

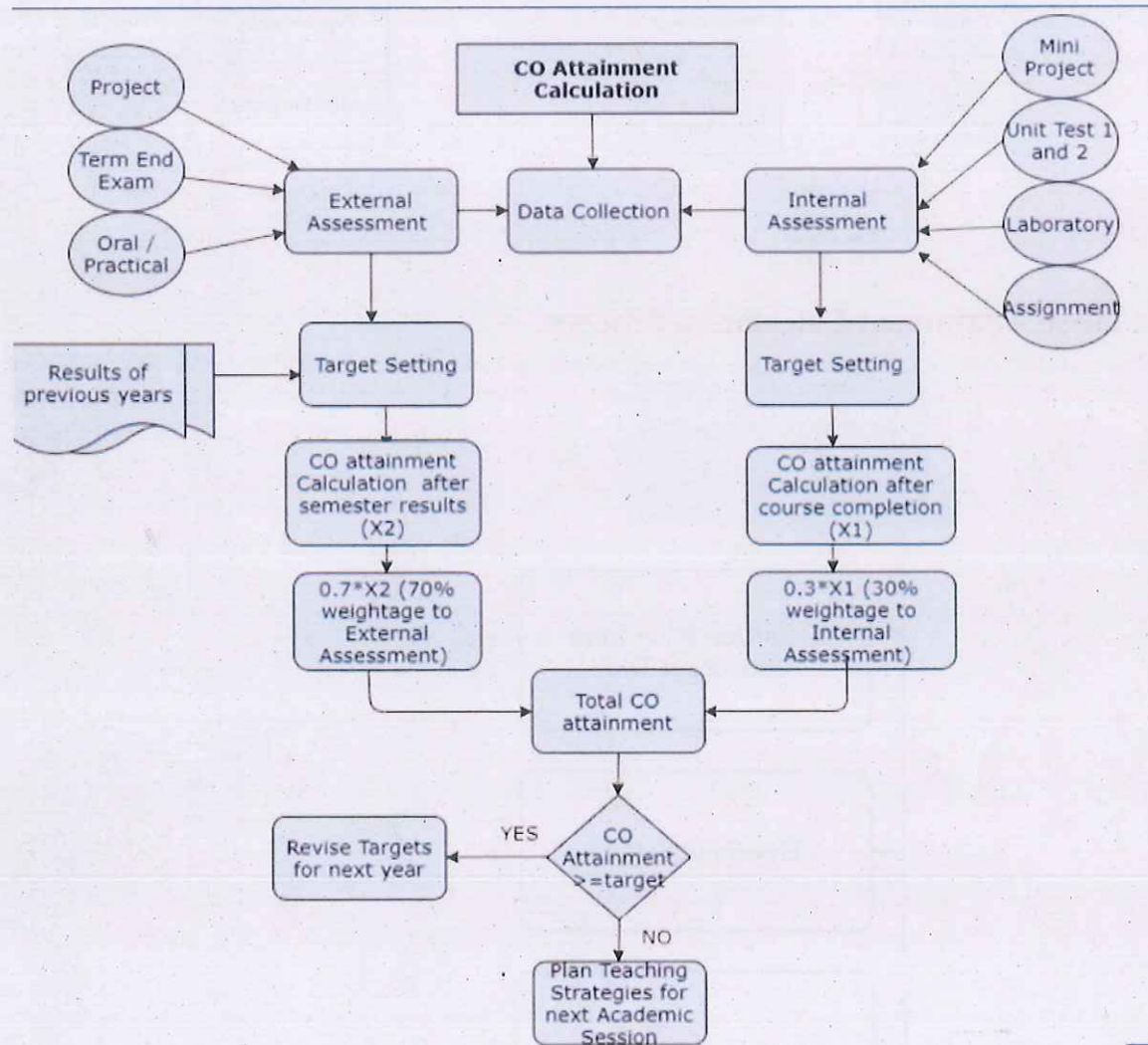
2.6.2: Attainment of programme outcomes and course outcomes are evaluated by the institution.


Course Outcomes and Program Outcomes

The Course Outcomes (CO) and Programme Outcomes (PO) Attainment Level is calculated at the Institute for all the Passing Out Batches with the systematic method.

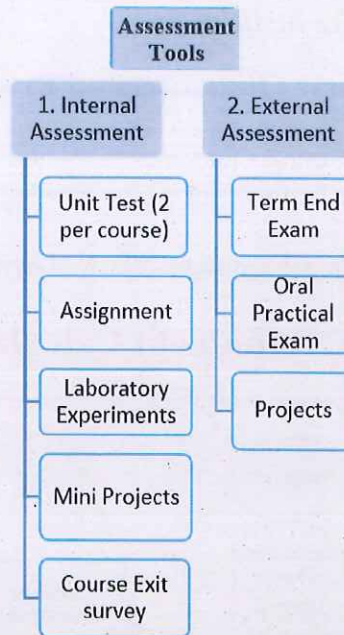
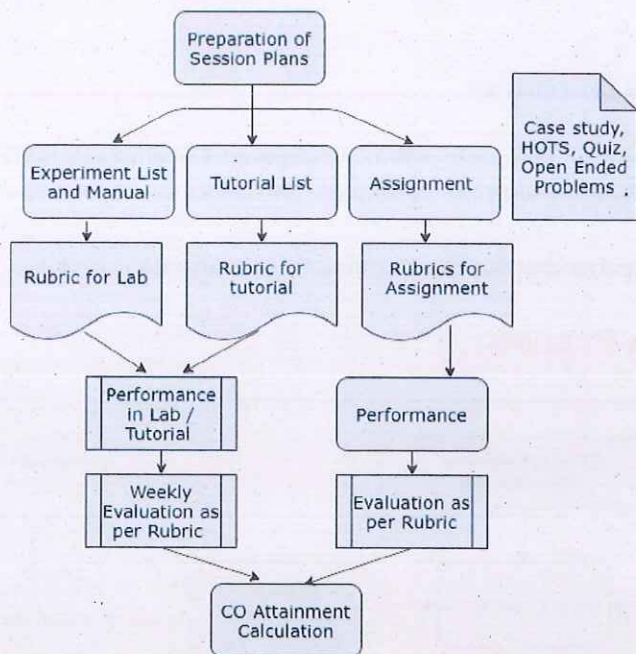
Below are the steps followed by the departments for the calculation of attainment levels.

CO Attainment Calculation Process:

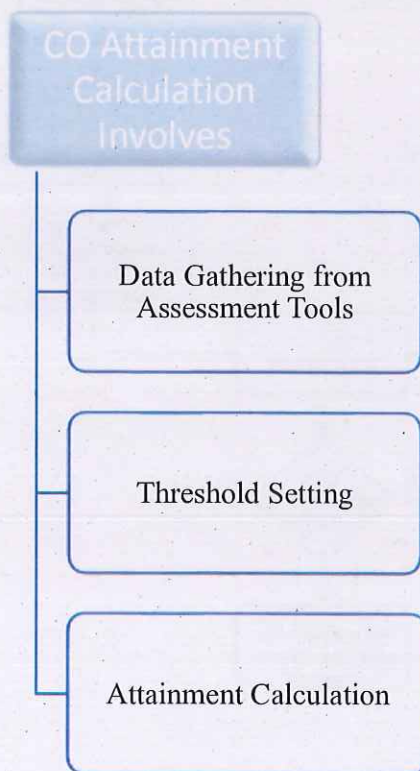



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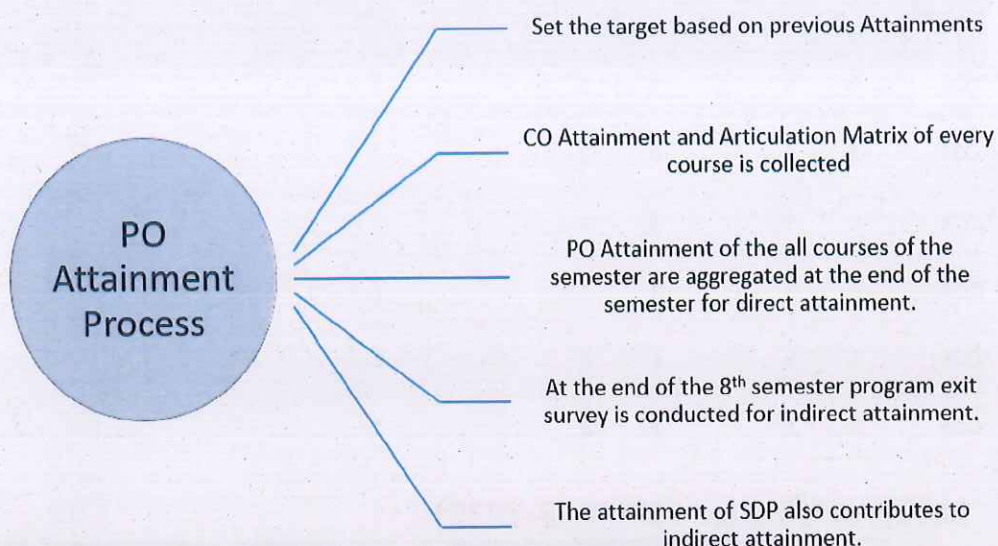
Course Attainment – Data Collection Process



Course Attainment Calculation Process:



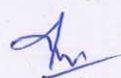
PO Attainment Calculation Process



Sample Calculation for a Course:

Subject Assessment Scheme - BEE

Subject Scheme	Max Marks	Nature of Assessment
Int Test1	20	INTERNAL
Int Test2	20	INTERNAL
INT TEST AVG	20	INTERNAL
Term Work (Attd:5, Jour:15, Assg:5)	25	INTERNAL
Internal Sub Total	45	
End Semester Exam (as per UoM)	80	EXTERNAL
Oral	25	EXTERNAL
External Sub Total	105	
Total	150	
Weightage		
Internal	0.3	30%
External	0.7	70%



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CO-PO Articulation Matrix

PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO														
CO1	3	3	2	3	2			2	1				2	1
CO2	3	3		3	2			2	1				2	1
CO3	3	3		3	2			2	1				2	1
CO4	3	3		3	2			2	1				2	1
CO5	3	1		1	2			2					2	1
CO6	3	1		1	2			2					2	1

Levels setting for ESE(2018-2022)

Subject Code	EEEC105	Name of the Faculty	D. Seethilkumar, Sumitra P. Vaishali M.		
Name of the Subject	BEE	ACADEMIC YEAR	SIII	Nos. of Students	123

Attainment Levels for					
Level	Level Description for above subject				
0	No student scoring			% students scoring	% and above in the question in Test/Tutorial/Assignment/Quiz
1	30				
2	40				
3	50				

>=50%

average	2013	2014	2015	2016	2017	2018
extc	58.73	49.17	42.11	39.61	50.47	46.67
cse	66.67	58.51	50.00	52.63	75.27	71.28
it	52.46	40.00	38.46	39.68	47.62	46.88
mech	75	71.19	48.33	46.77	52.38	58.73
ppt	18.33	50.00	28.57	16.00	17.07	10.81
overall avg	54.24	53.77	41.49	37.74	48.56	46.87

AVG OF 13
AVG OF 13-14
AVG OF 14-15
AVG OF 15-16
AVG OF 16-17

bee threshold and level setting

Batch	Threshold	Highest Level				
		EKTC	CE	IT	MECH	PPT
2013						
2014	50	58.73	66.67	52.46	75.00	58.73
2015	50	53.95	62.59	46.23	73.09	34.17
2016	50	45.64	54.26	39.23	59.76	39.29
2017	50	37.86	51.32	39.07	47.55	22.29
2018	50	42.04	63.95	43.65	49.58	16.54


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Levels setting for UT1&UT2 and OR/PR

UT1 and UT2

Attainment Levels for				
Level	Level Description for above subject			
0	No student scoring			the question in Test/Tutorial/Ass
1	50	% students scoring	60	
2	60			
3	70			

TW and PR


Attainment Levels for				
Level	Level Description for above subject			
0	No student scoring			the question in Test/Tutorial/As
1	60	% students scoring	60	
2	70			
3	80			

CO-PO Attainment Calculation

Subject Code	TEC105	Name of the Faculty	D. Seethilkumar, Smriti P. Vaishali M		
Name of the Subject	BEE	ACADEMIC YEAR	SH18	Nos. of Students	123

Attainment Levels for					
Level	Level Description for above subject				
0	No student scoring				% and above in the question in Test/Tutorial/Assignment/Quiz
1	30	% students scoring			
2	40				
3	50				

Question No.	Class Test I	Class Test II	TW	ESE	OR/PR
Total Marks	20	20	25	80	25
Maps to CO No (Per LO & cognitive level)	CO 1	CO 2,3	CO 1,2,3,4,5,6	CO 1,2,3,4,5	CO 1,2,3,4,5,6
1	20	12	18	37	15
2	16	11	19	53	21
3	17	19	20	44	19
4	18	9	19	40	16
5	18	10	20	62	18
6	13	12	20	59	18
7	13	7	18	21	10
8	13	9	17	43	13
9	14	13	15	32	12
10	17	10	15	35	17


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Question No.		Class Test I	Class Test II	TW	ESE	OR/PR
Total Marks		20	20	25	80	25
Maps to CO No.		CO 1	CO 2,3	CO 1,2,3,4,5,6	CO 1,2,3,4,5	CO 1,2,3,4,5,6
(Per LO & cognitive level)						
1	Aathiyaa Swaminathan	20	12	18	37	15
2	Aditya Kumar Singh	16	11	19	53	21
3	Aurawal Saijal	17	19	20	44	19
4	Akanksha Rajendra Gourh	18	9	19	40	16
5	Amin Dhraj Ashok	18	10	20	62	18
6	Anaida Babu	13	12	20	59	18
7	Anuje Kaustubh Anil	13	7	18	21	10
8	Anjana Ashokkumar	13	9	17	43	13
9	Aslekar Shamika Prasad	14	13	15	32	12
10	Ayushwarya Mohan	17	10	15	35	17
11	Balvalli Shambavi Vinod	19	14	20	28	15
12	Bheke Yash Krishna	5	8	16	32	10
13	Borde Poonam Pradeep	15	14	20	52	11
14	Borhade Mrudula Ganesh	18	11	20	46	18
15	Chaudhary Poorva Yogesh	15	15	19	56	17
16	Chavan Shubham Ganesh	13	3	18	32	18
18	Choudhary Rukvika Nitin	6	8	16	32	10
19	Deshpande Manasi Rajendra	17	19	23	42	20
20	Wagh Aniket Sunil	17	9	15	42	12

CALCULATION SECTION

% of marks of (average of last three years)	12.0	12.0	15.0	40.0	15.0
% & above obtained by Nos.	94	74	120	56	95
Attainment Level in %	76	60	98	46	79
Attainment Level of students	3	2	3	2	2
No of students to whom marks are not assigned	0	0	0	0	2

CO Attainment Calculation

	TEST1	TEST2	TW	END SEM	ORAL	wtd average(0.3 for Int and 0.7 ext)
	3.00	2.00	3.00	2.00	2.00	
CO1	3		3	2	2	2.30
CO2		2	3	2	2	2.15
CO3		2	3	2	2	2.15
CO4			3	2	2	2.30
CO5			3	2	2	2.30
CO6			3		2	2.30

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CO Attainment Calculation- Explanation

	Attainment Level	Internal Assess.			Ext. Assess.		Internal-weighted average (30% weightage)	External-weighted average (70% weightage)	Weighted CO Attainment (Internal+ External)
		UT1	UT2	TW	ESE	OR/PR			
	COs	3	2	3	2	2			
UT1,ESE,TW,OR	CO1	3		3	2	2	$=\frac{(3*0.3+3*0.3)}{2} = \frac{(0.9+0.9)}{2} = 0.9$	$=\frac{(2*0.7+2*0.7)}{2} = \frac{(1.4+1.4)}{2} = 1.4$	$=0.9+1.4 = 2.3$
UT2,ESE,TW,OR	CO2						$=\frac{(2*0.3+3*0.3)}{2} = \frac{(0.6+0.9)}{2} = 0.75$	$=\frac{(2*0.7+2*0.7)}{2} = 2.8/2 = 1.4$	$=0.75+1.4 = 2.15$
UT2,ESE,TW,OR	CO3		2	3	2	2	$=\frac{(2*0.3+3*0.3)}{2} = \frac{(0.6+0.9)}{2} = 0.75$	$=\frac{(2*0.7+2*0.7)}{2} = 2.8/2 = 1.4$	$=0.75 + 1.4 = 2.15$
ESE,TW,OR	CO4						$=3*0.3 = 0.9$	$=\frac{(2*0.7+2*0.7)}{2} = 2.8/2 = 1.4$	$=0.9 + 1.4 = 2.3$
ESE,TW,OR	CO5						$=3*0.3 = 0.9$	$=\frac{(2*0.7+2*0.7)}{2} = 2.8/2 = 1.4$	$=0.9 + 1.4 = 2.3$
TW,OR	CO6						$=3*0.3 = 0.9$	$=2*0.7 = 1.4$	$=0.9 + 1.4 = 2.3$

PO Attainment Calculation

CO-PO PSO Articulation Matrix (For Theory)

CO attainment weight	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1 2.30	3	3	2	3	2				2	1			2	1
CO2 2.15	3	3		3	2				2	1			2	1
CO3 2.15	3	3		3	2				2	1			2	1
CO4 2.30	3	3		3	2				2	1			2	1
CO5 2.30	3	1		1	2				2				2	1
CO6 2.30	3	1		1	2				2				2	1
CO-PO attainment	2.25	2.24	2.30	2.24	2.25				2.25	2.23			2.25	2.25


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PO Attainment Calculation - Explanation

	WA Attain	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO 10	PO 11	PO 12	PSO1	PSO2
CO1	2.3	3	3	2	3	2			2	1				2	1
CO2	2.15	3	3		3	2			2	1				2	1
CO3	2.15	3	3		3	2			2	1				2	1
CO4	2.3	3	3		3	2			2	1				2	1
CO5	2.3	3	1		1	2			2					2	1
CO6	2.3	3	1		1	2			2					2	1
Avg. Attain		2.25	2.24	2.30	2.24	2.25			2.25	2.23				2.25	2.25
		A	B	C	D	E			F	G				Y	Z

$$B = (3 \times 2.3 + 3 \times 2.15 + 3 \times 2.15 + 3 \times 2.3 + 1 \times 2.3 + 1 \times 2.3) / 14$$

$$= 2.236 = 2.24$$

B= sum of product of weighted Avg of particular CO Attainment and respective CO-PO attriculation matrix value / sum of PO values


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
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Examination	No. of students Appeared	No. of students passed	College %
First Year Engineering (All Branches) (EXTC/CE/IT/PPT/ME)	377	282	74.80
Electronics & Telecommunication Engg. II Year	138	71	51.45
Electronics & Telecommunication Engg. III Year	146	99	67.81
Electronics & Telecommunication Engg. IV Year	149	135	90.60
Computer Engineering II Year	109	82	75.23
Computer Engineering III Year	118	105	88.98
Computer Engineering IV Year	108	104	96.30
Information Technology II Year	75	62	82.67
Information Technology III Year	78	75	96.15
Information Technology IV Year	75	75	100.00
Printing & Packaging Technology II Year	75	52	69.33
Printing & Packaging Technology III Year	44	42	95.45
Printing & Packaging Technology IV Year	66	65	98.48
Mechanical Engineering II Year	75	49	65.33
Mechanical Engineering III Year	76	63	82.89
Mechanical Engineering IV Year	81	76	93.83

Dr. Atul Kemkar


Principal

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Examination	No. of students Appeared	No. of students passed	College %
First Year Engineering (All Branches) (EXTC/CE/IT/PPT/ME)	365	275	75.34
Electronics & Telecommunication Engg. II Year	142	105	73.94
Electronics & Telecommunication Engg. III Year	139	105	75.54
Electronics & Telecommunication Engg. IV Year	138	133	96.38
Computer Engineering II Year	115	102	88.70
Computer Engineering III Year	109	102	93.58
Computer Engineering IV Year	110	108	98.18
Information Technology II Year	74	60	81.08
Information Technology III Year	76	75	98.68
Information Technology IV Year	69	65	94.20
Printing & Packaging Technology II Year	44	36	81.82
Printing & Packaging Technology III Year	69	55	79.71
Printing & Packaging Technology IV Year	62	62	100.00
Bio- Technology IV Year	11	11	100.00
Mechanical Engineering II Year	75	49	65.33
Mechanical Engineering III Year	77	73	94.81
Mechanical Engineering IV Year	71	65	91.55

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Examination	No. of students Appeared	No. of students passed	College %
First Year Engineering (All Branches) (EXTC/CE/IT/PPT/ME)	362	291	80.38
Electronics & Telecommunication Engg. II Year	151	89	58.94
Electronics & Telecommunication Engg. III Year	144	106	73.61
Electronics & Telecommunication Engg. IV Year	145	128	88.28
Computer Engineering II Year	113	87	76.99
Computer Engineering III Year	108	95	87.96
Computer Engineering IV Year	118	110	93.22
Information Technology II Year	74	66	89.19
Information Technology III Year	69	56	81.16
Information Technology IV Year	73	69	94.52
Printing & Packaging Technology II Year	74	54	72.97
Printing & Packaging Technology III Year	63	51	80.95
Printing & Packaging Technology IV Year	73	72	98.63
Bio- Technology III Year	12	11	91.67
Bio- Technology IV Year	33	33	100.00
Mechanical Engineering II Year	76	58	76.32
Mechanical Engineering III Year	80	72	90.00
Mechanical Engineering IV Year	80	66	82.50

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Examination	No. of students Appeared	No. of students passed	College %
First Year Engineering (All Branches) (EXTC/CE/IT/PPT/ME)	322	210	65.21
Electronics & Telecommunication Engg. II Year	150	99	66.00
Electronics & Telecommunication Engg. III Year	146	128	87.67
Electronics & Telecommunication Engg. IV Year	140	136	97.14
Computer Engineering II Year	112	89	79.46
Computer Engineering III Year	118	97	82.20
Computer Engineering IV Year	113	109	96.46
Information Technology II Year	77	64	83.12
Information Technology III Year	76	69	90.79
Information Technology IV Year	76	67	88.16
Printing & Packaging Technology II Year	64	50	78.13
Printing & Packaging Technology III Year	75	70	93.33
Printing & Packaging Technology IV Year	58	57	98.28
Bio- Technology III Year	14	14	100.00
Bio- Technology III Year	32	30	93.75
Bio- Technology IV Year	28	28	100.00
Mechanical Engineering II Year	75	46	61.33
Mechanical Engineering III Year	77	54	70.13
Mechanical Engineering IV Year	74	71	95.95

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