60926 - Antenna design and wireless systems

Información del Plan Docente

Academic Year	2016/17
Academic center	110 - Escuela de Ingeniería y Arquitectura
Degree	533 - Master's Degree in Telecommunications Engineering
ECTS	5.0
Course	1
Period	Second semester
Subject Type	Compulsory
Module	---

1.Basic info

1.1.Recommendations to take this course

1.2.Activities and key dates for the course

2.Initiation

2.1.Learning outcomes that define the subject

2.2.Introduction

3.Context and competences

3.1.Goals

3.2.Context and meaning of the subject in the degree

3.3.Competences

3.4.Importance of learning outcomes

4.Evaluation

5.Activities and resources

5.1.General methodological presentation

Planning teaching concerning the teaching methodology for this subject is based on the following:

1. Theory Lecture. - Teacher presentation or explanation in a classroom (with possible demonstrations).

2. Educational learning based in problems.-Oriented approach to learning in which students address real problems in small groups under a tutor supervision.

3. Laboratory.- Activities in special spaces with specialized equipment (laboratory, computer rooms).

4 Theoretic works. Preparation of seminars, lectures, research papers, reports, etc. To present or deliver in classroom.

5. Evaluation.-Set of written, oral tests, practices, projects, jobs, etc. used in the evaluation of student progress.

6. Tutorial.-Period instruction by a tutor to review and discuss the materials and topics presented in lectures.

5.2.Learning activities

1. Participatory Lectures in which the theoretical foundations of the contents of the subject are presented and where student participation is encouraged.

2. Problems and case studies in which problem solving and practical cases are held.

3. Laboratory Practice in which students will use both software and specific equipment to consolidate the set of theoretical concepts developed throughout the lectures.

4. Practical group work, tutored by the teacher, based on the contents of the subject.

5. Personalized attention to students through tutorials.

5.3.Program

1.Propagation models.

2 Diversity Systems.

3 Mobile antenna systems.

4. Antenna performance evaluation in mobile environment. Correlation characteristics of diversity.

A total of 3 Laboratory sessions are scheduled (two hours per session).

Supervised Work

Development approach of a supervised work in groups of students and oral presentation in seminars.

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An antenna design portable terminals will be raised using electromagnetic simulation programs. Special care will be applied in order to optimize certain response parameters taking into account the mobile propagation environments.

They will be planned, as far as possible, visiting Research Institutes and / or Research Laboratories Companies related to the subject treated in the course.

5.4.Planning and scheduling

The schedule of the course, for classroom and laboratory sessions, will be determined by the academic calendar established by the School for the corresponding course.

5.5.Bibliography and recomended resources