



Criteria 2.6. Student Performance and Learning Outcomes

2.6.1 The institution has stated learning outcomes (Program and Course outcomes), graduate attributes, which are integrated into the assessment process and widely published through the website and other documents, and the attainment of the same is evaluated by the institution

Report on CO-PO Calculation Procedure

Introduction

The Course Outcome (CO) to Program Outcome (PO) mapping is a crucial aspect of academic quality assurance, especially for accreditation purposes. This report outlines a systematic procedure to calculate CO-PO attainment using assessment data, surveys, and predefined mappings. An example with 10 students is used for illustration, and screenshots of relevant data and calculations are provided.

Procedure for CO-PO Calculation

Step 1: Data Collection

Assessment data is gathered from multiple sources, such as:

Direct Source:

- Assignment I
- Mid Term Exam
- Group Projects or Assignment II
- End-Term Examinations

Indirect Source:

- Course Exit Survey

Table 1. Course attainment Levels.

Assessment Methods	Level 1	Attainment Levels
Final Grade		Less than 50% students scoring more than average% marks.



Level 2	50% to less than 60% students scoring more than average % marks.
Level 3	more than 60% students scoring more than average % marks in internal assessment tools

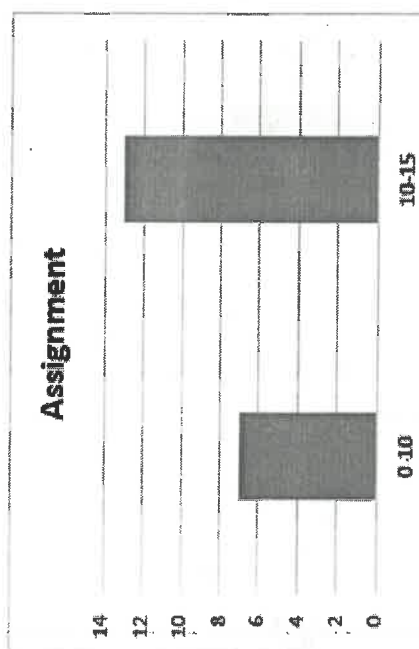
For example, the data from the "1st Sessional" sheet is shown below:

SUSHANT UNIVERSITY									
School of Design									
Assignment I (Odd Semester: 2024-25)									
Program: Interior Architecture		Semester : V		Course Name: IA Spatial Design Studio III		Assignment Date: 7.10.2024		Faculty Name:	
Course Code:	21BIA-5P05								
S. No.	Enrolment No.	Student Name	Batch No	Question 1 (5 marks)	Question 2 (10 marks)	Attainment		Total Marks (15)	
				CO1	CO4	CO-1 (5 marks)	CO-4 (10marks)		
1	2208DES004	Aanchal Tandon	2022-26	2	4	2	4	6	
2	2208DES041	Aashima Dahal	2022-26	4	7	4	7	11	
3	2208DES039	Abir	2022-26	4	7	4	7	11	
4	2208DES028	Anushka sharma	2022-26	4	7	4	7	11	
5	2208DES023	Aryan Madaria	2022-26	3	5	3	5	8	
6	2208DES008	Gurnoor Malhotra	2022-26	4.5	8	4.5	8	12.5	
7	2208DES012	Hatika Goyal	2022-26	4	8	4	8	12	
8	2208DES035	Jia Sharma	2022-26	4.5	9	4.5	9	13.5	
9	2208DES037	Malika Kohli	2022-26	4	7	4	7	11	
10	2208DES032	Minakshi Gupta	2022-26	4.5	9.5	4.5	9.5	14	
11	2208DES017	Nilish Sharma	2022-26	2	4	2	4	6	
12	2208DES006	Parit Tyagi	2022-26	4	8.5	4	8.5	12.5	
13	2208DES007	Ramya Singh	2022-26	4.5	8.5	4.5	8.5	13	
14	2208DES038	Ruhun Thakur	2022-26	3	5	3	5	8	
15	2208DES036	Sanskriti Srivastava	2022-26	2	4	2	4	6	
16	2208DES010	Sanya Panjivara	2022-26	4	7	4	7	11	
17	2208DES003	Tanisha Gahlotra	2022-26	2	4	2	4	6	
18	231BDES003	Yash Mishra	2022-26	4	8	4	8	12	
19	231BDES002	Aashi Jain	2022-26	4	8	4	8	12	
20	231BDES001	Ishba Baig	2022-26	2	4	2	4	6	
Total Students				Average		3.5		6.63	
Total Students Appeared In Assignment 1 (N)						20		10.13	
Number of students scored average% and above marks (P)						13		20	
CO attainment (P/N)*100						65.00%		65.00%	

Average Marks	Max Marks	Min. Marks	Std Deviation	Less than 40%
10	14	6	2.85	0.00%

Marks of students	0-10	10-15
No. of students	7	13

CO Attainment for Assignment I



Step 2: CO Mapping

Each assessment component contributes to specific Course Outcomes (COs). Weightages are assigned based on the relative importance of the assessment. These weightages are predefined and reflected in the "CO Direct Attainment" sheet, which aggregates scores from all assessments:

Step 3: Direct Attainment Calculation

Direct attainment is calculated using the weighted averages of the scores from various assessments. The formulae for these calculations are embedded in the file and reflect:

Where *Score*, is the student's score in the assessment contributing to the CO, and *Weightage* is the corresponding weight.

SUSHANT UNIVERSITY					
School of Design					
Result Analysis (Odd Semester 2024-25)					
Program: Interior Design		Sem: V			
Course Name: IA Spatial Design Studio III		Course Code: 21BIA-5P05			
Faculty Name: Anjali Marwah		Date of Analysis: 07/01/25			
Consolidated CO Attainment (Internal)					
Mid term 15 : Assignment/Presentation 25					
COs	Assessment Tools			Total	
	Mid-Term	Assignment I	Assignment II		
CO1	0	3	0	0.75	
CO2	0	0	0	0	
CO3	3	0	3	1.2	
CO4	3	3	2	1.7	
Consolidated CO Attainment (Internal+External)					
Internal 40 : External 60					
COs	Internal (Mid term+Assignment+Presentation)	End Term (ESE)	Total		
CO1	0.75	3	2.1		
CO2	0	2	1.2		
CO3	1.2	3	2.28		
CO4	1.7	2	1.88		

Step 4: Indirect Attainment Calculation

Indirect attainment is derived from surveys, reflecting students' perceived achievement of the COs. These are combined with direct attainment to calculate overall CO attainment.

School of Design, Sushant University, Gurugram									
Academic Year - Odd 2024-25									
Course Exit Survey									
Program: Interior Design		Sem: V							
Course Name: IA Spatial Design Studio III		Course Code: 21BIA-5P05							
Faculty Name: Anjali Marwah		Date of Survey: 07/01/25							
Student Full Name	CO1		CO2		CO3		CO4		
	Course Exit survey parameter1	Attainment of CO1	Course Exit survey parameter2	Attainment of CO2	Course Exit survey parameter3	Attainment of CO3	Course Exit survey parameter4	Attainment of CO4	
Aanchal Tandon	Fair	8	Fair	8	Fair	8	Fair	8	
Aashma Dahel	Good	12	Good	12	Good	12	Good	12	
Abir	Good	12	Good	12	Good	12	Good	12	
Anushka sharma	Good	12	Good	12	Good	12	Good	12	
Anyan Madaria	Good	12	Good	12	Good	12	Good	12	
Gurmoor Malhotra	Very Good	16	Very Good	16	Very Good	16	Very Good	16	
Hitika Goyal	Very Good	16	Very Good	16	Very Good	16	Very Good	16	
Jia Sharma	Very Good	16	Very Good	16	Very Good	16	Very Good	16	
Malika Kohli	Very Good	16	Very Good	16	Very Good	16	Very Good	16	
Minallini Gupta	Excellent	20	Excellent	20	Excellent	20	Excellent	20	
Nitish Sharma	Fair	8	Fair	8	Fair	8	Fair	8	
Pari Tyagi	Excellent	20	Excellent	20	Excellent	20	Excellent	20	
Raanya Singh	Excellent	20	Excellent	20	Excellent	20	Excellent	20	
Ruhun Thakur	Very Good	16	Very Good	16	Very Good	16	Very Good	16	
Sanakruti Srivastava	Fair	8	Fair	8	Fair	8	Fair	8	
Sanya Panjyera	Very Good	16	Very Good	16	Very Good	16	Very Good	16	
Tamisha Gathotra	Fair	8	Fair	8	Fair	8	Fair	8	
Yash Mishra	Very Good	16	Very Good	16	Very Good	16	Very Good	16	
Aashli Jain	Very Good	16	Very Good	16	Very Good	16	Very Good	16	
Lehba Baig	Fair	8	Fair	8	Fair	8	Fair	8	
Average		13.8		13.8		13.8		13.8	
No of students		11		11		11		11	
Total students		20		20		20		20	
Attainment Level (%)		55.00%		55.00%		55.00%		55.00%	
Attainment Level		2		2		2		2	

Assessment Methods	Assessment Levels	
	Level1	Less than 50% students scoring more than average % marks.
	Level2	50% to less than 60% students scoring more than average % marks.
	Level3	more than 60% students scoring more than average % marks in internal assessment tools

SUSHANT UNIVERSITY			
School of Design			
CO Attainment (Odd Semester 2024-25)			
Program: Interior Design	Sem: VI		
Course Name: IA Spatial Design Studio III	Course Code: 21BIA-5P05		
Faculty Name: Anjali Marwah	Date of Analysis: 07/01/25		
COs	Direct (80%)	Indirect (20%)	Total (100%)
CO1	2.1	2	2.08
CO2	1.2	2	1.36
CO3	2.28	2	2.224
CO4	1.88	2	1.904

Step 5: PO Mapping

Each CO is mapped to specific POs and PSOs with predefined weightages, which are documented in the "PO-PSO Attainment" sheet. An example of this mapping is shown below:



Step 6: Attainment Levels

The overall attainment for each PO is calculated as a weighted sum of the CO contributions. This is summarized in the "PO-PSO Attainment" sheet.

SUSHANT UNIVERSITY																			
School of Design																			
CO-PO-PSO Mapping (Odd Semester 2024-25)																			
Program: Interior Design				Sem: V															
Course Name: IA Spatial Design Studio III				Course Code: 21BIA-5P05															
Faculty Name: Anjali Marwah				Date of Analysis: 07/01/25															
COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	
CO1	3	2	2	3	2	0	0	1	3	2	2	2	3	0	3	0	1	0	
CO2	3	2	2	0	2	3	2	1	3	2	2	0	3	0	3	0	1	0	
CO3	3	2	2	3	2	0	0	0	0	0	0	2	0	2	3	0	1	0	
CO4	0	0	0	0	2	0	0	0	0	2	0	0	0	2	3	0	1	0	

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6
CO1	2.76	4.16	4.16	6.24	4.16	0	0	2.08	6.24	4.16	4.16	4.16	6.24	0	6.24	0	2.08	0
CO2	2.76	2.72	2.72	0	2.72	6.24	4.16	2.08	6.24	4.16	4.16	0	6.24	0	6.24	0	2.08	0
CO3	2.76	4.48	4.48	6.672	4.48	0	0	0	0	0	0	4.16	0	4.16	6.24	0	2.08	0
CO4	0	1.2	1.2	1.8	1.2	0	0	0	0	4.16	0	0	0	4.16	6.24	0	2.08	0
Attainment	0.00	2.09	1.53	2.45	1.53	0.00	0.00	2.08	2.08	2.08	0.00	0.00	2.08	2.08	2.08	0.00	0.00	0.00

Conclusion

This procedure ensures a structured approach to CO-PO attainment calculation, integrating both direct and indirect measures. By using systematic mapping and aggregation, institutions can effectively monitor and enhance the alignment of course outcomes with program objectives.

