Universidad Zaragoza
1542

Year : 2018/19

30210 - Operating Systems

Syllabus Information

Academic Year:	2018/19
Subject:	30210 - Operating Systems
Faculty / School:	110 - 326 -
Degree:	330 - Complementos de formación Máster/Doctorado 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: 2 330 - Complementos de formación Máster/Doctorado:
Semester:	Indeterminate
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

Monitoring of learning activities for this subject.

Learning tasks

The program offered to help the student achieve the expected results includes the following activities:
- Class attendance
- Problem solving in small groups
- Performing assisted laboratory practices .
- Study and personal work, for which, in addition to the material used in the classroom and the laboratory, we provide a collection of problems and bibliography
- Resolution of doubts through personal tutorials or in small groups
- Accomplishment of the corresponding evaluation tests

Syllabus

Introduction
Operating Systems structure and function
Classification of Operating Systems
Review of basic concepts
Using interpreter orders and basic utilities
Processes
Process management
UNIX: System calls related to processes
Implementation of a shell
Input / Output
Input / Output Management
UNIX: System calls related to files
Elementary process communication: pipes
Memory
Memory Management
UNIX: System calls related to memory

Course planning and calendar

The course is organized in 2 hours of class and 1 hour of problems each week.
In addition, 6 sessions of practice of 2 hours each are performed.
The schedule will be implemented for each teaching group when the academic calendar of the University of Zaragoza is approved

Bibliography and recommended resources

1. A. Silberschatz, P. Galvin and G. Gagne. "Operating System Concepts", 7th edition. John Wiley & Sons, 2005
2. W. Stallings. "Sistemas Operativos", quinta edición. Prentice Hall 2005
3. A.S. Tanembaum. "Modern Operating Systems". Prentice Hall, 1992
4. W.R. Stevens., S. A. Rago "Advanced Programming in the UNIX Environment", 2nd Ed. Addison Wesley, 2005.
5. H. Schildt. "Manual de referencia C", Cuarta Edición. McGraw- Hill, 2001. (muy completo y bien estructurado)
6. J.S. Peters "UNIX programming". Harcourt Brace Jovanovich, 1989. (Buen libro para programación en shell)