Engineering Science Program
Canino School of Engineering Technology
Fall 2017 Assessment Report

Curriculum Coordinator: Rashid Aidun & (0.8 dedicated faculty)
Date of Presentation: 1/17/2018

Program mission:

Provide students with preparation in engineering fundamentals to enable them to enroll in baccalaureate degree in engineering or engineering technology with junior status, and successfully complete their baccalaureate degree.

Program outcomes (PO):

1- 60% of admitted students will graduate w/AS degree
2- 85% of graduates will enroll in BS/BT Eng. Programs
3- 90% of transfer graduates will affirm that their preparation in Eng. Sci. has been adequate.

Program Student Learning Outcomes (PSLO)list:

- *PSLO 1 (ISLO 3)- 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.***
- *PSLO 2 (ISLO 5)– Professional Competence*
  - ***Students are expected to have understanding and knowledge of common engineering courses.***
- *PSLO 3 (ISLO 1)– Communication Skills*
  - ***Students are expected to develop communication skills***
- *PSLO 4 (ISLO 2)– Critical Thinking*
  - ***Students are expected to develop critical and analytical thinking skills***

Courses mapped to PSLOs

- ***PSLO 1 (ISLO 3)- Professional Competence prerequisites (GER 1 & 2)***

  CHEM 150 CHEM 155 MATH 161 PHYS 131 PHYS 135
  MATH 162 MATH 263 MATH 364 PHYS 132 PHYS 136

- ***PSLO 2 (ISLO 5)- Professional Competence***

  ENGS 201 ENGS 202 ENGS 205 ENGS 263/264

- ***PSLO 3 (ISLO 1)- Develop Communication Skills***

  ENGL 101 ENGS 101 ENGS 102

- ***PSLO 4 (ISLO 2)- Critical Thinking***

  ECON 103 ENGS 263 ENGS 205

How was the assessment accomplished?

- Student work:
  - Exams & quizzes
  - Oral presentations
  - Research papers (reports)
  - Lab reports

- Measurement strategy:
  - rubrics used for oral presentations, research papers
  - % of questions answered correctly on exams, and quizzes.
- Sample size:
  - All students/class (??)

PSLOs' evaluation report :

PSLO 1 – Professional Competence Prerequisites

* # of measures	not met	met target	unspecified%
14	0%	100%	0%

PSLO 2 – Professional Competence

* # of measures	not met	met target	unspecified%
14	7%	93%	0%

PSLO 3 – Develop Communication Skills

* # of measures	not met	met target	unspecified%
14	0%	100%	0%

PSLO 4 – Critical Thinking

* # of measures	not met	met target	unspecified%
14	0%	100%	0%

Actual assessment data

- 2013: n=13; 11 BS 1 BT, 1 wk
  PO1=met PO2 = met PO3 = met
- 2014: n=9; 8 BS BT
  PO1=met PO2 =met PO3 = met
- 2015: n=8; 6 BS 2 BT
  PO1=met PO2 =met PO3 = met
- 2016: n=8; 5 BS 2 BT 1?
  PO1=met PO2 =met PO3 = met
- 2017: n=3; 2 BS, 1 Transfer SUNY P. math.
  PO1=met PO2 =met PO3 = ?
- 2018: n=11

Comments from CU and graduates

Short comes:

1. Electrical	AC circuits & Digital/Logic
2. Chemical	Organic Chem I
3. Mechanical	Thermo in place of PHY III
4. Computer	Digital/Logic & programing
5. Environmental	Biology I in place of PHY III

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

- Eliminated PHYS III as a required course√
- Made ENGS 203 a program elective course √
- Developed & added ENGS 264 (AC/DC lab.) √
- Added 6 program electives to the program: √

1. BIOL 150
2. CHEM 301
3. MECH 342
4. MKTX 215/216
5. CITA 180
6. CHEM 302

Effective: Fall 2017

What resources were used?

My time

Or have been requested to close the loop?

We request the following:

- ENGS 264 laboratory equipment ($2700)
- Course scheduling (registers' office)

What changes would you make to the Assessment Process?

Program Assessment:

In addition to the course assessments,

- Evaluate the final product (graduates)
  - Keep in touch with them (a few years) and collect feedback from them