30216 - Systems Administration

Información del Plan Docente

Academic Year	2017/18
Faculty / School	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
Year	2
Semester	Second semester
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 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

5.2.Learning tasks

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.Syllabus

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, virtural private networks... Monitoring: Logging. Analysis Automation Non-technical aspects: Organization. Legislation

5.4.Course planning and calendar

The schedule for the class is as follows: In the Escuela de Ingeniería y Arquitectura del Campus Rio 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