

Vishwakarma University (VU), Pune

**Bachelor of Technology
(Computer Science and Engineering)
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

Statistics and Differential Calculus
Fundamentals of Electronics
Computer Programming
Web Application Development
Applied Science and Engineering Project I
Value Added Career Orientation I
Indian Knowledge System
Induction Training

Semester II

Linear Algebra and Statistics
Digital Logic Design
Python for Logic Development and Programming
Design Thinking and Sustainable Design
Robotics and Sensor Interfacing Techniques
Applied Science and Engineering Project II
Value Added Career Orientation II
Design Thinking and Sustainable Design

Semester III

Data Structures and Algorithms
Discrete Mathematics
Processor Architecture & Operating System
From Campus to Corporate
Financial Literacy and Banking
Environmental Science – I
Open Elective Course – I
Minor Track Course – I

Semester IV

Database Management Systems
Theory of Computation
Computer Graphics and Gaming
Environmental Science - II
TSDL - Java
Patent and IPR Essentials
Open Elective Course - II
Minor Track Course - II

Semester V

Operating System
Operating System Lab
Computer Network
Computer Network Lab
Design and Analysis of Algorithms
MOOC
Patent and IPR Essentials
Compiler Design
Cyber Physical Systems
Compiler Design Lab
Cyber Physical Systems Lab
*Minor Course
**Open Elective

Semester VI

Artificial Intelligence
Artificial Intelligence Lab
Statistical Data Analysis and Visualization
Statistical Data Analysis and Visualization Lab
Machine Learning
Internet of Things
Machine Learning Lab
Internet of Things Lab
Ethical Hacking and Penetration Testing
Cloud Native Embedded Systems
Ethical Hacking and Penetration Testing Lab
Cloud Native Embedded Systems Lab
Advance Web and Server Technology

Seminar
Case Study
Scientific Research Writing Essentials

Semester VII/ VIII

Big Data Analytics
Big Data Analytics Lab
DevOps and MLOps Engineering
DevOps and MLOps Engineering Lab
Research Methodology
Major Project
Minor Project (Cloud Computing)

Or (SAP Module)

Intermediate ABAP Programming
ABAP Programming Lab
Business Technology Platform
Fiori Foundation
Research Methodology
Major Project
Minor Project (Cloud Computing)

Or (Internship Module)

Internship
Major Project
Minor Project (Cloud Computing)