

2.6 - Student Performance and Learning Outcomes

2.6.2 - Attainment of Programme Outcomes and Course Outcomes as evaluated by the institution

(a) Attainment of Course Outcomes:

A continuous assessment process is adapted to gather data for the course outcome evaluation. The process of CO evaluation is basically divided into direct and indirect assessment method. Direct Assessment process is subdivided into,

- a) Continuous Internal Assessment (CIA)
- b) Semester End Examination (SEE)

The assessment process of Course Outcome for theory and laboratory courses are shown in Table.2.6 1.

Table 2.6.1 Course Outcome Assessment Process

Subject Type	Assessment components	Assessment method	Assessment Tool	Evaluation
Theory (all CO's)	Continuous Internal Assessment(40%) Weightage	Direct Assessment (80%) Weightage	Internal assessment exam (60%)	<ul style="list-style-type: none"> Three internal exams will be conducted (IA-I, IA-II,IA-III)
			Assignments (40%)	<ul style="list-style-type: none"> Faculty assign assignments are descriptive type ones, quizzes using online tools, Seminars, mini projects.
		Indirect Internal Assessment (20%) Weightage	Course End Survey	<ul style="list-style-type: none"> The course coordinator creates a course end survey with the rubrics used to evaluate the course attainment and will be consolidated
	External Assessment (60%) weightage	External Assessment	Semester End Examination	<ul style="list-style-type: none"> Semester End Examination as per the schedule shared by the affiliated university

Lab (all CO)	Direct Assessment (40%) Weightage	Internal Assessment (60%) Weightage	Weekly lab classes and Model exam	<ul style="list-style-type: none"> The student will perform experiments by taking up the viva questions by the course instructor and evaluated for each CO.
		Indirect Internal Assessment (40%) Weightage	Course End Survey	<ul style="list-style-type: none"> The course coordinator creates a course end survey with the rubrics used to evaluate the course attainment and will be consolidated
	External Assessment (60%) weightage	External Assessment	Semester End Examination	<ul style="list-style-type: none"> Semester End Examination

List of Assessment Process

1. Direct Assessment Process
2. Indirect Assessment Process

Direct Assessment Process

Direct assessment process is based on assessment methods such as Internal Assessment 1, Internal Assessment 2, Internal Assessment 3, Assignments, Seminar, Group activity etc to assess specific learning objectives.

Indirect Assessment Process

Indirect Assessment Process for calculating Course Outcome is the Course End Survey (CES). CES is taken from all the students at the end of the course and then consolidated for each Cos.

CO Assessment Rubrics for Theory Courses

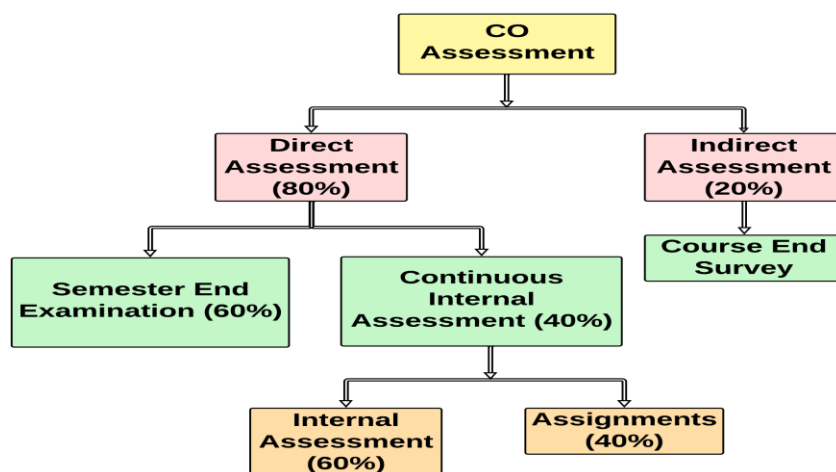


Fig. 2.6.1 Assessment of Theory courses

CO Assessment Rubrics for Laboratory Courses

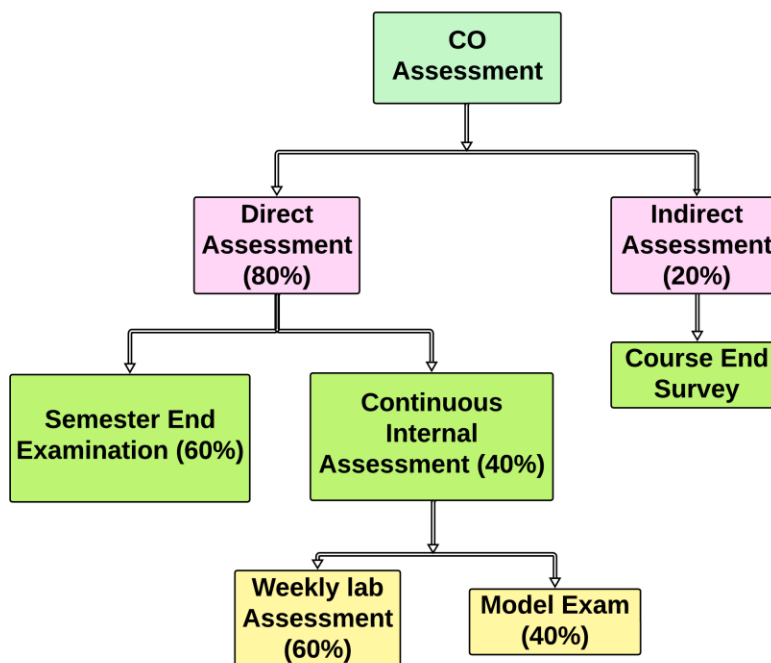


Fig. 2.6.2 Assessment of Laboratory courses

The process of course outcome evaluation is carried out using the following list of Assessment tools with the frequency with which the assessment is carried out is given in the Table 2.6.2

Table 2.6.2 List of Assessment Tools for CO

Type of Evaluation	Assessment tools	Frequency
Internal Evaluation	Internal Assessment	Thrice in a semester
	Assignments	5 per course
	Practical Classes	Weekly
	Model practical exam	Once in a semester
	Seminar	Once in a semester
	Mini Project	Once in a semester
	Course End Survey	Once in a semester
External (Semester End Examination)	End Semester exam	Once in a semester

(b) Record the attainment of Course Outcomes of all courses with respect to set attainment levels

The courses outcome attainment process is depicted in Fig. 2.6.3.

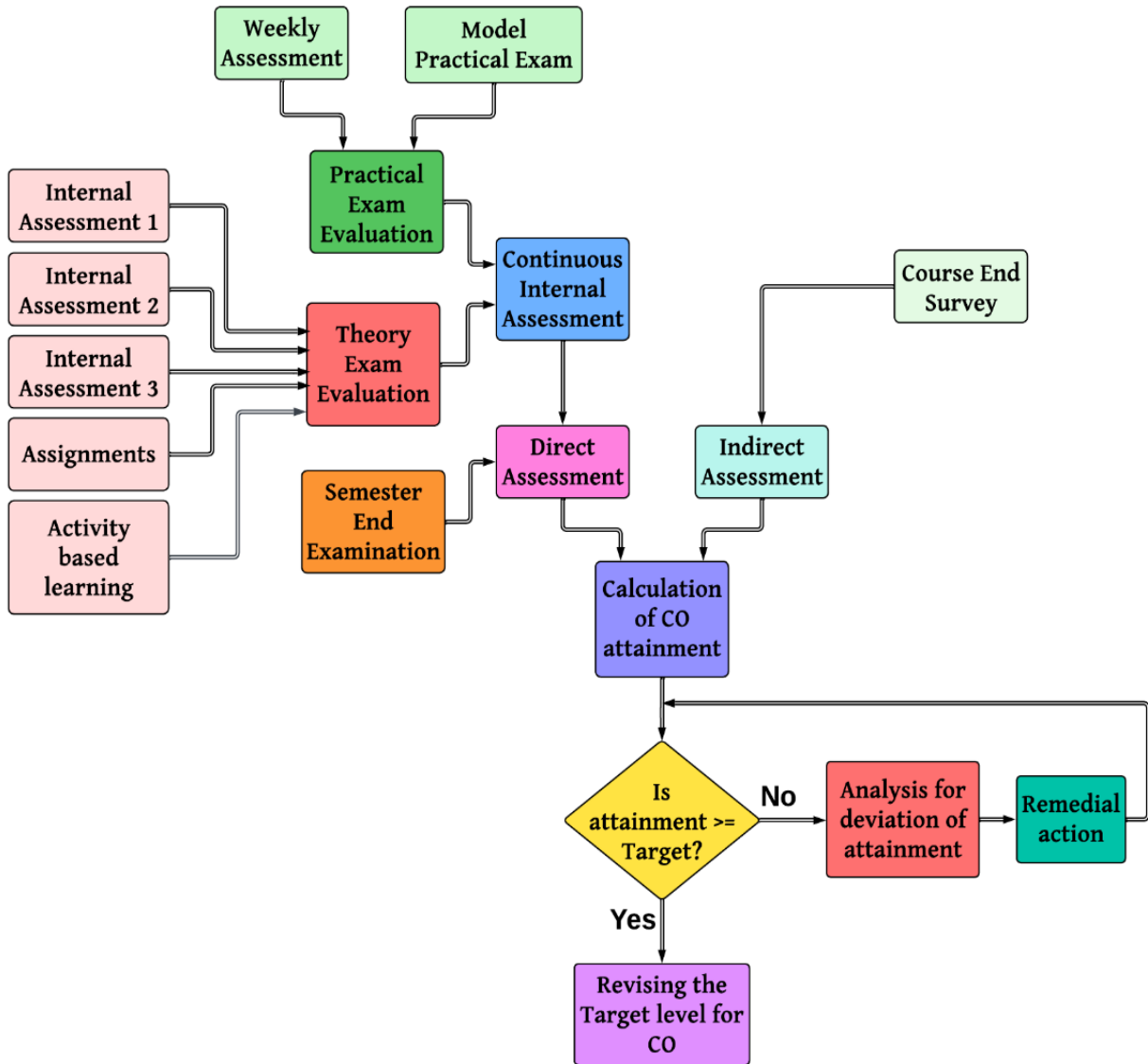


Figure. 2.6.3 Course Assessment and Attainment Process

- The attainment levels are set as the average of end semester results of last three batches.

©Attainment of Program Outcomes and Program Specific Outcomes:

POs and PSOs are assessed by various tools such as

1. Direct Assessment tools and
2. Indirect Assessment tools

Direct Assessment Process

Direct Assessment includes assessment tools such as Internal Assessment Exams, Assignments, Seminars, Mini project, Project etc.

Indirect Assessment Process

Indirect Assessment Process for calculating Program Outcome and Program Specific Outcomes are Alumni survey, Employer survey, Program exit survey. The process involved for PO/PSO assessment is given in Table 2.6.4

Table 2.6.4PO/PSO Assessment Process

Subject Type	Assessment components	Assessment method	Assessment Tool	Evaluation
Theory (all CO)	Continuous Internal Assessment(40%) Weightage	Direct Assessment (80%) Weightage	Internal assessment exam (60%)	<ul style="list-style-type: none"> • Three internal exams will be conducted (IA-I, IA-II,IA-III)
			Assignments (40%)	<ul style="list-style-type: none"> • Faculty assign assignments
		Indirect Internal Assessment (20%) Weightage	<ul style="list-style-type: none"> • Program Exit Survey • Alumni survey • Employer survey 	<ul style="list-style-type: none"> • Program exit survey ,Alumni survey and Employer survey are consolidated for attainment
	External Assessment (60%) weightage	External Assessment	Semester End Examination	<ul style="list-style-type: none"> • Semester End Examination

Lab (all CO)	Direct Assessment (40%) Weightage	Internal Assessment (80%) Weightage	Weekly lab classes and Model exam	<ul style="list-style-type: none"> The student will perform experiments by taking up the viva questions by the course instructor and evaluated.
		Indirect Internal Assessment (20%) Weightage	<ul style="list-style-type: none"> Program Exit Survey Alumni survey Employer survey 	<ul style="list-style-type: none"> Program exit survey ,Alumni survey and Employer survey is taken from the employers after are consolidated for attainment
	External Assessment (60%) weightage	External Assessment	Semester End Examination	<ul style="list-style-type: none"> Semester End Examination

PO/PSO Assessment Rubrics for Theory Courses

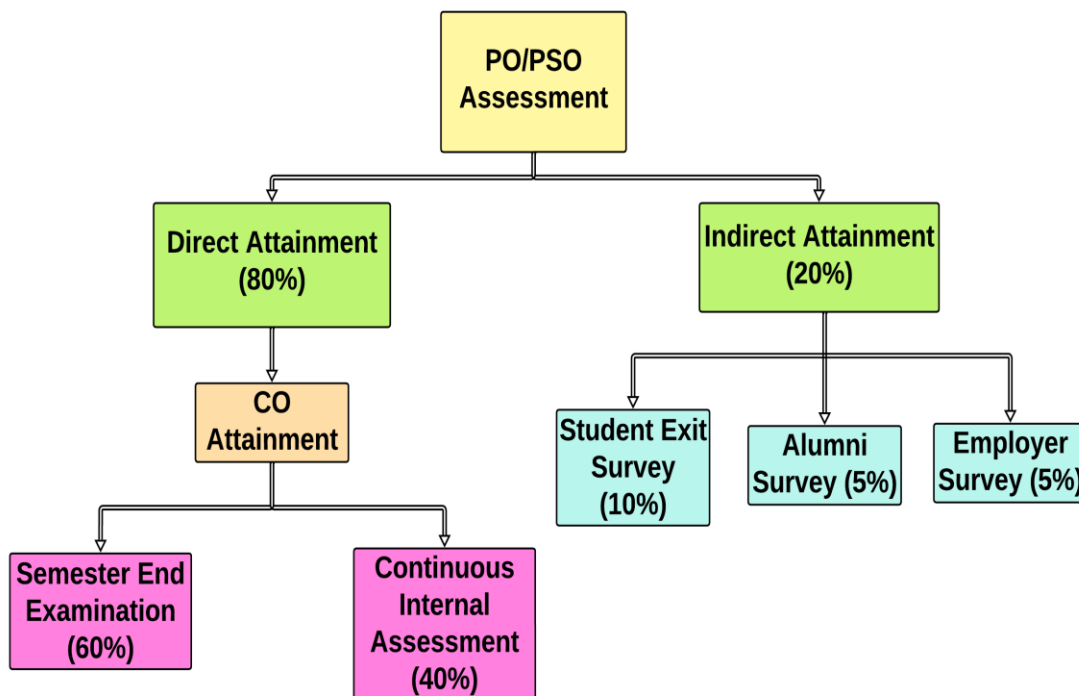


Figure. 2.6.4 PO/PSO Attainment Process for Theory Courses

PO/PSO Assessment Rubrics for Laboratory Courses

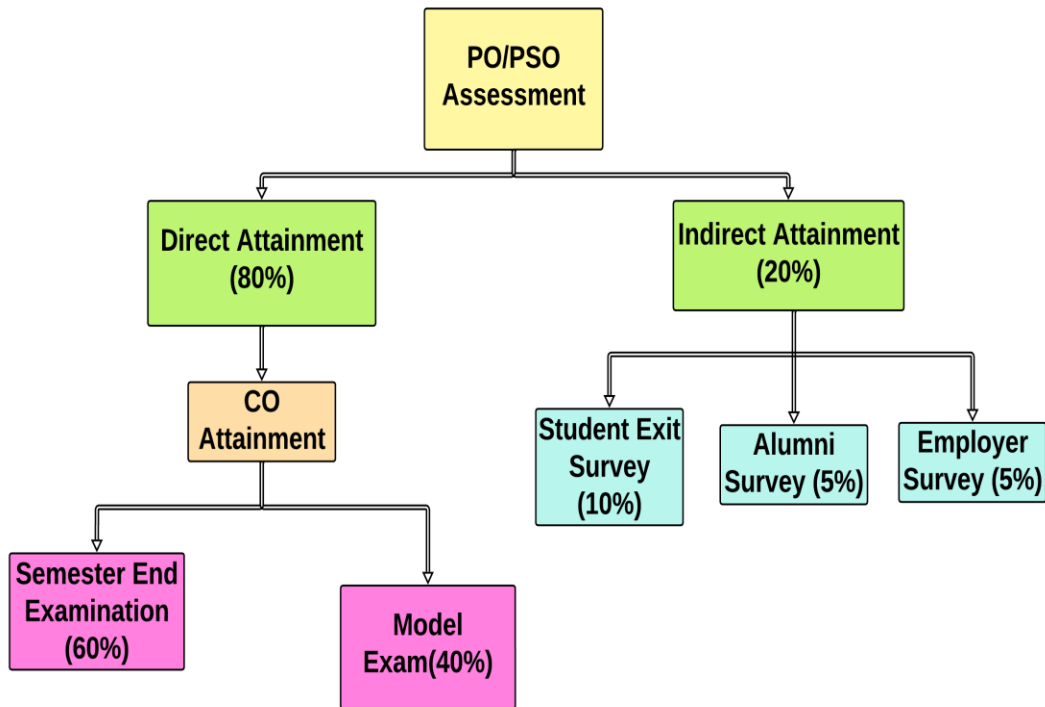


Figure. 2.6.5 PO/PSO Attainment Process for Laboratory courses