SUBJECT TEACHING GUIDE

G845 - Network Applications and Services

Degree in Telecommunication Technologies Engineering

Academic year 2022-2023

1. IDENTIFYING DATA					
Degree	Degree in Telecommunication Technologies Engineering			Type and Year	Optional. Year 4
Faculty	School of Industrial Engineering and Telecommunications				
Discipline	Subject Area: Telematic Applications and Services				
Course unit title and code	G845 - Network Applications and Services				
Number of ECTS credits allocated	6	Term		Semester based (1)	
Web	http://www.tlmat.unican.es				
Language of instruction	Spanish	English Friendly	Yes	Mode of delivery	Face-to-face

Department	DPTO. INGENIERIA DE COMUNICACIONES
Name of lecturer	ALBERTO ELOY GARCIA GUTIERREZ
E-mail	alberto.garcia@unican.es
Office	Edificio Ing. de Telecomunicación Prof. José Luis García García. Planta: - 1. DESPACHO (S130)
Other lecturers	MARTA GARCIA ARRANZ

3.1 LEARNING OUTCOMES
- The student identifies and interprets the structure and operation of most important services and protocols, including their present and future applications.
- The student will be able to decide, design and develop an application / communication service based on assumptions and specific problems
- Students will be able to identify and fully describe a network service or application

4. OBJECTIVES

Extend and apply knowledge acquired in the course of the previous level "Network Interconnection Protocols", deepening the understanding of the different services and applications supported by networks
To know the specification of key parameters associated with the application layer model and its different variants over the client/server model: centralized, distributed and virtual.
To develop the technologies and implementations used for the development of application servers and their services.
To apply basic examples of existing services including of emerging services.

6. COURSE ORGANIZATION

CONTENTS	
1	Chapter I: Applications and basic services: Telnet. FTP (File Transfer Protocol). TFTP (Trivial FTP). RPC (Remote Call precedure). Portmap. NFS (Network File System)
2	Chapter II: Applications and distributed services: DNS (Domain Name System). NNTP (Network News Transport Protocol). SMTP (Simple Mail Transport Protocol). Directory services (LDAP, ACAP).
3	Chapter III: Applications and Web services: World Wide Web. Web 2.0. WebServices. PeerToPeer services (P2P).
4	Chapter IV: Applications and mobile services: Voice over IP (VoIP), Lightweight Web services, Instant Messaging

7. ASSESSMENT METHODS AND CRITERIA

Description	Type	Final Eval.	Reassessn	%
Laboratory Assessment	Activity evaluation with Virtual Media	Yes	Yes	40,00
Continuous Assessment	Activity evaluation with Virtual Media	Yes	Yes	40,00
Final exam	Activity evaluation with Virtual Media	Yes	Yes	20,00
TOTAL				100,00

Observations

In any case, both in the Continuous Assessment (EC) and in the Laboratory Assessment (PRAC), it will be mandatory to obtain a grade greater than or equal to 4.0, otherwise the FINAL NOTE (NOTE) will be equal to:
NOTE = minimum (EC, PRAC)
In the rest of the cases, the FINAL NOTE of the subject is obtained by applying the following formula:
NOTE = 0.4 * EC + 0.4 * PRAC + 0.2 * EXAM
where EXAM corresponds to the note of the Final Exam.

The remote evaluation of the works, laboratory practical exercises and written tests is foreseen in the event that a new health alert by COVID-19 makes it impossible to carry out the evaluation in person.

Observations for part-time students

In the event that the student is unable to complete the Continuous Assessment and / or the Laboratory Assessment, they may opt for their recovery under the same conditions as the rest of the students.

8. BIBLIOGRAPHY AND TEACHING MATERIALS

BASIC

“TCP/IP Illustrated, Vol 1. The Protocols”, W. Richard Stevens. Addison Wesley, 1994