



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

Attainment Calculation Procedure

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:

- Assignments
- Mid Term Exam
- Group Projects and Presentations
- End-Term Examinations

Indirect Source:

- Course Exit Survey



Table 1. Course attainment Levels.

Assessment Methods	Attainment Levels	
Final Grade	Level 1	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



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For example, the data from the "Mid term" sheet is shown below:

SUSHANT UNIVERSITY SCHOOL OF LAW

Mid-Term Examination (Odd Semester 2023-24)									
Program:		BA LLB 2019-24 /BBA LLB 2019-24 /LLB 2021-24		Semester : IX & V		Course Name: IP Laws and Pharmacy		Faculty Name:	
Course Code:		SLH CORP 477		Batch No		Q1(5Marks)		Q2(5Marks)	
S. No.	Enrolment No.	Student Name	Batch No	Q1(5Marks)		Q2(5Marks)		Q3(5Marks)	
				CO1	CO2	CO1	CO2	CO1 (Marks)	CO2 (Marks)
1	190BALLB006	Taniya	BA LLB (Hons.) 2019-24	2	2	1	2	2	3
2	190BALLB007	Pari Khurana	BA LLB (Hons.) 2019-24	3	2	0	3	3	2
3	190BALLB009	Rinki Rana	BA LLB (Hons.) 2019-24	2	5	1	2	2	6
4	190BALLB011	Dhriti Kundu	BA LLB (Hons.) 2019-24	3	5	4	3	3	9
5	190BALLB012	Prashant Sehrawat	BA LLB (Hons.) 2019-24	5	3	2	5	5	10
6	190BALLB014	Nishtha Ahlawat	BA LLB (Hons.) 2019-24	3	5	5	3	10	13
7	190BALLB026	Manisha .	BA LLB (Hons.) 2019-24	5	3	5	5	8	13
8	190BALLB027	Nitish Mehlawat	BA LLB (Hons.) 2019-24	5	3	2	5	5	10
9	190BALLB028	Shubham Tyagi	BA LLB (Hons.) 2019-24	1	0	0	1	0	1
10	190BBALLB001	Ashish Janghu	BBA LLB (Hons.) 2019-24	5	4	2	5	6	11
11	190BBALLB002	Bhumika Dandona	BBA LLB (Hons.) 2019-24	5	5	4.5	5	9.5	14.5
12	190BBALLB003	Dipesh Ambawat	BBA LLB (Hons.) 2019-24	4	3	2.5	4	5.5	9.5
13	190BBALLB004	Ritik Yadav	BBA LLB (Hons.) 2019-24	3	2	2.5	3	4.5	7.5
14	190BBALLB006	Chetan Sharma	BBA LLB (Hons.) 2019-24	3	2	2.5	3	4.5	7.5
15	190BBALLB007	Vaibhav Yadav	BBA LLB (Hons.) 2019-24	4	2	2.5	4	4.5	8.5
16	190BBALLB008	Ishaanvi Mavi	BBA LLB (Hons.) 2019-24	5	3	2	5	5	10
17	190BBALLB009	Vinay Yadav	BBA LLB (Hons.) 2019-24	3	2	4	3	6	9
18	190BBALLB012	Chirag Tanwar	BBA LLB (Hons.) 2019-24	2	2	2	2	4	6

19	190BBALLB013	Lavanya Gupta	BBA LLB (Hons.) 2019-24	5	3	2	5	5	10
20	190BBALLB014	Bilha Susan Jiji	BBA LLB (Hons.) 2019-24	4	3	3	4	6	10
21	190BBALLB015	Simran Gulia	BBA LLB (Hons.) 2019-24	2	2	3.5	2	5.5	7.5
22	210LLB003	Col Chanjeet Singh Gauba	LLB (Hons.) 2021-24	3	3	3	3	6	9
23	210LLB004	Rajinder Prasad Sharma	LLB (Hons.) 2021-24	3	4	2	3	6	9
24	210LLB008	Nandita Kashyap	LLB (Hons.) 2021-24	0	0	0	0	0	0
25	210LLB011	Pradeep Singh	LLB (Hons.) 2021-24	4	3.5	5	4	8.5	12.5
26	210LLB017	Vivienne Mimi Nabam	LLB (Hons.) 2021-24	4	3	5	4	8	12
27	210LLB018	Rahul Yadav	LLB (Hons.) 2021-24	4	5	3	4	8	12
28	210LLB021	Amit Sachdeva	LLB (Hons.) 2021-24	1	5	4	1	9	10
29	210LLB022	Raghav Chawla	LLB (Hons.) 2021-24	0	0	0	0	0	0
35									
Total Students									
				3.20689655					
Average				2					
Number of students appeared in Mid-term (N)									
				13					
CO attainment (P/N)*100				48.15%					
				59.26%					

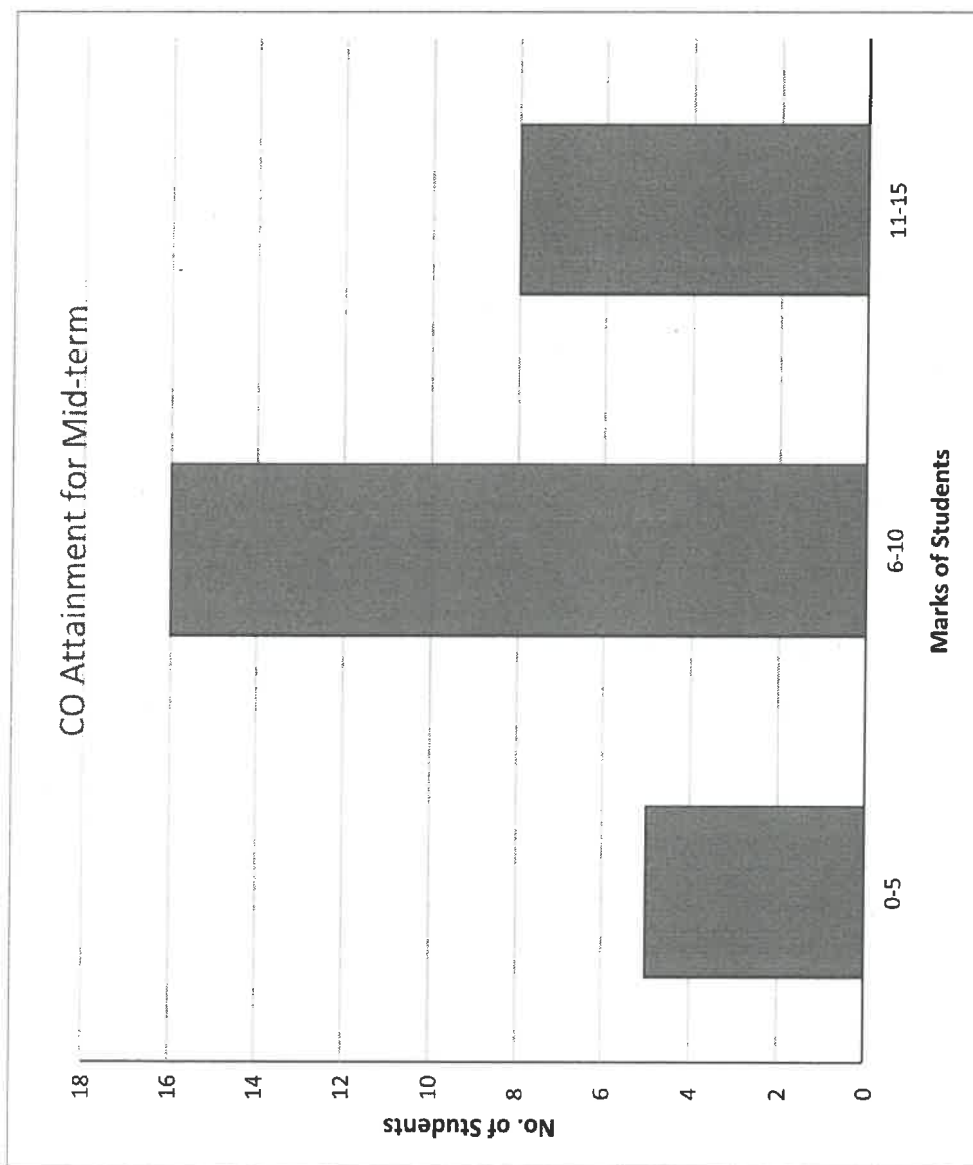
Average Marks	Max Marks	Min. Marks	Std Deviation	Less than 40%	More than 90%
9	15	0	3.64	22.22%	3.7%

Students Marks	0-5	6-10	11-15
Mid-term	5	16	8



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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.

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Result Analysis (Odd Semester 2023-24)

Program: BA LLB 2019-24/BBA LLB2019-24/
LLB 2021-24

Sem: IX & V

Course Name: IP Laws and Pharmacy

Course Code: SLH CORP 477

Faculty Name: Ruchi Lakra

Consolidated CO Attainment (Internal)

Mid term 15 : Assignment/Presentation 25

COs	Assessment Tools			Total
	Mid-Term	Assignment	Group Project/ Presentation	
CO1	1	3	0	0.9
CO2	2	3	0	1.05
CO3	0	0	0	0.75
CO4	0	0	0	0.75

Consolidated CO Attainment (Internal+External)

Internal 40 : External 60

COs	Internal (Mid term+Assignment+Presentation)	End Term (ESE)	Total
CO1	0.9	2	1.56
CO2	1.04	3	2.216
CO3	0.75	3	2.1
CO4	0.75	3	2.1

For Internal	
Assessment	Marks
For Mid Term	15
For Assignment	05
Group project and presentation	25

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 LAW, Sushant University, Gurugram									
Academic Year - Odd 2023-24									
Course Exit Survey									
Program: BA LLB 2019-24 BBA LLB2019-24 LLB 2021-24					Sem: IX & V				
Course Name: IP Laws and Pharmacy					Course Code: SLH CORP 477				
Faculty Name: Ruchi Lakra									
Student Full Name	CO1		CO2		CO3		CO4		Attainment of COs
	Course Exit survey parameter 1	Attainment of CO1	Course Exit survey parameter 2	Attainment of CO2	Course Exit survey parameter 3	Attainment of CO3	Course Exit survey parameter 4	Attainment of CO4	
	Excellent	25	Excellent	25	Very Good	25	Very Good	20	
Pari Khurana	Good	15	Good	15	Good	15	Excellent	25	



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Rinki Rana	Excellent	25	Excellent	25	Excellent	25	Excellent	25	Excellent	25
Dhriti Kundu	Very Good	20	Good	15	Good	15	Good	15	Very Good	20
Prashant Sehrawat	Very Good	20	Good	15	Very Good	20	Excellent	25	Excellent	25
Nishtha Ahlawat	Excellent	25	Very Good	20	Very Good	20	Excellent	25	Excellent	25
Manisha .	Excellent	25	Good	15	Good	15	Good	15	Very Good	20
Nitish Mehlawat	Excellent	25	Excellent	25	Good	15	Excellent	25	Excellent	25
Shubham Tyagi	Very Good	20	Very Good	20	Good	15	Good	15	Very Good	20
Ashish Janghu	Good	15	Very Good	20	Good	15	Good	15	Very Good	20
Bhumika Dandona	Good	15	Good	15	Very Good	20	Good	20	Very Good	20
Dipesh Ambawat	Very Good	20	Good	15	Very Good	20	Good	20	Excellent	25
Ritik Yadav	Excellent	25	Excellent	25	Excellent	25	Excellent	25	Excellent	25
Chetan Sharma	Good	15	Excellent	25	Good	20	Good	20	Excellent	25
Vaibhav Yadav	Very Good	20	Very Good	20	Good	25	Excellent	25	Very Good	20
Ishaanvi Mavi	Excellent	25	Very Good	20	Excellent	25	Excellent	25	Excellent	25
Vinay Yadav	Excellent	25	Excellent	25	Very Good	20	Good	20	Excellent	25
Chirag Tanwar	Excellent	25	Excellent	25	Excellent	25	Excellent	25	Excellent	25
Lavanya Gupta	Excellent	25	Very Good	20	Good	25	Excellent	25	Very Good	20
Bilha Susan Jiji	Very Good	20	Good	15	Very Good	20	Good	20	Excellent	25
Simran Gulia	Good	15	Very Good	20	Good	15	Good	15	Very Good	20
Col Chanjeet Singh Gauba	Good	15	Very Good	20	Good	15	Good	15	Very Good	20
Rajinder Prasad Sharma	Good	15	Good	15	Good	15	Good	15	Very Good	202
Nandita Kashyap	NA	0	NA	0	NA	0	NA	0	NA	0



Pradeep Singh	Good	15	Good	15	Good	15	Very Good	20
Vivienne Mimi Nabam	Very Good	20	Good	15	Very Good	20	Very Good	20
Rahul Yadav	Very Good	20	Very Good	20	Very Good	20	Very Good	20
Amit Sachdeva	Very Good	20	Good	15	Very Good	20	Good	15
Raghav Chawla	NA	0	NA	0	NA	0	NA	0
Average		18.96552		17.93103		18.10345		26.7931
No of students >=Avg		19		16		17		1
Total students		27		27		27		27
Attainment Level (%)		70.37%		59.26%		62.96%		3.70%
Attainment Level		3		2		3		1

Assessment Methods	Attainment Levels	
Assessment	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

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CO Attainment (Odd Semester 2023-24)

Program: BA LLB 2019-24 BBA LLB 2019-24 LLB 2021-24 Sem: IX & V

Course Name: IP Laws and Pharmacy

Course Code: SLH CORP 477

Faculty Name: Ruchi Lakra

COs	Direct (80%)	Indirect (20%)	Total (100%)
CO1	1.56	3	1.848
CO2	2.216	2	2.1728
CO3	2.1	3	2.28
CO4	2.1	1	1.88

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.



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CO-PO-PSO Mapping (Odd Semester 2023-24)

Program: BA LLB 2019-24 BBA LLB 2019-24 LLB 2021-24 Sem: IX & V

Course Name: IP Laws and Pharmacy

Course Code: SLH CORP 477

Faculty Name: Ruchi Lakra

COs	PO1	PO2	PO3	PO4	PO5	PO6	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6
CO1	3	2	3	2		2		2	3	3	2	2
CO2	3	3		3	2		3		2	2		2
CO3		2	3	3	3		3	3	3	3	3	3
CO4	3	2	3		3	2		2	3		2	

COs	PO1	PO2	PO3	PO4	PO5	PO6	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6
CO1	9	6	9	6	0	6	0	6	9	9	6	6
CO2	9	9	0	9	6	0	9	0	6	6	0	6
CO3	0	0	0	0	0	0	0	0	0	0	0	0
CO4	0	0	0	0	0	0	0	0	0	0	0	0
Attainment	2.00	1.67	1.00	1.88	0.75	1.50	1.50	0.86	1.36	1.88	0.86	1.71

1=Lightly mapped 2= Moderately mapped 3=Strongly mapped

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.

