SUNY CANTON

Electrical Construction and Maintenance Program
School of Engineering Technology
Fall 2016 Assessment Report

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What was assessed? Student learning outcomes list:

- *SLO 1 - Install wiring systems and equipment in buildings*
  - *Students will be able to install wiring systems and equipment in residential buildings*
- *SLO 2 - Connect electrical devices in accordance with the NEC (National Electrical Code)*
  - *Students will be able to follow the National Electrical Code for residential electrical applications*

What was assessed? Institutional SLOs

- *AACU Rubrics used for Critical Thinking and Oral Communication*

Where were outcomes assessed?

- *SLO 1 - Installation*

  ELEC 171 (Fall) *ELEC 173 (Fall)*

- *SLO 2 – National Electrical Code Compliance*

  ELEC 171 (Fall) *ELEC 173 (Fall)*

- *ISLO Critical Thinking*

  ELEC 171

- *ISLO Oral Communication*

  ELEC 171

How was the assessment accomplished?

- Student work assessed for CSLO:
  - Lab quizzes
  - Calculations tests
  - Wire sizing tests
  - AC Generation Service Entrance test
  - Peer Assessment Survey
  - Final projects

- Measurement strategy:
  - % of questions answered correctly on calculations exams, quizzes, and other tests.
  - Sample size:
    - All students (20 majors and 1 non-major)

How was the assessment accomplished?

- Student work assessed for ISLO:
  - PowerPoint presentation on alternative energy (Oral Communication)
  - Lab Install (Critical Thinking)

- Measurement strategy:
  - AACU VALUE Rubrics

SLO 1 – Installation Assessment Results

SLO 1 - Install wiring systems and equipment in buildings.									
	Measures	**Not Met**		**Met**		**Exceeded**			
	N	**N**	**%**	**N**	**%**	**N**	**%**		
All Courses	**9**	**-**	**-**	**-**	**-**	**9**	**100%**		
ELEC 171	2	-	-	-	-	2	100%		
ELEC 173	7	-	-	-	-	7	100%		

SLO 2 – National Electrical Code Assessment Results

SLO 2 - Connect electrical devices in accordance with the NEC (National Electrical Code).									
	Measures	**Not Met**		**Met**		**Exceeded**			
	N	**N**	**%**	**N**	**%**	**N**	**%**		
All Courses	**1**	**-**	**-**	**-**	**-**	**1**	**100%**		
ELEC 171	1	-	-	-	-	1	100%		

ISLO Communication

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

Subject	Course	Sections Participating	Outcome
ELEC	171	1	Exceeded

Electrical Construction and Maintenance Courses - Overall Findings for Communication

Total Sections Selected for Assessment	1
Total Sections Assessed	1
% Sections Meeting or Exceeding Target (of those assessed)	100%

Recommendations, Reflections, and Notes:

Poor scores were received most often in the language section of the rubric, with 5 students receiving a score of 7 or less. These students did not present with a clear sentence structure and their language choices were too casual and more text-like and there was no real flow to the presentation.

The way the program is designed, students take their English course in their second semester rather than their first. This might have an impact on their ability to do written and oral communication projects in their first semester.

ISLO Critical Thinking

Assessment Results - AACU VALUE Rubric for Critical Thinking

Subject	Course	Sections Participating	Outcome
ELEC	171	1	Exceeded

Electrical Construction and Maintenance Courses - Overall Findings for Communication

Total Sections Selected for Assessment	1
Total Sections Assessed	1
% Sections Meeting or Exceeding Target (of those assessed)	100%

Recommendations, Reflections, and Notes:

Students who received low marks primarily scored low in explanation and conclusion. This assessment was done on the first written lab installation in the semester, though, and this might be due to inexperience with writing labs and lack of familiarity with the process. In the future, I will offer a lab write-up format guide for students so they can perform better on the lab

Assessment results: What have the data told us?

- SLO 1 – Install wiring systems
  - Last year, students struggled the most on drawing line and cable diagrams (ELEC 171 lab component)
    - Students did much better on this SLO this year following the acquisition of the projector.
- SLO 2 – National Electrical Code
  - Students performed well on this SLO
- ISLO Critical Thinking
  - Students need additional work on writing explanations and conclusions. Will provide write-up format guide to assist students in future semesters
- ISLO Communication
  - May need to move English to the 1st semester of the program as they are weak in the fall due to lack of English instruction.

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

- Add write-up format guide to ELEC 171 to assist with Critical Thinking performance
- Potentially move English to the 1st semester

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

- Needed resources received last cycle.

Changes to the Assessment Process

- Both rubrics could be improved to better fit applied and certificate programs.