

Curriculum Version 1.0
M.Tech. (Computer Science and Engineering)
 (For AY2026-27 onwards)

Credit distribution among baskets (Minimum credits to be earned = 80)		
Sl. No.	Baskets	Credit Contribution
1	School Core	20
2	Program Core	27
3	Discipline Elective	27
	Common Electives Basket	15
	Specialized Elective Baskets*	12
4	Open Elective	6
Total Credits		80

Specialized Elective Baskets*		
Sl.No.	Name of the Basket	Minimum Credit Requirement
1	Artificial Intelligence and Machine Learning	3
2	Data Analytics	3
3	IoT	3
4	Robotics	3
Total*		12

** Remaining Credits, if any, to satisfy Specialized Elective Baskets credit requirement can be taken from any Specialized Elective Basket*

Sl. No.	Course Code	Course Name	L	P	Credits
A. School Core - Minimum Credits to be earned from this basket (A+B+C) =					20
1	CSE5129	Computer Science Fundamentals (Bridge Course)*	3	0	0
2	MAT5009	Applied Statistics using R	2	2	3
3	ENG5004	Technical Proficiency and Career Building	0	2	1
4	CSE6004	Research Paper	-	-	2
5	CSE6012	M.Tech. Capstone Project	-	-	6
6	CSE6013	M.Tech. Internship	-	-	4
B. Foreign Languages Basket - Minimum credits to be earned from this basket =					2
1	FRE1002	Communicative French	0	2	1
2	GER1002	Communicative German	0	2	1
3	SPA1001	Communicative Spanish	0	2	1
C. Soft Skills Basket (All Courses in this basket are mandatory) - Minimum Credits =					2
1	SSK2002	Being Corporate Ready	0	2	1
2	CSE3050	Programming Skills for Employment.	0	2	1
D. Program Core (All Courses in this basket are mandatory) - Minimum Credits to be earned from this basket =					27
1	CSE5067	Advanced Data Structures and Algorithms	2	2	3
2	CSE5064	Cryptography and Information Security	2	2	3
3	CSE5005	Advanced Computer Architecture	3	0	3
4	CSE5008	Data Communications and Networks	2	2	3
5	CSE5006	Relational Database	2	2	3
6	CSE5007	Software Development Framework	3	0	3
7	CSE5050	Artificial Intelligence and Machine Learning	2	2	3
8	CSE5060	Operating Systems and Virtual Machines	3	0	3
9	CSE5045	Data Analytics using Python	2	2	3
E. Discipline Electives - Minimum Credits to be earned from both Common and Specialized elective baskets (E+F) =					27
F. Common Electives Basket - Minimum Credits to be earned from this basket =					15
1	CSE5009	Web Design and Development	2	2	3
2	CSE5010	Advanced Python	0	4	2
3	CSE5011	Advanced Java Programming	0	4	2
4	CSE5016	Data Mining and Predictive Modelling	3	0	3
5	CSE5069	Distributed Sensor Networks	3	0	3
6	CSE5072	Service-oriented Architecture and Applications	2	2	3
7	CSE5073	Man-machine Interaction	3	0	3
8	CSE5074	Wearable Computing Techniques	2	2	3
9	CSE5052	Data Center Operations and Management	3	0	3
10	CSE5076	Quantum Computing Fundamentals	2	0	2
11	CSE5025	Mobile Application Design	2	2	3
12	CSE5042	Blockchain Technology and Applications	3	0	3
13	CSE5017	Full Stack Development	0	4	2
14	CSE5021	Virtual Reality: Interface, Application and Design	2	2	3

15	CSE5066	Research Methodologies	3	0	3
16	MGT1101	Digital Entrepreneurship	2	0	2
17	CSE5053	Cloud infrastructure , services and API	2	2	3
18	CSE5035	Cloud Computing and Virtualization	3	0	3
G. Specialized Electives Baskets - Minimum Credits to be earned from these baskets (H+I+J+K) =					12
H. AI & ML Basket - Minimum Credits to be earned from this basket =					3
1	CSE5031	Optimization Techniques	2	2	3
2	CSE5019	Deep Learning Techniques	2	2	3
3	CSE5037	Reinforcement Learning	3	0	3
4	CSE5020	Natural Language Processing Techniques	3	0	3
5	CSE5022	Image Processing for Artificial Intelligence	2	2	3
6	CSE5079	Autonomous Navigation	3	0	3
I. Data Analytics Basket - Minimum Credits to be earned from this basket =					3
1	CSE5082	Information Visualization Techniques	2	2	3
2	CSE5084	Web Information Analytics	2	2	3
3	CSE5085	Healthcare Analytics Techniques	2	2	3
4	CSE5018	Big Data Framework	2	2	3
5	CSE5048	Data Analytics using R	2	2	3
6	MGT5105	Business Intelligence and Analytics	3	0	3
J. IoT Basket - Minimum Credits to be earned from this basket =					3
1	ECE5001	Embedded Systems and User Interface	2	2	3
2	CSE5086	Application Development for IoT	2	2	3
3	CSE5087	Wireless Communication - IoT Applications	3	0	3
4	CSE5090	IoT Ecosystem	3	0	3
5	CSE5091	Mobile IoT Applications	2	2	3
6	CSE5092	Cyber-physical Systems	3	0	3
7	CSE5094	Healthcare Internet of Things	3	0	3
K. Robotics Basket - Minimum Credits to be earned from this basket =					3
1	ECE5002	Principles of Robotics and RoS	2	2	3
2	CSE5095	Robotic Operating System	2	2	3
3	CSE5096	Robotic Process Automation	2	2	3
4	CSE5097	Neural Networks and Fuzzy Logic	3	0	3
5	CSE5098	Computer Vision	2	2	3
6	ECE5005	Robot Kinematics	2	2	3
Open Elective basket - Minimum Credits to be earned from this basket =					6
Any course from another 'eligible' curriculum					
Any unused Discipline Elective from his/ her 'own' curriculum					
Any stand-alone course declared as "Open Elective" by School/ Dept. for a specific 'eligible' degree program					
School approved NPTEL/ Swayam courses for a maximum of 3-credits					

* For PG non-CS background students; Counted for grading & CGPA calculation; credits not counted under minimum credit requirement for the Program