



Department of Computer Science and Engineering
Curriculum for Undergraduate Degree B.Tech. in Computer Science and Engineering (Data Science) with effect from 2023-24

B.TECH IN Computer Science and Engineering (Data Science)																
Course of Study Code	Discipline Code	Discipline	Course Name	Course Type	Course Code	Course Details	L - T - P	Course Credit	Sem Credit	Internal Assessment (IA)		End Semester Examination (ESE)		Total Marks	Semester Marks	
										Theoretical	Practical	Theoretical	Practical			
BTC	BTCCS	B.Tech in Computer Science and Engineering (Data Science)	1st Semester	Physics	BSC	BTCCSBSC101	BSC-1	3-1-3	5.5	17.5	30	20	70	30	150	500
				Mathematics - I	BSC	BTCCSBSC102	BSC-2	3-1-0	4		30		70		100	
				Basic Electrical Engineering	ESC	BTCCSESC101	ESC-1	3-1-2	5		30	20	70	30	150	
				Engineering Graphics & Design	ESC	BTCCSESC102	ESC-2	0-1-4	3			50		50	100	
			2nd Semester	Communicative English	HSMC	BTCCSHSMC201	HSMC-1	2-0-2	3	20.5	30	20	70	30	150	650
				Chemistry	BSC	BTCCSBSC201	BSC-3	3-1-3	5.5		30	20	70	30	150	
				Mathematics - II	BSC	BTCCSBSC202	BSC-4	3-1-0	4		30		70		100	
				Introduction to C Programming	ESC	BTCCSESC201	ESC-3	3-0-4	5		30	20	70	30	150	
				Workshop Practices	ESC	BTCCSESC202	ESC-4	0-1-4	3			50		50	100	
			3rd Semester	Economics for Engineers	HSMC	BTCCSHSMC301	HSMC-2	3-0-0	3	25	30		70		100	850
				Biology	BSC	BTCCSBSC301	BSC-5	2-1-0	3		30		70		100	
				Mathematics - III	BSC	BTCCSBSC302	BSC-6	3-1-0	4		30		70		100	
				Principles of Communication Engineering	ESC	BTCCSESC301	ESC-5	3-0-0	3		30		70		100	
				Analog and Digital Electronics	ESC	BTCCSESC302	ESC-6	3-0-2	4		30	20	70	30	150	
				Data Structures and Algorithms	PCC	BTCCSPCC301	PCC-1	3-0-4	5		30	20	70	30	150	
				Discrete Mathematics	PCC	BTCCSPCC302	PCC-2	3-0-0	3		30		70		100	
				Environmental Sciences	MC	BTCCSMC301	MC-1	0-0-0	0		15		35		50	
			4th Semester	Universal Human Values II: Understanding Harmony	HSMC	BTCCSHSMC401	HSMC-3	2-1-0	3	23	50		50		100	800
				Computer Organization and Architecture	PCC	BTCCSPCC401	PCC-3	3-0-2	4		30	20	70	30	150	
				Data Base Management System	PCC	BTCCSPCC402	PCC-4	3-0-4	5		30	20	70	30	150	
				Design and Analysis of Algorithm	PCC	BTCCSPCC403	PCC-5	3-0-2	4		30	20	70	30	150	
				Data Analysis and Visualization	PEC	BTCCSPEC401	PEC-1	3-0-0	3		30		70		100	
				Computer Graphics	(any one)	BTCCSPEC402										
				Microprocessor and Microcontroller	OEC	BTCCSOEC401	OEC-1	3-0-0	3		30		70		100	
				Operational Research	(any one)	BTCCSOEC402										
			Python Lab	LC	BTCCSPPC401	LC-1	0-0-2	1		20		30	50			
			5th Semester	Artificial Intelligence	PCC	BTCCSPCC501	PCC-6	3-0-2	4	22	30	20	70	30	150	750
				Object Oriented Programming	PCC	BTCCSPCC502	PCC-7	3-0-4	5		30	20	70	30	150	
				Formal Language and Automata Theory	PCC	BTCCSPCC503	PCC-8	3-0-0	3		30		70		100	
				Data Mining	PCC	BTCCSPCC504	PCC-9	3-0-0	3		30		70		100	
				Cloud Computing	PEC	BTCCSPEC501	PEC-2	3-0-0	3		30		70		100	
				Information Theory and Coding	(any one)	BTCCSPEC502										
				Software Engineering	PEC	BTCCSPEC503	PEC-3	3-0-0	3		30		70		100	
				Information Retrieval	(any one)	BTCCSPEC504										
				Introduction to R Programming	LC	BTCCSPPC501	LC-2	0-0-2	1			20		30	50	
			6th Semester	Compiler Design	PCC	BTCCSPCC601	PCC-10	3-0-0	3	20	30		70		100	750
				Operating System	PCC	BTCCSPCC602	PCC-11	3-0-2	4		30	20	70	30	150	
				Computer Networks	PCC	BTCCSPCC603	PCC-12	3-0-0	3		30		70		100	
Machine Learning	PCC	BTCCSPCC604		PCC-13	3-0-0	3	30		70			100				
Data Warehousing	PEC	BTCCSPEC601														
Soft Computing	(any one)	BTCCSPEC602		PEC-4	3-0-0	3	30		70			100				
Sensor Networks	(any one)	BTCCSPEC603														
Industrial Management and Environmental Control	OEC	BTCCSOEC601		OEC-2	3-0-0	3	30		70			100				
Human Resource Development and Organizational Behavior	(any one)	BTCCSOEC602														
Cyber Law and Cyber Security	(any one)	BTCCSOEC603														
Internship in Industry/Research Institute/Academic Institute	PROJ	BTCCSPPC601	PROJ-1		1		20		30	50						
Indian Constitution	MC	BTCCSMC601	MC-2	0-0-0	0	15		35		50						
7th Semester	Big Data Analysis	PCC	BTCCSPCC701	PCC-14	3-0-0	3	20	30		70		100	850			
	Internet of Things	PCC	BTCCSPCC702	PCC-15	3-0-0	3		30		70		100				
	Neural Network and Deep Learning	PEC	BTCCSPEC701	PEC-5	3-0-0	3		30		70		100				
	E-Commerce and ERP	(any one)	BTCCSPEC702													
	Image Processing	(any one)	BTCCSPEC703													
	Business Analytics	OEC	BTCCSOEC701													
	Human Computer Interaction	(any one)	BTCCSOEC702	OEC-3	3-0-0	3		30		70		100				
	Cryptography and Network Security	(any one)	BTCCSOEC703													
	Block Chain Technology	OEC	BTCCSOEC704													
	Natural Language Processing	(any one)	BTCCSOEC705	OEC-4	3-0-0	3		30		70		100				
Optimization Technique	(any one)	BTCCSOEC706														
Web Mining	OEC	BTCCSOEC707														

