

**Course title: Microcomputer Hardware**

**Department: Computer Science**

**UJA credits: 5**

**ECTS credits: 4**

**2<sup>ND</sup> SEMESTER**

**Lecturer: Prof. Dr. Samuel F. Romero-García**

**Teaching methods:**

Lecture:	2	Hours per Week	Homework:	2	Hours per Week
Labs:	2	Hours per Week			

**Description of Content:**

This course has been conceived to provide the students with a general background on modern PC hardware. Personal computers are rapidly evolving, and we find new features almost on a daily basis. Our objective is to let the student know how the PC works, what are its main components, and how to select and build a modern PC equipment. The instructor will provide a series of lectures on the different main components of the PC (Introduction, Mainboards, Microprocessors, Buses, Peripherals, etc). The labs are oriented to acquire practical skills on the microcomputer hardware. These lab sessions include mounting a complete PC from scratch, and programming PC ports to control devices (another PC, a robot, etc).

We expect students to get involved, both in the classroom and in the virtual teaching space. We expect to provide the students with the knowledge needed to select an adequate PC before buying, mounting and repairing equipments, autonomously.

**Assessment Method:**

Lectures: one quiz per unit (5 units), and a final global quiz. Labs: attendance and lab reports.

**Teaching language:**

For exchange students: teaching support, materials, seminar papers and exams in English. For regular Spanish students the default teaching language will be Spanish. Exchange international students can electively join regular courses in Spanish whenever they wish.

**Main references (literature) to be used in the course**

Thompson R & Thompson, B F. , PC Hardware in a nutshell. O'Reilly, 3<sup>rd</sup> edition, 2003.

Meyers, M. All-In-One CompTIA A+ Certification Exam Guide . McGraw-Hill Osborne Media, 2006.