

## 30216 - Systems Administration

### Información del Plan Docente

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

### **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 designed learning process of this subject is designed upon:

- The learning of concepts and methodologies for the correct system administration through on-site classes
- The application of such concepts in the problem class to solve different situations and tasks of system administration
- In the lab classes, the student will implement different aspects on booting, modifying, problem detection and solution application to the operating system and its integration with the network

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### 5.2.Learning activities

The presentation of the syllabus in the on-site classes. Problem solving applying the concepts and techniques presented in the syllabus during problem classes. Development of lab sessions, in a computing facility, to apply the theory in a real environment. Development of a final more project, more complex than the lab sessions, that provides a more global vision of some man aspect in computer system administration.

### 5.3.Program

Interaction and Programming for System Administration Standard IEEE std 1003.1 (posix): shell and tools Basic Security Access control. User accounts. Basic cryptography. SSH. Firewalls Basic system configuration Start/stop of the OS. Basic network configuration. Software management. Kernel and drivers. Window systems. Processes: Process control. Periodic tasks. Storage: Disks. Logical Volumes. File System. File System Hierarchy. Files. Back-up Application layer services: email, web services, proxies, virtual private networks... Monitoring: Logging. Analysis Automation Non-technical aspects: Organization. Legislation

### 5.4.Planning and scheduling

The schedule for the class is as follows: In the Escuela de Ingeniería y Arquitectura del Campus Río Ebro: On-site and problem classes (3 hours weekly) Lab sessions (2 hours every other week). Those are tutored sessions in which students code in small groups

In the Escuela Universitaria Politécnica del Campus de Teruel: Type 1 activities (on-site classes) 2 hours weekly 1 group Type 2 activities (participative character classes) 1 hour weekly 2 groups Type 3 activities (lab sessions) 1 hour weekly The exact hours will be announced beforehand in the school and class web pages. The class projects will be delivered at the end of the quarter, on the listed dates. Student work: To reach the learning goals, students are assume to expend 150 hours distributed as follows:

- 10 hours self work to prepare and defend practical assessments (type T6)
- 56 hours, roughly, on-site activities(classroom, problem classes and lab sessions)
- 81 hours of self effective study (study of notes and reports, problem solving, class and lab preparation, and programming)

### 5.5.Bibliography and recommended resources