



COMILLAS

UNIVERSIDAD PONTIFICIA

ICAI

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CIHS

Syllabus
2025 - 2026

GENERAL INFORMATION

Data of the subject

Subject name	Communication Systems
Subject code	DEA-GITT-225
Main program	Bachelor's Degree in Engineering in Telecommunication Technologies
Credits	6,0 ECTS
Type	Obligatoria (Grado)
Department	Department of Electronics, Control and Communications

Teacher Information

Teacher

Name	Gregorio Ignacio López López
Department	Department of Electronics, Control and Communications
Office	Alberto Aguilera 25
EMail	gllopez@icai.comillas.edu
Phone	2408

Teacher

Name	Miguel Virseda Moreno
Department	Department of Electronics, Control and Communications
EMail	mvirseda@icai.comillas.edu

Teacher

Name	Lucas Francisco Novales Peleato
Department	Department of Electronics, Control and Communications
EMail	lfnoval@comillas.edu

DESCRIPTION OF THE SUBJECT

Contextualization of the subject

Prerequisites

Los prerrequisitos necesarios que el alumno debe tener para el seguimiento eficiente y fluido de la asignatura son: conocimientos de variable compleja, cálculo diferencial e integral y teoría de señal, análisis de circuitos y respuesta en frecuencia, conocimientos básicos de electromagnetismo, capacidad de lectura de textos en inglés técnico. Los conocimientos básicos de implementación de sistemas no son estrictamente necesarios, pero facilitarán la comprensión de los diferentes sistemas de comunicación que se desarrollarán a lo largo del curso.

Course contents



Contents

Block 1: Fundamentals

1.1 Introduction

1.2 Review of elements of signal theory

1.3 Analog communication systems (linear - AM, DSB-SC, SSB - and angular - FM and PM)

Block 2: Digital communication systems

2.1. Overview of digital communication systems

2.2 Baseband digital communication systems

2.3 Passband digital communication systems

Block 3: Labs

3.1 Analog communication systems

3.2 Digital communication systems

EVALUATION AND CRITERIA

The use of AI to produce full assignments or substantial parts thereof, without proper citation of the source or tool used, or without explicit permission in the assignment instructions, will be considered plagiarism and therefore subject to the University's General Regulations.

Grading

Exams:

- Mid-term exam: 20%
- Final exam: 40% (minimum of 5 out of 10 required)

Labs:

- 20% (minimum of 5 out of 10 required)

Continuous assessment:

- 20%

BIBLIOGRAPHY AND RESOURCES



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Basic References

- Course slides.
- Teoría de la Comunicación. M. Lázaro. OCW, 2014.
- Comunicaciones Digitales. A. Artés et al. 2012

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