B Tech in CSE(Artificial Intelligence) (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**	**24**
	Total Contact Hours (L + T + P)		**32**		**Total Contact Hours (L + T + P) + OE**				**26 + 3 = 29**			
	FIFTH SEMESTER						**SIXTH SEMESTER**					
	Sub. Code	Subject Name	L	T	P	C	Sub. Code	Subject Name	L	T	P	C
	HUM_3152	Essentials of Management	2	1	0	3	HUM_ 3151	Engg Economics and Financial Management	2	1	0	3
	CSE_ 3171	Principles of Computer Vision	3	1	0	4	CSE_3271	Machine Learning and Deep Learning	3	1	0	4
	CSE_ 3172	Natural Language Processing	3	0	0	3	CSE_ 3272	Big Data Analytics	2	1	0	3
	CSE_ 3173	Artificial Neural Network	3	1	0	4	CSE_ ****	Program Elective – I	3	0	0	3
	CSE_ 3174	Artificial Intelligence	3	1	0	4	CSE_ ****	Program Elective – II	3	0	0	3
	****	Open Elective – II				3	****	Open Elective – III				3
	CSE_ 3181	Computer Vision Lab	0	0	3	1	CSE_ 3281	Machine Learning and Deep Learning Lab	0	0	3	1
	CSE_ 3182	Artificial Intelligence Lab	0	0	3	1	CSE_ 3282	Big Data Analytics Lab	0	0	3	1
	CSE_ 3183	Artificial Neural Network Lab	0	0	3	1	CSE_ 3262	Internet Technologies Lab	1	0	3	2
			14	**4**	**9**	**24**			**14**	**3**	**9**	**23**
	Total Contact Hours (L + T + P) + OE		**27 + 3 = 30**		**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	Course work + Project Work(Only for B Tech Honours 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**									

Minor Specializations

I. AI in Healthcare

CSE_ 4011: AI for Medical Image Analysis
CSE_ 4012: Bio-Informatics
CSE_ 4013: Healthcare Informatics
CSE_ 4014: Applications of AI in Medicine

II. Internet of Things

CSE_ 4019: Introduction to IoT
CSE_ 4020: IoT in Agriculture
CSE_ 4021: IoT for Healthcare
CSE_ 4022: IoT for Smart Cities

Note: All minor specialization courses are also part of other programme electives.

Other Programme Electives

CSE_ 4062: Android Application Development
CSE_ 4063: Cloud Computing
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_ 4078: Wireless Networks
CSE_ 4079: Software Defined Networks
CSE_ 4081: Hardware Security
CSE_ 4082: Quantum Computing
CSE_4023: Autonomous Systems
CSE_4024: Machine Translation
CSE_4025: Machine Learning with Text in Python
CSE_4026: Logical AI And Automated Reasoning
CSE_ 4027: AI in Cybersecurity
CSE_4028: Reinforcement Learning
CSE _4029: Cognitive Systems
CSE_4030: Knowledge Representation And Ontology

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_ 4308: Programming in Java
CSE_ 4309: Python Programming

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.

The additional theory courses:
1. CSE_5022: Advanced Machine Learning
2. CSE_5040: Pattern Recognition
3. CSE_5041: Deep Learning in Computer Vision