

Assessment Report - Annual Update

Program Assessment (focus on most recent year)

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| Department: | Engineering and Industrial Technology |
| Program: | Engineering |
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| Date Submitted: | 9/11/2017 |

A. List your Program Learning Outcomes (PLOs)/Administrative Unit Outcomes (AUOs)

1 Students will demonstrate proficiency in technical skills and safety principles required for industrial employment.

2 Students will demonstrate problem solving skills used in industrial design and product development

3 Students will demonstrate a deep understanding of the core material required for transfer to a four year university degree program or for certification in the department programs.

B. How did your outcomes assessment results inform your program planning? Use the bullet points below to organize your response.

Each ENGR course has SLOs that map to map to each PLO so no cross-program planning was performed. Each instructor refined his class according to the assessment results obtained.

C. How do course level student learning outcomes align with program learning outcomes? Instructional programs can combine questions C and D for one response (SLO/PLO/ILO).

There is some divergence between lab courses and lecture courses, but otherwise, ENGR courses tend to have a fairly even distribution of mapping to each PLO.

Institutional Learning Outcomes:

Think: Think critically and evaluate sources and information for validity and usefulness.

Communicate: Communicate effectively in both written and oral forms.

Demonstrate: Demonstrate competency in a field of knowledge or with job-related skills.

Engage: Engage productively in all levels of society – interpersonal, community, the state and the nation, and the world.

D. How do the program learning outcomes or Administrative Unit Outcomes align with Institutional Learning Outcomes? All Student Affairs and Administrative Services should respond.

In general, ENGR courses tend to have an abundance of materials that meets ILOs 1 and 3 (thinking critically and demonstrating competency). Communicating in most classes tends to favor written forms (both in typed reports and hand-written calculations) but oral communication tends to show up in the *Intro* course and not again until a senior-level capstone design course at the transfer institution. Engaging "all levels of society" is a high bar and tends to make less of an appearance in ENGR curriculum as it is a reductive / deconstructive process by nature (one learns about atoms, then crystals, then generic free bodies, then simple systems. Rarely do

E. How do you engage in collegial dialog about student learning outcomes?

The majority of ENGR coursework is taught by three full-time faculty so communication is informal, but frequent.

F. In your previous program review did you specify a major objective or project to implement specifically designed to improve equity?

***How has the objective or project impacted equity in your department or program?**

***What areas have you identified for program improvements that relate directly to equity in the coming year?**

The equity goal of improving female participation in the program will likely continue for years. It is an issue that has affected the profession as a whole and will not be solved in the short term or with simple measures. Incremental change with outreach to local high schools is one possibility to improve the "pipeline". Continued support of the student organization "WISE" to help female STEM majors feel welcomed and valued will hopefully affect retention.