

B.Tech. in Computer Science and Engineering:

### Semester 1

- Professional Communication
- Engineering Mathematics -I
- Engineering Chemistry
- Problem Solving and Programming
- Engineering Graphics and Design
- Engineering Chemistry Lab
- Problem Solving and Progg. Lab
- Engineering Practices Lab
- Leadership Development

### Semester 2

- Engineering Mathematics -II
- Python Programming
- Engineering Physics
- Environmental Science
- Basic Electrical and Electronics
- Python Programming Lab
- Engineering Physics Lab
- Basic Electrical and Electronics Lab
- Leadership Development

### Semester 3

- Discrete Structures
- Data Structures and Algorithms
- Data Base Management System
- Operating System
- Professional Ethics (MOOC)
- Software Engg. and Agile Methodology
- Computer Networks
- Data Structures and Algorithms Lab
- Database Management System Lab

### Semester 4

- Probability and Statistics
- Object Oriented Programming
- Theory of Computation
- Indian Constitution (MOOC)
- Professional Training
- PCE-1- Int. to Artificial Intelligence (Any One)
  - Introduction to Artificial Intelligence
  - Machine Learning and Deep Learning Techniques
  - Business Intelligence
- PCE-1-ML and Deep Learning Techniques (Any One)
  - Introduction to Artificial Intelligence
  - Machine Learning and Deep Learning Techniques
  - Business Intelligence
- OE-1-User Research Method
- Object Oriented Programming Lab

## Semester 5

- R Programming
- Data Mining and Analysis
- Core Elective-II ( Any One )
  - Internet of Things
  - Applied Cryptography
  - Scientific Computing using Python
- Core Elective-III ( Any One )
  - Cloud Computing
  - Soft Computing
  - Social Network Analysis
- Industry Elective-2 (Collaborative)
- Open-Source Software Tools
- Data Visualization Lab
- R Programming Lab

## Semester 6

- Unix and Shell Programming
- Web Technology
- Applied Operations Research
- Industry Elective-3 (Collaborative)
- Research Methods & Presentation
- Core Elective-IV ( Any One )
  - Agent Based Intelligent Systems
  - Predictive Analytics
  - Software Quality Assurance
- Core Elective -V-(PBEL)( Any One )
  - Full Stack Development
  - Robotics and Automation
  - Cloud Security

## Semester 7

- Project- Phase-I (Research / Industry)
- Core Elective-VI ( Any One )
  - Augmented and Virtual Reality
  - Mobile Application Development
  - Image Processing
- Industry Elective-4 (Collaborative)

**Semester 8**

→ Project- Phase-II (Research / Industry)