

Información del Plan Docente

Academic Year	2017/18
Faculty / School	110 - Escuela de Ingeniería y Arquitectura
Degree	430 - Bachelor's Degree in Electrical Engineering
ECTS	6.0
Year	1
Semester	Half-yearly
Subject Type	Basic Education
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 is based on the following:

According to the new Bologna framework, in this subject there are planned both classroom and non-attendance activities for the students. This agenda will be available to the students at the beginning of the spring semester.

The active learning methodology is applied in the course. The lecturers propose a series of in-class and out-class activities, both individual and group activities.

In most of the in-class activities, students will work in teams and cooperatively, promptly helped by the lecturer, leaving

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individual tasks to be carried outside the classroom.

Students will have all the training materials and support needed in the Digital Teaching Ring (ADD), loaded synchronously with the lectures and laboratory sessions.

5.2.Learning tasks

THEORETICAL ACTIVITIES

Detailed program of the unit, notes, basic bibliography, proposed exercises, etc.: All the necessary materials will be provided at the beginning of each unit.

Detailed study guide where the student can find the tasks to be carried out and their delivery deadlines.

In-class activities consist of short questions or multiple-choice about the theory. Many of these tasks are solved in cooperation with other students.

When a large group of students encounter difficulties in the study of some parts of the theory, they can be taught by the lecturer in a master class on request.

PROBLEM-SOLVING ACTIVITIES

Problem-solving sessions will be organized using cooperative learning techniques. In some cases the session will end with a brief explanation by the lecturer of key difficulties of the exercise. Out-class work include the review the exercise.

Active learning methodologies may be tested during the course both for theory and problem-solving learning.

5.3.Syllabus

The course covers the following topics:

Part I: Electrostatics

Part II: Electric current and Magnetostatics

Part III: Maxwell ' s equations and electromagnetic waves.

5.4.Course planning and calendar

Schedule sessions and presentation of works

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Classroom activities: Three hours per week in-class sessions.

Laboratory sessions: 2 hours, one every two weeks.

They will be held according to the schedule established by the Faculty administrators and published prior to the start date of the course. All details about the organization and learning activities issues will be available on the website of the course (ADD).

5.5. Bibliography and recommended resources

[BB: Bibliografía básica / BC: Bibliografía complementaria]

- [BB] Moore, Thomas A.. Física : seis ideas fundamentales / Thomas A. Moore . - 2ª ed. México [etc.]: McGraw-Hill Interamericana, cop. 2005
- [BB] Serway, Raymond A. Electricidad y magnetismo / Raymond A. Serway . - 4a ed. Mexico [etc.] : McGraw-Hill, cop. 1999
- [BB] Tipler, Paul A.. Física para la ciencia y la tecnología. Vol. 2, Electricidad y magnetismo, luz / Paul A. Tipler, Gene Mosca ; [coordinador y traductor José Casas-Vázquez ; traductores Albert Bramon Planas ... et al.]. 6ª ed. Barcelona : Reverté, D.L. 2010
- [BC] Abellanas Rapún, Lorenzo. Matemáticas 2º Bachillerato / Lorenzo Abellanas Rapún, Juan Carlos García Arribas, Celia Martínez Ontalba Madrid, [etc.] : McGraw-Hill, D.L 1996

Listado de URL

- http://www.sc.ehu.es/sbweb/fisica/elecmagnet/campo_electrico/plano/plano.htm
[http://www.sc.ehu.es/sbweb/fisica/elecmagnet/campo_electrico/plano/plano.htm]