

# **Bachelor of Technology**

## **(Artificial Intelligence and Data Science)**

### **Year 1:: Sem 1**

- Applied Mathematics
- Fundamental of
- Electronics
- Computer Organization
- Introduction to
- Computer Programming
- Fundamental of
- Electronics Lab
- Introduction to Computer Programming
- Lab
- Web Technology Lab
- Indian Knowledge System Concepts and Applications in
- Engineering
- Capstone Project
- Induction training

### **Year 1:: Sem2**

- Corporate Communication
- Prompt Engineering
- Linear Algebra and
- Statistics
- Processor Architecture
- Logic
- Development and Programming
- Logic Development and
- Programming Lab
- Processor Architecture Lab
- Technical Skill development Lab-1
- (OOP using C++)
- Computer Hardware Software Knowledge
- Capstone Project

### **Year 2 :: Sem 3**

- Statistical Data Analysis
- Statistical Data Analysis Lab
- Data Structures
- Data Structures Lab
- Financial Literacy and Banking
- Project Based Learning -Python
- Environmental Science-I

- Discrete Structures
- Ubiquitous Computing
- Cyber Security and Cyber Laws (Double Minor)

#### **Year :: Sem 4**

- Decision Support System
- Decision Support System Lab
- Database Management System
- Database Management System Lab
- Technical Skill development Lab-2 (Java)
- Project Management
- Leadership and Personality Development
- Environmental Science-II
- Theory of Computation
- Fundamentals of Data warehousing
- Network Security (Double Minor)

#### **Year 3:: Sem 5**

- Design and Analysis of Algorithms
- Operating System
- Operating System Lab
- Machine Learning
- Machine Learning Lab
- Optimization Algorithms and Applications
- Digital Forensics
- Optimization Algorithms and Applications Lab
- Digital Forensics Lab
- Computer Networks
- Intelligent System in Digital Forensics
- Cloud and Mobile Security (Double Minor)
- Full Stack Development (Honors)

#### **Year 3:: Sem 6**

- Predictive Modelling and Forecasting
- Predictive Modelling and Forecasting Lab
- Artificial Intelligence
- Artificial Intelligence Lab
- Natural Language Processing
- DevOps
- Natural Language Processing Lab
- DevOps Lab
- Fuzzy Systems and Pattern Recognition
- Network Security and Cryptography
- Fuzzy Systems and Pattern Recognition Lab

- Network Security and Cryptography Lab
- Advanced Web Technology
- Cloud Computing
- Internet of Things Security (Double Minor)
- Blockchain Development (Honors)

#### **Year 4:: Sem7**

- Bigdata Analytics
- Bigdata Analytics Lab
- Seminar
- Case Study
- Internship
- Secure AI Systems
- Security Architecture and Design (Double Minor)
- Research Project – I (Honors)

#### **Year 4:: Sem 8**

- Deep Learning for Data Science
- Deep Learning for Data Science Lab
- AI in Health Informatics
- Bioinformatics
- Computer Vision and Image Processing
- Augmented Reality and Virtual Reality
- Research Methodology
- Major Project
- Minor Project Track A
- Minor Project Track B (Double Minor)
- Research Project – II (Honors)