Vishwakarma University (VU), Pune

B.Tech (CSE-Artificial Intelligence)
4 Years – 8 Semesters Full Time Programme
Effective from AY 2024 – 2025
Programme Structure (NEP)
Choice Based Credit System (CBCS) and Grading System Outcome-Based Education

SEM-I

Applied mathematics
Fundamental of electronics
Computer organization
Introduction to computer programming
Fundamental of electronics lab
Introduction to computer programming lab
Web technology lab
Capstone project-i
Induction training
Indian knowledge system concepts and applications in engineering

SEM-II

Prompt Engineering
Linear Algebra and Statistics
Processor Architecture
Logic Development and Programming
Logic Development and Programming Lab
Processor Architecture Lab
Introduction to Microcontroller programming Lab
Technical Skill development Lab-I (OOP using C++)
Capstone Project-II
Corporate Communication

SEM-III

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

SEM-IV

Data Warehouse and Multidimensional Modeling
Data Warehouse and Multidimensional Modelling Lab
Database Management System
Database Management System Lab
Technical Skill development Lab-2 (Java)
Project Management
From Campus to Corporate – I
Environmental Science-II
Theory of Computation
Fundamentals of Data warehousing

SEM-V

Design and Analysis of Algorithms
Operating System
Operating System Lab
Machine Learning
Machine Learning Lab
Optimization Algorithms and Applications
Software Engineering
Optimization Algorithms and Applications Lab
Software Engineering Lab
Computer Networks
Intelligent System in Digital Forensics

SEM-VI

Deep Learning
Deep Learning 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
Advanced Web Technology Lab
Cloud Computing

SEM-VII

Cluster Computing
Cluster Computing Lab
Seminar
Case Study
Internship
Secure AI Systems

SEM-VIII

AI Ethics and Explainable AI
AI Ethics and Explainable AI Lab
AI in Health Informatics
Bioinformatics
Computer Vision and Image Processing
Augmented Reality and Virtual Reality
Research Methodology
Major Project
Minor Project Track A

B.Tech (CSE-Artificial Intelligence) with Honors and Multidisciplinary Minor (Specialization Honors- Blockchain)

Semester -III	Introduction to Cryptocurrency
Semester -IV	Application Security
Semester -V	Full Stack Development
Semester -VI	Blockchain Development
Semester –VII	Blockchain Applications
Semester -VIII	Honors Project

B.Tech (CSE-Artificial Intelligence) with Double Minor (Specialization minor-Cybersecurity)

Semester -III	Cyber Security and Cyber Laws
Semester -IV	Network Security
Semester -V	Digital Forensics
Semester -VI	Cloud and Mobile security
Semester –VII	Security Architecture and Design
Semester -VIII	Network Security

B.Tech (CSE-Artificial Intelligence) with Honors with Research and Multidisciplinary Minor

Semester -III	Introduction to Cryptocurrency
Semester -IV	Application Security
Semester -V	Full Stack Development
Semester -VI	Blockchain Development
Semester –VII	Research Project-I
Semester -VIII	Research Project-II