30158 - Communication Theory

Información del Plan Docente

Academic Year	2017/18
Faculty / School	179 - Centro Universitario de la Defensa - Zaragoza
Degree	457 - Bachelor's Degree in Industrial Organisational Engineering 563 - Bachelor's Degree in Industrial Organisational Engineering
ECTS	6.0
Year	4
Semester	First semester
Subject Type	Optional
Module	---

1.General information

1.1.Introduction

1.2.Recommendations to take this course

1.3.Context and importance of this course in the degree

1.4.Activities and key dates

2.Learning goals

2.1.Learning goals

2.2.Importance of learning goals

3.Aims of the course and competences

3.1.Aims of the course

3.2.Competences

4.Assessment (1st and 2nd call)

4.1.Assessment tasks (description of tasks, marking system and assessment criteria)

5.Methodology, learning tasks, syllabus and resources

5.1.Methodological overview

The learning process that is designed for this subject is based on the following:

- The presentation of the theorical contents in lectures.
- The resolution of problems .
- Personal study by students .

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- Practical teaching in laboratories where students must apply their theoretical knowledge in practical situations.
- Development of individual or in-group work s .

5.2.Learning tasks

The main learning activities are :

- The presentation of the theorical contents in lectures and the resolution of theoretical problems and practical cases by the students .
- Laboratory sessions.
- I ndividual or in-group work s .

5.3.Syllabus

1. Introduction
2. Random signals and noise
3. The Transmission channel
4. Analog Modulations
5. Base Band Digital Transmission
6. Digital Modulations

5.4.Course planning and calendar

The planning and scheduling of lectures and practical sessions will be announced by the teachers, both in class and at the moodle platform.

5.5.Bibliography and recommended resources

BB	Carlson, A. B. Communications Systems. 5ª ed. McGraw-Hill, 2010
BC	Sklar, Bernard. Digital communications : fundamentals and applications / Bernard Sklar . - 2nd ed., 5th print. Upper Saddle River, New Jersey : Prentice-Hall PTR, 200
BC	Proakis, John G.. Communication systems engineering / John G. Proakis, Masoud Salehi . 2nd ed. Englewood Cliffs, New Jersey : Prentice Hall, cop. 2001