

**Información del Plan Docente**

Academic Year	2017/18
Faculty / School	110 - Escuela de Ingeniería y Arquitectura
Degree	439 - Bachelor's Degree in Informatics Engineering
ECTS	6.0
Year	4
Semester	Half-yearly
Subject Type	Compulsory
Module	---

**1.General information**

**1.1.Introduction**

**1.2.Recommendations to take this course**

**1.3.Context and importance of this course in the degree**

**1.4.Activities and key dates**

**2.Learning goals**

**2.1.Learning goals**

**2.2.Importance of learning goals**

**3.Aims of the course and competences**

**3.1.Aims of the course**

**3.2.Competences**

**4.Assessment (1st and 2nd call)**

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

**5.Methodology, learning tasks, syllabus and resources**

**5.1.Methodological overview**

The learning process for this subject relies on performing the prescribed learning activities .

**5.2.Learning tasks**

In order to achieve the expected results the following activities are required:

Lectures.  
Problem-solving classes .  
Assisted Labs .  
Homeworks .  
Study and personal work .

### 5.3.Syllabus

- Data centers. Technological evolution : keys present and future.
- History of Data Centers , energy efficiency and environmental impact , and energy sources.
- Technical requirements for facilities , construction , power supply , air conditioning, and wiring standards.
- System security and monitoring.
- Internal and external connectivity strategies and scalability . Types of servers and scalability. Consolidation and energy efficiency.
- Reliability, availability and serviceability (RAS) and fault tolerance . Mass storage subsystem . Secondary storage solutions .
- Introduction to ICT provision and support services: ITIL.

### 5.4.Course planning and calendar

To be specified when the academic calendar gets approved by the school.

### 5.5.Bibliography and recommended resources

[BB: Bibliografía básica / BC: Bibliografía complementaria]

- Zaragoza:
- [BB] Barroso, Luiz André. The datacenter as a computer : an introduction to the design of warehouse-scale machines / Luiz André Barroso, Urs Hölzle, Jimmy Clidaras . 2nd ed. San Rafael (California, USA) : Morgan and Claypool, 201
- Teruel:
- [BB] Barroso, Luiz André. The datacenter as a computer : an introduction to the design of warehouse-scale machines / Luiz André Barroso, Urs Hölzle, Jimmy Clidaras . 2nd ed. San Rafael (California) : Morgan and Claypool, 2013