

Mechanical Engineering Technology, BT Canino School of Engineering Technology 2018 Assessment Report

- Curriculum Coordinator: D. Miller
- Date of Presentation: January 16, 2019



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.



What was assessed?

Student learning outcomes list:

- *ISLO #3 Foundational Skills*
 - *Quantitative Reasoning*
 - *ABET (c) - An ability to conduct standard tests and measurements; to conduct, analyze, and interpret experiments; and to apply experimental results to improve processes*
 - *Information Management*
 - *ABET (c) - An ability to conduct standard tests and measurements; to conduct, analyze, and interpret experiments; and to apply experimental results to improve processes*
 - *ABET (h) - An understanding of the need for and an ability to engage in self-directed continuing professional development*



What was assessed?

Student learning outcomes list:

- *ISLO #4 Social Responsibility*
 - *Ethical Reasoning*
 - *ABET (i) - An understanding of and a commitment to address professional and ethical responsibilities including a respect for diversity*
 - *Teamwork*
 - *ABET (e) - An ability to function effectively as a member or leader on a technical team*
 - *ABET (k) - A commitment to quality, timeliness, and continuous improvement*



Where were outcomes assessed?

- *ISLO #3 Foundational Skills*

- *Quantitative Reasoning*

- *ABET (c) - An ability to conduct standard tests and measurements; to conduct, analyze, and interpret experiments; and to apply experimental results to improve processes*

- *MECH 477*

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- *ABET (k)* -*A commitment to quality, timeliness, and continuous improvement*

- *MECH 477*



Assessment results:

What have the data told us?

- *ISLO #3 Foundational Skills*
 - *Information Management*
 - *ABET (h) - An understanding of the need for and an ability to engage in self-directed continuing professional development (MECH 477)*

Measure: Basic Research
Direct - Portfolio

Details/Description: The research portion of the students portfolio will be assessed.
Target: Students will score 70% or higher on this portion

Findings for Basic Research

Summary of Findings: 30% groups scored 70% or higher

Results : Target Achievement: Not Met

Recommendations:

Reflections/Notes: Again, not enough time in the semester to do everything - I did notice that the groups that I started in the fall semester did have a final result and a prototype built by the end of this semester. So, this is a for shadow of good things to come.



Assessment results:

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Measure: Life-long learning
Direct - Portfolio

Details/Description:

Observing and reading their life-long learning at the end of the semester

Findings for Life-long learning

Summary of Findings:

Students learned how to make phone calls to companies, how to order the correct parts from McMaster carr, communication among all parties involved in the project, how to deal with group mates and other people correctly

Results :

Target Achievement: Met

Recommendations:

Reflections/Notes:

This is the best part to have them document because it shows them how they will have to deal with things in the future.



Assessment results:

What have the data told us?

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Measure: Project design and implementation

Direct - Other

Details/Description: The section in the final presentation rubric containing project design and implementation will be assessed.

Target: Each group will score 70% or higher

Findings for Project design and implementation

Summary of Findings: 5 groups out of 7: 71% scored over 70% on the engineering competence presentation

Results: Target Achievement: Met

Recommendations:

Reflections/Notes: Some industrial board members still want to students to improve on req's, problem statement, and specs



Assessment results:

What have the data told us?

- *ISLO #4 Social Responsibility*
 - *Ethical Reasoning*
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Measure: Proposal
Direct - Other

Details/Description: Students proposal presentation will be used to assess this outcome
Target: Students will present a presentation and score 70% or higher on the proposal presentation

Findings for Proposal

Summary of Findings: All students did a presentation at the beginning of the semester and did fine.
Results : Target Achievement: Met
Recommendations: We need more faculty at the presentations to give more feedback.
Reflections/Notes: There was a lot of notes from 3 faculty that attended.



Assessment results:

What have the data told us?

- *ISLO #4 Social Responsibility*
 - *Teamwork*
 - *ABET (e) -An ability to function effectively as a member or leader on a technical team (MECH*

Measure: AACU Rubric for teamwork

Indirect - Survey

Details/Description:

Using the AACU rubric for teamwork, Dr. Craig evaluated each team at the end of the semester.

Target:

70% of teams score 70% or higher on the teamwork rubric

Findings for AACU Rubric for teamwork

Summary of Findings:

67% scored 70% or higher:

1. 75%
2. 100%
3. 98%
4. 76%
5. 68%
6. 40%

Results :

Target Achievement: Met

Recommendations:

Looking at the values, I would recommend satisfactory



Assessment results:

What have the data told us?

- *ISLO #4 Social Responsibility*

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

- We need to come up with methods to help students improve their ability to take a position on a topic and defend that position with conviction
- Revise the SLO outcomes mapping to align with 2019 ABET changes
- Evaluate the improvement in capstone project/process with the advent of MECH377 course to ensure value added with change



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

- Need to hire full time faculty replacement for retiring faculty member
- Cramped for space to conduct capstone projects, need more open work space for students



Attachments: 2018 SLO Findings



SLO # - Assessment Findings Data

Data found in TaskStream

