

Academic Year: (2021 / 2022)

Review date: 10-07-2020

Department assigned to the subject: Telematic Engineering Department

Coordinating teacher: GUERRERO LOPEZ, MARIA CARMEN

Type: Compulsory ECTS Credits : 3.0

Year : 1 Semester : 1

REQUIREMENTS (SUBJECTS THAT ARE ASSUMED TO BE KNOWN)

Computer Networks

OBJECTIVES

Basic Competences

That the students can apply the acquired knowledge and ability to solve problems in new or unfamiliar environments within broader contexts related to their field of study

That students are able to integrate knowledge and handle complexity of formulating judgments

That the students can communicate their conclusions and the knowledge and rationale underpinning to specialists and non-specialists in a clear and unambiguous way.

That students have the learning skills that enable them to continue studying in a way that will be largely self-directed or autonomous.

Specific Competences

That the students will be able to understand the technologies and markets behind the data storage and delivery in the network.

That the students will be able to understand the technical concepts related to delivery networks architecture, information centric networks architecture and network storage

That the students will be able to identify limitations and design new technical solutions to improve delivery networks performance

That the students have a wider look to market size, competitors and sources of revenue.

DESCRIPTION OF CONTENTS: PROGRAMME

Chapter 0. Introduction

Chapter 1. Economic Impact

Chapter 2. Multicast

Chapter 3. Catching and Prefetching

Chapter 4. Content Delivery Networks

Chapter 5. Information Centric Networks

Chapter 6. Data Storage in the Network

LEARNING ACTIVITIES AND METHODOLOGY

Learning activities

Theoretical classes

Laboratory classes

Group assignments

Individual assignments

Methodology

Presentations in the class by the teacher with support of computer and audiovisual media, in which the main concepts of the subject are developed and the literature is provided to supplement student learning.

Critical reading of additional texts: Newspaper articles, reports, manuals and / or academic articles, either for further discussion in class, either to expand and consolidate the knowledge of the subject.

Resolution of practical cases, problems, etc. posed by the teacher individually or in group

Presentation and discussion in class of topics related to the content of the course, as well as case studies

Preparation of papers and reports individually or in group

ASSESSMENT SYSTEM

Class participation
Assignments (either individual or in groups)
Final exam

% end-of-term-examination:	50
% of continuous assessment (assignments, laboratory, practicals...):	50

ADDITIONAL BIBLIOGRAPHY

- Hau, T.; Burghardt, D.; and Brenner, W. Multihoming, Content Delivery Networks, and the Market for Internet Connectivity , -, -
- S.V. Nagaraj Web Caching and Its Applications , -, -
- S.V. Nagaraj Web Caching and Its Applications, Springer, 2004

BASIC ELECTRONIC RESOURCES

- . Content Centric Networks: <https://www.ccnx.org/>
- - . CDN Taxonomy: <http://www.cloudbus.org/reports/CDN-Taxonomy.pdf>
- Van Jacobson . A new way to look at networking : <https://www.youtube.com/watch?v=oCZMoY3q2uM>