

## B.Tech in Computer Science & Engineering

### I Semester



- Calculus and Matrix Algebra
- Applied Chemistry
- Mind Management and Human values - 1
- Computer Aided Engineering Drawing
- Engineering Physics
- Communicative English
- Biology for Engineers
- Electrical and Electronics for computational thinking
- Project Centric Learning

### II Semester



- Problem Solving Techniques
- Computer Organization and Architecture
- Probability and Vector Space
- Mind Management and Human Values – 2
- Programming practices using Java
- Python Programming
- Project – 1
- Data Structures

### III Semester



- Discrete Mathematics and Graph Theory
- Operating Systems
- Data Communication and Networks
- Indian Constitution
- Foundations of Mathematics – 1+
- Design and Analysis of Algorithms
- Theory of Computation
- Database Management Systems
- Project Centric Learning

### IV Semester



- Foundations of Cloud Computing
- Compiler Design
- Web Technologies
- Software Engineering
- Cryptography and network security
- Foundations of Mathematics– 2+
- Project – 2
- Internship -1

### V Semester



- Linux administration
- Open Elective – 1
- Business Communication & Storytelling
- Research Methodology
- Artificial Intelligence
- Department Specific Elective – 1
- Open Elective – 2
- Project Centric Learning

## VI Semester



- Machine Learning
- Department Specific Elective – 2
- Environmental Studies
- Department Specific Elective – 3
- Advanced Computer Networks
- Open Elective – 3
- Project – 3
- Internship - 2

## VII Semester



- Essentials of Software Quality Assurance
- Department Specific Elective – 4
- Introduction to Internet of Things
- Intellectual Property Rights
- Economics for Engineers
- Department Specific Elective – 5
- Open Elective – 4
- Project - 4

## VIII Semester



- Cyber Security Fundamentals
- Department Specific Elective – 6
- Computer Graphics and multimedia
- Research \*

Department Specific Electives									
DSE Tracks			Elective-I		Elective-II		Elective-III		Elective – IV
			5th Semester		6th Semester		6th Semester		7th semester
									7th Semester
									8th Semester
Track-I	FULL STACK DEVELOPER	Backend Programming	Server-Side Scripting		Data modeling with NOSQL Database		RestAPIs using Spring Boot Framework		Front end Framework using Angular and React
Track-II	DATA ENGINEERING	Data modeling with NOSQL Database	Data warehousing and data mining		Big Data Analytics		Data Analytics using SQL		Data Visualization using Tableau
Track-III	BLOCKCHAIN	Mathematics of Modern Cryptography	Introduction to Block chain Technologies		Cryptocurrency Technologies		Smart Contracts		Blockchain for Cyber Security
									Blockchain Technology in Web Development

Computer Science and Engineering (Open Elective Baskets)			
Sl. No	Finance and Accounting		Marketing and Management
1	Finance for non-finance professionals		Marketing Management
2	Wealth Management		Consumer Behavior
3	Indian Financial System		Brand Management
4	Financial Reporting		Product Management