

**CURRICULUM FOR
CSE B.TECH. PROGRAM
FOR 2020-21 BATCH ONWARDS**

(With changes approved by the Senate on 28 July 2021)

**COMPUTER SCIENCE & ENGINEERING
COURSE CURRICULUM FOR THE B.TECH PROGRAMME**

Component		Credits
Basic Sciences		62
Engineering Sciences & Skills		29
HSS		12
Institute Electives		12
Departmental courses:		153
Core	111	
Electives	42	
Total		268

Semester I							Semester – II						
Course code	Course Name	Credit Structure					Course Code	Course Name	Credit Structure				
		L	T	P	C				L	T	P	C	
CH 105	Organic & Inorganic Chemistry	1.5	.5	0	4		BB 101	Biology	3	0	0	6	
CH 107	Physical Chemistry	1.5	.5	0	4		CH 117	Chemistry Lab.	0	0	3	3	
CS 101	Computer Programming and Utilization	2	0	2	6		CS 152	Abstractions and Paradigms in Programming (DIC)	3	0	0	6	
MA 105	Calculus	3	1	0	8		CS 154	Abstractions and Paradigms in Programming Lab	0	0	3	3	
ME 119	Engineering Graphics and Drawing	1	0	3	5		MA 106 & MA 108	Linear Algebra & Ordinary Differential Equations I	3	1	0	8	
PH 107	Quantum Physics and application	2	1	0	6		ME 113	Workshop Practice	0	0	4	4	
PH 117	Physics Lab	0	0	3	3		PH 108	Electricity and Magnetism	3	0	0	6	
Total					36		Total					36	

Semester III						Semester –IV					
Course code	Course Name	Credit Structure				Course Code	Course Name	Credit Structure			
		L	T	P	C			L	T	P	C
CS 251	Software Systems Lab	1	3	0	8	** CS 2xx	Digital Logic Design and Computer Architecture	3	0	0	6
CS 207	Discrete Structures	3	0	0	6	** CS 2xx	Digital Logic Design and Computer Architecture Lab	0	1	2	4
CS 213	Data Structures and Algorithms	3	0	0	6	CS 218	Design and Analysis of Algorithms	3	0	0	6
CS 293	Data Structures and Algorithms Lab	0	0	3	3	CS 228	Logic for Computer Science	3	0	0	6
CS 215	Data Analysis and Interpretation	3	0	0	6	CS 224	Computer Networks	3	0	0	6
EE 101	Introduction to Electrical and Electronic Circuits	3	1	0	8	CS 252	Computer Networks Lab	0	0	3	3
Total					37	HS 101	Economics	3	0	0	6
						Total					37

** New courses, need 2xx codes.

Semester V						Semester –VI					
Course code	Course Name	Credit Structure				Course Code	Course Name	Credit Structure			
		L	T	P	C			L	T	P	C
CS 310	Automata Theory	3	0	0	6	CS 302	Implementation of Programming Languages	4	0	0	8
CS 333	Operating Systems Lab	0	1	2	4	CS 306	Implementation of Programming Languages Lab	0	1	2	4
CS 347	Operating Systems	3	0	0	6	CS 317	Database and Information Systems	3	0	0	6
CS 335	Artificial Intelligence and Machine Learning Lab	0	1	2	4	CS 387	Database and Information Systems Lab	0	1	2	4
CS 337	Artificial Intelligence and Machine Learning	3	0	0	6	MA 214	Introduction to Numerical Analysis	3	0	0	8
HS 30x	HSS Elective: Literature/Philosophy/ Psychology/Sociology	3	0	0	6		Dept. Elective 1	3	0	0	6
Total					32	Total					36

Semester VII						Semester –VIII					
Course code	Course Name	Credit Structure				Course Code	Course Name	Credit Structure			
		L	T	P	C			L	T	P	C
	Dept. Elective 2	3	0	0	6		Dept. Elective 5	3	0	0	6
	Dept. Elective 3	3	0	0	6		Dept. Elective 6	3	0	0	6
	Dept. Elective 4	3	0	0	6		Dept. Elective 7	3	0	0	6
	Institute Elective 1	3	0	0	6		Institute Elective 2	3	0	0	6
ES200/ HS200	Environmental Studies	3	0	0	6						
Total					30	Total					24