

B.Tech. (Computer Science & Engineering) 2022-26

Year	Semester-I	L	P	U	Semester-II	L	P	U
I	Mathematics-I	3	0	3	Mathematics-II	3	0	3
	English Language Skills	2	2	3	Physics	3	2	4
	Introduction to Electrical and Electronics Sciences	3	2	4	Environment Sciences & SDGs	2	0	2
	Chemistry	3	2	4	Digital Signal Processing	3	0	3
	Introduction to DS and AI	3	0	3	Professional Communication	3	0	3
	Computer Programming	3	2	4	Digital Fabrication	0	6	3
					Data Structures	2	4	4
	Total No of Credits	21			Total No of Credits	22		
II	Semester-III				Semester-IV			
	Introduction to IoT	3	0	3	Database Management Systems	3	2	4
	Object Oriented Programming Concepts	3	2	4	Computer Organization and Architecture	3	0	3
	Mathematics-III	3	0	3	Artificial Intelligence	3	0	3
	Discrete Structure for Computer Science	3	0	3	Web Enabled Technologies (Web 3.0)	3	0	3
	Design and Analysis of Algorithm	3	0	3	Industry Coding practice (Python & R)	2	2	3
	Theory of Computation	3	0	3	Speech Processing	3	0	3
	Principles of Managerial Economics	3	0	3	Data Science	3	0	3
	CRT	0	2	1	CRT	0	2	1
	MOOCS (Python Programming/Julia Programming)							
	Total No of Credits	23			Total No of Credits	23		
SUMMER INTERNSHIP PROGRAM I (for Internship option only)								5
III	Semester-V				Semester-VI			
	Principal of Cryptography	3	0	3	Open Elective	3	0	3
	Operating Systems	3	2	4	Computer Networks	3	2	4
	Programming Language & Compiler Construction	3	0	3	Big Data Systems	3	0	3
	Machine Learning	3	0	4	Cloud Computing	3	2	4
	Software Engineering	3	0	3	Intelligent Transport Systems	3	0	3
	Open Elective	3	0	3	Computer Vision	3	0	3
	Audit Course				Special Project/Capstone Project	0	6	3
	CRT	0	2	1	CRT	0	2	1
	Total No of Credits	21			Total No of Credits	24		
	Semester-VII				Semester-VIII			
	Internship Program II /	20			Internship Program II /	20		
	Thesis & Seminar /				Thesis & Seminar /			

IV	Electives (4) + Professional/ Discipline Elective	Or 18	Electives (4) + Professional/ Discipline Elective	Or 18
	Humanities Elective (1) (Digital Humanities)		Humanities Elective (1) (Digital Humanities)	
	Total No of Credits	20/18	Total No of Credits	18/20
Total No of Credits			177	

The Program structure is subject to change (if required).

Open Elective I (V and VI Semester)			
Open Elective I (V Semester)			
Course Title	L	P	U
Advanced Java	3	0	3
Advanced Computer Architecture	3	0	3
Parallel Computing	3	0	3
Blockchain Technology	3	0	3
Open Elective I (VI Semester)			
Social Network Analysis	3	0	3
Real Time Systems	3	0	3
Human Computer Interface	3	0	3
Combinatorial Optimization	3	0	3

Humanities Electives I (VII/VIII Semester)			
Course Title	L	P	U
Social Innovation	3	0	3

Discipline Elective (VII/VIII Semester)			
Machine Learning			
Course Title	L	P	U
Deep Learning	3	0	3
Natural Language Processing	3	0	3

Information retrieval	3	0	3
Pattern Recognition	3	0	3

Cyber Security			
Course Title	L	P	U
Ethical Hacking	3	0	3
Information Security	3	0	3
IoT Security	3	0	3
Cyber Security	3	0	3

Networks			
Course Title	L	P	U
Wireless Networks	3	0	3
Network Administration	3	0	3
Network Security	3	0	3
AI in Wireless Communications	3	0	3

Advanced Computing			
Course Title	L	P	U
High Performance Computing	3	0	3
Advanced Computer Architecture	3	0	3
Multicore Architecture	3	0	3
Parallel Computing	3	0	3

Database			
Course Title	L	P	U
Database Administration	3	0	3
SQL & DB Applications	3	0	3
Database Security & Privacy	3	0	3
Data Wrangling	3	0	3