

# Computer Science Engineering Curriculum

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## Program Overview

This four-year undergraduate program provides a solid foundation in computer science engineering, covering software development, systems design, networking, and emerging technologies.

## Year 1 - Foundation

- Introduction to Programming in C
- Engineering Mathematics I & II
- Digital Logic Design
- Basic Electronics
- Computer Organization
- Communication Skills

## Year 2 - Core Subjects

- Data Structures and Algorithms
- Object-Oriented Programming with Java
- Database Management Systems
- Operating Systems
- Discrete Mathematics
- Software Engineering

## Year 3 - Advanced Topics

- Computer Networks
- Web Technologies
- Design and Analysis of Algorithms
- Compiler Design
- Artificial Intelligence Basics

- Elective I (e.g., Data Mining)

## **Year 4 - Specialization and Project**

- Cloud Computing
- Internet of Things (IoT)
- Cyber Security Fundamentals
- Elective II (e.g., Machine Learning)
- Capstone Project
- Internship / Industry Collaboration

## **Career Prospects**

Graduates will be prepared for roles such as Software Developer, Systems Engineer, Network Administrator, Data Analyst, and other positions in the technology sector.