

Department of Information Technology

Procedure of Calculating CO PO Attainment

Formation of Domain Group / Mapping, Validation and Formation of Rubrics of CO PO as per syllabus content / Creation of Articulation Matrix / Specific remarks for CO PO attainment level

MATRIX FOR CO PO MAPPING FOR COURSE:

CO/PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	X	X	X	X	--	--	--	--	--	--	--	X		
CO2	X	X	X	X	X	--	--	--	--	--	X	X		
CO3	X	X	X	X	X	X	X	X	--	--	X	X		
CO4	X	X	X	X	X	--	X	--	--	--	X	X		
CO5	X	X	X	X	--	--	--	--	--	--	X	X		
CO6	X	X	X	X	X	X	X	X	--	--	X	X		

ARTICULATION MATRIX FOR SUBJECT / COURSE (Assigning weightages as per curriculum)

High – 3

Moderate – 2

CO/PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	3	2	1	2	--	--	--	--	--	--	-	2	--	--
CO2	2	2	2	3	1	--	--	--	--	--	2	2	--	--
CO3	2	3	3	3	2	2	1	2	--	--	2	2	--	--
CO4	2	2	1	2	2	--	1	--	--	--	1	1	--	--
CO5	1	1	1	1	--	--	--	--	--	--	2	2	--	--
CO6	2	3	3	3	3	2	2	1	--	--	2	2	--	--
AVG	2	2.17	1.83	2.33	2.00	2.00	1.33	1.50	-	-	1.80	1.83	-	-

Low – 1

- Calculate the Average Value of PO through Course Outcomes

$$\text{Average Value PO} = \frac{\text{Total of attainment level}}{\text{Total No. of COs mapped with PO}}$$

PROGRAM OUTCOME ARTICULATION MATRIX

(After entering the Average values of Course Outcomes of all subjects of a Program)

Year	Sem.	Subject Code	Name of Subject	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PS O1	PS O2
FE	I	FEC101															
	II	FEC201															
SE	III	ITC301															
	IV	ITC401															
TE	V	ITC501	Internet Programming	1.24	0.74	1.34	1.49	--	--	--	--	--	--	1.36	--	--	0.74
		ITC502															
	VI	ITC601															
BE	VII	ITC701															
	VII I	ITC801															
Target Value																	

Calculate Average Value of PO of all subjects

$$\text{Average Value PO} = \frac{\text{Total of attainment level}}{\text{Total No. of subjects mapped with PO}}$$

Course Outcome	Internal Assessment (20%)				External Assessment (80%)	80% of External+20% of internal examination
	IA-I OR IA-II	Experiment	Assignment	Internal Evaluation Average	University Evaluation	
CO1	2.87	2.87	2.66	2.8	1.7	1.92
CO2	2.92	2.81	2.66	2.8	1.7	1.92
CO3	2.66		2.66	2.66	1.7	1.89
CO4	2.82		2.66	2.74	1.7	1.91
CO5			2.66	2.66	1.7	1.89
CO6			2.66	2.66	1.7	1.89

Total No. of students scored =>40 and <49										
Mapping CO										All COs
Attainment Level										

Calculation of Attainment Level

Ex.

If Total no of students are 100

Total No. of students scored above 60 = 50

Total No. of students scored above 50 and <59 = 25

Total No. of students scored above 40 and <49 = 25

Then Attainment Level = $(50 \times 3 + 25 \times 2 + 25 \times 1) / 100 = 2.25$

External Assessment 80% and Internal Assessment 20% Calculation

Articulation Matrix: (Converting Levels to Scores)

- Level 3 = Actual score
- Level 2 = Actual Score x 2 / 3
- Level 1 = Actual Score x 1 / 3


 MANJARA CHARITABLE TRUST
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 (Permanently affiliated to University of Mumbai)

		ITC602														
BE	VII	ITC701														
		ITC702														
	VIII	ITC801														
		ITC802														
Average																
Direct 80 %																

For Calculation of Direct attainment level of PO =
$$\frac{\text{Total of attainment Level}}{\text{No of courses for that particular PO}}$$

2. INDIRECT ATTAINMENT TOOLS:

- Program Exit Survey
- Employer Feedback: Rubrics is given in department
- Alumni Feedback: Rubrics is available in Academic Diary
- Parents Feedback: Rubrics is available in Academic Diary
- Feedback from Student Professional Body

Rubrics of Indirect Attainment for all types of Feedback and Survey

Name of Alumni	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO 11	PO 12	PSO1	PSO2
Student 1	1		1		1		1			1		1		
Student 2	2	1	2		2		2			2		2		
Student 3	2	1	2		1		2			2		2		
Student 4	2	2	1				1			1		1		
Student 5	3						2			2		2		
Student 6	2		2							2		2		
Student 7														
Student 8	2	1	2		1		2			2		2		
Student 9	2	2	1				1			1		1		
Student 10	3						2			2		2		
Student 11	2		2							2		2		
Student 12	2	1	2		1		2			2		2		
Student 13	2	2	1				1			1		1		
Student 14	3						2			2		2		
Student 15	2		2							2		2		
Student 16	2	1	2		1		2			2		2		
Student 17	2	2	1				1			1		1		
Student 18	3						2			2		2		
Student 19	2		2							2		2		
Student 20	2	2	1				1			1		1		
Average	2.2	1.5	1.6	0.0	1.2	0.0	1.6	0.0	0.0	1.7	0.0	1.7		

Tools	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	P08	P09	P10	P11	P12	PSO 1	PSO 2
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