

CO –PO Attainment Mechanism

The attainment of CO by using student’s marks, where the student marks consists of Final internal exam, Online Test, Event Participations, Assignments, etc.

Relationship: COs and POs

A CO could be embedded in a PO. Thus, {Course Outcomes} = {Program Outcomes}

All COs are well defined:

1. CO Analysis: In order to match the teacher's expectations with students' level of learning what we need to do is define learning objectives. A learning objective is a goal statement and it includes specific, measurable, performance outcome of the learner. The hierarchies of cognitive levels in learning objectives are RECALL & UNDERSTAND, Apply & Analyze, EVALUATE & CREATE.
2. CO-PO Matrix
3. Else, we reason on the Strength of mapping /degree of match CO with PO.

Strength of mapping is defined at three levels: Slight or Low (level 1), Moderate or Medium (level 2) and Substantial or high (level 3)

A simple method -number of hours devoted to the COs which address the given PO.

If > 40% then PO is Level 3

If 25 to 40% then PO is Level 2

If 5 to 25% then PO is Level 1

If < 5% then PO is considered not-addressed

Sample Course Outcomes

Course Outcome	POs	Cognitive Level (Remember/Understand Apply /Analyze /Evaluate / Create)	Class Sessions (L)	Lab Sessions (T)
CO1	PO1, PO10, PSO1	U	0	4
C02	PO2, PO10, PSO1	U	9	4
C03	PO1, PSO1	U	4	4
C04	PO3,PO4, PO5, PSO1	Ap	8	4
C05	PO3,PO4, PO5, PSO1	Ap	10	6
C06	PO3, PO4, PO5, PSO1	Ap	8	8
Total Hours of instruction			40	28

Course – PO matrix

12 of 68 (18%) sessions are devoted to PO1 Course Level 1

Mapping from the CO-PO matrix

		PO1	PO2	PO3	PO4	PO...	PO _n	PSO1	PSO2
CO1	...	1		1		2	1	3	
CO2		2				2		
...				3				
CO _n	1							

Setting targets for Course Outcomes:

Targets are set for each CO of a course individually (set the targets on the basis predicting present student performance or previous experience by teacher/ committee or any method if possible).

CO	Target (Class Average)
CO1	
CO2	
CO3	

The proportional weightages of Internal Exam (IE): Concurrent Activities (CA) is 30:70

The number and names of assessment instruments/ Concurrent Evaluation Criteria used for CA is decided by teacher, Academic and Examination Committee of AIMS.

Assessment Procedure:

1. Step 1- Teacher collects information from question papers, assignments, tutorials, answer scripts, etc. Typical Assessment Tools:
 - ✓ Mid-Semester and End Semester Examinations
 - ✓ Home Assignments
 - ✓ Class Presentations
2. Step 2- Teacher also furnish the details of CA as evidence towards attainment. The two steps together give assessment.
3. Step 3: Analysis of questions in examinations, tutorials, assignments, etc. will point to those questions that are devised to evaluate attainment of particular COs.
4. Step 4: An examination of the relevant answer scripts along with the extent of relevance of the questions with the COs will reveal the actual level of attainment. {Steps 3 and 4 are judged by Teacher as the domain expert}
5. A list of Assessment tools employed for evaluation of level of attainment for COs communicated Well In advance

CO Attainment and Attainment Gap:

Computation of Attainment of COs in Cxxx =

CO	CO Attainment 0.3 IE Cl. Ave +0.7 CA Cl. Ave	CO Attainment in %	CO Target in %	CO Attainment Gap %ge
CO1				
CO2				
CO3				
CO4				
CO5				
CO _n				

Closure of the Quality Loop Target:

	Target	CO Attainment gap	Action proposed to bridge the gap	Modification of target where achieved
CO1				
CO2				
CO _n				