30215 - Computer architecture and organisation 2

Syllabus Information

Academic Year:	2018/19
Subject:	30215 - Computer architecture and organisation 2
Faculty / School:	110 - 326 -
Degree:	443 - Bachelor's Degree in Informatics Engineering 439 - Bachelor's Degree in Informatics Engineering
ECTS:	6.0
Year:	443 - Bachelor's Degree in Informatics Engineering: 2 439 - Bachelor's Degree in Informatics Engineering: 2
Semester:	Second semester
Subject Type:	Compulsory
Module:	---

General information

Aims of the course

Context and importance of this course in the degree

Recommendations to take this course

Learning goals

Competences

Learning goals

Importance of learning goals

Assessment (1st and 2nd call)

Assessment tasks (description of tasks, marking system and assessment criteria)

Methodology, learning tasks, syllabus and resources

Methodological overview

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)

Learning tasks

- 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)

Syllabus

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

Course planning and calendar

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

Bibliography and recommended resources