



Course guides

230312 - ADMINUX - Administrating Linux Systems

Last modified: 29/04/2020

Unit in charge: Barcelona School of Telecommunications Engineering
Teaching unit: 744 - ENTEL - Department of Network Engineering.

Degree: BACHELOR'S DEGREE IN AUDIOVISUAL SYSTEMS ENGINEERING (Syllabus 2009). (Optional subject).
BACHELOR'S DEGREE IN TELECOMMUNICATIONS SYSTEMS ENGINEERING (Syllabus 2010). (Optional subject).
BACHELOR'S DEGREE IN NETWORK ENGINEERING (Syllabus 2010). (Optional subject).
BACHELOR'S DEGREE IN TELECOMMUNICATIONS SCIENCE AND TECHNOLOGY (Syllabus 2010). (Optional subject).
BACHELOR'S DEGREE IN ELECTRONIC SYSTEMS ENGINEERING (Syllabus 2009). (Optional subject).
BACHELOR'S DEGREE IN TELECOMMUNICATIONS TECHNOLOGIES AND SERVICES ENGINEERING (Syllabus 2015). (Optional subject).
BACHELOR'S DEGREE IN ELECTRONIC ENGINEERING AND TELECOMMUNICATION (Syllabus 2018). (Optional subject).

Academic year: 2020 **ECTS Credits:** 2.0 **Languages:** Catalan, Spanish

LECTURER

Coordinating lecturer: José Luis Muñoz Tapia

Others: José Luis Muñoz Tapia

REQUIREMENTS

Knowledge of Internet Protocol

TEACHING METHODOLOGY

Theoretical/practical lessons at the laboratory and practical exercises at home.

LEARNING OBJECTIVES OF THE SUBJECT

Achieve a sufficient level of knowledge to be able to understand/manage a Linux box and a network of Linux boxes.

STUDY LOAD

Type	Hours	Percentage
Self study	30,0	60.00
Hours small group	20,0	40.00

Total learning time: 50 h



CONTENTS

1- Basic Linux Description

Description:

- 1.1. Introduction
- 1.2. Processes
- 1.3. system Files
- 1.4. Descriptors File

Full-or-part-time: 7h

Laboratory classes: 7h

2- Virtualization and network applications

Description:

- 2.1. Virtualization
- 2.2. Network applications
 - 2.2.1. Network layer and basic tools
 - 2.2.2. Basic applications: telnet, ftp, ssh, web and inetd
 - 2.2.3. Linux graphical interface

Full-or-part-time: 5h

Laboratory classes: 5h

3- Shell scripts

Description:

- 3.1. Expansions
- 3.2. Regular Expressions
- 3.3. Conditionals
- 3.4. Variables
- 3.5. Functions

Full-or-part-time: 4h

Laboratory classes: 4h

4- System administration

Description:

- 4.1. Users management
- 4.2. Special file permissions
- 4.3. System clock
- 4.4. Start up applications
- 4.5. System logging
- 4.6. Creating filesystems

Full-or-part-time: 4h

Laboratory classes: 4h



GRADING SYSTEM

Deliverable with practical exercises. The percentage of the final mark of each subject is the following:

- Subject 1 40%
- Subject 2 20%
- Subject 3 20%
- Subject 4 20%

RESOURCES

Other resources:

Book and transparency provided by the teacher