

60920 - Advanced communications

Syllabus Information

Academic Year: 2019/20

Subject: 60920 - Advanced communications

Faculty / School: 110 -

Degree: 533 - Master's Degree in Telecommunications Engineering

ECTS: 5.0

Year: 1

Semester: First semester

Subject Type: Compulsory

Module: ---

1.General information

1.1.Aims of the course

1.2.Context and importance of this course in the degree

1.3.Recommendations to take this course

2.Learning goals

2.1.Competences

2.2.Learning goals

2.3.Importance of learning goals

3.Assessment (1st and 2nd call)

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

4.Methodology, learning tasks, syllabus and resources

4.1.Methodological overview

The methodology followed in this course is oriented towards achievement of the learning objectives. A wide range of teaching and learning tasks are implemented, such as lectures (M1), practice sessions (M8), laboratory sessions (M9), guided assignments (M4), tutorials (M10), and assessment (M11).

4.2.Learning tasks

The course includes the following learning tasks:

- **M1 Lectures** (38 hours).
- **M8 Practice sessions** (8 hours)
- **M9 Laboratory sessions** (4 hours). Lab activities and seminars.
- **M4 Guided assignments** (22 hours). A guided assignment based on the different parts of a communication system.

4.3.Syllabus

The course will address the following topics:

- Topic 1. Selective channels.
- Topic 2. TCM (Trellis Coded Modulation).
- Topic 3. Advanced Channel Coding.
- Topic 4. Multicarrier systems. OFDM.
- Topic 5. Adaptive Modulation & Coding (AMC)

4.4.Course planning and calendar

Further information concerning the timetable, classroom, office hours, assessment dates and other details regarding this course, will be provided on the first day of class or please refer to the EINA website.

4.5.Bibliography and recommended resources

Bibliography available in:

<http://psfunizar7.unizar.es/br13/egAsignaturas.php?codigo=60920&Identificador=4853>

Additionally, course notes will be available in the moodle platform of Universidad de Zaragoza.