

## B. Tech Computer Science & Engineering Curriculum

Course Category	Course No.	Course Title	Contact Hours			Credit	Prerequisites
			L	T	P		
<b>Science Core Courses -28 Credits</b>	MA 101	Mathematics-I	3	1	0	4	None
	MA 102	Mathematics-II	3	1	0	4	None
	MA 202	Probability & Statistics	3	0	0	3	None
	MA 204	Discrete Mathematics	3	0	0	3	None
	MA 210	Mathematics Laboratory	0	0	4	2	CS101, MA101, MA102
	PH 101	Engineering Physics	3	1	2	5	None
	CH 101	Engineering Chemistry	3	1	2	5	None
	ES 101	Environmental Science	2	0	0	2	None
<b>Science Elective Courses -3 Credits</b>	BT 201	Elements of Modern Biology	3	0	0	3	None
	PH 201	Physics of Materials	3	0	0	3	None
	CH 102	Introduction to Material Science	3	0	0	3	None
		Any other subject offered by Sc. departments and recommended by the Course Adviser.					
<b>Engineering Sc. Core Courses - 20 Credits</b>	CE 101	Engineering Drawing	1	0	4	3	None
	EE 101	Basic Electrical Engineering	3	0	2	4	None
	EC 101	Basic Electronics	3	0	2	4	EE 101
	ME 101	Engineering Mechanics	3	0	0	3	None
	ME 102	Engineering Thermodynamics	2	0	0	2	None
	CS 101	Computer Programming	2	0	2	3	None
	ME 103	Workshop Practice-I	0	0	4	2	None
<b>Discipline Core Courses -53 Credits</b>	CS 201	Digital Logic Design	3	1	2	5	EC 101
	CS 202	Data Structures	3	1	2	5	CS 101
	CS 203	Automata and Formal Languages	3	0	0	3	CS 101
	CS 204	Computer Organization & Architecture	3	1	2	5	CS 201
	CS 205	Algorithms	3	0	2	4	CS 202
	CS 206	Database Systems	3	0	2	4	CS 202
	CS 207	Principles of Programming Languages	3	0	2	4	CS 101
	CS 208	Data Communication	3	0	2	4	EC 203
	CS 301	Microprocessors & Interfacing	3	0	2	4	CS 201, CS 101
	CS 302	Computer Networks	3	0	2	4	EC 205/ CS 208
	CS 303	System Programming	3	0	2	4	CS 204
	CS 304	Operating System	3	0	2	4	CS 202, CS 204
	CS 305	Software Engineering	3	0	2	5	CS 206
	CS 306	Compiler Design	3	0	2	4	CS 303
<b>Discipline Electives - 20 Credits</b>	CS210	Data Structure & Algorithm	3	0	0	3	CS101
	CS211	Object Oriented Programming	3	0	0	3	CS101
	CS 311	Object Oriented Progr. & Design	3	0	2	4	CS 202
	CS 312	Computer Graphics	3	0	2	4	CS 202
	CS313	Embedded Systems	3	0	2	4	CS301
	CS 411	Cryptography and Network Security	3	0	0	3	CS 304, CS 302
	CS 412	Artificial Intelligence	3	0	0	3	CS 203, CS 207
	CS 413	High Performance Architectures	3	0	0	3	CS 204
	CS 414	Web Technology	3	0	0	3	CS 312
	CS 415	Data Mining	3	0	0	3	CS 205
	CS 416	Computational Geometry	3	0	0	3	CS 205

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	Plus any other course of level 300 and above offered by the department and recommended by it.						
<b>Open Elective Courses - 20 Credits</b>	Any course of appropriate level offered in the Institute and recommended by the Course Adviser						
<b>Project Works</b>	CS 401	Project-I	0	0	8	4	100 or more credits earned
	CS 402	Project-II	0	0	16	8	120 or more credits earned
<b>HSS Core Courses - 11 Credits</b>	HS 101	English Language Skills	2	0	2	3	None
	HS 301	Foundations of Management	3	0	0	3	None
	HS 302	Accounting and Financial Methods	3	0	0	3	HS 301
	HS 401	Professional Ethics	2	0	0	2	HS 301
<b>HSS Elective Courses - 3 Credits</b>	HS 402	Introduction to Economics	3	0	0	3	None
	HS 403	Introduction to Sociology	3	0	0	3	None
	HS 404	Introduction to Psychology	3	0	0	3	None
	HS 405	Introduction to Behavioural Sc.	3	0	0	3	None