Swami Keshvanand Institute of Technology, Management & Gramothan, Jaipur

Attainment Calculation Methodology

With Sample Calculation

B.Tech CSE - 2018-2022 (Batch)

Swami Keshvanand Institute of Technology, Management & Gramothan, Jaipur
Department of Computer Science & Engineering
Batch: 2018-2022
Program Level Course-PO/PSO matrix to identify Curriculum Gap

S.No	Course-Code	Course Name	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO 1	PSO 2	PSO 3
1	1FY2-01	ENGINEERING MATHEMATICS-I	3	3													
2	1FY2/2FY2-	Engineering Physics	3														
3	1FY2/2FY2-	Engineering Chemistry	3		3			3				3					
4	1FY1/2FY1-	COMMUNICATION SKILLS										3					
5	1FY1/2FY1-	Human Values						3	3	2	3						
6	1FY3/2FY3-	Programming for Problem Solving	2	2	1	2	2					3		1	1	3	2
7	1FY3/2FY3-	Basic Mechanical Engineering	3														
8	1FY3/2FY3-	Basic Electrical Engineering	3	3	3	3											
9	1FY3/2FY3-	Basic Civil Engineering	3	3				2	2	2	2				3		
10	2FY2-01	ENGINEERING MATHEMATICS-II	3	3													
11	1FY2/2FY2-	Engineering Physics Lab	3								2	3					
12	1FY2/2FY2-	Engineering Chemistry Lab	3								2	3					
13	1FY1/2FY1-	Language Lab									2	3					
14	1FY1/2FY1-	Human Values Activities						3	3	2	3						
15	1FY3/2FY3-	Computer Programming Lab	2	2	1	2	3					3		1	1	3	2
16	1FY3/2FY3-	Manufacturing Practices Workshop	3				3					3					
17	1FY3/2FY3-	Basic Electrical Engineering Lab	3	3	3	3	3										
18	1FY3/2FY3-	Basic Civil Engineering Lab	3	3			3	3	2								
19	1FY3/2FY3-	Computer Aided Engineering Lab	3				3						3				
20	1FY3/2FY3-	Computer Aided Machine Drawing	3				3						3				
21	1FY8-00	SODECA									3	3	3	3			
22	2FY8-00	SODECA									3	3	3	3			
23	3CS2-01	Advanced Engineering Mathematics	2	2		1							1	2	1		
24	3CS1-02	Technical Communication											2				2
25	3CS3-04	Digital Electronics	2	3	3	2	3								3	1	
26	3CS4-05	Data Structures and Algorithms	2	2	2	2	3		3	2	3	2	2	2	3	3	
27	3CS4-06	Object Oriented Programming	2	2			2								2	2	
28	3CS4-07	Software Engineering	2	3	2	2	2		3	2	3	3	3	3	3	3	2
29	3CS4-21	Data Structures and Algorithms Lab	2	3	2	3								3	3		2
30	3CS4-22	Object Oriented Programming Lab	2	2			2					2			2	2	2
31	3CS4-23	Software Engineering Lab	2	2	2	2	3		3	3		3	3	3		3	2
32	3CS4-24	Digital Electronics Lab	2	2	2	2					3	3		2			
33	3CS7-30	Industrial Training	2	3	3	2	3		2	3	3	3		3	3	3	
34	3CS8-00	Social Outreach, Discipline & Extra Curricular									3	3	3	3			
35	4CS2-01	Discrete Mathematics Structure	3	3	1	2	2							2			
36	4CS2-03	Managerial Economics and Financial Accounting											3				2
37	4CS2-04	Microprocessor & Interfaces	2	3	2	1	3	2					1		2	2	2
38	4CS2-05	Database Management System	2	3	2	3	3			2	2	3	3	3	3	3	
39	4CS2-06	Theory of Computation	2	1	2		3								2		
40	4CS2-07	Data Communication and Computer Networks	2	2	1	2	2	3				2	2	2	3	2	2
41	4CS4-21	Microprocessor & Interfaces Lab	2	2	2	2	3				3	2			2	2	
42	4CS4-22	Database Management System Lab	2	3	1	2	2					1		1	2		
43	4CS4-23	Network Programming Lab	1	2	1	2	2					2		2	3		
44	4CS4-24	Linux Shell Programming Lab	2	3	2	3	3							2	3		2
45	4CS4-25	Java Lab	2	1	1	1	2					1			3	2	
46	4CS8-00	Social Outreach, Discipline & Extra Curricular									3	3	3	3			
47	5CS3-01	Information Theory &Coding	3	3	2	1		3				1		2			
48	5CS4-02	Compiler Design	2	3	2	3	2								3	3	
49	5CS4-03	Operating System	2	2		3	3		3						3	3	3	2
50	5CS4-04	Computer Graphics &Multimedia	2	1	1										2		
51	5CS4-05	Analysis of Algorithms	3	2	2		3								3		
52	5CS4-11	Wireless Communication	3	2	2	2	2	2	2	2	1	3	1	2	2	2	2
53	5CS4-21	Computer Graphics &Multimedia Lab	2	1	1		2								2		
54	5CS4-22	Compiler Design Lab	2	2	1		3								3	3	
55	5CS4-23	Analysis of Algorithms Lab	3	2	2	2	2	2	1		2	2		3	3	1	2
56	5CS4-24	Advance Java Lab	2	2			3								3	2	
57	5CS4-30	Industrial Training	2	3	3	2	3		2	3	3	3		3	3	3	
58	5CS8-00	Social Outreach, Discipline & Extracurricular Activities									3	3	3	3			
59	6CS3-01	Digital Image Processing	3	2	2	3	3	3	3						3	3	
60	6CS4-02	Machine Learning	3	3	3	3		2		3			3	3	3		3
61	6CS4-03	Information Security System	3	3	3	2				2				2	3		2
62	6CS4-04	Computer Architecture and Organization	3	2	1	1		2						2	1		3
63	6CS4-05	Artificial Intelligence	3	2	2	2	3	2	2			2		3	1	1	
64	6CS4-06	Cloud Computing	2				2	3		2				2	2	2	
65	6CS5-11	Distributed System	2	3		2								3	2		2
66	6CS4-21	Digital Image Processing Lab	3	2		2	3	3	2		3			3	2	3	2
67	6CS4-22	Machine Learning Lab	2	2	2	2					2	1	3	2	1	1	1
68	6CS4-23	Python Lab	2	3	2	3	3								3	3	
69	6CS4-24	Mobile Application Development Lab	2	2	1	2	2					1			3	3	
70	6CS8-00	Social Outreach, Discipline & Extra Curricular Activities									3	3	3	3			
71	7CS4-01	Internet of Things	2	3	3	2	3		2	3		3		3	3	2	
72	7AG6-60.2	Environmental Engineering & Disaster Management	1	1	1			3	3	1							
73	7CS4-21	Internet of Things Lab	3	3	2	2						2		2	3	3	3	1
74	7CS4-22	Cyber Security Lab	2	3	2	1	3								3	3	
75	7CS7-30	Industrial Training	2	3	3	2	3		2	3	3	3		3	3	3	
76	7CS7-40	Seminar	2	3	3	2	3		2	3	3	3		3	3	2	
77	7CS8-00	Social Outreach, Discipline & Extra Curricular Activities									3	3	3	3			
78	8CS4-01	Big Data Analytics		2			3	3	3	3	3	3		3	3	3	3	3
79	8AG6-60.1	Energy Management	2					3	3								
80	8CS4-21	Big Data Analytics Lab	2	1	1	2	3								3	2	
81	8CS4-22	Software Testing and Validation Lab	3	3	2	2						2		3	3	3	1
82	8CS7-50	Project	3	2	3	2			2	2	2	3	2	2	2	2	2
83	8CS8-00	Social Outreach, Discipline & Extra Curricular Activities									3	3	3				
		Grand Total	159	141	93	98	122	50	53	69	87	100	64	106	122	70	42
		No. of Course Contributing to PO	67	59	48	46	46	19	22	27	33	41	25	42	48	30	21
		Curricular Sufficiency	2.37	2.39	1.94	2.13	2.65	2.63	2.41	2.56	2.64	2.44	2.56	2.52	2.54	2.33	2.00
		Curricular GAP	0.63	0.61	1.06	0.87	0.35	0.37	0.59	0.44	0.36	0.56	0.44	0.48	0.46	0.67	1.00

Swami Keshvanand Institute of Technology, Management & Gramothan, Jaipur
ODD SEM. 2018-2022, Computer Science & Engineering
Attainment of Course Outcomes (Theory)

Sr. No	S.No	Semester	Subject Code	Subject Name	CO1	CO2	CO3	CO4	CO5	CO6	Attainment Level (Internal Exam Questi	Attainment Level (Assignments/ Unit-	Attainment Level (Average Internal	Result of External exam	Attainment Level
1	1	I & II	1 FY2-01	ENGINEERING MATHEMATICS-I							3	3	3.00	3.00	3.00
2	2	I & II	1FY2/2FY2-01	Engineering Physics							3	3	3.00	3.00	3.00
3	3	I & II	1FY2/2FY2-03	Engineering Chemistry							3	3	3.00	3.00	3.00
4	4	I & II	1FY1/2FY1-04	COMMUNICATION SKILLS							3	3	3.00	3.00	3.00
5	5	I & II	1FY1/2FY1-05	Human Values							3	3	3.00	3.00	3.00
6	6	I & II	1FY3/2FY3-06	Programming for Problem Solving							3	3	3.00	3.00	3.00
7	7	I & II	1FY3/2FY3-07	Basic Mechanical Engineering							3	3	3.00	3.00	3.00
8	8	I & II	1FY3/2FY3-08	Basic Electrical Engineering							2	3	2.25	3.00	2.85
9	9	I & II	1FY3/2FY3-09	Basic Civil Engineering							3	3	3.00	3.00	3.00
10	10	II	2FY2-01	ENGINEERING MATHEMATICS-II							3	3	3.00	3.00	3.00
11	11	III	3CS2-01	Advanced Engineering Mathematics	1	1	1	2	1		1	3	1.50	3.00	2.70
12	12	III	3CS1-02	Technical Communication	3	3	2	3	2		3	3	3.00	3.00	3.00
13	13	III	3CS3-04	Digital Electronics	3	3	2	2	2		3	3	3.00	3.00	3.00
14	14	III	3CS4-05	Data Structures and Algorithms	2	2	2	2	2		2	3	2.25	3.00	2.85
15	15	III	3CS4-06	Object Oriented Programming	3	3	3	3	2		3	3	3.00	3.00	3.00
16	16	III	3CS4-07	Software Engineering	3	2	2	2	1		2	3	2.25	3.00	2.85
17	17	IV	4CS2-01	Discrete Mathematics Structure	3	3	3	3	3		3	3	3.00	3.00	3.00
18	18	IV	4CS2-03	Managerial Economics and Financial Accounting	3	3	3	3	3		3	3	3.00	3.00	3.00
19	19	IV	4CS2-04	Microprocessor & Interfaces	3	3	3	3	3		3	3	3.00	3.00	3.00
20	20	IV	4CS2-05	Database Management System	3	3	3	3	3		3	3	3.00	3.00	3.00
21	21	IV	4CS2-06	Theory of Computation	3	3	3	3	3		3	3	3.00	3.00	3.00
22	22	IV	4CS2-07	Data Communication and Computer Networks	3	3	3	3	3		3	3	3.00	3.00	3.00
23	23	V	5CS3-01	Information Theory &Coding	3	3	3	3	3		3	3	3.00	3.00	3.00
24	24	V	5CS4-02	Compiler Design	3	3	3	3	3		3	3	3.00	3.00	3.00
25	25	V	5CS4-03	Operating System	3	3	3	3	3		3	3	3.00	3.00	3.00
26	26	V	5CS4-04	Computer Graphics &Multimedia	3	3	3	3	3		3	3	3.00	3.00	3.00
27	27	V	5CS4-05	Analysis of Algorithms	3	3	3	3	3		3	3	3.00	3.00	3.00
28	28	V	5CS4-11	Wireless Communication	3	3	3	3	3		3	3	3.00	3.00	3.00
29	29	VI	6CS3-01	Digital Image Processing	3	3	3	3	3		3	3	3.00	3.00	3.00
30	30	VI	6CS4-02	Machine Learning	3	3	3	3	3		3	3	3.00	3.00	3.00
31	31	VI	6CS4-03	Information Security System	3	3	3	3	3		3	3	3.00	3.00	3.00
32	32	VI	6CS4-04	Computer Architecture and Organization	3	3	3	3	3		3	3	3.00	3.00	3.00
33	33	VI	6CS4-05	Artificial Intelligence	3	3	3	3	3		3	3	3.00	3.00	3.00
34	34	VI	6CS4-06	Cloud Computing	3	3	3	3	3		3	3	3.00	3.00	3.00
35	35	VI	6CS5-11	Distributed System	3	3	3	3	3		3	3	3.00	3.00	3.00
36	36	VII	7CS4-01	Internet of Things	3	3	3	3	3		3	3	3.00	3.00	3.00
37	37	VII	7AG6-60.2	Environmental Engineering & Disaster Management	3	3	3	3	3		3	3	3.00	3.00	3.00
38	38	VIII	8CS4-01	Big Data Analytics	3	3	3	3	3		3	3	3.00	3.00	3.00
39	39	VIII	8AG6-60.1	Energy Management	3	3	3	3	3		3	3	3.00	3.00	3.00

Attainment of Course Outcomes (Practical)

Sr. No	Semester	Subject Code	Subject Name	IN	EX	Total
1	I & II	1FY2/2FY2-20	Engineering Physics Lab	3.00	3.00	3.00
2	I & II	1FY2/2FY2-21	Engineering Chemistry Lab	3.00	3.00	3.00
3	I & II	1FY1/2FY1-22	Language Lab	3.00	2.00	2.60
4	I & II	1FY1/2FY1-23	Human Values Activities	3.00	3.00	3.00
5	I & II	1FY3/2FY3-24	Computer Programming Lab	3.00	3.00	3.00
6	I & II	1FY3/2FY3-25	Manufacturing Practices Workshop	3.00	3.00	3.00
7	I & II	1FY3/2FY3-26	Basic Electrical Engineering Lab	3.00	3.00	3.00
8	I & II	1FY3/2FY3-26	Basic Civil Engineering Lab	3.00	3.00	3.00
9	I & II	1FY3/2FY3-28	Computer Aided Engineering Lab	3.00	2.00	2.60
10	I & II	1FY3/2FY3-29	Computer Aided Machine Drawing	3.00	3.00	3.00
11	I	1FY8-00	SODECA	3.00	3.00	3.00
12	II	2FY8-00	SODECA	3.00	3.00	3.00
13	III	3CS4-21	Data Structures and Algorithms Lab	2.82	3.00	2.89
14	III	3CS4-22	Object Oriented Programming Lab	3.00	3.00	3.00
15	III	3CS4-23	Software Engineering Lab	3.00	3.00	3.00
16	III	3CS4-24	Digital Electronics Lab	2.82	3.00	2.89
17	III	3CS7-30	Industrial Training	3.00	3.00	3.00
18	III	3CS8-00	Social Outreach, Discipline & Extra Curricular Activities	3.00	3.00	3.00
19	IV	4CS4-21	Microprocessor & Interfaces Lab	2.94	3.00	2.96
20	IV	4CS4-22	Database Management System Lab	3.00	3.00	3.00
21	IV	4CS4-23	Network Programming Lab	3.00	3.00	3.00
22	IV	4CS4-24	Linux Shell Programming Lab	3.00	3.00	3.00
23	IV	4CS4-25	Java Lab	3.00	3.00	3.00
24	IV	4CS8-00	Social Outreach, Discipline & Extra Curricular Activities	3.00	3.00	3.00
25	V	5CS4-21	Computer Graphics &Multimedia Lab	3.00	3.00	3.00
26	V	5CS4-22	Compiler Design Lab	2.94	3.00	2.96
27	V	5CS4-23	Analysis of Algorithms Lab	2.88	3.00	2.93
28	V	5CS4-24	Advance Java Lab	3.00	3.00	3.00
29	V	5CS4-30	Industrial Training	3.00	3.00	3.00
30	V	5CS8-00	Social Outreach, Discipline & Extra Curricular Activities	3.00	3.00	3.00
31	VI	6CS4-21	Digital Image Processing Lab	3.00	3.00	3.00
32	VI	6CS4-22	Machine Learning Lab	2.94	3.00	2.96
33	VI	6CS4-23	Python Lab	2.88	3.00	2.93
34	VI	6CS4-24	Mobile Application Development Lab	2.94	3.00	2.96
35	VI	6CS8-00	Social Outreach, Discipline & Extra Curricular Activities	3.00	3.00	3.00
36	VII	7CS4-21	Internet of Things Lab	3.00	3.00	3.00
37	VII	7CS4-22	Cyber Security Lab	2.88	3.00	2.93
38	VII	7CS7-30	Industrial Training	3.00	3.00	3.00
39	VII	7CS7-40	Seminar	2.71	3.00	2.83
40	VII	7CS8-00	Social Outreach, Discipline & Extra Curricular Activities	3.00	3.00	3.00
41	VIII	8CS4-21	Big Data Analytics Lab	3.00	3.00	3.00
42	VIII	8CS4-22	Software Testing and Validation Lab	3.00	3.00	3.00
43	VIII	8CS7-50	Project	2.94	3.00	2.96
44	VIII	8CS8-00	Social Outreach, Discipline & Extra Curricular Activities	3.00	3.00	3.00

Swami Keshvanand Institute of Science & Technology, Management & Gramothan
Department of Computer Science & Engineering
Result of Implementation (Indirect Attainment of PO/PSO)
Batch 2018-2022

Category	Activity	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
Conference/Workshop	5th International Conference on "Emerging Technologies in Computer Engineering: Cognitive Computing and Intelligent IoT (ICETCE-2022)"	3	3			3								3		3
	International Conference on Recent Advancements in Science, Engineering & Technology, and Management (ICRASETM - 2022)	3	3			3								3		3
	4th International Conference on "Emerging Technologies in Computer Engineering: Data Science and Blockchain Technology" (ICETCE-2021), Sponsored By: AICTE, IEEE	3	3			3					3		3	3		3
	Student Workshop on "Artificial Intelligence & Machine Learning" conducted by TCS	3				3					3		3	3	3	3
	RTU (ATU) TEQIP- III Sponsored Student Workshop on "Android: A Practical Approach to develop Mobile Apps"	1				1	1				1		1	1		1
	RTU (ATU) TEQIP- III Sponsored Student Workshop on "Data Science & Analytics"	2				2	2				2		2	2	2	
PO Attainment		2.5	3			2.5	1.5						2.5	2.5	2.5	2.60
Placement	Mentorship of CS Students for Placements	3						3	3		3			3	3	3
	Campus Recruitment Training	3		3							3		3	3	3	3
	Toast Masters Club Activity								1		1		1		1	
	IBM Academic Initiative	3				3							3	3	3	
	TechInnova Club Activity	1				1								1	1	1
	Java Theory Classes	3												3	1	
	Inhouse Training for 4th Sem students.	1				1					1		3	1	1	1
	Latex	3				3					3		3	3		3
	Soft Skill								3		3		3			
PO Attainment		2.43				2		3	2.333		2.333		2.6	2.33	2	2
Contest by Industry	InfyTQ	3	3	3		3					3		3	3		3
PO Attainment		3.00	3.00	3.00		3.00					3.00		3.00	3.00		3.00
MOOC's	Spoken Tutorials initiative by IIT, Bombay	3		3.00		3								3	3	3
	Swayam / NPTEL	1				1							1	1	1	1
	Virtual Lab	3				3							3	3	3	3
	Coursera/edx	3				3							3	3	3	3
PO Attainment		2.5				2.5							2.33	2.5	2.5	
Student Counselling	Student Counseling (Calling session with parents, warning letters, short leaves)						3	3	3		3	3	3	3		3
PO Attainment							3	3	3		3	3	3	3		3

Swami Keshvanand Institute of Science & Technology, Management & Gramothan

Department of Computer Science & Engineering

Consolidated Indirect Attainment of PO/PSO

Batch 2018-2022

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
Conference/Workshop/FDP	2.50	3.00			2.50	1.50									
Placement	2.43				2.00		3.00	2.33			2.60	2.33	2.33	2.00	
Contest by Industry	3.00	3.00	3.00		3.00					3.00	3.00	3.00	3.00	3.00	
MOOCs	2.50			2.50							2.33	2.50	2.50		
Student Counselling				3.00		3.00	3.00	3.00	3.00		3.00				3.00
Student Exit Survey	2.56	2.62	2.66	2.50	2.57	2.66	2.66	2.70	2.74	2.64	2.56	2.61	2.62	2.58	2.62
Indirect Attainment	2.60	2.87	2.83	2.50	2.51	2.39	2.89	2.68	2.74	2.74	2.56	2.67	2.59	2.40	2.64

S.No	Course Code	Course Name	Consolidated CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO 1	PSO 2	PSO 3
1	1FY2-01	ENGINEERING MATHEMATICS-I	3.0	3.0	3.0													
2	1FY2/2FY2-01	Engineering Physics	3.0	3.0														
3	1FY2/2FY2-03	Engineering Chemistry	3.0	3.0		3.0			3.0				3.0					
4	1FY1/2FY1-04	COMMUNICATION SKILLS	3.0										3.0					
5	1FY1/2FY1-05	Human Values	3.0															
6	1FY3/2FY1-06	Programming for Problem Solving	3.0	2.0	2.0	1.0	2.0	2.0	3.0	3.0	2.0	3.0		1.0	1.0	3.0		
7	1FY3/2FY3-07	Basic Mechanical Engineering	3.0	3.0								3.0					2.0	
8	1FY3/2FY3-08	Basic Electrical Engineering	3.0	3.0	3.0	3.0	3.0											
9	1FY3/2FY3-09	Basic Civil Engineering	3.0	3.0	3.0													
10	2FY2-01	ENGINEERING MATHEMATICS-II	3.0	3.0	3.0				2.0	2.0	2.0	2.0						
11	1FY2/2FY2-20	Engineering Physics Lab	3.0	3.0								2.0	3.0					
12	1FY2/2FY2-21	Engineering Chemistry Lab	3.0	3.0								2.0	3.0					
13	1FY1/2FY1-22	Language Lab	2.6									1.7	2.6					
14	1FY1/2FY1-23	Human Values Activities	3.0						3.0	3.0	2.0	3.0						
15	1FY3/2FY3-24	Computer Programming Lab	3.0	2.0	2.0	1.0	2.0	3.0				3.0		1.0	1.0	3.0	2.0	
16	1FY3/2FY3-25	Manufacturing Practices Workshop	3.0	3.0	3.0			3.0				3.0						
17	1FY3/2FY3-26	Basic Electrical Engineering Lab	3.0	3.0	3.0	3.0	3.0	3.0										
18	1FY3/2FY3-26	Basic Civil Engineering Lab	2.6	3.0	3.0			3.0	3.0	2.0								
19	1FY3/2FY3-28	Computer Aided Engineering Lab	2.6	2.6				2.6					2.6					
20	1FY3/2FY3-29	Computer Aided Machine Drawing	3.0	3.0				3.0					3.0					
21	1FY8-00	SODECA	3.0								3.0	3.0	3.0	3.0				
22	2FY8-00	SODECA	3.0								3.0	3.0	3.0	3.0				
23	3CS2-01	Advanced Engineering Mathematics	3.0	2.0	2.0		1.0			2.0			1.0	2.0	1.0			
24	3CS1-02	Technical Communication	3.0										2.0					2.0
25	3CS3-04	Digital Electronics	3.0	2.0	3.0	3.0	2.0	3.0							3.0	1.0		
26	3CS4-05	Data Structures and Algorithms	3.0	2.0	2.0	2.0	2.0	3.0		3.0	2.0	3.0	2.0	2.0	2.0	3.0	3.0	
27	3CS4-06	Object Oriented Programming	3.0	2.0	2.0			2.0								2.0	2.0	
28	3CS4-07	Software Engineering	3.0	2.0	3.0	2.0	2.0	2.0		3.0	2.0	3.0	3.0	3.0	3.0	3.0	2.0
29	3CS4-21	Data Structures and Algorithms Lab	2.9	1.9	2.9	1.9	2.9						2.9		2.9	2.9		1.9
30	3CS4-22	Object Oriented Programming Lab	3.0	2.0	2.0	2.0	2.0	2.0		3.0	2.0	2.0		2.0	2.0		2.0
31	3CS4-23	Software Engineering Lab	3.0	2.0	2.0	2.0	2.0	3.0				3.0	3.0	3.0	3.0	2.0
32	3CS4-24	Digital Electronics Lab	2.9	1.9	3.0	1.9	1.9						2.9		1.9			
33	3CS7-30	Industrial Training	3.0	2.0	3.0	3.0	2.0	3.0	2.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
34	3CS8-00	Social Outreach, Discipline & Extra Curricular	3.0								3.0	3.0	3.0	3.0	3.0			
35	4CS2-01	Discrete Mathematics Structure	3.0	3.0	3.0	1.0	2.0	2.0					2.0	2.0				
36	4CS2-03	Managerial Economics and Financial Accounting	3.0							3.0								
37	4CS2-04	Microprocessor & Interfaces	3.0	2.0	3.0	2.0	1.0	3.0	2.0				1.0		2.0	2.0	2.0	2.0
38	4CS2-05	Database Management System	3.0	2.0	3.0	2.0	3.0	3.0		3.0	2.0	2.0	3.0	3.0	3.0	3.0	3.0
39	4CS2-06	Theory of Computation	3.0	2.0	1.0	2.0		3.0								2.0	2.0	
40	4CS2-07	Data Communication and Computer Networks	3.0	2.0	2.0	2.0	2.0	3.0	3.0	3.0		3.0	2.0	2.0	2.0	3.0	3.0	2.0
41	4CS4-21	Microprocessor & Interfaces Lab	3.0	2.0	2.0	2.0	2.0	3.0					2.0		2.0	2.0	2.0	2.0
42	4CS4-22	Database Management System Lab	3.0	2.0	3.0	2.0	2.0	2.0				3.0	2.0	2.0	1.0	2.0	2.0
43	4CS4-23	Network Programming Lab	3.0	1.0	2.0	2.0	2.0	3.0					1.0		1.0	3.0	3.0	
44	4CS4-24	Linux Shell Programming Lab	3.0	2.0	3.0	2.0	3.0	3.0					2.0	2.0	2.0	3.0		2.0
45	4CS4-25	Java Lab	3.0	2.0	1.0	1.0	1.0	2.0					1.0		2.0	3.0		
46	4CS8-00	Social Outreach, Discipline & Extra Curricular	3.0								3.0	3.0	3.0	3.0	3.0	3.0	2.0	
47	5CS3-01	Information Theory &Coding	3.0	3.0	3.0	2.0	1.0		3.0				1.0		2.0			
48	5CS4-02	Compiler Design	3.0	2.0	3.0	2.0	3.0	2.0				3.0			3.0	3.0	3.0	
49	5CS4-03	Operating System	3.0	2.0	3.0	3.0	3.0			3.0					3.0	3.0	3.0	2.0
50	5CS4-04	Computer Graphics &Multimedia	3.0	2.0	1.0	1.0									2.0	2.0		
51	5CS4-05	Analysis of Algorithms	3.0	3.0	2.0	2.0	3.0								3.0	3.0		
52	5CS4-11	Wireless Communication	3.0	3.0	2.0	2.0	2.0	2.0		2.0		1.0		1.0	2.0	2.0	2.0	2.0
53	5CS4-21	Computer Graphics &Multimedia Lab	3.0	2.0	1.0	1.0	2.0									3.0		
54	5CS4-22	Compiler Design Lab	3.0	2.0	1.0	1.0	3.0					3.0		3.0	3.0		
55	5CS4-23	Analysis of Algorithms Lab	2.9	2.9	2.0	2.0	2.0	2.0	2.0			2.0	2.0	2.9	2.9	1.0	2.0
56	5CS4-30	Advance Java Lab	3.0	2.0	2.0	3.0	2.0	3.0	2.0	2.0		3.0	3.0	3.0	3.0	3.0	2.0
57	5CS8-00	Industrial Training	3.0	2.0	3.0	3.0	2.0	3.0		2.0	3.0	3.0	3.0	3.0	3.0	3.0	
58	5CS8-00	Social Outreach, Discipline & Extracurricular Ac															

#	Code	Course													
59	6CS3-01	Digital Image Processing	3.0	3.0	3.0	2.0	3.0	3.0	3.0	3.0	3.0			3.0	
60	6CS4-02	Machine Learning	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
61	6CS4-03	Information Security System	3.0	3.0	3.0	3.0	2.0	2.0	2.0	2.0		3.0	3.0	3.0	3.0
62	6CS4-04	Computer Architecture and Organization	3.0	3.0	3.0	1.0	2.0						2.0	3.0	3.0
63	6CS4-05	Artificial Intelligence	3.0	3.0	2.0	2.0	3.0	2.0	2.0	2.0	2.0		2.0	3.0	2.0
64	6CS4-06	Cloud Computing	3.0	2.0	2.0	2.0	2.0	3.0	3.0		3.0		1.0	1.0	1.0
65	6CS5-11	Distributed System	3.0	3.0	3.0		2.0	2.0	2.0		2.0	2.0	1.0	1.0	
66	6CS4-21	Digital Image Processing Lab	3.0	3.0	2.0					2.0			1.0	1.0	1.0
67	6CS4-22	Machine Learning Lab	3.0	3.0	2.0	2.0	3.0	3.0	3.0			3.0	2.0	2.0	2.0
68	6CS4-23	Python Lab	2.9	3.0	2.0	2.0	2.0	2.0		1.0	1.0		2.0	2.0	3.0
69	6CS4-24	Mobile Application Development Lab	3.0	3.0	2.9	2.0	2.9	2.0				3.0	2.0	1.0	1.0
70	6CS8-00	Social Outreach, Discipline & Extra Curricul	3.0		2.0	1.0	2.0					3.0	2.9	2.9	
71	7CS4-01	Internet of Things	3.0	2.0	3.0	3.0	3.0		3.0	3.0		3.0	1.0	1.0	
72	7AG6-60.2	Environmental Engineering & Disaster Mana	3.0	1.0	1.0	1.0			3.0	3.0	3.0	3.0	3.0	3.0	2.0
73	7CS4-21	Internet of Things Lab	3.0	3.0	2.0		3.0			3.0	3.0		3.0		
74	7CS4-22	Cyber Security Lab	2.9	3.0	2.0	2.0		2.9	2.0	2.0		2.0			
75	7CS7-30	Industrial Training	3.0	2.0	3.0	2.0	3.0	3.0	3.0	3.0			3.0	3.0	3.0
76	7CS7-40	Seminar	2.8	1.9	2.8	2.8	2.8	1.9	2.8	2.8			2.9	2.9	2.8
77	7CS8-00	Social Outreach, Discipline & Extra Curricul	3.0		3.0	1.9	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
78	8CS4-01	Big Data Analytics	3.0	2.0	3.0		3.0	3.0	2.8	3.0			2.8	2.8	1.9
79	8AG6-60.1	Energy Management	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		
80	8CS4-21	Big Data Analytics Lab	3.0	2.0	2.0										3.0
81	8CS4-22	Software Testing and Validation Lab	3.0	1.0	2.0	2.0	2.0	1.0							
82	8CS7-50	Project	3.0	3.0	2.0	2.0		2.0	2.0		2.0	3.0	3.0	3.0	2.0
83	8CS8-00	Social Outreach, Discipline & Extra Curricul	3.0	3.0	3.0	2.0		3.0	3.0	2.0	3.0	3.0	2.0	2.0	2.0
		Direct Attainment	2.36	2.38	1.93	2.12	2.63	2.40	2.55	2.62	2.41	2.56	2.51	2.53	1.99
		Indirect Attainment	2.62	2.87	2.83	2.50	2.39	2.89	2.68	2.74	2.74	2.56	2.69	2.61	2.40
		Total Attainment	2.41	2.48	2.11	2.19	2.58	2.50	2.57	2.64	2.48	2.56	2.54	2.55	2.67
		PO Attainment Gap	0.59	0.52	0.89	0.81	0.42	0.50	0.43	0.36	0.52	0.44	0.46	0.45	2.13

(Last column PO Attainment Gap shows: 0.87)