



 **SUNY CANTON**

Industrial Technology Management Program
Canino School of Engineering Technology
Fall 2015 Assessment Report



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What was assessed? Student learning outcomes list:

- *SLO 1 – Communication Skills*
 - *Students are expected to be able to communicate clearly, concisely, and correctly in the written, spoken, visual, and electronic form that fulfills the purpose and meets the needs of audiences*
- *SLO 2 – Problem Solving Skills*
 - *Students are expected to understand how to apply mathematical and analytical skills to formulate and solve problems*
- *SLO 3 – Knowledge Management Skills*
 - *Students are expected to be able to produce, and present work-related documents and information effectively and accurately*
- *SLO 4 - Technical Skills*
 - *Students are expected to use a variety of technological tools appropriate and necessary for the performance of tasks*



What was assessed? Student learning outcomes list: (cont.)

- *SLO 5 – Teamwork Skills*
 - *Students are expected to be able to interact with others in groups or teams in ways that contribute to effective working relationships and the achievement of goals*
- *SLO 6 – Engineering Management Skills*
 - *Students are expected to be able to analyze and resolve complex problems through the application of systematic approaches*
- *SLO 7 – Adaptability and Flexibility Skills*
 - *Students are expected to know how to adapt to new situations and demands by applying and/or updating his/her knowledge and skills*



Where were outcomes assessed?

- *SLO 1 - Communication Skills*
ENGL 101, ENGL 101, BSAD340 and SOET477
- *SLO 2 - Problem Solving Skills*
ECON 101, ECON 103, MATH123, MATH141, MATH161 and SOET477
- *SLO 3 - Knowledge Management Skills*
MATH141, BSAD340, SOET377 and SOET477
- *SLO 4 - Technical Skills*
SOET116, SOET348, SOET361, SOET477 and Program Electives
- *SLO 5 - Teamwork Skills*
BSAD301, BSAD340, SOET361 and SOET477
- *SLO 6 - Engineering Management Skills*
BSAD201, BSAD340, BSAD449 and SOET377
- *SLO 7 - Adaptability and Flexibility Skills*
SOET361, SOET430 and SOET477



How was the assessment accomplished?

- Student work assessed:
 - Quizzes
 - Midterm and final exams
 - Oral presentations
 - Group projects
 - Term papers
- Measurement strategy:
 - rubrics used for oral presentations, term papers and group projects
 - % of questions answered correctly on quizzes and midterm/final exams
- Sample size:
 - All students



SLO 1 - *Communication Skills*

Assessment Findings Data

SLO 1 - Communicate clearly, concisely, and correctly in the written, spoken visual, and electronic form that fulfills the purpose and meets the needs of audiences.

	Measures	Not Met		Met		Exceeded		No Findings	
		N	%	N	%	N	%	N	%
		All Courses	88	11	13%	21	24%	49	56%
BSAD 340	11	4	36%	5	45%	2	18%	0	0%
ENGL 101	54	4	7%	10	19%	33	61%	7	13%
ENGL 102	16	2	13%	4	25%	10	63%	0	0%
SOET 477	7	1	14%	2	29%	4	57%	0	0%



SLO 2 - Problem Solving Skills

Assessment Findings Data

SLO 2 - Apply mathematical and analytical skills to formulate and solve problems.

	Measures	Not Met		Met		Exceeded		Unspecified		No Findings	
		<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>
		All Courses	82	8	10%	19	23%	53	65%	1	1%
ECON 101	18	1	6%	4	22%	12	67%	0	0%	1	6%
ECON 103	6	1	17%	1	17%	4	67%	0	0%	0	0%
MATH 123	14	1	7%	3	21%	10	71%	0	0%	0	0%
MATH 141	24	3	13%	8	33%	13	54%	0	0%	0	0%
MATH 161	13	1	8%	1	8%	10	77%	1	8%	0	0%
SOET 477	7	1	14%	2	29%	4	57%	0	0%	0	0%



SLO 3 - Knowledge Management Skills

Assessment Findings Data

SLO 3 - Interpret, produce, and present work-related documents and information effectively and accurately.

	Measures	Not Met		Met		Exceeded			
		<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>		
All Courses	45	8	18%	15	33%	22	49%		
BSAD 340	11	4	36%	5	45%	2	18%		
MATH 141	24	3	13%	8	33%	13	54%		
SOET 377	3	0	0%	0	0%	3	100%		
SOET 477	7	1	14%	2	29%	4	57%		



SLO 4 - *Technical Skills*

Assessment Findings Data

SLO 4 - Use a variety of technological tools appropriate & necessary for the performance of tasks.

	Measures	Not Met		Met		Exceeded			
		N	%	N	%	N	%		
		<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>		
All Courses	27	6	22%	8	30%	13	48%		
BSAD/SOET 361	13	4	31%	1	8%	8	62%		
SOET 116	6	1	17%	4	67%	1	17%		
SOET 348	1	0	0%	1	100%	0	0%		
SOET 477	7	1	14%	2	29%	4	57%		



SLO 5 - *Teamwork Skills*

Assessment Findings Data

SLO 5 - Interact with others in groups or teams in ways that contribute to effective working relationships and the achievement of goal.

	Measures	Not Met		Met		Exceeded		No Findings	
		<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>
All Courses	74	9	12%	8	11%	14	19%	43	58%
BSAD 301	43	0	0%	0	0%	0	0%	43	100%
BSAD 340	11	4	36%	5	45%	2	18%	0	0%
BSAD/SOET 361	13	4	31%	1	8%	8	62%	0	0%
SOET 477	7	1	14%	2	29%	4	57%	0	0%



SLO 6 - *Engineering Management Skills* Assessment Findings Data

SLO 6 - Analyze and resolve complex problems through the application of systematic approaches.

	Measures	Not Met		Met		Exceeded		No Findings	
		<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>
All Courses	48	5	10%	7	15%	16	33%	20	42%
BSAD 201	10	0	0%	0	0%	10	0%	0	0%
BSAD 340	11	4	36%	5	45%	2	18%	0	0%
BSAD 449	20	0	0%	0	0%	0	0%	20	100%
BSAD/SOET 370	Not Taught in Fall 2015								
SOET 477	7	1	14%	2	29%	4	57%	0	0%



SLO 7 - *Adaptability and Flexibility Skills*

Assessment Findings Data

SLO 7 - Adapt to new situations and demands by applying and/or updating his/her knowledge & skills.

	Measures	Not Met		Met		Exceeded		No Findings	
		<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>
All Courses	28	6	21%	6	21%	15	54%	1	4%
BSAD/SOET 361	13	4	31%	1	8%	8	62%	0	0%
BSAD/SOET 430	8	1	13%	3	38%	3	38%	1	13%
SOET 477	7	1	14%	2	29%	4	57%	0	0%



Assessment results: What have the data told us?

- **SLO 1 - Communication Skills**

36% of students in the upper division management communications course (BSAD340) failed to meet the objective, however students did very well in the lower division communication related courses. This indicates there is a learning gap between lower and upper and lower division communication courses

- **SLO 2 - Problem Solving Skills**

The data indicates this objective has been met. All related courses in this SLO have less than 20% of students failed to meet the objective

- **SLO 3 - Knowledge Management Skills**

36% of students in BSAD340 and 24% of students in MATH141 failed to meet the learning objective, however students performed very well in SOET377 and SOET477. This indicates the students may have weakness or underprepared in MATH and it could be due to students' prior professional and academic backgrounds

- **SLO 4 - Technical Skills**

31% of students in SOET361 failed to meet the learning objectives however 62% of student exceeded the objective. This indicates there exists a great variation among students which could be due to students' prior professional and academic backgrounds



Assessment results: What have the data told us? (cont.)

- **SLO 5 - Teamwork Skills**

36% of students in BSAD340 and 31% of students in SOET361 failed to meet the learning objective, however students performed very well in BSAD301 and SOET477. This indicates there exists a great variation among students which could be due to students' prior professional and academic backgrounds

- **SLO 6 - Engineering Management Skills**

In general students have performed very well for this SLO. The only underperformed course BSAD340 could be due to students' prior professional and academic backgrounds

- **SLO 7 - Adaptability and Flexibility Skills**

In general students have performed very well for this SLO. The only underperformed course SOET361 could be due to students' prior professional and academic backgrounds



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

- Program electives need to be included to reflect the program’s overall student learning outcomes especially on technical skills
- Revise the course curriculum to better align with the program’s objectives
- Revise the related courses to better align with the student learning outcomes
- Increase instructional support (e.g., tutoring, acquire software, etc.)
- Create program wide group activities to enhance communications which needs funding



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

- Individual faculty time revising within a course
- Program and department faculty time making revisions spanning more than one course or adjusting the curriculum

