

Attainment of Course Outcomes

The POs and PSOs are evaluated using Microsoft excel that simplifies CO attainment calculation for every course.

1. Direct Assessment Process

The approach in evaluating the attainment of CO is using existing data from students' marks. This method is chosen because of the information is readily available and it is common for most courses. In general, assessment methods used are: (1) Internal Assessment Examinations (IAE) (2) Assignments (3) End Semester Examination. Each of these categories contributes a certain portion of the marks into some of the COs.

R-2017 -Direct CO Attainment = 80% Weightage of End Semester Examination + 20% of IAE

R-2021 -Direct CO Attainment = 60% Weightage of End Semester Examination + 40% of IAE

2. Indirect Assessment Process

Indirect assessment strategies are calculated from course end survey reports collected at the end of every semester.

After collection of individual survey forms, the marks for COs are calculated based on the following formula:

CO Indirect attainment =Average of (CO1+CO2+CO3+CO4+CO5) from Course End Survey

Final Overall CO Attainment

Final CO attainment for each course is calculated based on the contribution of direct and indirect assessments as per the weightage given below:

1. Direct Assessment (80%)
2. Indirect Assessment (20%)

Final CO attainment level = (80% Direct assessment + 20 % Indirect assessment)

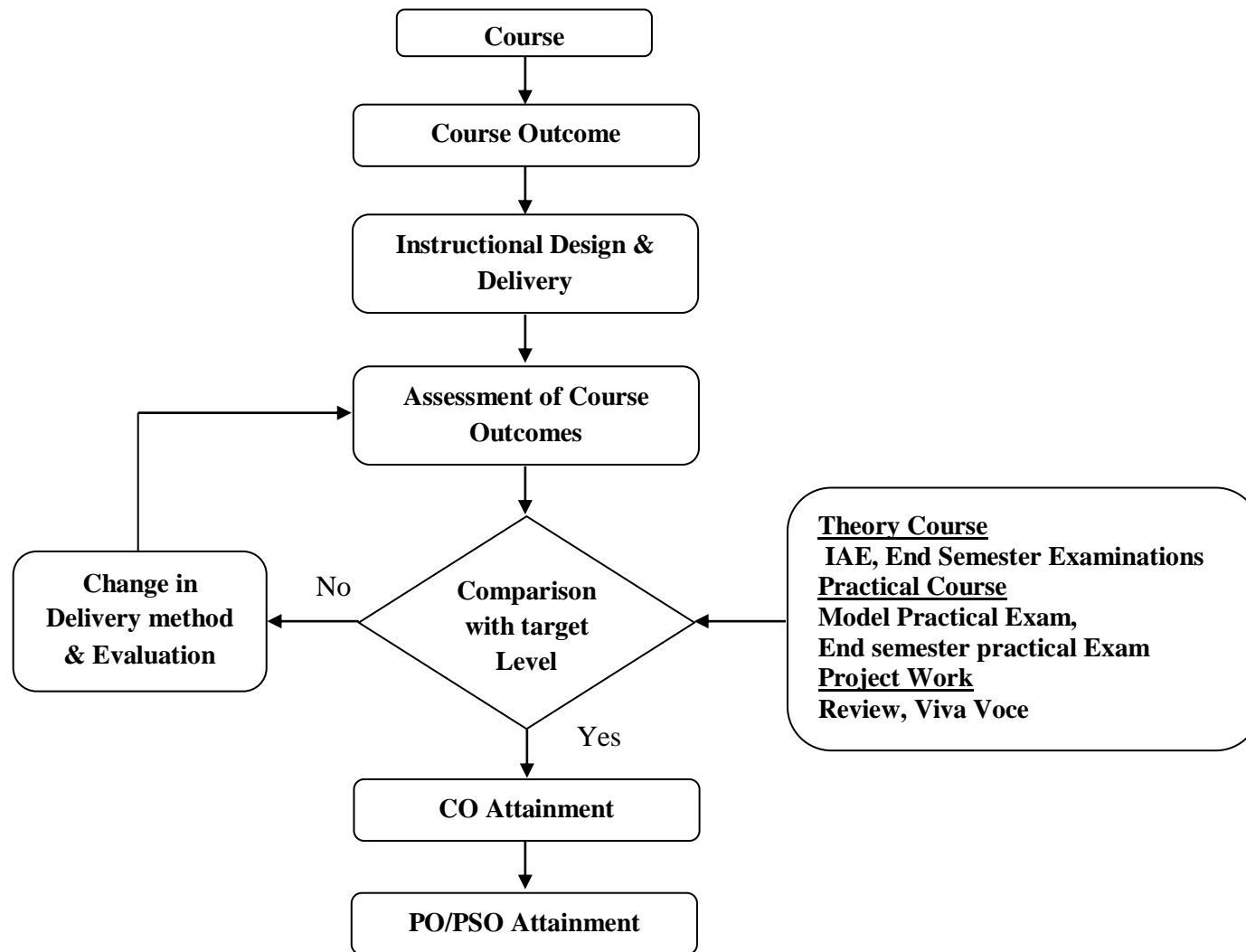


Fig. Assessment method to assess the attainment of the Course Outcomes

Course Outcomes Attainment Calculations

Table A. Ratio of Internal and End Semester Mark Split up for various Courses

S.No.	Regulation	Category of Course	Internal Mark %	University Semester Exam Marks %	Total Marks
1	R2017	Theory course	20	80	100
2		Laboratory courses /Project work	20	80	100
1	R2021	Theory course	40	60	100
2		Laboratory courses /Project work	60	40	100
3		Theory cum Lab course	50	50	100

Internal Assessment Process for Theory Courses

Table B Internal Assessment Process for Theory Courses

S.No	Components for IAP	Syllabus Coverage for the test	Duration of the test in Hrs.	Marks (Max)
R2017				
1	Internal Assessment Examinations I	First 1.5 Units	1 hr 30 min	50 Marks (Converted to 20)
2	Internal Assessment Examinations II	1.5 – 3 Units	1 hr 30 min	
3	Internal Assessment Examinations III	4-5 Units	1 hr 30 min	
4	University Examination	All 5 Units	3 hrs	100 Marks (Converted to 80)
Total				100

R2021				
1	Internal Assessment Examinations I (60)	First 2.5 units	3 hrs	100 Marks (Converted to 40)
	Assignment I/ Seminar I (40)	2.5 – 5 units	3 hrs	
2	Internal Assessment Examinations I (60) Assignment I / Seminar I (40)	2.5 – 5 units	3 hrs	
3	University Examination	All 5 Units	3 hrs	100 (Converted to 60)
Total				100

Internal Assessment Process for Theory Cum Lab Courses

Table C Internal Assessment Process for Theory Cum Lab Courses

R2021				
1	Internal Assessment Examinations I (60)	First 2.5 units	3 hrs	100 Marks (Converted to 50)
	Assignment I/ Seminar I (40)	First 2.5 units	3 hrs	
2	Record (75) Model Exam (25)	All Exercises	3 hrs	
3	University Examination	All 5 Units	3 hrs	100 (Converted to 50)
Total				100

Internal Assessment Process for Laboratory Courses

Table D Internal Assessment Process for Laboratory Courses

S.No	Components for IAM	Marks (max.)	Attainment Calculation
R2017			
1	Record	75	Record & Model Mark Converted to 20 Marks
2	Model Exam	25	
3	University Practical Exam	100	University Practical Exam converted to 80 Marks
Total			100
R2021			
1	Record	75	Record & Model Mark Converted to 60 Marks
2	Model Exam	25	
3	University Practical Exam	100	Converted to 40 Marks
Total			100

Internal Assessment Process for Project Work

Table E Internal Assessment Process for Project work

S.No	Components for IAM	Marks (max.)	Attainment Calculation
1	Project Review	100	3 Review marks (5+7.5+7.5) Converted to 20 marks
2	University Viva-Voce	100	Converted to 80 marks
Total			100

Methodology for attainment of Course Outcomes

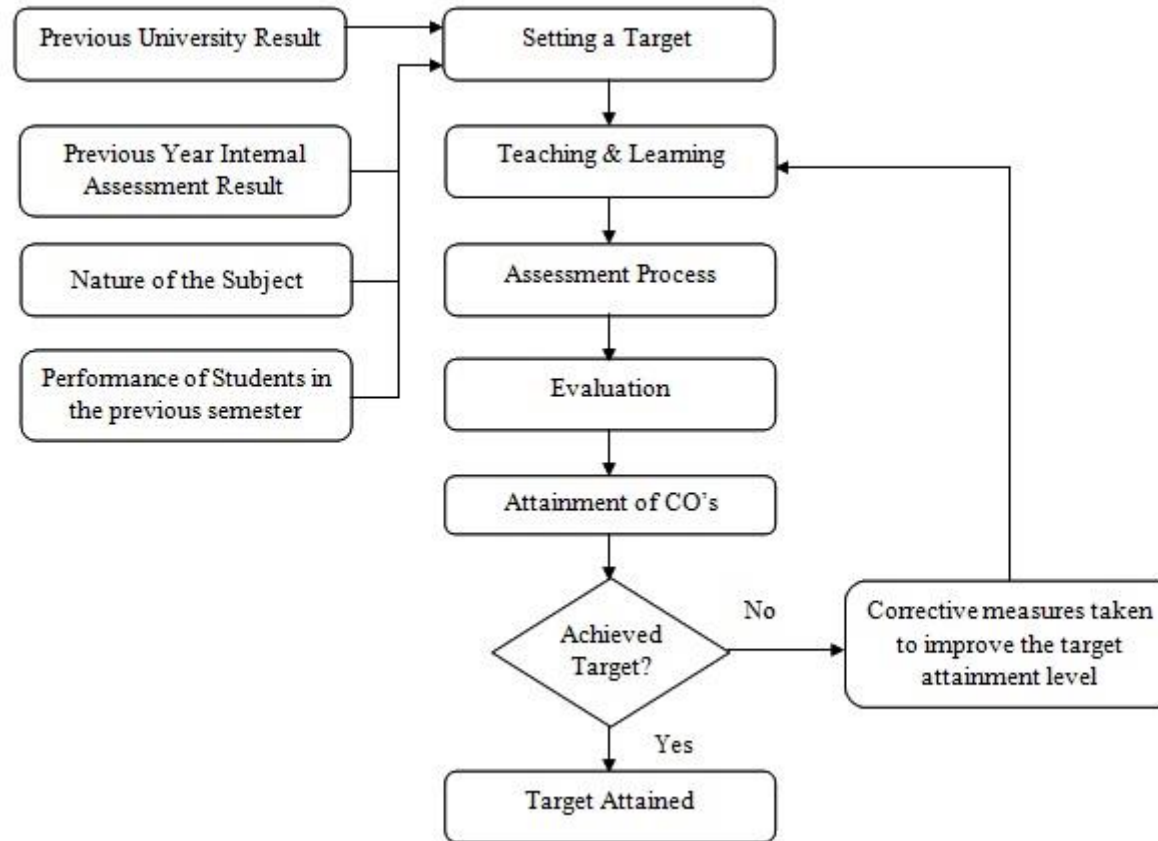


Fig. Attainment of all Courses