# 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 Computer Science and Engineering

#### CO Attainment (Academic Year: 2019-20)

S.No.	Course Name	Course Code	Target	CO Attainment
	I - Year			
1	Engineering Chemistry	BT 101	1.16	2.59
2	Mathematics-1	BT 102	1	1.3
3	English for Communication	BT 103	2.42	2.36
4	Basic Electrical & Electronics Engine	BT 104	1.08	0.98
5	Engineering Graphics	BT 105	1.1	0.94
6	Manufacturing Practices	BT 106	2.91	2.91
7	Swachh Bharat Summer Internship Ut	BT 108	2	2.87
8	Engineering Physics	BT 201	1.7	2.22
9	Mathematics-II	BT 202	1	2.42
10	Basic Mechanical Engineering	BT 203	1.4	2.54
11	Basic Civil Engineering & Mechanic	BT 204	1.7	2.41
12	Basic Computer Engineering	BT 205	1.5	2.39
13	Language Lab & Seminars	BT 206	2.89	2.88
	II-Year			
14	Energy & Environmental Engineering	ES 301	ı	0.96
15	Discrete Structure	CS 302	1.5	0.78
16	Data Structure	CS 303	1.5	1.74
17	Digital Systems	CS 304	1.55	0.98
18	Object Oriented Programming & Met	CS 305	1.9	1.14
19	Computer Workshop(Java)	CS 306	2.86	2.88
20	Internship-I	BT 107	1.6	2.57
21	Mathematics- III	BT 401	1.5	2.26
22	Analysis Design of Algorithm	CS 402	2.3	2.42
23	Software Engineering	CS 403	1.5	2.41
24	Computer Org. & Architecture	CS 404	1.6	2.44
25	Operating Systems	CS 405	1.5	2.51
26	Programming Practices(python)	CS 406	2.85	2.9
	III - Year			
27	Theory of Computation	CS 501	1.5	2.44
28	Database Management Systems	CS 502	1.7	1.89
29	Departmental Elective(Data analytics	CS 503	1.5	0.85
30	Open Elective(Internet and Web Tech	CS 504	1.5	0.77
31	Lab (Linux)	CS 505	2.5	2.74
32	Lab (Python)	CS 506	1.5	2.83

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33	Internship-II	CS 507	1.5	2.65
34	Minor Project-1	CS 506	2.7	2.9
35	Machine Learning	CS 601	1.5	2.39
36	Computer Networks	CS 602	1	2.37
37	Departmental Elective(Computer Gra	CS 603	1.5	2.26
38	Open Elective (Project Management)	CS 604	1.5	2.32
39	Data Analytics Lab	CS 605	1.5	2.64
40	Skill Development Lab	CS 606	1.5	2.9
41	Internship-III	CS 608	3	3
42	Minor Project II		2.72	2.92
	IV - Year			
43	Distributed System	CS7001	2.5	2.24
44	Compiler Design	CS7002	2.41	1.72
45	Web engineering	CS7003	2.36	2.3
46	Digital Image Processing	CS7004	1.5	0.55
47	Big Data	CS7005	1.5	0.51
48	Project I	CS7006	2	2.99
49	Industrial Training	CS7007	3	3
50	Soft Computing	CS8001	2.5	2.4
51	Cloud Computing	CS8002	2.4	2.33
52	Data Mining	CS8003	2	2.41
53	Advance Computer Network	CS8004	2	2.17
54	Major Project-II	CS8005	2.6	3
55	Lab (Data Mining)	CS8006	3	3

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