

**Bloomsburg University of Pennsylvania
Electronics Engineering Technology Program**

Program Assessment and Continuous Improvement Plan

Student Outcomes

The EET program has an established procedure to assess the student outcomes, summarize and evaluate the assessment data, and determine the necessary curriculum and related changes needed to improve the program. It is based on a continuous improvement process as shown in Figure 1.

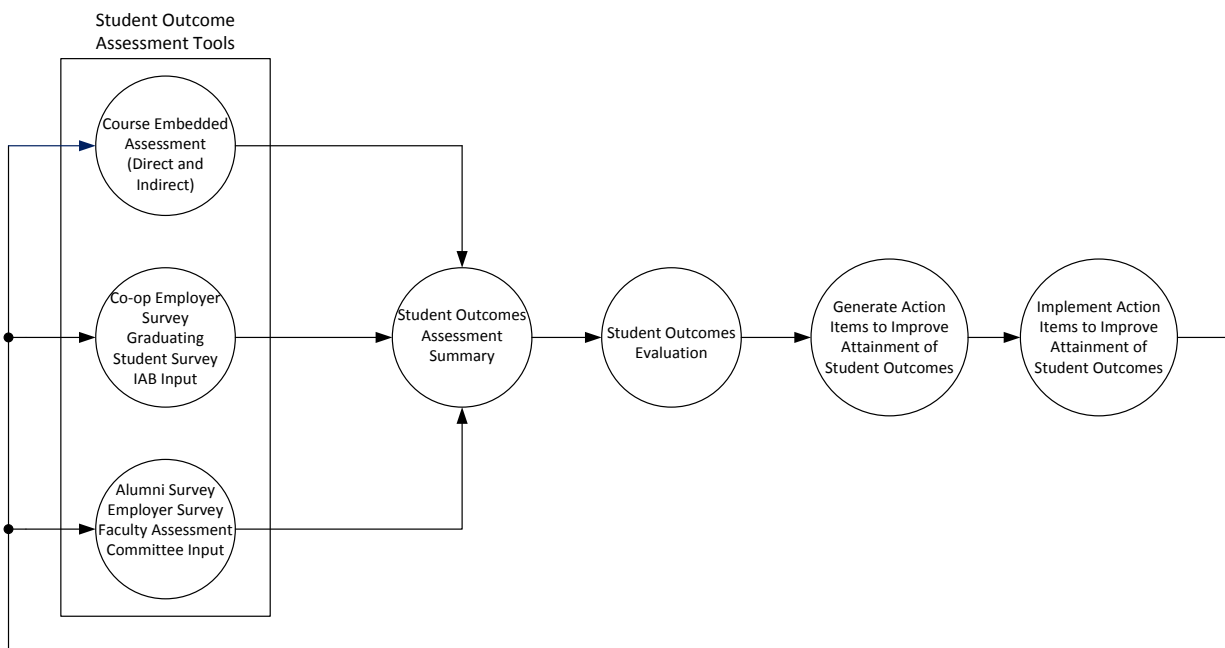


Figure 1: Student Outcomes Assessment and Improvement Process

The program assessment committee (current members: Ghassan Ibrahim, Biswajit Ray, Peter Stine, and Margaret Wismer) is responsible for evaluating, identifying and monitoring the action items generated from the student outcomes assessment and continuous improvement process.

Assessment Methods

The student outcomes are evaluated using two types of assessment methods:

- Direct assessment
 - Uses course embedded assessment procedure to assess and evaluate each course within the scope of established student outcomes.
 - An average score of less than 70% shall require an action item initiation for improvement.

- Indirect assessment
 - Uses surveys to assess and evaluate the student outcomes.
 - In a four point scale (E: Excellent, G: Good, S: Satisfactory, and U: Unsatisfactory), an “E+G” evaluation of less than 75% shall require an action item initiation for improvement.

Student Outcomes Assessment Instruments

- a) Course embedded assessment, which is the instructor course evaluation form, supplemented by portfolios that may include:
 - i. Student assignments, quizzes, tests and exams
 - ii. Lab reports
 - iii. Projects and presentations
 - iv. Student course survey
- b) Graduating student survey
- c) Co-op employer survey
- d) Industrial Advisory Board (IAB) input
- e) Faculty Assessment Committee input
- f) Alumni survey
- g) Employer survey

Student Outcomes Assessment Frequency

The schedule for student outcomes assessment is shown in Table 1.

Table 1: Student outcomes assessment cycle

Student Outcomes	Assessment Instrument	Schedule
a, b, c, d, e, f, g, h, i, j, k	Course embedded assessment	Two times per 6 year cycle
	Co-op employer survey	Every year
	Graduating student survey	Every year
	Faculty Assessment Committee input	Every year
	Industrial Advisory Board input	Every year
	Alumni survey	Every 6 years
	Employer survey	Every 6 years

Assessment Summary and Action Plan Report

Using the mapping among student outcomes and EET courses, course-embedded assessment data from all courses are combined for each student outcome to establish a course-embedded student outcome index. The *Assessment Summary and Action Plan Report* also include course-embedded action items, and survey data and associated action items. The surveys included in this report are graduating student survey, co-op employer survey, alumni survey, and employer survey.

Attainment of Student Outcomes

Attainment of student outcomes is evaluated based on data collected using multiple direct and indirect assessment tools. Course-embedded student outcome index data include both direct and indirect measures. Similarly, a survey-based student outcome index is obtained by averaging the indirect measure data from the following four surveys: graduating student survey, co-op employer survey, alumni survey, and employer survey. Per the established student outcomes assessment method, a specific student outcome is considered attained if all of the following three conditions are met.

Course-Embedded Student Outcome Index: Direct Measure	> 70%
Course-Embedded Student Outcome Index: Indirect Measure (E+G)	> 75%
Survey-based Student Outcome Index: Indirect Measure (E+G)	> 75%

Continuous Improvement

The program follows an assessment and continuous improvement process as shown in Figure 1. The course-embedded and survey-based assessment data are summarized and evaluated, resulting in course-embedded as well as program-level action items. The findings and associated action items are presented, discussed and approved at Program Assessment Committee and Industrial Advisory Board meetings. The resulting data and action items are included in the *Assessment Summary and Action Plan Report*. Implementation of generated action items is monitored by the program coordinator, together with the program assessment committee.

Program Educational Objectives

As part of the EET program’s continuous improvement process, program educational objectives (PEOs) are also assessed, evaluated, and modified in order to continue to meet the need of program constituents. This process is shown in Figure 2. All of the program constituents play a role in providing feedback, reviewing and updating the PEOs per the schedule presented in Table 2. During the PEO review process, the university mission statement and vision statements are considered to ensure the PEOs are congruent with the university goals and objectives.

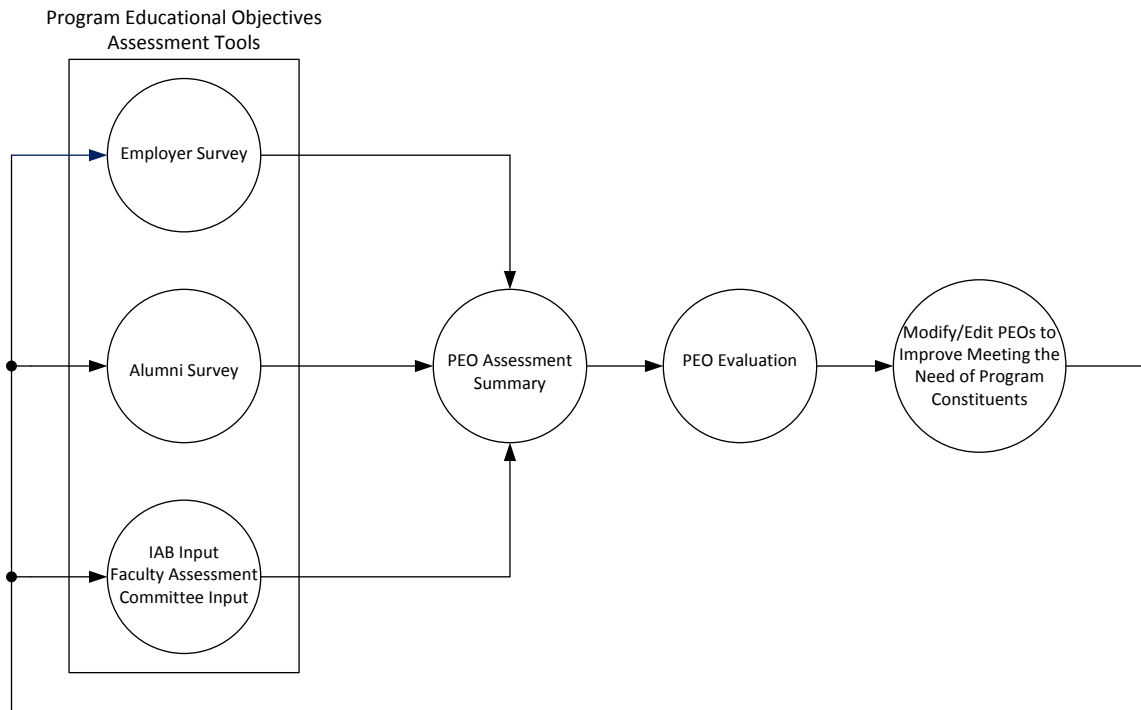


Figure 2: Program Educational Objectives Assessment and Improvement Process

Table 2: Schedule of Constituent Input to PEOs

Assessment Instrument	Schedule	Constituent
Alumni survey	Every 6 years	Alumni (1-7 years out)
Employer survey	Every year (co-op)/ Every 6 years (permanent)	Employers
Industrial Advisory Board	Every year	Industry representatives
Faculty Assessment Committee	Every year	Program and department faculty members