

Academic Year: (2020 / 2021)

Review date: 13-07-2020

Department assigned to the subject:

Coordinating teacher: MORALES CESPEDES, MAXIMO

Type: Compulsory ECTS Credits : 3.0

Year : 1 Semester : 1

OBJECTIVES

Knowledge and understanding of the information and communication technologies.
Ability to select the best technologies to solve a telecommunication problem.

DESCRIPTION OF CONTENTS: PROGRAMME

1. Introduction: Telecommunication concept. Information. Quality and access. Telecommunication services. The Telecommunications in the Information and Knowledge Society.
2. Concept of frequency. Modulation.
3. The communication media: cable and radio. Multiple Access.
4. Digital communications and their advantages. Channel coding. Digitization of information. The transmission process.
5. Mobile communications.
6. Satellite communications.
7. Telecommunication networks. Switching. Reference levels. The Switched Telephone Network.
8. Internet. Broadband networks and Access.
9. Wireless local and personal area networks.
10. World Wide Web.

ASSESSMENT SYSTEM

Written report with maximum 4 pages of a chosen subject supervised by one of the Professors. It is advised to decide the topic of the report and communicate it to the professor well before the end of the lecture period. Mark will be based on originality and quality of own student's work.

BASIC BIBLIOGRAPHY

- Berners-Lee, T., Fischetti, M., & Foreword By Dertouzos, M. L. Weaving the Web: The original design and ultimate destiny of the World Wide Web by its inventor. , Harper Information., 2000
- E.B. Carne Telecommunications Primer: Signals Building Blocks and Networks. , Upper Saddle River, NT: Prentice-Hall PTR., 1995
- J. Kurose, K. Ross Computer Networking: A Top-Down Approach, 7th Edition. , Pearson., 2017
- J.E. Cockborne et al Telecommunications for Europe. The CEC Sources. , IOS Press., 1995
- P.H. Smale Introduction to Telecommunication Systems, London: Pitman, 1986
- Sebesta, R. W. Programming the World Wide Web, 8th Edition. , Pearson., 2015