Construction Technology Management Program/Civil and Construction Technologies Department
Canino School of Engineering Technology
2019 Calendar Year Assessment Report

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Date of Presentation: January 16, 2020

- CTM Program Learning Outcome #6: Student has acquired a variety of professional-related abilities typical of that expected of an entry level technician. These include print reading, quantity take-off, interpretation of schedules and team work.

How was the assessment accomplished?

- Student work assessed:
- CONS111 Commercial Structures: Quantity Calculations performed in Lab and on Exams
- CONS132 Construction Drafting: Print Reading Exercises on HW and Exams
- CONS101 Elementary Surveying: Teamwork as exhibited in Lab
- CONS222 Construction Estimating: Takeoff Work on exams and in projects as well as teamwork
- CONS274: Project Management HW and exam items for cost analyses and Scheduling

Assessment data: Quantity Takeoffs and Estimating

CONS274[1]	Heavy Equipment Selection based on productivity	2016: 11 of 13 (85%)	MET
		2017: 90% scored "perfect"	MET
		2018: 25 of 26	MET
		2019: 21 of 29 (72%)	MET
CONS274 Cost Analysis[1]	Perform Cost Analysis were able to develop a cash flow analysis with reasonable accuracy. Small mathematical errors were made in calculations, due to the quantity and repetitive nature of the calcs. Students demonstrated their understanding of the material.	2016: 11 of 13	MET
		2017: 90%	MET
		2018: Cash Flow on exam 20 of 26 >80%	MET
		2019: 25 of 29 (86%)	MET

Assessment data: Quantity Takeoffs and Estimating

CONS111 Structural Steel takeoff	On exam: Students are expected to be able to identify and perform a material takeoff of structural steel.	2016: 71%	Marginal
		2017: 16 of 19	MET
		2018: 13 of 16	MET
		2019: 9 of 11	MET
CONS111 Soil Quantity Calculations In Lab	Students will estimate the amount a soil that needs to be removed from a utility trench using the average end method. Students will also be expected to determine the soil swell when moving from in-situ to the loose state	2018: 10 of 16	NOT MET
		2019: 9 of 11	MET
CONS111 Soil Quantity Calculations In Lab	perform a series of calculations to determine the amounts of cuts and fills required in various excavation situations. Students will also be required to calculate shrinkage and swell as is relates to soil volume changes, The students will also be graded on their calculation setups	**2018: 13 of 16**	MET
		2019: 9 of 11	MET

Assessment data: Quantity Takeoffs and Estimating

CONS222 Final Project	Project: Perform a detailed estimate including "extension"	2017: All groups submitted an acceptably accurate estimate	MET
		2018: 70%	Not
		2019: 3 of 4 students did fine	MET
			MET

Assessment data: Scheduling

CONS274[1]	Able to use a scheduling software ts produce a simple Gantt chart in MS Project.	2016: 100%	MET
		2017: 90%	MET
		2018: 24/26	MET
		2019: not measured	UNMET
CONS274 Prepares CPM diagram	on exam were able to develop a logic network and identify the critical path through the network were able to correctly identify an activities free float.	2016: 10 of 13 (77%)	MET
		2017: 80%	MET
		2018: 22/26. 16/26	MET
		2019: 28 of 29	MET

Assessment data: Print Reading

CONS132	Print Reading Assessment	No objective summary provided by the instructor over the past 6 years	MET?!

Assessment data: Teamwork

CONS101 Team Work Evaluation[1]	Students will demonstrate their ability to function as a cohesive team throughout the year. They will be required to work as a team to earn a passing grade for each lab. Each student will serve as party leader multiple times through the year, at which point they will be graded on their ability as party chief. Target: 90 % of students will receive a grade > 80% for their role as party chief throughout the year	2019: 15 of 17 2018: 27 of 31 2017: 31/34 2016: 30/33 2015: 95%	MET MET MET MET MET
CONS222 Team Work Evaluation	Students in group work that finished the class demonstrated "good" teamwork on final project	2019: 3 of 4 (75%) CTM Or I could say that 1 of two groups (50%) functioned effectively as a team and in which case the goal is not met…..	MET

Sample Size

- Data has been accumulated over 5 years time.
- Total number of measurements are about 400

Assessment results: What have the data told us?

- The data provided has indicated no distinct weakness in the program with respect to professional attributes.

- One sub-item, Plan Reading Ability, has not been adequately assessed.

- Students seem to have trouble with full blown estimates.

Data-driven decisions: plans to "close the loop" based on results.

- The program director has provided explicit feedback to the instructor who has not provided adequate assessment. The department chair has been informed and requested to take action.

- To improve plan reading and subsequent estimating based on the plans – we will acquire construction plans offered by professional firm.

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

- To improve estimating instruction and performance, an estimating software has been offered form industry for no cost. This was "ordered" 3 months ago but the IS and Dean have not yet installed it.

- Ensure that ample plotter paper is provided to students so that they are able to print copies of the plans provided by industry without restriction.

What changes would you make to the Assessment Process?

- I believe that SUNY Canton does not place enough value on the ultimate goal of our programs: successful employment. The school should conduct and insist on a high rate of return on post graduate surveys and employer evaluation.

- In light of the lack of adequate information cooperation provided by one of my colleagues despite years of training, I think the administration should link participation in assessment to compensation.

- $$ rewarded to operate a program/lass should not be linked to failure of stated outcomes. As this process encourages.