

B Tech in Computer Science & Engineering(Academic Year 2021)

Year	THIRD SEMESTER						FOURTH SEMESTER					
	Sub. Code	Subject Name	L	T	P	C	Sub. Code	Subject Name	L	T	P	C
II	MAT_ 2155	Engineering Mathematics – III	2	1	0	3	MAT_ 2256	Engineering Mathematics – IV	2	1	0	3
	CSE_2151	Computer Organization & Architecture	3	1	0	4	CSE_ 2251	Database Systems	2	1	0	3
	CSE_ 2152	Data Structures and Applications	3	1	0	4	CSE_ 2252	Design and Analysis of Algorithms	3	1	0	4
	CSE_ 2153	Digital System Design	3	1	0	4	CSE_ 2253	Embedded Systems	3	1	0	4
	CSE_ 2154	Object Oriented Programming	3	1	0	4	CSE_ 2254	Formal Languages and Automata Theory	2	1	0	3
	CSE_ 2161	Data Structures Lab	0	0	3	1	****	Open Elective – I				3
	CSE_ 2162	Digital System Design Lab	0	0	3	1	CSE_ 2261	Algorithms Lab	0	0	3	1
	CSE_ 2163	Object Oriented Programming Lab	0	0	3	1	CSE_ 2262	Database Systems Lab	0	0	6	2
	CSE_ 2164	Open Source Technologies Lab	1	0	3	2	CSE_ 2263	Embedded Systems Lab	0	0	3	1
				15	5	12	24			12	5	9
Total Contact Hours (L + T + P)			32			Total Contact Hours (L + T + P) + OE			26 + 3 = 29			
III	FIFTH SEMESTER						SIXTH SEMESTER					
	HUM_ 3152	Essentials of Management	2	1	0	3	HUM_ 3151	Engg Economics and Financial Management	2	1	0	3
	CSE_ 3151	Compiler Design	2	1	0	3	CSE_ 3251	Distributed Systems	3	1	0	4
	CSE_ 3152	Computer Networks	2	1	0	3	CSE_ 3252	Parallel Computer Architecture and Programming	2	1	0	3
	CSE_ 3153	Operating Systems	2	1	0	3	CSE ****	Program Elective – I	3	0	0	3
	CSE_ 3154	Software Engineering	2	1	0	3	CSE ****	Program Elective – II	3	0	0	3
	****	Open Elective – II				3	****	Open Elective – III				3
	CSE_ 3161	Compiler Design Lab	0	0	6	2	CSE_ 3261	Distributed Systems Lab	0	0	3	1
	CSE_ 3162	Computer Networks Lab	0	0	6	2	CSE_ 3262	Internet Technologies Lab	1	0	3	2
	CSE_ 3163	Operating Systems Lab	0	0	6	2	CSE_ 3263	Parallel Programming Lab	0	0	3	1
			10	5	9	24			14	3	9	23
Total Contact Hours (L + T + P) + OE			24 + 3 = 27			Total Contact Hours (L + T + P) + OE			26 + 3 = 29			
IV	SEVENTH SEMESTER						EIGHTH SEMESTER					
	CSE ****	Program Elective – III	3	0	0	3	CSE_ 4298	Industrial Training				1
	CSE ****	Program Elective – IV	3	0	0	3	CSE_ 4299	Project Work/Practice School				12
	CSE ****	Program Elective – V	3	0	0	3	CSE_ 4296	Project Work (Only for B.Tech honour Students)				20
	CSE ****	Program Elective – VI	3	0	0	3						
	CSE ****	Program Elective – VII	3	0	0	3						
	****	Open Elective – IV				3						
			15	0	0	18						13
Total Contact Hours (L + T + P) +OE			15 + 3 = 18									

<p>Minor Specializations</p> <p>I. Computational Intelligence CSE_ 4053: Artificial Intelligence CSE_4031: Computer Vision CSE_4032: Machine Learning CSE_ 4054: Soft Computing Paradigms</p> <p>III. Computer Networks and Security CSE_ 4055: Advanced Computer Networks CSE_ 4056: Information Security CSE_ 4057: Internet of Things CSE_ 4058: Principles of Cryptography</p> <p><i>Note: All minor specialization courses are also part of other programme electives.</i></p>	<p>Other Programme Electives CSE_ 4062: Android Application Development CSE_ 4063: Cloud Computing CSE_ 4064: Deep Learning CSE_ 4065: Design Patterns CSE_ 4066: Ethical Hacking and Cyber Security CSE_ 4067: Game Programming CSE_ 4068: High Performance Computer Architecture CSE_ 4069: Human Computer Interface CSE_ 4070: Information Retrieval CSE_ 4071: Microcontroller CSE_ 4072: Multimedia Technologies CSE_ 4073: Pervasive Computing CSE_ 4074: Social Network Analysis CSE_ 4075: Software Architecture CSE_ 4076: Software Testing and Analysis CSE_ 4077: Storage Device and Technology CSE_ 4078: Wireless Networks CSE_ 4079: Software Defined Networks CSE_ 4080: Cryptanalysis CSE_ 4081: Hardware Security CSE_ 4082: Quantum Computing</p> <p>Open Electives CSE_ 4301: Essentials of Industrial Computing CSE_ 4302: Essentials of IT CSE_ 4303: Linux Programming CSE_ 4304: Principles of Database Systems CSE_ 4305: Principles of Soft computing CSE_ 4306: Principles of Software Engineering CSE_ 4307: Programming in C# CSE_ 4308: Programming in Java CSE_ 4309: Python Programming</p>	<p>Note: B. Tech Honours students must take 3 additional theory courses of 12 credits and an additional research project of 8 credits so as to accumulate 20 credits.</p> <p>The additional theory courses:</p> <ol style="list-style-type: none"> 1. CSE_5022: Advanced Machine Learning 2. CSE_5040: Pattern Recognition 3. CSE_5041: Deep Learning in Computer Vision
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