

## 2.6 Student Performance and Learning Outcome

### 2.6.2 Attainment of Course Outcomes (COs)

#### Summary

The Institute of Technology and Management (ITM) uses a robust assessment process to evaluate Course Outcomes (COs) through Direct Attainment (80%) and Indirect Attainment (20%). Direct Attainment includes methods like Activity-Based Continuous Assessment Systems (ABCAS), midterms, quizzes, assignments, and end-semester exams, while Indirect Attainment is measured via surveys, such as Course Exit, Graduate Exit, Alumni, and Employer Surveys. CO attainment is calculated by combining internal assessments (40%) and external university exams (60%), with attainment levels based on the percentage of students scoring 60% or higher. Program Outcomes (POs) and Program-Specific Outcomes (PSOs) are assessed using CO-PO-PSO mapping and feedback from stakeholders, with final attainment based on 80% direct and 20% indirect methods. This ensures continuous improvement of academic programs and enhanced student learning outcomes.



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## Department of Electronics & Communication Engineering

### CO Attainment for Assessment Year:2022-23

S.No.	Course Name	Course Code	Target	CO Attainment
<b>I - Year</b>				
1	Engineering Chemistry	BT-101	1	0.538
2	Mathematics-I	BT-102	1.1	1.187
3	English for Communication	BT-103	1.3	0.801
4	Basic Electrical & Electronics Engineering	BT-104	1.06	0.567
5	Engineering Graphics	BT-105	1.6	0.584
6	Manufacturing Practices	BT-106	2.91	2.92
7	Swachh Bharat Summer Internship Unnat Bharat Abhiyan	BT-108	1.5	1.984
8	Engineering Physics	BT-201	1.5	0.773
9	Mathematics-II	BT-202	0.69	0.663
10	Basic Mechanical Engineering	BT-203	1.6	0.997
11	Basic Civil Engineering & Mechanics	BT-204	1.1	1.21
12	Basic Computer Engineering	BT-205	1.55	1.46
13	Language Lab & Seminars	BT-206	2	0.504
<b>II-Year</b>				
14	Mathematics-III	BT-301	1.5	0.862
15	Electronic Measurement & Instrumentation	EC-302	1.5	1.095
16	Digital System Design	EC-303	1.51	1.085
17	Electronic Device	EC-304	1.5	1.10
18	Network Analysis	EC-305	1.6	0.744
19	EMI Lab	EC-306	2.8	2.96
20	Internship-I	EC-107	1.9	2.43
21	Energy & Environmental Engineering	EC-401	1	2.37
22	Signals & Systems	EC-402	2.48	0.86
23	Analog Communication	EC-403	2.38	1.04
24	Control System	EC-404	1.5	0.86
25	Analog Circuits	EC-405	1.9	1.236
26	Simulation Lab	EC-406	2.94	2.89

## Department of Electronics & Communication Engineering

III - Year				
27	Microprocessor & its Application	EC-501	2.58	0.90
28	Digital Communication	EC-502	2.58	0.95
29	CNTI	EC-503	1	1.1
30	Computer System Organization	EC-504	1	1.01
31	CNTL Lab	EC-505	1.5	3
32	Matlab Programming	EC-506	2.91	2.588
33	Evaluation of Internship-II	BT-407	1.8	2.86
34	Minor Project- I	EC-508	2.8	2.93
35	Digital Signal Processing	EC-601	1.4	1.559
36	Antenna & Wave propagation	EC-602	2.58	1.85
37	Data Communication	EC-603	1.5	0.83
38	Power Electronics	EC-604	1.5	1.708
39	Data Communication Lab	EC-605	2.6	2.80
40	Microcontroller & Embedded system	EC-606	2.21	2.97
41	Minor Project II	EC-608	1.5	2.91
IV - Year				
42	VLSI Design	EC-701	1.5	2.82
43	Microwave Engg	EC-702	2.94	0.78
44	Cellular Mobile Communication	EC-703	2.94	0.95
45	Microwave Lab	EC-704	1.6	3
46	I.O.T. Lab	EC-705	2.52	2.70
47	Major Project-I	EC-706	2.5	2.93
48	Internship-I	EC-607	1.7	2.89
49	Optical Fibre Communication	EC-801	1.2	1.37
50	Wireless Communication	EC-802	1.6	1.29
51	Wireless Network	EC-803	1.6	1.20
52	Advanced Communication Engg. Lab	EC-804	1.6	3
53	Major Project-II	EC-805	2.8	2.63