



ANNUAL PROGRAM REPORT

College	Science
Department	Engineering
Program	Industrial Engineering BS
Reporting for Academic Year	2017-2018
Last 5-Year Review	2010-2011
Next 5-Year Review	2024-2025
Department Chair	Saeid Motavalli
Date Submitted	September 28, 2018

I. SUMMARY OF ASSESSMENT

A. Program Learning Outcomes (PLO)

- 1. Ability to apply knowledge of mathematics, science, and engineering.*
- 2. Ability to design and conduct experiments, as well as to analyze and interpret data.*
- 3. Ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability.*
- 4. Ability to function on multidisciplinary teams.*
- 5. Ability to identify, formulate and solve engineering problems.*
- 6. Understanding of professional and ethical responsibility.*
- 7. Ability to communicate effectively.*
- 8. Broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context.*
- 9. Recognition of the need for, and an ability to engage in, life-long learning.*
- 10. Knowledge of contemporary issues.*
- 11. Ability to use the techniques, skills, and modern engineering tools necessary for engineering*

B. Program Learning Outcome(S) Assessed

III.

1. Which SLO(s) to assess	SLO d - Ability to function on multidisciplinary teams.
2. Assessment indicators	c-Capstone project rubric
3. Sample (courses/# of students)	c-INDE 4260
4. Time (which quarter(s))	c-Spring 2018
5. Responsible person(s)	c-Prof. Bowen

IV.

A. Summary of Assessment Process

Summarize your assessment process briefly using the following sub-headings.

Instrument(s): Assessments were per team, and assessments were made by the instructor based on anchored rubric

Sampling Procedure: All course member teams were assessed (i.e., no sampling)

Sample Characteristics: N/A

Data Collection: Data was collected primarily from the written and oral presentations.

Data Analysis:

Criterion	Cork Supply	ERI PM & E	Grund-fos	Kortick Shipping	ERI Acctng	GD CA	Safeway	Repurposed Rose	UPS Hub	Kortick Qual Mgmt	UPS Bypass
System Design/Redesign	7	5	4.5	6.5	5	7	6	7	8	6.5	7.5
Ability to Work in Teams	8	8	6	7	6	8	7	8	4	5	7
Analyzing and Solving Engineering Problems	7	6	5	6.5	5	7	6.5	7	7	6	7

Professionalism & Ethics	8	7	6	7	5.5	7	6	6.5	5	6	6
Oral Communication	7	7	6	7	6	7	7	6	6	7	6
Graphical Communication	6	8	6	7	7	8	7	7	5.5	7	6.5
Global/Societal Context	5	6	6	6	6	7	7	8	6	7	7
Life Long Learning	6	7	5	6	6	8	6	7	8	7	7.5
Ability to Apply Engineering Techniques Tools, and Skills (Engineering Practice)	7	6	5	7	5	7	6	7	7	7	7

B. Summary of Assessment Results

Summarize your assessment results briefly using the following sub-headings.

Main Findings: technical content of some projects were not satisfactory. Global and social contexts were not explicitly addressed in some projects.

Recommendations for Program Improvement: Change the evaluation rubric to explicitly address the effect of social, global, sustainability, and other factors affecting engineering systems.

Next Step(s) for Closing the Loop: *Interaction between chair, faculty and industrial advisory board*

Other Reflections: The senior projects have to address social, environmental and global issues in engineering. We have modified our assessment tools for the senior design to specifically evaluate projects with respect to inclusion of these topics. We believe the future projects will have more emphasis on social, environmental, sustainability and global issues that effects engineering designs.

C. Assessment Plans for Next Year.

2018-2019	
1. Which SLO(s) to assess	SLO i - Recognition of the need for, and an ability to engage in, life-long learning.
2. Assessment indicators	c-Capstone project rubric

3. <i>Sample (courses/# of students)</i>	c-INDE 492
4. <i>Time (which quarter(s))</i>	c-Spring 2019
5. <i>Responsible person(s)</i>	c-Prof. Bowen
6. <i>Ways of reporting (how, to who)</i>	The results will be reported by faculty to the department chair via completion of the course Faculty Self-Assessment form.
7. <i>Ways of closing the loop</i>	Interaction between chair, faculty and industrial advisory board