



॥ त्वं ज्ञानमयो विज्ञानमयोऽसि ॥

2nd year B.Tech Computer Science & Engineering Program Structure For AY 2020-21

<i>Cat</i>	<i>Course</i>	<i>LTP</i>	<i>CH</i>	<i>N C</i>	<i>GC</i>	<i>Cat</i>	<i>Course</i>	<i>LTP</i>	<i>CH</i>	<i>NC</i>	<i>GC</i>
I Semester						II Semester					
IE	Introduction to Electrical Engineering	3-0-2	5	-	4	IE	Engineering Mechanics	2-1-0	3	-	3
IE	Introduction to Computer Science	3-0-2	5	-	4	IS	Chemistry	3-0-0	3	-	3
IE	Introduction to Bioengineering	3-0-2	5	-	4	IS	Physics	3-0-0	3	-	3
						IS	Chemistry Lab	0-0-2	2	-	1
						IS	Physics Lab	0-0-2	2	-	1
IS	Mathematics I	3-1-0	4	-	4	IS	Mathematics II	3-1-0	4	-	4
IE	Engineering Visualization	0-0-2	2	-	1	IE	Engineering Realization	0-0-2	1	-	1
NE	Engineering Design I	0-0-2	2	1	-	NE	Engineering Design II	0-0-2	2	1	-
NH	Communication Skill I	0-0-2	2	1	-	NH	Communication Skill II	0-0-2	2	1	-
NH	Social Connect and responsibilities I	0-0-1	1	0.5	-	NH	Social Connect and responsibilities II	0-0-1	1	0.5	-
NH	Performing Arts I /Sports I	0-0-1	1	0.5	-	NH	Performing Arts II/Sports II	0-0-1	1	0.5	-

		Total	12-1-14	27	3	17			Total	11-2-12	24	3	16
III Semester						IV Semester							
IS	Probability, Statistics and Stochastic Processes	3-1-0	4	-	4	IE	Materials Science & Engineering (Electronic materials)	1-0-0	1	-	1		
IE	MSE - (i) Energy materials (ii) Computational Material Design	2X 1-0-0	2	-	2	IE	Thermodynamics	3-1-0	4	-	4		
IE	Signals and Systems	3-1-0	4	-	4	IE	Pattern Recognition and Machine Learning	3-0-2	5	-	4		
PC	Maths for Computing	3-1-0	4		4	PC	Software Engineering	3-0-2	5		4		
PC	Data Structures and Algorithms	3-0-2	5	-	4	PC	Human-Machine Interaction	0-0-4	4		2		
LS	Foundations of Quantum Information Processing (Program Linked Science Elective)	3-0-0	3	-	3	PC	Digital Design	2-0-2	4		3		
NE	Intro. To Profession	0-0-2	2	1		IH	Humanities I	3-0-0	3		3		
Total		17-3-4	24	1	21	Total		15-1-10	23	-	21		
V Semester						VI Semester							
PC	Design and Analysis of Algorithms	3-1-0	4		4	PC	Cyber Security	3-0-2	5		4		
PC	Computer Architecture	3-0-0	3		3	PC	Computer Networks	3-0-3	6		4.5		
PC	Operating Systems	3-0-2	5		4	PC	Digital Systems Lab	0-0-3	3		1.5		

PC	Principles of Programming Languages	3-0-0	3		3	PC	CS Core Bouquet -1 (Algorithms)/ 2 (Hardware)	3-0-0	3		3
PC	Database Systems	3-0-2	5		4						
IH	Humanities II	3-0-0	3	-	3	PE	Programme/Open Elective	6-0-0	6		6
NH	Professional Ethics I	0-1-0		1	-	NH	Professional Ethics II	0-0-2		1	-
Total		18-2-4	23	1	21	Total		15-1-8	23	1	19
VII Semester						VIII Semester					
PP	B. Tech. Project	0-0-6	6	-	3	IH	Humanities IV	3-0-0	3	-	3
PC	CS Core Bouquet-1 (Algorithms)/2 (Hardware)	3-0-0	3		3						
PE / OE	Programme/Open Electives	6-0-0	6	-	6	PE / OE	Programme/Open Electives	15-0-0	15	-	15
IH	Humanities III	3-0-0	3	-	3						
IS	Environmental Science	2-0-0	2	-	2						
Total		14-0-6	20	-	17	Total		18-0-0	18	-	18
Total of Graded Credits										-	150
Total of Non-Graded Credits										9	-
Non-Graded Design Credits										6	-
Grand Total										165	

Note: ES are proposed Engineering Science compulsory courses