

**B Tech Computer Science and Engineering Course structure
(July 2018 onwards)**

Course No	Semester-I	L	T	P	C	Course No	Semester-II	L	T	P
	Course Name						Course Name			
CH101	Chemistry	3	1	0	8	BT101	Introductory Biology	3	0	0
CH110	Chemistry Laboratory	0	0	3	3	CS101	Introduction to Computing	3	0	0
EE101	Basic Electronics	3	1	0	8	CS110	Computing Laboratory	0	0	3
MA101	Mathematics - I	3	1	0	8	EE102	Basic Electronics Laboratory	0	0	3
CE101	Engineering Drawing	2	0	3	7	MA102	Mathematics - II	3	1	0
PH101	Physics - I	2	1	0	6	ME101	Engineering Mechanics	3	1	0
PH110/ME110	Physics Laboratory / Workshop	0	0	3	3	PH102	Physics - II	2	1	0
						ME110/PH110	Workshop / Physics Laboratory	0	0	3
		13	4	9	43			14	3	9
HS101	English Communication*	2	0	2	0	SA1xx	Students Activity Course - I	0	0	2
Course No	Semester-III	L	T	P	C	Course No	Semester-IV	L	T	P
	Course Name					Course Name	Course Name			
MA222	Elementary Number Theory and Algebra	3	0	0	6	CS205	Formal Languages, Automata Theory and Computation	3	0	0
MA225	Probability Theory and Random Processes	3	1	0	8	CS207	Design and Analysis of Algorithms	3	0	0
CS201	Discrete Mathematics	3	0	0	6	CS223	Computer Architecture and Organization	3	0	0
CS203	Algorithms and Data Structures	3	0	0	6	CS224	Hardware Laboratory	0	1	4
CS204	Algorithms and Data Structures Laboratory	0	1	3	5	CS245	Database Management Systems	3	0	0
CS221	Digital Design	3	0	0	6	CS246	Database Management Systems Laboratory	0	0	4
CS242	System Software Laboratory	0	1	3	5	HS1xx	HSS Elective - I Level-I	3	0	0
		15	3	6	42			15	1	8
SA2xx	Students Activity Course - II	0	0	2	0	SA3xx	Students Activity Course- III	0	0	2
	Minor - I	3	0	0	6		Minor - II	3	0	0
HS200	Sustainable Development Goals ***	2	0	0	0					
Course No	Semester-V	L	T	P	C	Course No	Semester-VI	L	T	P
	Course Name					Course Name	Course Name			
MA321	Optimization	3	0	0	6	CS345	Software Engineering	2	0	0
CS341	Computer Networks	3	0	0	6	CS346	Software Engineering Laboratory	0	0	3
CS342	Computer Networks Laboratory	0	0	4	4	CS348	Implementation of Programming Languages Laboratory	0	2	3
CS343	Operating Systems	3	0	0	6	CS361	Machine Learning	3	0	0
CS344	Operating Systems Laboratory	0	0	4	4	CSxxx	Departmental Elective -II	3	0	0
CSxxx	Departmental Elective -I	3	0	0	6	CSxxx	Departmental Elective -III	3	0	0
HS1xx	HSS Elective - II Level-I	3	0	0	6	CSxxx	Departmental Elective -IV	0	1	3
		15	0	8	38			11	3	9
SA4xx	Students Activity Course - IV	0	0	2	0		Minor Course - IV	3	0	0
	Minor Course - III	3	0	0	6					
Course No	Semester-VII	L	T	P	C	Course No	Semester-VIII	L	T	P
	Course Name					Course Name	Course Name			
OE4xx	Open Elective	3	0	0	6	OExxx	Open Elective	3	0	0
OExxx /CSxxx	Open Elective / Departmental Elective -V	3	0	0	6	OExxx	Open Elective	3	0	0
CSxxx	Departmental Elective-VI	3	0	0	6	CSxxx	Departmental Elective -IX	3	0	0
CSxxx	Departmental Elective-VII	3	0	0	6	CSxxx	Departmental Elective-X	3	0	0
CSxxx	Departmental Elective-VIII	3	0	0	6	CSxxx	Departmental Elective-XI	3	0	0
CS498	B Tech Project-I [§]	0	0	12	12	CS499	B Tech Project-II [#]	0	0	12
HS2xx	HSS Elective - I Level-II	3	0	0	6	HS2xx	HSS Elective - II Level-II	3	0	0
		18	0	0	36			18	0	0
		12	0	12	36			12	0	12
	Minor Course - V	3	0	0	6					

*Only for students lagging language proficiency, to be graded as PP or NP.

[§] B-Tech Projects I and II are optional, each in lieu of any two of the departmental electives offered in that semester.

[#] B-Tech Projects II is mandatory for those who opted for B-Tech Project-I, but optional to others in lieu of any two of the departmental electives offered in that semester.

*** Type of Letter Grading: PP/NP and Compulsory course for all B.Tech 3rd Semester Students

Total Mandatory Credits: 315