

Program Code : 114 - B. Tech. (Computer Science and Engineering)
Department : Department of Computer Science and Engineering
Year : I

Teaching Scheme					Contact Hours/Week			Exam Duration (Hrs.)		Relative Weights (%)				
S. No.	Subject Code	Course Title	Subject Area	Credits	L	T	P	Theory	Practical	CWS	PRS	MTE	ETE	PRE
(Autumn)														
1.	MA-001	Mathematics-I	BSC	4	3	1	0	3	0	25	-	25	50	-
2.	PH-005	Electrodynamics and Optics	BSC	4	3	0	2	3	2	15	25	20	40	-
3.	CE-105	Introduction to Environmental Studies	GSC	3	3	0	0	3	0	25	-	35	50	-
4.	HS-101A	Communication Skills (Basic)	HSSC	2	1	0	2	2	0	25	-	25	50	-
	HS-101B	Communication Skills (Advance)												
5.	HS-002	Ethics and Self Awareness	HSSC	2	2	0	0	2	0	25	-	25	50	-
6.	CS-101	Introduction to Computer Science and Engineering	DCC	2	2	0	0	2	0	-	-	-	100	-
7.	CS-103	Fundamentals of Object Oriented Programming	ESC*	4	3	0	2/2	3	0	20	20	20	40	-
		Total		21	17	1	5							
(Spring)														
1.	MA-010	Optimization Techniques	BSC	4	3	1	0	3	0	25	-	25	50	-
2.	PH-006	Quantum Mechanics and Statistical Mechanics	BSC	4	3	0	2	3	0	15	25	20	40	-
3.	EC-104	Digital Logic Design	DCC	4	3	1	0	3	0	25	-	25	50	-
4.	CS-102	Data Structures	DCC	4	3	1	0	3	0	25	-	25	50	-
5.	CS-106	Discrete Structures	DCC	4	3	1	0	3	0	25	-	25	50	-
6.	EC-102	Fundamentals of Electronics	ESC	4	3	1	0	3	0	25	-	25	50	-
		Total		24	18	4	0							

*Open to ECE and CSE disciplines only

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Year : II

Teaching Scheme					Contact Hours/Week			Exam Duration (Hrs.)		Relative Weights (%)				
S. No.	Subject Code	Course Title	Subject Area	Credits	L	T	P	Theory	Practical	CWS	PRS	MTE	ETE	PRE
(Autumn)														
1.	MI-106	Engineering Thermodynamics	ESC	4	3	1	0	3	0	25	-	25	50	-
2.	EC-203	Signals and Systems	DCC	4	3	1	0	3	0	25	-	25	50	-
3.	CS-221	Computer Architecture and Microprocessors	DCC	4	3	1	0	3	0	25	-	25	50	-
4.	CS-261	Data Structures Laboratory	DCC	2	0	0	3	0	3	-	50	-	-	50
5.	CS-291	Object Oriented Analysis and Design	DCC	4	3	0	2	3	0	15	25	20	40	-
6.	HS-ELE	HSS Elective Course*	HSSMEC	3	3	0	0	3	0	25	-	25	50	-
		Total		18/21	15	3	5							
(Spring)														
1.	MT-105	Electrical and Electronic Materials	ESC	4	3	1	0	3	0	25	-	25	50	-
2.	CS-212	Design and Analysis of Algorithms	DCC	4	3	1	0	3	0	25	-	25	50	-
5.	CS-232	Operating Systems	DCC	4	3	1	0	3	0	25	-	25	50	-
3.	CS-252	System Software	DCC	3	2	1	0	2	0	25	-	25	50	-
4.	CS-254	Software Engineering	DCC	4	3	1	0	3	0	25	-	25	50	
6.	EC-252	Digital Electronic Circuits Laboratory	DCC	2	0	0	3	0	3	-	50	-	-	50
7.	HS-ELE	HSS Elective Course*	HSSMEC	3	3	0	0	3	0	25	-	25	50	-
		Total		24/21	17	5	3							

*Any one course in this category is to be opted either in the Autumn or in the Spring semester in the second year. The course should be selected from the list (basket) of Humanities and Social Sciences Elective Courses.

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Year : III

Teaching Scheme					Contact Hours/Week			Exam Duration (Hrs.)		Relative Weights (%)				
S.No.	Subject Code	Course Title	Subject Area	Credits	L	T	P	Theory	Practical	CWS	PRS	MTE	ETE	PRE
(Autumn)														
1.	CS-341	Computer Networks	DCC	4	3	1	0	3	0	25	-	25	50	-
2.	CS-351	Data Base Management Systems	DCC	4	3	1	0	3	0	25	-	25	50	-
3.	CS-353	Theory of Computation	DCC	4	3	1	0	3	0	25	-	25	50	-
4.	CS-361	Computer Networks Laboratory	DCC	2	0	0	3	0	0	-	100	-	-	-
5.	CS-ELE1	Departmental Elective Course-I	DEC	4	3	1	0	3	0	25	-	25	50	-
6.	OEC/BM-ELE	Open Elective Course/Management Studies Elective Course*	OEC/HSSMEC	3	3	0	0	3	0	25	-	25	50	-
7.	CS-391	Technical Communication	DCC	2	0	2	0	0	0	-	-	-	100	-
		Total		23	15	6	3							
(Spring)														
1.	CS-300	Industry-oriented Problem / Lab-based Project / Software Engineering-based Project	DCC	4	0	0	6	0	0	-	100	-	-	-
2.	CS-312	Principles of Programming Languages	DCC	3	3	0	0	3	0	25	-	25	50	-
3.	CS-352	Compiler Design	DCC	4	3	1	0	3	0	25	-	25	50	-
4.	CS-362	Compiler Laboratory	DCC	2	0	0	3	0	0	-	100	-	-	-
5.	CS-ELE2	Departmental Elective Course-II	DEC	4	3	1	0	3	0	25	-	25	50	-
6.	OEC/BM-ELE	Open Elective Course/Management Studies Elective Course*	OEC/HSSMEC	3	3	0	0	3	0	25	-	25	50	-
7.	MSC1/DHC1	Minor Specialization Course-I / Departmental Honours Course-I	MSC / DHC	4	3	1	0	3	0	25	-	25	50	-
8.	CS-399	Educational Tour	DCC	0	-	-	-	-	-	-	-	-	-	-
		Total		19/23	12/ 15	2/3	9/9							

*One course each from the OEC and the HSSMEC categories is to be opted either in the Autumn or in the Spring semester in the third year.
 The HSSMEC course should be selected from the list (basket) of Management Studies Elective Course.

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Teaching Scheme					Contact Hours/Week			Exam Duration (Hrs.)		Relative Weights (%)				
S. No.	Subject Code	Course Title	Subject Area	Credits	L	T	P	Theory	Practical	CWS	PRS	MTE	ETE	PRE
(Autumn)														
1.	CS-ELE3	Departmental Elective Course-III	DEC	4	3	1	0	3	0	25	-	25	50	-
2.	CS-ELE4	Departmental Elective Course-IV	DEC	4	3	1	0	3	0	25	-	25	50	-
3.	CS-499	Training Seminar	DCC	2	0	2	0	0	0	100	-	-	-	-
4.	CS-400A	B.Tech. Project	DCC	4	0	0	3	0	0	-	-	-	-	-
5.	MSC2/DHC2	Minor Specialization Course-II Departmental Honours Course-II (optional)	MSC / DHC	4	3	1	0	3	0	25	-	25	50	-
6.	MSC3/DHC3	Minor Specialization Course-III / Departmental Honours Course-III (optional)	MSC / DHC	4	3	1	0	3	0	25	-	25	50	-
		Total		14/22	6/ 12	4/6	3							
(Spring)														
1.	CS-ELE5	Departmental Elective Course-V	DEC	4	3	1	0	3	0	25	-	25	50	-
2.	CS-ELE6	Departmental Elective Course-VI	DEC	4	3	1	0	3	0	25	-	25	50	-
3.	CS-400B	B.Tech. Project (Contd. from Autumn Semester)	DCC	8	0	0	12	0	0	100	-	-	-	-
4.	MSC4/DHC4	Minor Specialization Course-IV / Departmental Honours Course-IV (optional)	MSC / DHC	4	3	1	0	3	0	25	-	25	50	-
5.	MSC5/DHC5	Minor Specialization Course-V / Departmental Honours Course-V (optional)	MSC / DHC	4	3	1	0	3	0	25	-	25	50	-
		Total		16/20	6/ 12	2/4	12							