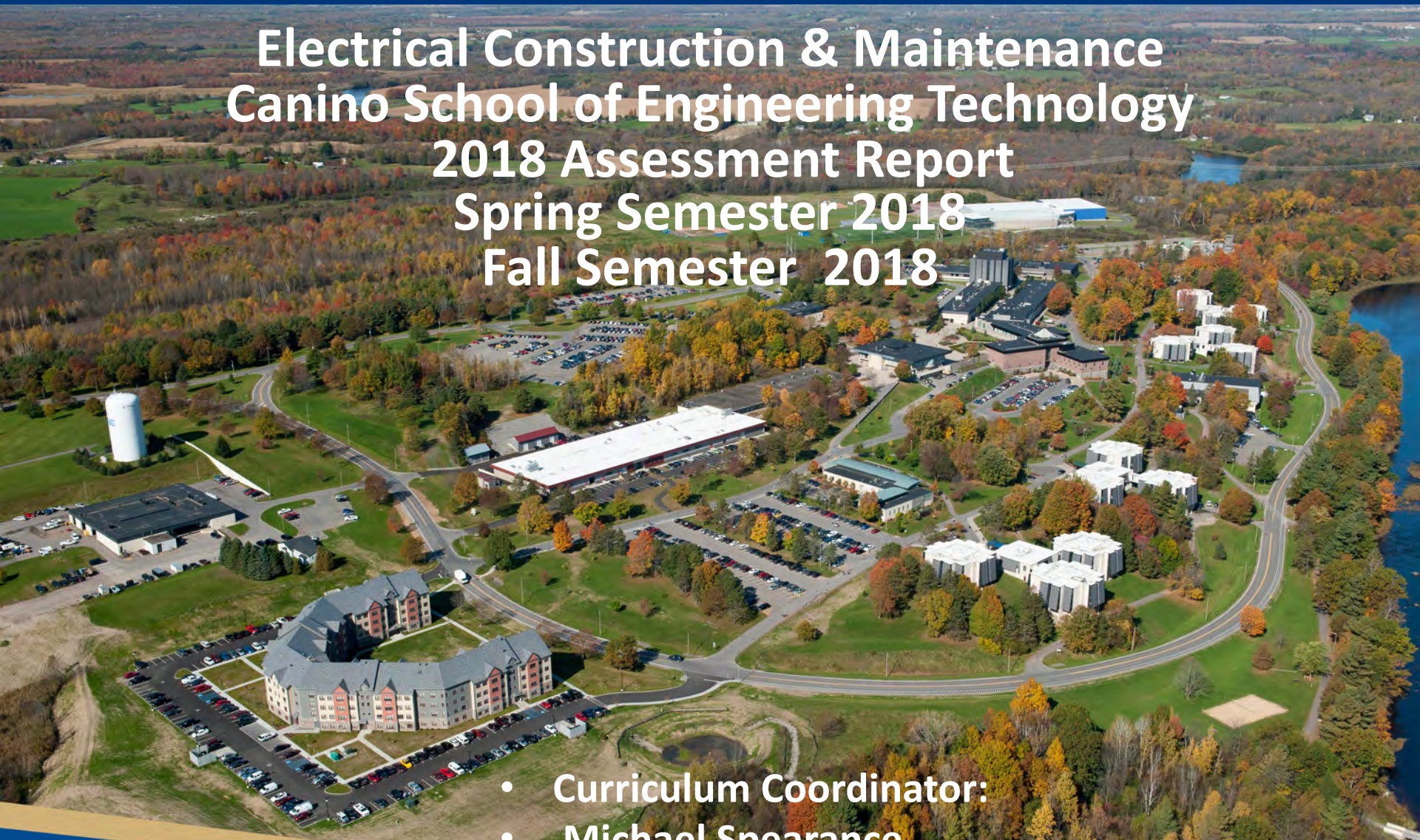
Electrical Construction & Maintenance
Canino School of Engineering Technology
2018 Assessment Report
Spring Semester 2018
Fall Semester 2018



- Curriculum Coordinator:
- Michael Spearance
- Date of Presentation: January 16, 2019

SUNY CANTON

What was assessed? Student learning outcomes list:

- *PSLO 1* – Install Wiring Systems for Residential and Commercial Buildings
- PSLO 2 - Connect electrical devices in accordance with the NEC (National Electrical Code)
- *PSLO 3* - Perform routine maintenance on motors and transformers
- PSLO 4 - Install motor control circuits
  - Assessed Spring 2018

Where were outcomes assessed?

(Just list this cycles, examples below)

- *PSLO 4* - Install motor control circuits

  ELEC 172

How was the assessment accomplished?

- Student work assessed:

  Labs 22, 29 and Machine Shop Electrical Design Project

  Lab 22 THREE PHASE TRANSFORMERS

  Students. in pairs, must identify windings for correct polarity and then connect as per drawing in lab monitored by instructor for safety. Students are then tested individually for the same skills to ensure everyone understands how to perform accurately. Students individually complete lab write-up where they draw and label all connections for hi-low voltage ,delta –wye three phase transformer connections. 70% of the score is based on the individual test out, 30% on the lab write-up.

  Lab 29 THREE PHASE MOTORS

  Each student performs a test out to identify and connect motor leads. Students use multi-meter to identify the components of the motor and proceed to wire accordingly and test it. Instructors supervise the lab performance portion for safety and are corrected as they go if done incorrectly. Students then write up a comprehensive lab with drawings demonstrating the connection and write out conclusion with how it works. Assessment is done on the write-up, specifically on accuracy of the drawings and the conclusion. 70% of the assignment is based on their drawing accuracy, and 30% on the conclusion.

  Machine Shop Electrical Design Final Project

  Each student receives a detailed description of project specifications then designs circuits for single phase and three phase machine motor and motor control. Students will be graded on drawings, pricing components and conclusion describing estimating procedures.

- Measurement strategy:

  Lab performance and design skills

- Sample size:

  All students in the courses - 27 for Spring 2018

Assessment results: What have the data told us?

- *PSLO 4 – Size components then* Install motor
- power and control circuits

Transformer testing lab – Students met the benchmark.

Motor testing lab – Students met the benchmark.

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

- Student performance on these labs met the standard, no changes are planned.
- From prior assessment cycle, increased the weight of the Electrical Design Project to compel more students to participate.
  - In Spring 2017, the class did not meet the target because 6 (of 19) students did not participate in the machine shop final project – 32% of the class.
  - In Spring 2018, only 2 students (of 27) did not participate in the machine shop final project – 7% of the class.

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

– No requests.

Attachments: 2018 SLO Findings

PSLO 4 - Assessment Findings Data

Assessment Results - AACU VALUE Rubric for Communication (Written or Oral)

Subject	Course	Sections Participating	Total Sections	Outcome	Semester
ELEC	172	2	2	Met	Spring

Overall Findings for Communication	
Total Sections Selected for Assessment	2
Total Sections Assessed	2
% Sections Meeting or Exceeding Target (of those assessed)	100%

Recommendations, Reflections, and Notes: