

# Computer Engineering Syllabus Semester 1

**Topics :** [Computer engineering](#)

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The syllabus for the first semester of a computer engineering program may vary depending on the specific university or institution. However, here's a general overview of the subjects commonly included in the first semester of a computer engineering program

## 1. Introduction to Computer Science and Engineering:

- Overview of computer engineering.
- History and evolution of computers.
- Basic concepts of computing.

## 2. [Mathematics-I:](#)

- Calculus: Limits, Continuity, Differentiation, Integration.
- Linear Algebra: Matrices, Determinants, Vector Spaces.

## 3. **Physics-I:**

- Mechanics: Kinematics, Dynamics, Laws of Motion.
- Properties of Matter.

## 4. **Engineering Drawing:**

- Basics of engineering drawing.
- Orthographic projections.
- Isometric and perspective drawings.

## 5. **Basic Electrical Engineering:**

- Fundamental concepts of electrical circuits.
- Ohm's Law, Kirchhoff's Laws.
- DC circuits analysis.

## 6. **Programming Fundamentals:**

- Introduction to programming paradigms.
- Basics of programming languages (e.g., C, C++ or Python).
- Data types, operators, control structures.

## 7. **Computer Organization and Architecture:**

- Basic structure of computers.
- CPU, Memory, I/O devices.
- Instruction set architecture.

#### **8. Basic Electronics:**

- Semiconductor physics.
- Diodes, transistors, amplifiers.
- Digital electronics fundamentals.

#### **9. Communication Skills:**

- Oral and written communication skills.
- Presentation skills.
- Technical writing.

#### **10. Workshop Practice:**

- Introduction to workshop tools and techniques.
- Basic mechanical operations.

#### **11. Environmental Studies:**

- Environmental awareness.
- Sustainable development.

#### **12. Computer Lab-I:**

- Hands-on programming exercises.
- Basic data structures and algorithms.

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