

Academic  
Year 11/12

SEL024

**ELECTRONIC WORKSHOPS**

Department: 710 Electronic Engineering

Coordinator: Rosa Rodríguez

Typology: Block 1. Engineering Courses

Language: English

ECTS: 3

Offered in other degrees: no

**OBJECTIVES****General objective**

The main objective of this course is to help the students to understand the basis of electronic devices both in the analog and the digital domain. In order to achieve this objective, a mainly practical work has been programmed where the students will analyze, measure and characterize diodes, BJTs transistors, logic gates and opams embedded in practical examples related to power electronics and control of systems dealing with energy concerns.

**COURSE DESCRIPTION**

pn junction. LEDs  
BJT and MOS Transistors  
Switching and amplifier behaviors  
CMOS digital gates  
Operational amplifiers

**METHODOLOGY**

The course is developed through theoretical learning sessions and practical sessions in electronic and computer labs.

In the theory sessions, the teacher will introduce the fundamental concepts of the course, which will then be worked on practical sessions using application examples related to power electronics and/or simple energy concerning circuits.

**COURSE EVALUATION**

Theoretical final exam and continuous evaluation of practical works

**FACULTY**

Rosa Rodríguez

<http://directori.upc.edu/directori/dadesPersona.jsp?id=1000468>**ADDITIONAL INFORMATION**