

# Course Syllabi

**CODE** 102

**NAME** Physical Foundations of Computer Science

**Credits** 6 ECTS

**Period** Fall Semester

## Course Specifications

The course aims to provide computer engineering students with the knowledge that will enable them to understand the basic physical aspects of electronic devices, especially those related to computer technologies. The methodology is a combination of lectures, problem solving classes and practical laboratory classes. The course also aims to collaborate in inculcating the procedures and rigor of the scientific method within the framework of the development of their future work as engineers.

## Objectives and contents

This course develops the fundamentals of electromagnetic theory and quantum and solid-state physics, with emphasis on semiconductors and computer applications.

### *Contents*

1. Electric Field.
2. Magnetic Field.
3. Electromagnetic waves.
4. Fundamentals of Quantum Physics.
5. Introduction to Solid-State Physics.
6. Semiconductor Physics.

## Assessment

Continuous evaluation with a partial exam of the first part of the course and a laboratory exam. There will be a final exam for the second part of the course, with the possibility of retaking the partial exam of the first part for those students who have not passed it previously.

## Lecturer

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