

30327 - Power Electronics

Syllabus Information

Academic Year: 2019/20

Subject: 30327 - Power Electronics

Faculty / School: 110 - Escuela de Ingeniería y Arquitectura

Degree: 438 - Bachelor's Degree in Telecommunications Technology and Services Engineering

ECTS: 6.0

Year: 3

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

The teaching process will involve three main levels: lectures, laboratory problems and, with increasing student participation.

- In the lectures, the theoretical bases of power electronic systems will be presented.

- In the classes of problems and issues such as cases involving students, they will be developed.

- Laboratory practices will be developed in small groups where students perform computer simulations and assembly of power electronic circuits.

4.2.Learning tasks

The program that the student is offered to help you achieve the expected results includes the following activities

Classwork: 2.4 ECTS (60 hours)

1) Theoretical classes (30 hours).

Keynote sessions presentation of theoretical contents. The concepts and fundamentals of electronic power systems, illustrating them with examples will be presented. Student participation through questions will be encouraged.

2) Problem-solving classes (15 hours).

Problems and cases involving students, coordinated at all times with the theoretical contents will be developed. Students are encouraged to work on the problems previously.

3) Laboratory practices (15 hours).

It will consist of assembly or computer simulation of power electronic circuits. The student will have a script for each practice.

Non-contact work: 3.6 ECTS (90 hours)

4.3.Syllabus

4.4.Course planning and calendar

Lectures and problem classes and practice sessions are held in the laboratory according to the schedule set by the center (schedules available on their website). The other activities will be planned depending on the number of students and will be announced in good time.

4.5.Bibliography and recommended resources

http://biblos.unizar.es/br/br_citas.php?codigo=30327&year=2019