

Academic Year: ( 2023 / 2024 )

Review date: 21-06-2021

Department assigned to the subject: Signal and Communications Theory Department

Coordinating teacher: SANTAELLA VALLEJO, JUAN

Type: Compulsory ECTS Credits : 6.0

Year : 4 Semester : 1

**REQUIREMENTS (SUBJECTS THAT ARE ASSUMED TO BE KNOWN)**

General Knowledge on Telecommunication Systems and Networks

**OBJECTIVES**

- The student will identify business situations likely to be treated as projects in the field of Communications and Information Technologies. The student will acquire knowledge of the principles, techniques and methodologies in which project management is based. The student also will develop capabilities for the techno-economic direction, coordination, and management of projects.

-The objective of this course is to familiarise the student with the basic principles of the worldwide telecommunication business and the related policy aspects. Special interest will be devoted to the European and Spanish scenarios. Special focus will be allocated to establish the role that Information and Telecommunications technologies and developments play in the economical growth in trade, industry and services. The implications of the monopolistic environment and the new competitive framework will be explained and understood. The evolution of telecommunication policies will be described and the contemporary events will be discussed. The rationale behind the current legal situation will be analysed and the evolution of the present European and USA frameworks will be discussed. The importance of New Media in the Telecommunication Business will be highlighted. The national, regional and international structures dedicated to the standardisation and compliance certification for systems and equipments are described. International Standardisation Bodies will be described in detail and their role in the Network exploitation and Services Provision will be discussed.

**DESCRIPTION OF CONTENTS: PROGRAMME**

- Introduction
- Topic 1: Project Management (2 ECTS)
  - o Project Management: General Concepts
  - o Project Life Cycle
  - o Startup process
  - o Project integration
  - o Project Management basics: scope, schedule, cost and quality
  - o Managing Project risk
  - o Procurement management
  - o Human Resources and communication management
  - o Project monitoring and control
  - o Project closure phase
  - o Agile and SCRUM Methodology
  - o Professional responsibility Project manager
- Topic 2: Telecommunications legislation and policy (4 ECTS)
  - o Social and economic aspects of the Telecommunication
  - o Players of the Telecommunication Industrial Sector: Users, service providers, manufacturers, administrations and standardisation bodies
  - o Telecommunications services. The Universal Service concept
  - o Free competitive scenarios. Interconnection. Spectrum Management
  - o Licensees, Arbitration, Bilateral and multilateral Agreements. Consolidated scenarios
  - o Worldwide Telecommunication Policy
  - o European Telecommunication Framework
  - o Spanish Telecommunication Framework
  - o Regulation and Control Bodies in Spain

- o European Union regulation: Open Network concept. Networks and services harmonization.
- o International Standardisation Bodies: ITU, ETSI

#### LEARNING ACTIVITIES AND METHODOLOGY

Besides master lectures, sufficient time will be devoted to the analysis of the most relevant news and events of the month related to the Telecommunication Business including policy decisions put forward worldwide by public authorities, business events like merge and acquisitions, competitive issues and technological implications. Specific presentations will be foreseen around contemporary topics. The student will be organised in teams to present their analysis. Individual activities will be proposed around papers and documents of special relevance in the Telecommunication Business and its impact in the economical worth of the international community.

#### ASSESSMENT SYSTEM

Continuous Assessment (50%) through work proposed during the course

Fine Assessment (50%): Final test

**% end-of-term-examination:** 50

**% of continuous assessment (assignments, laboratory, practicals...):** 50

#### BASIC BIBLIOGRAPHY

- J. Mantel y otros Project Management in practice, John Wiley & Sons, 2011
- PMI A GUIDE TO THE PROJECT MANAGEMENT BODY OF KNOWLEDGE (PMBOK® Guide), Project Management Institute (PMI®), Fourth Edition, 2011

#### ADDITIONAL BIBLIOGRAPHY

- J. R. MEREDITH Project Management: A MANAGERIAL APPROACH, John Wiley & Sons, 2010
- PMI A GUIDE TO THE PROJECT MANAGEMENT BODY OF KNOWLEDGE (PMBOK® Guide) , Project Management Institute (PMI®), Fifth edition, 2013