAW AISC journals CONS 370 (c)- Determine the required size of timber beams.

How was the assessment accomplished?

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

Assessment results: What have the data told us?

- SO5 (ISLO 4/ABET e) Team Leader/Member
 - Met
 - Not well assessed, few courses (or UD courses) evaluated currently
 - Not directly related to course learning outcomes (e.g. CONS 477) need to get into Taskstream
- SO6 (ISLO 2/ABET f) Solve Problems
 - Met, but barely.
 - Students struggle with just analytical, do better with applied, have a hard time retaining to exam
- SO7 (ISLO 1/ABET g) Communication Skills
 - Exceeded in all 4 areas: oral, written, graphical, and technical literature
 - Lacking some data related to graphical skills, so outcome there could be different
- SO8 (ISLO 5/ABET h) Continuous Professional Development
 - Met
 - Do well, but is hard to assess.
 - A lot of data comes from ASCE bridge team need to get data into Taskstream
 - Not all data related to course learning outcomes (e.g. CONS 477) need to get into Taskstream

Assessment results: What have the data told us?

- General:
 - Not all course assessment data was available in a timely fashion for the Program Coordinator.
 - Not all course assessment data had logical targets or proper assessment data
 - Extracting course data and building the program assessment spreadsheet is very time consuming
 - Program assessment does not always show where there are problems that relate to introductory level/pre-req. courses, which impact retention (e.g. CONS 172+CONS 272). Yes, our graduates do well and meet most program SO's, but who is lost along the way that's not captured in this?

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

- <u>SO5</u>:
 - Need to assess in more UD courses (e.g. CONS 477)
 - Need to build team leader skills into more courses
 - Need to add outcomes into Taskstream, but not necessarily to formal course outline to ensure it's assessed (e.g. CONS 477)
- <u>SO6</u>:
 - Currently discussing continuous improvement actions for this SO
 - May need to create new course content that involved either more hands on application related to problem solving, or demos, which could be funding need.
- <u>SO7</u>:
 - Need to do better assessment of courses related to graphical skills
 - Have been discussing need for more courses/additional credit in curriculum related to graphical skills (e.g. more CADD, more REVIT, hand sketching) – need to finalize these discussions and curriculum changes.
- <u>SO8</u>:
 - Need to create course platform in Taskstream for ASCE Bridge Team
 - Need to add outcomes into Taskstream, but not necessarily to formal course outline to ensure it's assessed (e.g. CONS 477)

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

- <u>General</u>:
 - Faculty need to input data into Taskstream in a timely fashion. This is in part due to work overload. Faculty loading needs to be addressed. May also need to consider an Assessment Day at the end of the semester.
 - Faculty need to input the right information into Taskstream. Need better training in Taskstream. Additional training needs to be provided.
 - Need to update CONS 477 course outline for better use in course assessment
 - Need to add outcomes to courses in Taskstream that relate to program assessment
 - Need to finalize Program SO to Course Learning Outcome mapping and get into Taskstream so it can generate the program reports (assuming the reports are as meaningful as the manual ones)
 - Continue discussions related to CONS 172+272 and other bottle-neck courses and related curriculum changes.

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

- <u>TIME</u>
 - Need time for individual faculty to assess and improve their courses
 - Need time for faculty to import their course data into Taskstream
 - Need time for program faculty to collectively review course learning outcomes and Course ↔
 Program outcome assessment mapping
 - Need time for the program coordinator to generate the required assessment reports.
 - Need time for program faculty to collectively evaluate program assessment data and discuss continuous improvement action items
 - Currently there is not enough time to complete all of the above tasks by current deadlines (e.g. this January symposium)
 - There is not enough time due to the collective demands put upon faculty (e.g. heavy teaching loads, recruiting, committees, service, assessment, new scholarly activity demands, etc.)
 - <u>Request consideration of the following:</u>
 - More reasonable deadlines
 - 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 existing department funds:

- Must maintain/increase current budget at a minimum actually given this year's cuts on top of last year's we need more than allocated! We don't have enough \$ to run classes! We will start to "Not Meet" program SLOs if we don't have the materials we need. We need to at least get back to allocations from two years ago, which were still tight and under what we needed. Our Program assessment this year doesn't show the budget strain because it's not related to labs/equipment/materials.
- Need to replenish materials used for testing and experiments
 – part of why SO3 from previous year's assessment was/is so successful

Additional Funds Requested Based on Program Assessment:

- \$ for scanners: ~ \$200/scanner x 7 faculty in department = \$1400 (see later slide related to improving assessment process)
- Program discussion is currently ongoing regarding this year's program assessment, continuous improvement actions, and associated resources. Any needs not yet identified will be presented in the final report.



**This year's assessment was primarily done on courses at the end of the program. Additional continuous improvement resources may be needed to address the 100/200 level courses as well since they greatly impact retention in the program. Program discussion is currently ongoing about this and any needs will be presented in the final report **

Attachments: 2017 SLO Findings



SO5 (ISLO 4/ABET e) – Team Leader/Member **Assessment Findings Data**

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le	ead	de	r	

CONS 101 (i/10) - function on team as member/leader CONS 203 (h) - function on team as member/leader

90% will score of 80% or 31 out of 24 (90%) greater better

70% will score 70% or

better

greater

better

scored 90% or better 75% will be rated 75 or 17 out of 19 scored 75 or better Sp'17: did not evaluate, no findings F'17: did not evaluate, no findings 90% will score of 80% or 31 out of 34 (90%) scored 90% or better 75% will be rated 75 or 17 out of 19 scored 75 or better

will place in regionals

70% will score 70% or better

Placed 2nd in Regionals and 7th in Nation Sp'17: did not evaluate, no findings F'17: did not evaluate, no findings

SO#5 b - Team (ABET e) member (ISLO 4)

CONS 477 (no CLO) CONS 101 (j/10) - function on team as member/leader CONS 203 (h) - function on team as member/leader ASCE bridge team - bridge buiding competition at regionals

CONS 477 (no CLO)

SO5 (ISLO 4/ABET e) – Team Leader/Member Evaluation and Continuous Improvement

a - Team leader	CONS 101 (j/10) - function on team as member/leader CONS 203 (h) - function on team as member/leader CONS 477 (no CLO)	Met Exceeded No Findings	> 70% = Met < 70% = Not Met	3/3 Met or Exceeded	
b - Team member	team as member/leader	Met			Met
	CONS 203 (h) - function on team as member/leader ASCE bridge team - bridge buiding competition at	Met	> 70% = Met < 70% = Not Met	2/2 Met or Exceeded	
	regionals	Exceeded No			
	a - Team leader b - Team member	a - Team leaderCONS 101 (j/10) - function on team as member/leader CONS 203 (h) - function on team as member/leaderb - Team memberCONS 477 (no CLO) CONS 101 (j/10) - function on team as member/leader CONS 203 (h) - function on team as member/leader ASCE bridge team - bridge buiding competition at regionalsCONS 477 (no CLO) CONS 203 (h) - function on team as member/leader	a - Team leaderCONS 101 (j/10) - function on team as member/leader CONS 203 (h) - function on team as member/leaderMetb - Team memberCONS 477 (no CLO) CONS 101 (j/10) - function on team as member/leaderMetc CONS 203 (h) - function on team as member/leaderMetb - Team memberMetc CONS 203 (h) - function on team as member/leaderMetc CONS 477 (no CLO)Exceeded No	a - Team leaderCONS 101 (j/10) - function on team as member/leader CONS 203 (h) - function on team as member/leaderMet> 70% = Met < 70% = Not Metb - Team memberCONS 477 (no CLO) CONS 101 (j/10) - function on team as member/leaderMet> 70% = Met < 70% = Not Metb - Team memberCONS 101 (j/10) - function on team as member/leader CONS 203 (h) - function on team as member/leaderMet> 70% = Met < 70% = Not Metb - Team memberCONS 101 (j/10) - function on team as member/leader CONS 203 (h) - function on team as member/leaderMet> 70% = Met < 70% = Not Metc CONS 203 (h) - function on team as member/leader ASCE bridge team - bridge buiding competition at regionalsMet> 70% = Met < 70% = Not MetC CONS 477 (no CLO)Exceeded NoNoMet> 70% = Met < 70% = Not Met	a - Team leaderCONS 101 (j/10) - function on team as member/leader CONS 203 (h) - function on team as member/leaderMet>70% = Met3/3 Met or Exceeded Metb - Team memberCONS 477 (no CLO) CONS 101 (j/10) - function on team as member/leaderFindings>70% = Not Met3/3 Met or Exceeded Metb - Team memberCONS 477 (no CLO) CONS 101 (j/10) - function on team as member/leader CONS 203 (h) - function on team as member/leader ASCE bridge team - bridge buiding competition at regionalsMet>70% = Met 2/2 Met or Exceeded Met

<u>Continuous Improvement</u>: Need to assess better towards end of degree. Need to evaluate students in CONS 477 at a minimum. Student regularly work as a team member - easier to assess - pick some 300-level projects to evaluate this outcome for member. Need to determine where we are having students work on leadership skills to better evaluate this indicator.

SO6 (ISLO 2/ABET f) – Solve Problems Assessment Findings Data

SO#6 (ABET f) (ISLO 2)	a - Identify, analyze, and solve	CONS 477 (4) - identify and propose solution to problem CONS 324 (b?) - which CLO is the term project?	Class average of 80% or better Class average of 80% or better	S'17: 100% of students scored 80% or better F'17: 83% average, 100% students scored 80% or better Class average 87.75%
	problems for civil eng. tech. b - Identify, analyze, and solve problems for environmental eng. tech.	CONS 370 (c?) - which CLO is the term project? CONS 477 (4) - identify and propose solution to problem CONS 385(d) - stream analysis problems (hydrographs and duration curves)	70% higher on the scores Class average of 80% or better 70% will score 70% or higher	e Class average 83.6% S'17: 100% of students scored 80% or better F'17: 83% average, 100% students scored 80% or better Exam 2, Problems 1-6; Class average = 69.09% 7 of 15 (46.67%) scored 70% or greater Lab 7 Stream Analysis; class average = 85.87% +/- 7.02%
		CONS 385 (j) - Apply Theis and Jacob methods to describe groundwater flow and determine aquifer properties	70% will score 70% or higher	15 out of 15 (100%) scored > 70% Final Exam, Problems 2; Class average = 60.83% 8 of 15 (53.33%) scored 70% or greater Lab; class average = 74.7% +/- 31.017.54% 12 out of 15 (80%) scored > 70% Exam 1: MC 21-24, 26-30, 33, 35; SA 2-4
		CONS 386(k) - interpret water quality data from lab to solve water quality related problem	70% will score 70% or higher	Class average: 74.7% 7 of 13 (54%) scored 70% or greater Lab 11+12 Metals: class avg: 78.77% +/- 27.05% # scoring > 70%: 10 out of 13 % scoring > 70%: 76.92% Lab 2 Basic Water Quality; class avg: 78.94% +/- 13.54% # scoring > 70%: 10 out of 13 % scoring > 70%: 76.92%
		CONS 322 (g) – calculate flow, perform calibrate test and prepare instructions for application of calibration data	e 70% will score 70% or higher	Venturi Lab: 5/10 on lab, 0/10 on instruction Weir Lab: 6/10 on lab

SO6 (ISLO 2/ABET f) – Solve Problems Evaluation and Continuous Improvement

	a - Identify, analyze, and solve problems for civil eng.	CONS 477 (4) - identify and propose solution to problem CONS 304 (h?) - which CLO is the term project? CONS 324 (b?) - which CLO is the term project?	Exceeded Exceeded Exceeded	> 70% = Met < 70% =	4/4 Met of Exceeded	
	tech.	CONS 370 (c?) - which CLO is the term project? CONS 316 (f?) - which CLO is the term project?		NUT WEL		
	b - Identify, analyze, and	CONS 477 (4) - identify and propose solution to problem	Exceeded Exceeded			
SO#6	solve problems for environmental eng. tech.	CONS 385(d) - stream analysis problems Not Met				
(ABET f)		CONS 385 (j) - Apply Theis and Jacob methods to	Not Met	> 70% = Met 6/10 Me < 70% = or Not Met Exceede		Met
(13LU 2)		describe groundwater flow and determine aquifer properties	Met		6/10 Met or Exceeded	
		CONS 386(k) - interpret water quality data from lab to solve water quality related problem	Not Met Met Met			
		CONS 387(10) - conduct, analyze, and interpret jar test data to determine coagulant dose for water treatment				
		CONS 322 (g) – calculate flow, perform calibrate test and prepare instructions for application of calibration data	Not Met			

<u>Continuous Improvement</u>: Barely Met. Students tend to do better on assignments + labs. Exams provide mixed results. Hands-on/field labs seem to reinforce better. Analytical only lab material is harder for them come exam time. Try to find more ways to make material applied?

SO7 (ISLO 1/ABET g) - Communication Skills Assessment Findings Data

	a - Verbal communicati	CONS 477 (6) - oral presentation	S'17: Class average 80% or better F'17: Class average 80% or better	S'17: $3/3$ scored 90% or greater F'17: Class average 92% class average = 90.62% +/- 6.05%
	on	CONS 385(I) - term project	70% will score 70% or higher	15 of 15 (100%) scored >/= 70% class avg: 89.92% +/- 7.05% # scoring > 70%: 13 out of 13
		CONS 386(o) - term project CONS 324 (b?) - is there a term project presentation? Is this the CLO's	70% will score 70% or higher	% scoring > 70%: 100%
SO#7		for the design project? CONS 370 (c?) - is there a term project presentation? Is this the CLO's	Class average of 80% or better	Class average 87.75%
(ADET g)		for the design project?	Class average of 80% or better	Class average 83.6%
(ISLO 1)	h -Written	CONS 477 (5) - prepare standard	S'17: Class average 80% or better	S'17: 3/3 scored 90% or greater
	communicati	report	F'17: Class average 80% or better	F'17: Class average 86% class average = 83.48% +/- 10.02%
	on	CONS 385(I) - term project	70% will score 70% or higher	12 of 15 (80%) scored >/= 70% class avg: 89.92% +/- 7.05% # scoring > 70%: 13 out of 13
		CONS 386(o) - term project CONS 324 (b?) - Is this the CLO's for	70% will score 70% or higher	% scoring > 70%: 100%
		the design project? CONS 370 (c?) - Is this the CLO's for	Class average of 80% or better	Class average 87.75%
		the design project?	Class average of 80% or better	Class average 83.6%

SO7 (ISLO 1/ABET g) - Communication Skills

Assessment Findings Data

	С -	CONS 477 (No CLO) - no course learning	0				
	Graphical	outcome - need to evaluate separately from					
	Graphical	standard report	standard report				
	skills	{PLANS/MAPS/SPREADSHEETS/POWERPOIN	S'17: Class average 80% or better	S'17: 3/3 scored 90% or greater			
		T/GRAPHS+PLOTS}	F'17: Class average 80% or better	F'17: Class average 86%			
				class average = 83.48% +/- 10.02%			
		CONS 385(I) - term project {FACT SHEET}	70% will score 70% or higher	12 of 15 (80%) scored >/= 70%			
				class avg: 89.92% +/- 7.05%			
				# scoring > 70%: 13 out of 13			
		CONS 386(o) - term project {POSTER}	70% will score 70% or higher	% scoring > 70%: 100%			
				4 parties of 6 (67%), encompassing			
		CONS 203 (e) - they make a map with Civil		13 of 19 (68%) students in the class,			
		3D {MAP}	80% will score 80% or higher	submitted grade "A" maps.			
		CONS 322 (d/4?) - calibrate pressure gauge		7 of 10 provided reasonable			
SO#7		and prepare instructions for application of		instructions although it took most of			
ARFT σ)		calibration data	70% will score 70% or higher	them 2 attempts			
		CONS 222 (e) - used Excel to make					
ISLO I)		estimating spreadsheet					
		CONS 350 (f) - map in GIS {MAP}	No Measure in Tasktream -adjunc	tNo Findings			
		SOET 250 (a?) - graphical skillsusing REVIT	90% should exceed	100% exceeded			
		SOET 116 (f) - CADD software, portfolio					
		{CADD DRAWING}	90% should exceed	No Findings			
	d - use of	CONC(477(4)) we affer the sign reasonable	Class surges of 200% on botton	Sp 17: 100% scored 90% or greater			
	technical	CONS 477 (1) - perform basic research	Class average of 80% or better	F 17: average of 85%			
	literature	CONC 205(I) to me project use of tech lit	70% of class will score 70% or	class average 86.9%, / of / (100%)			
	incrature	CONS 385(I) - term project - use of tech lit.	Tigher	got 70% of greater			
		CONS 286(a) term project use of tech lit	70% Of Class Will Score 70% Of	class average 82.2% , 12 01 15 (80%)			
		CONS 380(0) - term project - use of term. Int.	liigilei	got 70% of greater			
		cons 524 (!) is this the CLO's for the design	Class average of 80% or bottor	Class average 87 75%			
		CONS 270 (2) is this the $CIO's$ for the design	Class average of 80% of Deller	Class avelage 01.13/0			
		project? Do they use technical literature?	Class average of 80% or better	Class average 83.6%			
		project. Do they use teenhear iterature:	class average of 0070 of Detter	0.000 0.000			

SO7 (ISLO 1/ABET g) - Communication Skills Evaluation and Continuous Improvement

	a - Verbal		Exceeded			
	commun.	CONS 477 (6) - oral presentation	Exceeded			
		CONS 385(l) - term project	Exceeded			
		CONS 386(o) - term project	Exceeded	> 70% =		
		CONS 324 (b?) - is there a term		Met	6/6 Met or	
		project presentation? Is this the		< 70% =	Exceeded	
		CLO's for the design project?	Exceeded	Not Met		
SO#7		CONS 370 (c?) - is there a term				
ABFT g)		project presentation? Is this the				Exceeded
(SIO1)		CLO's for the design project?	Exceeded			EXCECUEU
	b -Written	CONS 477 (5) - prepare standard	Exceeded			
	commun.	report	Exceeded			
		CONS 385(l) - term project	Met	> 70% =		
		CONS 386(o) - term project	Exceeded	Met	6/6 Met or	
		CONS 324 (b?) - Is this the CLO's for		< 70% =	Exceeded	
		the design project?	Exceeded	Not Met		
		CONS 370 (c?) - Is this the CLO's for				
		the design project?	Exceeded			

SO7 (ISLO 1/ABET g) - Communication Skills Evaluation and Continuous Improvement

	C -	CONS 477 (No CLO) - no course learning outcome - need to				
	Graphical	evaluate separately from standard report	Exceeded			
	ckille	{PLANS/MAPS/SPREADSHEETS/POWERPOINT/GRAPHS+PLOTS}	Exceeded			
	SKIIIS	CONS 385(I) - term project {FAC1 SHEE1}	Met			
		CONS 386(o) - term project {POSTER}	Exceeded	> 70% =		
		CONS 203 (e) - they make a map with Civil 3D {MAP}	Not Met	Met 6	/7 Met or	
		CONS 322 (d/4?) - calibrate pressure gauge and prepare instructions for application of calibration data	Met	< 70% = Exceeded Not Met		
SO#7		CONS 222 (e) - used Excel to make estimating spreadsheet				-
(ABET g)		CONS 350 (f) - map in GIS {MAP}				Exceed
$(S \cap 1)$		SOET 250 (a?) - graphical skillsusing REVIT	Met			ed
		SOET 116 (f) - CADD software, portfolio {CADD DRAWING}				
	d - use of		Exceeded			
	tochnical	CONS 477 (1) - perform basic research	Exceeded			
	technicar	CONS 385(I) - term project - use of tech lit.	Exceeded	> 70% =		
	literature	CONS 386(o) - term project - use of tech. lit.	Met	Met 6 c	of 6 Met or	
		CONS 324 (?) Is this the CLO's for the design project? Do they use		< 70% = E	xceeded	
		technical literature?	Exceeded	Not Met		
		CONS 370 (?) Is this the CLO's for the design project? Do they use				
		technical literature?	Exceeded			

<u>Continuous Improvement</u>: We do this very well – if anything we spend too much time on aspects of it. Need to make more manageable. Need better Communication Manual so there's clear expectations.

SO8 (ISLO 5/ABET h) - Contin. Prof. Develop. Assessment Findings Data

	a - Participate in			had membership of 23, incrased to 40
	industry related	ASCE bridge team - membership stats - Annual Report	increase membership by 30%	(243% of goal met), all are members of ASCE
	activities while at		submit Mead Paper into	paper was submitted and presented
	school	ASCE bridge team - Mead Paper	competition	at regional conference
		ASCE bridge team - resume and job prep meetings	development meetings by 33%	increased from 3 to 4 meetings (100% of goal met) chapter attended both fall and spring
		ASCE bridge team - participate in regional ASCE meetings	participate in regional ASCE meetings compete and rank in	meetings. Spring meeting was hosted at Canton.
50#8		ASCE bridge team - fall/spring regional conference	regional and national conference	ranked 2nd in region and placed 7th in nation (3rd in efficiency)
SLO 5)	b - Gain familiarity with	research	better	100% scored 80% or better
,	and show	CONS 385(I) - term project	70% of the class will score 70% or higher	11 out 15 (73.33%) scored 70% or higher
	willingness to		70% of the class will score	13 out of 13 (100%) scored 70% or
	read industry	CONS 386(o) - term project	70% or higher	higher
	related journals			90% of students submitted a properly-formatted summary of a construction management article
			70% of students will score	summary as related to construction
		CONS 274 (4) - use of ENR article.	a 70% or higher	management.
			Class average of 80% or	
		CONS 324 (b?) - use of code books	better	Class average 87.75%
			Class average of 80% or	
		CONS 370 (c?) - use of code books	better	Class average 83.6%

SO8 (ISLO 5/ABET h) - Contin. Prof. Develop. Evaluation and Continuous Improvement

	a - Participate in	ASCE bridge team - membership)			
	industry related	stats - Annual Report	Exceeded			
	activities while at	ASCE bridge team - Mead Paper	Exceeded	> 700/ -		
	school	ASCE bridge team - resume and		> /0% =	5 of 5 Met	
		job prep meetings	Exceeded		or	
		ASCE bridge team - participate		$\times 70\%$ –	Exceeded	
		in regional ASCE meetings	Exceeded	NUT MEL		
		ASCE bridge team - fall/spring				
SO#8		regional conference	Exceeded			
ABET h)	b - Gain familiarity	CONS 477 (1) - perform basic				Met
(ISLO 5)	with and show	research	Exceeded			
	willingness to	CONS 385(l) - term project	Met			
	read industry	CONS 386(o) - term project	Exceeded	> 70% =		
	related journals	CONS 274 (4) - use of ENR		Met	6/6 Met or	
		article.	Exceeded	< 70% =	Exceeded	
		CONS 324 (b?) - use of code		Not Met		
		books	Exceeded			
		CONS 370 (c?) - use of code				
		books	Exceeded			

<u>Continuous Improvement</u>: Need to get the Bridge Team related items into Taskstream.

Assessment Cycle

9	Student	Timeline					
	Outcome		Cycle 3			Cycle 4	
	(ISLO)	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)	Х			x		
	SO#2 (ISLO 3)	X			Х		
	SO#3 (ISLO 2+5)	X			Х		
	SO#4 (ISLO 2+5)	X			Х		
	SO#5 (ISLO 4)		x			x	
	SO#6 (ISLO 2)		x			х	
	SO#7 (ISLO 1)		x			x	
	SO#8 (ISLO 5)		x			х	
	SO#9 (ISLO 4)			Х			X
	SO#10 (ISLO 4)			X			x
	SO#11 (ISLO 5)			Х			x