

Method of measuring the level of attainment of POs, and COs

Every course has a specific set of objectives and outcome which is prepared and revised with due diligence. Attainment of Programme outcomes and course outcomes are evaluated by the institution in the following manner:

1. Procedure for attainment of COs:

1.1. Course outcomes are attained through direct and indirect methods.

Direct Attainment: Following criteria are used:

- Class Tests are conducted based on COs
- Class performance activities consisting of assignments / ppts/any other activity related to Cos.
- End term exam marks.

Indirect Attainment: Following criteria are used:

- Feedbacks of students, faculty, alumni and parents.

1.2. Average attainment of COs is calculated.

1.3. The following table shows the three target levels: Low, Moderate and High attainment for direct and indirect methods

Level Average Percentage Level

Level	Average Percentage Level
1 (Low)	41-50%
2 (Moderate)	51-60%
3 (High)	61% and above

1.4 Target level for attainment of COs is set based on average marks of that course in the previous academic year.

1.5. Attainment Level Calculation for each CO= 80% of direct level + 20% of indirect level of that CO

1.6. Attainment level of all course outcomes of a course is displayed in a table format.

2. CO-PO Mapping: Each Course outcome will be mapped to one or more suitable POs

3. Procedure for attainment of POs/PSOs:

3.1. Program outcomes are attained through direct and indirect methods.

• **Direct Attainment:** All the courses which are mapped to a particular PO are considered. Then the direct attainment value is calculated based on the following formula:

Direct PO Attainment= Sum of the average attainment level of the course outcomes mapped to a PO/ Total number of courses

• **Indirect Attainment:** In this method, the feedbacks of students, faculty, alumni and parents are considered.

3.2. Final PO attainment= 80% of Direct attainment + 20% Indirect attainment

3.3 The following table shows the five target levels:

Level	PO attainment range
1 (Poor)	$0.5 \leq \text{PO attainment value}$
2 (Average)	$1 \leq \text{PO attainment value}$
3 (Good)	$1.5 \leq \text{PO attainment value}$
4 (Very Good)	$2 \leq \text{PO attainment value}$
5 (Excellent)	$2.5 \leq \text{PO attainment value} \leq 3$

3.4 Target levels for attainment of Pos are set based on the performance of the previous year.