

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING
CURRICULUM OF 2ND TO 4TH YEAR OF THE
UNDERGRADUATE ENGINEERING DEGREE PROGRAMME

SECOND YEAR FIRST SEMESTER

Subject Code	Subject Name	Category	Type	Contact			Credit	Marks
				L	T	P		
FET/BS/B/Math/T/211	Mathematics – III	BS	B	2	1		3	100
CSE/PC/B/T/212	Digital Logic & Circuits	PC	B	4			4	100
CSE/PC/B/T/213	Data Structures and Algorithms	PC	B	3			3	100
CSE/PC/B/T/214	Programming Fundamentals and Object Oriented Concepts	PC	B	3			3	100
CSE/PC/B/T/215	Computer Organisation	PC	B	3			3	100
CSE/PC/B/S/211	Data Structures Lab	PC			1	2	2	100
CSE/PC/B/S/212	Digital Systems Lab	PC				3	1.5	100
CSE/PC/B/S/213	Programming Practice Lab	PC				3	1.5	100

SECOND YEAR SECOND SEMESTER

Subject Code	Subject Name	Category	Type	Contact			Credit	Marks
				L	T	P		
CSE/BS/B/Math/T/221	Mathematics – IV	BS	B	4			4	100
CSE/PC/B/T/222	Advanced Object Oriented Programming	PC	B	3			3	100
CSE/PC/B/T/223	Microprocessors and Assembly Language Programming	PC	B	3			3	100
CSE/PC/B/T/224	Data Communication	PC	B	3			3	100
CSE/PC/B/T/225	Graph Theory and Combinatorics	PC	B	3			3	100
CSE/PC/B/T/226	Computer Architecture	PC	B	3			3	100
CSE/PC/B/S/221	Hardware Design Lab	PC	B			3	1.5	100
CSE/PC/B/S/222	Object Oriented Programming Lab	PC	B			3	1.5	100
CSE/PC/B/S/223	Microprocessor Lab	PC	B			3	1.5	100

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THIRD YEAR FIRST SEMESTER

Subject Code	Subject Name	Category	Type	Contact			Credit	Marks
				L	T	P		
CSE/PC/B/T/311	Computer Graphics	PC	B	3			3	100
CSE/PC/B/T/312	Systems Programming	PC	B	3			3	100
CSE/PC/B/T/313	Operating System	PC	B	3			3	100
CSE/PC/B/T/314	Formal Languages and Automata Theory	PC	B	3			3	100
CSE/PC/B/T/315	Principles of Programming Languages	PC	B	3			3	100
CSE/PC/B/T/316	Computer Networks	PC	B	3			3	100
CSE/PC/B/S/311	Computer Graphics Lab	PC	B			3	1.5	100
CSE/PC/B/S/312	Systems Programming Lab	PC	B			3	1.5	100
CSE/PC/B/S/313	Operating System Lab	PC	B		1	2	2	100
CSE/PC/B/S/314	Computer Networks Lab	PC	B		1	2	2	100

THIRD YEAR SECOND SEMESTER

Subject Code	Subject Name	Category	Type	Contact			Credit	Marks
				L	T	P		
CSE/PC/B/T/321	Database Management Systems	PC	B	3			3	100
CSE/PC/B/T/322	Internet Technology	PC	B	3			3	100
CSE/PC/B/T/323	Compiler Design	PC	B	3			3	100
CSE/PC/B/T/324	Software Engineering	PC	B	3			3	100
CSE/PC/B/T/325	Design and Analysis of Algorithms	PC	B	3			3	100
CSE/PC/B/T/326	Artificial Intelligence	PC	B	3			3	100
CSE/PC/B/S/321	Database Management Systems Lab	PC	B		1	2	2	100
CSE/PC/B/S/322	Compiler Design Lab	PC	B		1	2	2	100
CSE/PC/B/S/323	Internet Technology Lab	PC	B			3	1.5	100
CSE/PC/B/S/324	Artificial Intelligence Lab	PC	B			3	1.5	100

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FOURTH YEAR FIRST SEMESTER

Subject Code	Subject Name	Category	Type	Contact			Credit	Marks
				L	T	P		
CSE/PC/H/T/411	Computer and Network Security*	PC	H	3			3	100
CSE/PC/H/T/412	Machine Learning*	PC	H	3			3	100
CSE/PE/B/T/413	Elective-I	PE	B	3			3	100
CSE/PE/B/T/414	Elective - II	PE	B	3			3	100
CSE/PE/H/T/415	Elective-III*	PE	H	3			3	100
CSE/PS/B/S/411	Project - I	PS	B		1	4	3	100
CSE/PS/B/S/412	Seminar - I	PS	B		1	4	3	100
CSE/PC/H/S/413	Machine Learning Lab*	PC	H		1	2	2	100

List of Electives:

Elective 1	
CSE/PE/B/T/413 A	Pattern Recognition
CSE/PE/B/T/413 B	Soft Computing
CSE/PE/B/T/413 C	Deep Learning

Elective 2	
CSE/PE/B/T/414 A	Multimedia Technology
CSE/PE/B/T/414 B	Bioinformatics
CSE/PE/B/T/414 C	Natural Language Processing
CSE/PE/B/T/414 D	Image Processing
CSE/PE/B/T/414 E	Digital Signal Processing

Elective 3	
CSE/PE/H/T/415 A	Data Mining
CSE/PE/H/T/415 B	Big Data Analytics
CSE/PE/H/T/415 C	Information Storage and Retrieval
CSE/PE/H/T/415 D	Programming Environment and User Interface Design
CSE/PE/H/T/415 E	Advanced Numerical Computation

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FOURTH YEAR SECOND SEMESTER

Subject Code	Subject Name	Category	Type	Contact			Credit	Marks
				L	T	P		
CSE/PE/H/T/421	Elective-IV*	PE	H	3			3	100
CSE/HS/B/T/422	Industrial Management	HS	B	3			3	100
CSE/PE/H/T/423	Elective-V*	PE	H	3			3	100
CSE/PE/H/T/424	Elective-VI*	PE	H	3			3	100
	Open Elective	OE	B	3			3	100
CSE/PS/B/S/421	Project - II	PS	B		1	4	3	100
CSE/PS/B/S/422	Seminar - II	PS	B		3		3	100

List of Electives:

Elective 4	
CSE/PE/H/T/421 A	Optimization Techniques
CSE/PE/H/T/421 B	Information and Coding Theory
CSE/PE/H/T/421 C	Cryptography
CSE/PE/H/T/421 D	Information Security
CSE/PE/H/T/421 E	Approximation Algorithms

Elective 5	
CSE/PE/H/T/423 A	Distributed Computing
CSE/PE/H/T/423 B	Wireless Sensor Network
CSE/PE/H/T/423 C	High Performance Parallel Computing
CSE/PE/H/T/423 D	Internet of Things
CSE/PE/H/T/423 E	Mobile Computing

Elective 6	
CSE/PE/H/T/424 A	Software Project Management
CSE/PE/H/T/424 B	Advanced topics in Software Engineering
CSE/PE/H/T/424 C	Computational Geometry
CSE/PE/H/T/424 D	VLSI System
CSE/PE/H/T/424 E	Embedded Systems
CSE/PE/H/T/424 F	Biometric Systems

The subject names superscripted with asterisks are for Degree with Honours only