



(Autonomous)

## Department of Computer Science and Engineering

### SEMESTER-WISE STRUCTURE OF CURRICULUM

#### COURSE STRUCTURE

<b>I YEAR I SEMESTER</b>						
<b>S. No</b>	<b>Course Code</b>	<b>Course Title</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
1	HS	Communicative English	3	0	0	3
2	BS	Applied Chemistry	3	0	0	3
3	BS	Mathematics – I	3	0	0	3
4	ES	Programming for Problem Solving using C	3	0	0	3
5	HS	Communicative English Lab-I	0	0	3	1.5
6	BS	Applied Chemistry Lab	0	0	3	1.5
7	ES	Problem solving using C Lab	0	0	3	1.5
8	ES	Engineering Workshop	0	0	3	1.5
9	MC	Environmental Studies	3	0	0	0
<b>Total</b>						18

<b>I YEAR II SEMESTER</b>						
<b>S. No</b>	<b>Course Code</b>	<b>Course Title</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
1	BS	Mathematics – II	3	0	0	3
2	BS	Mathematics – III	3	0	0	3
3	BS	Applied Physics	3	0	0	3
4	ES	Python Programming	3	0	0	3
5	ES	Basic Electrical & Electronics Engineering	3	0	0	3
6	ES	Engineering graphics and design	1	0	3	2.5
7	ES	Python Programming Lab	0	0	3	1.5
8	BS	Applied Physics Lab	0	0	3	1.5
9	HS	Communicative English Lab-II	0	0	3	1.5
10	MC	Constitution of India	3	0	0	0
<b>Total</b>						22

II YEAR I SEMESTER						
S. No	Course Code	Course Title	L	T	P	C
1	CS	Mathematical Foundations of Computer Science	3	0	0	3
2	CS	Data Structures	3	0	0	3
3	ES	Digital Logic & Circuit Design	3	0	0	3
4	CS	Java Programming	2	1	0	3
5	BS	Probability & Statistics	2	1	0	3
6	CS	Data Structures Lab	0	0	3	1.5
7	CS	Java Programming Lab	0	0	3	1.5
8	MC	Essence of Indian Traditional Knowledge	3	0	0	0
9	MC	Employability Skills – I	3	0	0	0
		<b>Total</b>				18

II YEAR II SEMESTER						
S. No	Course Code	Course Title	L	T	P	C
1	CS	Software Engineering	3	0	0	3
2	CS	Advanced Data Structures	3	0	0	3
3	CS	Operating Systems	3	0	0	3
4	CS	Database Management Systems	3	0	0	3
5	CS	Computer Organization	3	0	0	3
6	CS	Database Management Systems Lab	0	0	3	1.5
7	CS	Operating Systems Lab	0	0	3	1.5
8	MC	Professional Ethics & Human Values	3	0	0	0
9	PR	Socially Relevant Project	0	0	2	1
		<b>Total</b>				19

III YEAR I SEMESTER						
S.No	Course Code	Course Title	L	T	P	C
1	CS	Formal Languages and Automata Theory	3	0	0	3
2	CS	Design & Analysis of Algorithms	3	0	0	3
3	HS	Managerial Economics & Financial Analysis	3	0	0	3
4	CS	Unix and Shell Programming	3	0	0	3
5	CS	Advanced Java & Web Technologies	3	0	0	3
6	CS	Design & Analysis of Algorithms Lab	0	0	3	1.5
7	CS	Unix and Shell Programming Lab	0	0	3	1.5
8	CS	Advanced Java & Web Technologies Lab	0	0	3	1.5
9	MC	Employability Skills – II	3	0	0	0
Total						19.5

III YEAR II SEMESTER						
S. No	Course Code	Course Title	L	T	P	C
1	CS	Data Warehousing & Data Mining	3	0	0	3
2	CS	Computer Networks	3	0	0	3
3	CS	Artificial Intelligence	3	0	0	3
4	CS	Compiler Design	3	0	0	3
5	PE	Professional Elective – I	3	0	0	3
6	PE	Professional Elective – II	3	0	0	3
7	CS	Computer Networks Lab	0	0	3	1.5
8	CS	Artificial Intelligence Lab	0	0	3	1.5
9	PR	Mini Project	0	0	5	2.5
Total						23.5

IV YEAR I SEMESTER						
S. No	Course Code	Course Title	L	T	P	C
1	CS	Cryptography & Network Security	3	0	0	3
2	CS	Machine Learning	3	0	0	3
3	CS	UML & Design Patterns	3	0	0	3
4	OE	Open Elective – I	3	0	0	3
5	PE	Professional Elective – III	3	0	0	3
6	CS	Machine Learning Lab	0	0	3	1.5
7	CS	Mobile Application Development Lab	0	0	3	1.5
8	MC	Intellectual Property Rights & Patents	3	0	0	0
9	PR	Project – I	0	0	6	3
<b>Total</b>						21

IV YEAR II SEMESTER						
S. No	Course Code	Course Title	L	T	P	C
1	HS	Management & Organizational Behavior	3	0	0	3
2	OE	Open Elective – II	3	0	0	3
3	PE	Professional Elective – IV	3	0	0	3
4	PE	Professional Elective – V	3	0	0	3
5	PR	Project – II	0	0	14	7
<b>Total</b>						19

### PROFESSIONAL ELECTIVES

<b>PE – 1</b>	Computer Graphics	NO – SQL Databases	Full Stack Development	Software Project Management
<b>PE – 2</b>	** Can be contemporary Online Certification Courses which are conducted under standard technical bodies or higher learning institutions such as NPTEL, UDACITY, MOOCS by JNTUK etc.,			
<b>PE – 3</b>	Multimedia & Animation	Big Data Analytics	Cloud Computing	Software Architecture & Design Patterns
<b>PE – 4</b>	Image Processing	Deep Learning	Cyber Security & Forensics	Software Testing Methodologies
<b>PE – 5</b>	Computer Vision	Data Science	Block chain Technologies	Devops

**OPEN ELECTIVES OFFERED BY OTHER DEPARTMENTS:**

<b>Open Elective- I</b>	<b>Open Elective- II</b>
Number theory and cryptanalysis	Statistics with R
Internet of Things	Fuzzy Sets, Logic and Systems
Supply Chain Management	Entrepreneurship
MATLAB for Engineering Applications	Optimization Techniques
Operations Management	Environmental Pollution and Control
Green Buildings	Remote Sensing and GIS Applications
Mobile Computing	Bioinformatics

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