

## 30326 - Electronic Design Laboratory

### Información del Plan Docente

Academic Year	2017/18
Faculty / School	110 - Escuela de Ingeniería y Arquitectura
Degree	438 - Bachelor's Degree in Telecommunications Technology and Services Engineering
ECTS	6.0
Year	
Semester	Second semester
Subject Type	
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 course is based on theoretical, dynamic exhibitions of seminar type, practice sessions and individual tutorials and scheduled groups.

#### **5.2.Learning tasks**

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Theoretical presentations (M1) are expected to contribute content on components, circuits and design methods, which are sometimes supplemented with dynamic seminar type (M2).

Learning computer simulation tools and design as well as electronic assembly is formalized in practice sessions (M8, M9) and final design practice (M5). For execution is expected that students have to do some previous practical study (M13, M15).

Other non-contact type methods work and theoretical and practical studies (M12, M14) are also used.

The background work of students is the development of a project guided, through which they acquire the desired skills with teacher supervision (M6). Individual tutorials are planned and scheduled groups to monitor the smooth running of projects (M10).

Evaluation is also a time of learning and one of its main moments is the presentation of the project by the group (M7, M11).

### **5.3.Syllabus**

Given the nature of the methodology, the program takes the form of a schedule of activities will be developing while the groups advance in design. The activities that would go to such sequencing relate.

### **5.4.Course planning and calendar**

Presentation of the working methodology of the subject and planning activities to be performed.

Search and selection of components and other electronic resources.

Previous studies: Components; Electronic systems.

Design and specification of the project.

Electronic circuit simulation with Spice.

Mounting in the laboratory of circuit modules.

Electronic development: Design.

Electronic development: Input schemes.

Electronic Development: PCB design.

Mounting and tuning of the prototype.

Final presentation of the work.

### **5.5.Bibliography and recommended resources**

Given the nature of the subject all the sessions take place in an electronics laboratory where you have to develop all planned activities. The calendar and schedule of these sessions will adhere to the directive of the address EINA and the schedule for submission of projects in the exam period .