

230314 - HTEL - Telecommunication History

Coordinating unit:	230 - ETSETB - Barcelona School of Telecommunications Engineering
Teaching unit:	739 - TSC - Department of Signal Theory and Communications
Academic year:	2016
Degree:	BACHELOR'S DEGREE IN TELECOMMUNICATIONS SCIENCE AND TECHNOLOGY (Syllabus 2010). (Teaching unit Optional) BACHELOR'S DEGREE IN AUDIOVISUAL SYSTEMS ENGINEERING (Syllabus 2009). (Teaching unit Optional) BACHELOR'S DEGREE IN ELECTRONIC SYSTEMS ENGINEERING (Syllabus 2009). (Teaching unit Optional) BACHELOR'S DEGREE IN TELECOMMUNICATIONS SYSTEMS ENGINEERING (Syllabus 2010). (Teaching unit Optional) BACHELOR'S DEGREE IN NETWORK ENGINEERING (Syllabus 2010). (Teaching unit Optional) BACHELOR'S DEGREE IN TELECOMMUNICATIONS TECHNOLOGIES AND SERVICES ENGINEERING (Syllabus 2015). (Teaching unit Optional)
ECTS credits:	2
Teaching languages:	Spanish

Teaching staff

Coordinator:	Delgado Penin, Jose Antonio
Others:	Delgado Penin, Jose Antonio

Opening hours

Timetable:	During seminar days. Morning and afternoon
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Prior skills

Ability to read and understand articles and books in English

Requirements

To have overcome the 2nd Grade course or to be studying Third Grade course or to realize some recognized Master's degree

Teaching methodology

Talks for two hours (Must to be present the student). Interval of rest every hour. Oral Presentation of a document on the history of Telecommunications. Realization and delivery of a document written about the topic presented as oral Presentation.

Learning objectives of the subject

The Seminar is transversal (History and Technology) or interdisciplinary and is divided into four different topics related with Telecommunication Services used by humankind. It explained that each service has evolved differently and in varying stages: first, there was the telegraph, then the telephone; then the radio in various forms and finally

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Infocomunicación (Internet Services).

The sequential structure of the topics into account the presence of the Services in temporal succession related with technologies that endured / support today.

Understand, acquire, understand and assimilate as much information on the most important services of Telecommunication and independently to get an overview of each: In the four topics a first objective of reaching pursued. This will involve, consider the historical / social / political situation in the development of services and who were the actors (inventors, scientists, operators, standards authorities, etc).

The second objective will focus on narrow an overview of the entire sector Telecommunications considering the relationships that existed / exist between the services over time.

Study load

Total learning time: 50h	Hours large group:	20h	40.00%
	Self study:	30h	60.00%

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Content

TELECOMMUNICATION HISTORY

Learning time: 2h

Theory classes: 2h

Description:

Part 0. Introduction

Telecommunication History concept. An approach

Scientific basis of Telecommunication: 18th and 19th centuries. Pioneers

International Organizations with influence on Telecommunications

Docent methodology to follow the Seminary

Topics Program

Bibliography

Part 1. Telegraphy

Optical telegraphy as first technology

Electrical Telegraphic systems: National and International networks

Telegraphic Services.

Pioneers and relationship with your historical situation

Bibliography

Part 2. Telephony

Premises to new technology based on ?oral telegraphy?

Telephonic Electrical devices: Meucci-Bell

Telephonic transmission systems: Multicarrier

Telephony switching. Networking. Historical evolution

Telephony Services. Evolution

Pioneers and relationship with your historical situation

Bibliography

Part 3. Radiocommunication

Introduction

Scientific basis of Radio communication. Pioneers

Spectrum management and Radiocom. Services

Radio Systems: terrestrial and satellite history

Radio networking history

Pioneering activities on Radio Communication until today

Bibliography

Part 4. Data Networks and Internet

Introduction

Data transmission history

Data networks from the point of view of Telecoms and Informatics

Data Services evolution from Narrow to Broad bands

Internet history

Pioneering activities on Data Networks and Internet

Bibliography

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title english	Learning time: 2h Theory classes: 2h
Description: content english	

Qualification system

Participation in the classroom: 25%.

To be present in the classroom and interventions related to the ideas developed in the talks be considered positive. The teacher will propose activities based on texts, or documents.

Work: 50%.

Work in Team of two people. Each team must be a tab containing a minimum of 4 pages and Max of 6 pages (30 lines per page) on the history of a specific technology and its principal inventor/creators. Details of how to proceed indicated at the beginning of the oral and public Seminar

Public talk of essay/work: 25%.

Students must make a public presentation of their work using "PowerPoint" (ppt format) the last and penultimate day of the seminar (the maximum number of slides to present will be six) the details of how to proceed indicated at the beginning of the seminar.

Regulations for carrying out activities

It is mandatory indicating ETSETB

Bibliography

Basic:

Varios. Multimedia del Museo de Telefónica. Madrid: Telefonica, 2013.

Complementary:

Bray, J. The Communications miracle: the telecommunication pioneers from Morse to the information superhighway. New York: Plenum, 1995. ISBN 0306450429.

Others resources:

Hyperlink

Nombre recurso

Resource