

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

COs attainment:

Attainment of course outcomes for each course was calculated based on the following assessment process:

Step 1: The faculty uses the course outcomes of the respective course available in the course in the evaluation scheme and otherwise prepared by respective faculty and are verified by HoDs.

Step 2: Considering the percentage of marks (related to each COs) asked in university exam (external exam) and internal exam, the average weightage percent of each CO was calculated as an average of external/internal exams for further calculation of direct attainment.

Step 3: Weightage of external and internal examinations marks were distributed based on total marks as per the university curriculum. The class average in respective (External and Internal) examinations was used for further calculation of CO attainment.

Step 4: Attainment of each CO through external and internal examination was calculated by multiplying the percentage of questions asked in the respective exam, examination marks weightage, and class average in the same examination.

CO = (Weightage of External Exam (EEw) * Subject Average in External Exam * % Marks as per University Scheme)

+

(Weightage of Internal Exam (IEw) * Subject Average in Internal Exam * % Marks as per University Scheme)

Step 5: The percentage of CO attainment was calculated by dividing the sum of individual CO attainment by Average Weight Distribution (AWD) of respective CO, i.e.

% of CO attainment = [Sum (Performance Index) / Average Weightage Distribution]

Step 6: The criteria to determine the final attainment level for each COs were considered as follow:

We are considering 70% of CO attainment as a Target attainment value.

- **If % of CO attainment is < 60 then the attainment level will be 1.**
- **If the % of CO attainment is >= 60 and <70 then the attainment level will be 2.**
- **If % of CO attainment is >= 70 then the attainment level will be 3.**

POs and PSO's attainment:

Step 1: The course outcomes for all courses were mapped with defined POs and PSOs with correlation levels -, 1, 2, and 3.

The correlation levels were defined as:

- No correlation – Correlation level “-”
- Slightly (Low) - Correlation level 1
- Moderate (Medium) - Correlation level 2
- Substantial (High) - Correlation level 3.

Step 2: Attainment of each COs for all courses was calculated as described above.

Step 3: Attainment values of respective COs were inserted against their correlated POs and PSOs. Average values for each PO/PSO were considered as final attainment for the respective course.

Step 4: Similarly, attainment values of COs with each correlated POs and PSOs have been calculated for all courses.

Step 5: Total indirect assessment was based on various surveys for POs and PSOs attainments like Graduate Exit Survey, Alumni Survey, and parent’s feedback and taking their average.

Step 6: Final Attainment of POs and PSOs were derived from two components:

- **Direct attainment:** Obtained by taking averages of all CO-PO and CO-PSO attainment matrices defined for all courses (Semester III, IV, V, VI, VII, and VIII).
- **Indirect attainment:** Obtained from attainment values POs and PSOs of surveys including Graduate exit, Alumni, and Parents feedback.

Final attainments were calculated by considering 70% of direct assessment & 30% of the indirect assessment.