

2.6.2: Attainment of programme outcomes and course outcomes are evaluated by the institution.

We follow a systematic process of measuring attainment levels of programme outcomes (PO), program specific outcomes (PSO) and course outcomes (COs). The steps followed are-

1. Faculty formulates COs for their respective subjects every semester.
2. The COs are mapped to POs and PSOs.
3. The assessment techniques are mapped to COs
4. The target attainment levels are set for each course based on previous results
5. At the end of the semester, the attainment levels of each CO are calculated based on the assessment evaluation.
6. The CO attainment levels are used to calculate the attainment level of each PO and PSO.

Attainment of Course Outcomes

Course outcomes are learning goals that a student is expected to learn at the end of the course. The subject teacher maintains a session plan in which around six CO are written, which are measurable, precise and maps across all cognitive levels of Bloom's taxonomy.

COs are continuously assessed during the semester using various assessment techniques like unit test, assignment, class test, lab assignment, lab experiment, project evaluation, etc. The assessment questions given in tests are mapped to COs and the student scores of these test questions are used to calculate attainment level of the COs.

To calculate attainment level, targets are set based on the previous three years result of the same course. Attainment levels are set against this target, for example

Attainment level 1: 60 % of students scoring more than 50% marks.

Attainment level 2: 70 % of students scoring more than 50% marks.

Attainment level 3: 80 % of students scoring more than 50% marks.

Attainment level of PO/PSOs

PO/PSOs are skills which a student should acquire at the end of four years of engineering studies. These skills are acquired through various courses and activities taken in department.

Each CO in a given course is mapped to PO/PSOs using CO-PO matrix as shown in figure 1.

	PO1	PO2	PO3	PO4	PO5	PO6..	PO12
C202.1	3						
C202.2		3		1			

C203.3	2						
..							
C203.n							

Figure 1. Mapping of PO to CO using correlation levels 1, 2, or 3, where levels are defined as 1: slight(low) 2: Moderate (medium) 3: Substantial (high)

Attainment level of each CO is used to calculate attainment level of its corresponding mapped PO/PSO using CO-PO attainment level table as shown in figure 2.

	PO1	PO2	PO3	PO4	PO5	PO6..	PO12
C202.1	2						
C202.2		3		1			
C203.3	3						
..							
C203.n							
Average attainment level	3	3		1			

Figure 2. CO-PO attainment level

Finally, a consolidated table is used to calculate attainment level of each PO/PSO across all courses from first year to final year department wise. The consolidate table is as shown in figure 3.

	PO1	PO2	PO3	PO4	PO5	PO6..	PO12
C101	2						
C202		3		1			
C301	3						
..							
C4..							
Average attainment level	3	3		1			

Figure 3. Consolidate PO attainment level.