

13. Controller of Examination will send a sample of question papers and a sample of evaluated answer sheets to external experts to maintain the quality in Examination process with prior permission of Dean Academics and Vice-Chancellor.

14. The medium of instructions for teaching and examination is English.

19. Guidelines for Calculating Course Outcomes (CO) and Programme Outcomes (PO) Attainment

CO Attainment:

CO attainment is calculated through

- Direct attainment - Weightage 80 %
- Indirect attainment - Weightage 20 %
- **Direct Attainment:** Direct attainment of Course Outcomes is measured through Internal Assessment (i.e. MSEs, Written Quiz Assignment/Project Work/Seminar etc..) and End Semester Examination.

Calculation Method:

- 45% weightage considered for internal assessment (MSE, Written Quiz and Assignment)
- Attendance: 5%
- 50% weightage considered for End Semester Examination

Target:

Minimum 50% marks

Attainment levels:

Attainment level 0	50% students scoring less than the target
Attainment level 1	50% students scoring more than the target
Attainment level 2	60% students scoring more than the target
Attainment level 3	70% students scoring more than the target

Steps for calculating CO Attainment with example

Step 1: Fill the marks of students in MSE, Written Quiz, Assignment, Attendance and ESE.

Step 2: Calculate the number of students who attempted MSE, Written Quiz, Assignment and ESE.

ATTESTED
Registrar
DAV University, Jalandhar

Step 3: Calculate the number of students who scored $\geq 50\%$ of maximum marks in each Question.

Step 4: Calculate % of students who scored $\geq 50\%$

Step 5: Evaluate the attainment level by using the criteria.

- a) If % of students who scored < 50 : Attainment Level will be "0"
- b) If % of students who scored ≥ 50 and < 60 : Attainment Level will be "1"
- c) If % of students who scored ≥ 60 and < 70 : Attainment Level will be "2"
- d) If % of students who scored ≥ 70 : Attainment Level will be "3"

Step 6: Repeat the steps 3 to 5, and calculate the attainment of ESE, Quiz and Assignments.

Step 7: Calculate the Net Attainment of each CO which may include MSE, ESE, Quiz and Assignments.

● **Indirect Attainment:**

Course exit survey is considered for CO indirect attainment

Course Exit Survey: Course exit survey is considered for CO indirect attainment

Example for the purpose of understanding:

S.NO.	Registration No.	Student Name	CO1	CO2	CO3	CO4	CO5	CO6
1			3	3	3	3	3	3
2			2	2	2	2	2	2
3			3	3	3	3	3	3
4			2	2	2	2	2	2
5			3	2	2	2	3	3
Average of each CO			2.5	2.5	2.44	2.44	2.5	2.5
Indirect Attainment			2.47					

- Calculate CO Attainment from direct attainment and indirect attainment by taking the Weightage of 80% and 20% respectively:


ATTESTED
 Registrar
 DAV University, Jalandhar

Example for the purpose of understanding:

CO Attainment						
Particular	Direct Attainment					Indirect Attainment
	MSE	Quiz	Assignmen	Attenadnce	ESE	
CO1	1		3		3	
CO2	2		2		2	
CO3		1			3	
CO4			2		2	
AVERAGE	1.5	1	2.333333		2.5	
Weightage(%)	25	10	10	5	50	
Attainment	0.375	0.1	0.233333	3(attendance more than 70%)	1.25	2.47
Total Attainm	1.958333333					2.47
Weightage	80%					20%
Final Attainment	2.060666667					

The value 2.47 written in the indirect attainment column is taken from Course exit survey.

PO Attainment:

- **Direct Attainment:** For each PO and PSO, the attainment value of a course that contributes to the PO/PSO is Computed as follows:

$$\text{Course PO Attainment} = (\text{Average CO to PO Relevance} / 3(\text{Maximum Value})) * \text{Final Attainment}$$

Example for the purpose of understanding

In the table given below the numbers (1, 2 & 3)

- 1 corresponds to Low mapped
- 2 corresponds Moderately mapped
- 3 corresponds Highly mapped

ATTESTED

 Registrar
 DAV University, Jalandhar

CO-PO-PSO MAPPING

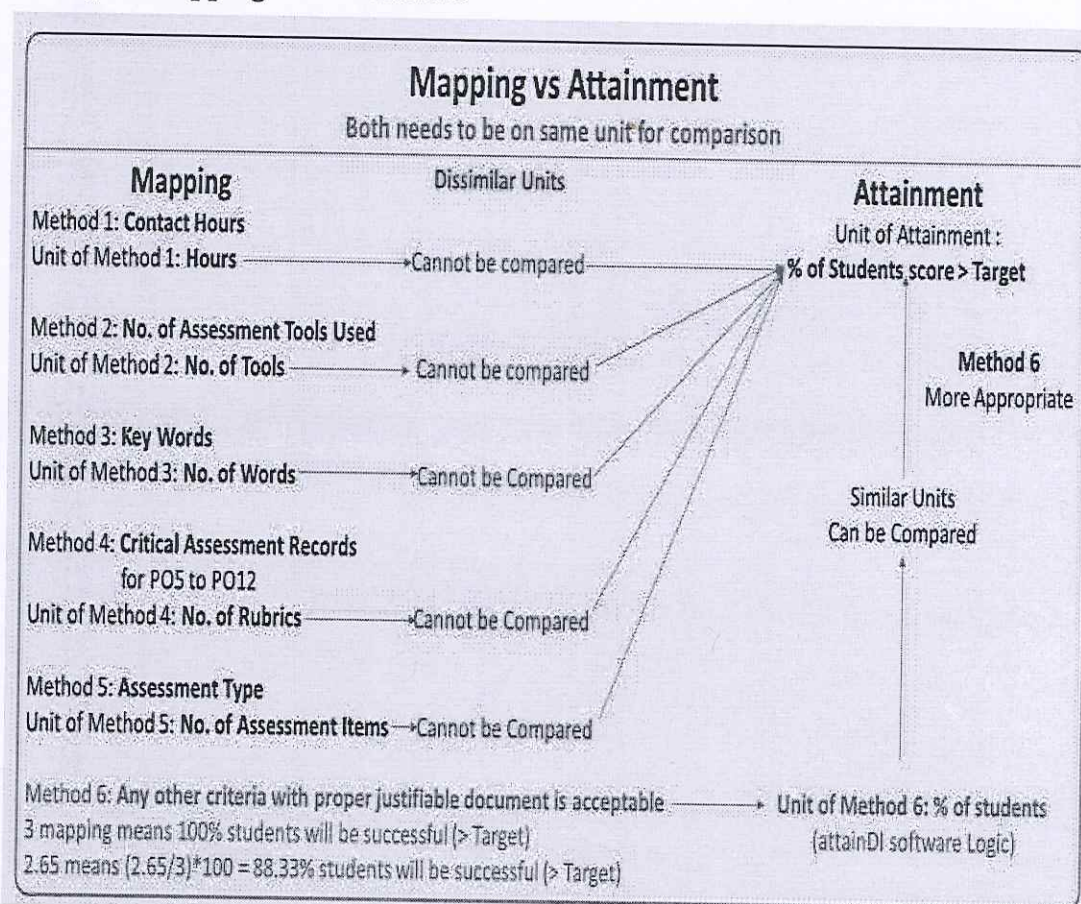
CO NO.	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	1	1	2	-	-	-	-	-	2	-	-	-	1	3
CO2	2	1	1	-	-	-	-	-	1	-	-	-	1	2
CO3	3	3	2	-	-	-	-	-	3	-	-	-	3	3
CO4	1	2	2	-	-	-	-	-	2	-	-	-	2	2
CO5	2	2	3	-	-	-	-	-	1	-	-	-	2	2
	1.8	1.8	2	-	-	-	-	-	1.8	-	-	-	1.8	2.4

PO/PSO ATTAINMENT=(CO-PO-PSO AVERAGE/3)* FINAL ATTAINMENT

Direct	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
PO/PSO	1.24	1.2	1.4	0	0	0	0	0	1.2	0	0	0	1.24	1.65

Note: Efforts should be made that all the CO's are equally assessed in all the components viz. MSE, ESE, Assignments, and Quiz.

Example: Mapping vs. Attainment



ATTESTED

Registrar
DAV University, Jalandhar