

Vishwakarma University (VU), Pune

B.Tech CSE (Cyber Security)

4 Years – 8 Semesters Full Time Programme

Effective from AY 2026 – 2027

Programme Structure (NEP)

Choice Based Credit System (CBCS) and Grading System Outcome-Based Education

SEMESTER 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
Indian Knowledge System Concepts and Applications in Engineering

SEMESTER 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-1 (OOP using C++)
Capstone Project - II
Corporate Communication

SEMESTER III

Data Structures and Algorithms
Data Structures and Algorithms Lab
Fundamentals of Data Science
Fundamentals of Data Science Lab
SEC- Python Programming for Security
Introduction to Cybersecurity
Introduction to Cybersecurity Lab
Minor
Open Elective
AEC
VEC

SEMESTER IV

Computer Networks
Computer Networks Lab
Database Management Systems
Database Management Systems Lab
Network Security & Cryptography
Network Security & Cryptography Lab
Minor
Open Elective
AEC
VEC

SEMESTER V

Operating Systems
Operating Systems Lab
Software Engineering
Web Application Security
Web Application Security Lab

Digital Forensics and Cyber Laws
Digital Forensics and Cyber Laws Lab
Minor/OE

SEMESTER VI

Artificial Intelligence for Cyber Security
Artificial Intelligence for Cyber Security Lab
Cloud Security & IoT Security
Cloud Security & IoT Security
Penetration Testing and Vulnerability Assessment
Penetration Testing and Vulnerability Assessment Lab
Minor
Open Elective
Project Stage-1

SEMESTER VII

Big Data Analytics
Big Data Analytics Lab
Ethical Hacking and Cyber Laws
Ethical Hacking and Cyber Laws Lab
Elective - BlockChain Security /AI Security/Adversarial ML
Elective - BlockChain Security Lab/AI Security/Adversarial ML Lab
Project - Stage 2
OR
Internship
Project - Stage 2

SEMESTER VIII

Big Data Analytics
Big Data Analytics Lab
Ethical Hacking and Cyber Laws

Ethical Hacking and Cyber Laws Lab
Elective - BlockChain Security /AI Security/Adversarial ML
Elective - BlockChain Security Lab/AI Security/Adversarial ML Lab
Project - Stage 2
OR
Internship