Linux Networks Administration

Academic Year: (2021 / 2022) **Review date: 07-06-2021**

Department assigned to the subject: Telematic Engineering Department

Coordinating teacher: ESTEVEZ AYRES, IRIA MANUELA

Type: Electives ECTS Credits : 3.0

Year : Semester :

REQUIREMENTS (SUBJECTS THAT ARE ASSUMED TO BE KNOWN)

Systems programming
Systems architecture

OBJECTIVES

- Understand how a networked Linux operating system works.
- Use the different administration tools offered by it.
- Design and implement bash scripts to automate system administration tasks.
- Configure and securely manage the network and network services on a Linux system.

DESCRIPTION OF CONTENTS: PROGRAMME

- Introduction to the Linux operating system, user and developer views
- Scheduling tasks with shell script
- Administration tools on a Linux system
- Network configuration on Linux systems
- Network services administration in Linux
- Network security on Linux systems

LEARNING ACTIVITIES AND METHODOLOGY

All the activities will be carried out with a virtual machine that will be made available to the students.

This subject is eminently practical, so brief theoretical explanations and their implementation by the students will be intertwined during the teaching of the class.

ASSESSMENT SYSTEM

Different actitivies will be carried out to assess the students maturity level on the subject:

- Lab submissions.
- Intermediate exam on lab assignments.

% end-of-term-examination:	0
% of continuous assessment (assigments, laboratory, practicals…):	100

BASIC BIBLIOGRAPHY

- Ken O. Burtch Linux Shell Scripting with Bash, Sams, 2004
- Christine Bresnahan, Christopher Negus Linux Bible, Wiley, 2012

ADDITIONAL BIBLIOGRAPHY

- Wale Soyinka Linux Administration: A Beginner's Guide, McGraw-Hill, 2015

BASIC ELECTRONIC RESOURCES

- Raphaël Hertzog and Roland Mas . THE DEBIAN ADMINISTRATOR'S HANDBOOK: https://debian-handbook.info/