30215 - Computer architecture and organisation 2

Información del Plan Docente

Academic Year	2016/17
Academic center	110 - Escuela de Ingeniería y Arquitectura 326 - Escuela Universitaria Politécnica de Teruel
Degree	439 - Bachelor's Degree in Informatics Engineering 443 - Bachelor's Degree in Informatics Engineering
ECTS	6.0
Course	2
Period	Second semester
Subject Type	Compulsory
Module	---

1.Basic info

1.1.Recommendations to take this course

1.2.Activities and key dates for the course

2.Initiation

2.1.Learning outcomes that define the subject

2.2.Introduction

3.Context and competences

3.1.Goals

3.2.Context and meaning of the subject in the degree

3.3.Competences

3.4.Importance of learning outcomes

4.Evaluation

5.Activities and resources

5.1.General methodological presentation

The student will learn the basic elements of a computer and how they relate to the computer perfomance, by means of case study (problem solving, lab sessions and assigments

5.2.Learning activities
- Regular classes and lectures (2 h per week)

- Problem solving sessions (1 h per week)
- Lab sessions (1 h per week in average)
- Self assesment tasks, assigments and course projects (a bout 85 h)
- Assesment tasks (5 h)

5.3.Program

Design of a complex digital system

- Introduction to performance analysis
- Processor organization: Monocycle and Multicycle non-pipelined machines. Exceptions and processor's modes. Pipelining.
- Memory system: memory types, principle of locality, memory hierarchy, cache memories and main memory organization.
- Buses and I/O devices

5.4.Planning and scheduling

The course's schedule abides by the academic calendar of the University of Zargoza and EINA

5.5.Bibliography and recomended resources