SUNY CANTON

Engineering Science Program
School of Engineering Technology
Fall 2015 Assessment Report

Curriculum Coordinator: RKA + 0.57 dedicated faculty
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Program Student Outcomes (PSO)list:

- *PSO 1 - Professional Competence prerequisites*
  - ***Students are expected to have solid foundation in Math & Science in order to continue successfully for their Bachelor' degree in any engineering fields.***
- *PSO 2 – Professional Competence*
  - ***Students are expected to have understanding and knowledge of common engineering courses.***
- *PSO 3 – Communication Skills*
  - ***Students are expected to develop communication skills***
- *PSO 4 – Critical Thinking*
  - ***Students are expected to develop critical and analytical thinking skills***

Courses mapped to PSOs

- *PSO 1 - Professional Competence prerequisites*

CHEM 150	*CHEM 155*	*MATH 161*	*PHYS 135*
MATH 162	*MATH 263*	*PHYS 131*	*PHYS 136*
PHYS 133	*ENGS 205*	*PHYS 137*	

- *PSO 2 - Professional Competence*

ENGS 101	*ENGS 102*	*ENGS 201*	*ENGS 202*
ENGS 203	*ENGS 205*	*ELEC 263*	

- *PSO 3 – Develop Communication Skills*

ENGL 102	*ENGS 101*	*ENGS 102*
CHEM 150	*CHEM 155*	

- *PSO 4 – Critical Thinking*

ENGL 102	*ENGS 205*	*ELEC 263*	*ECON 103*

How course SLOs' were measured?

- Student work:
  - Midterms/final exams & quizzes
  - Calculations exams
  - Oral presentations
  - Research papers
  - Lab reports

- Measurement strategy:
  - rubrics used for oral presentations, research papers
  - % of questions answered correctly on exams, quizzes, and homework
- Sample size:
  - All students (21 majors)

PSOs' evaluation report based on F2015 course assessments:

PSO 1 – Professional Competence Prerequisites

* # of measures	meeting target%	unspecified%
51	80	2

PSO 2 – Professional Competence

* # of measures	meeting target%	unspecified%
30	80	3

PSO 3 – Develop Communication Skills

* # of measures	meeting target%	unspecified%
23	96	0

PSO 4 – Critical Thinking

* # of measures	meeting target%	unspecified%
18	83	0

* Details are attached

Course SLOs' evaluation results

- Based on data collected, the results indicate our Engineering Science program meets all targets.

Students' comments after graduation:

- **More program elective courses**
  - Organic Chemistry (CHEM 301)
  - AC circuit course
  - Computer programming course
  - Materials Laboratory (MECH 221)

How the program plans to fix the issues (close the loop)

- Add more program electives courses
- Make sure instructors of some courses push the students out of their comfort zone. This makes them ready to face their junior/senior level courses in other institutions.

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

- None