

Academic Year/course: 2022/23

31008 - Switching power supplies

Syllabus Information

Academic Year: 2022/23

Subject: 31008 - Switching power supplies

Faculty / School: 110 - Escuela de Ingeniería y Arquitectura

Degree: 581 - Bachelor's Degree in Telecommunications Technology and Services Engineering

ECTS: 6.0

Year: 4

Semester: First semester

Subject Type: Optional

Module:

1. General information

2. Learning goals

3. Assessment (1st and 2nd call)

4. Methodology, learning tasks, syllabus and resources

4.1. Methodological overview

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

- ? The teaching process will involve three main levels: lectures, laboratory problems and, active student participation.
- ? In the lectures the theoretical basis of electronic power supplies will be exposed.
- ? In the classes of problems the students will develop worked-out examples
- ? The laboratory practices will be developed in small groups where students perform computer simulations and assembly of electronic power supplies.

4.2. Learning tasks

The course includes the following learning tasks:

- Lectures (about 15 hours)
- Practice sessions (about 15 hours)
- Laboratory sessions (about 30 hours)
- Autonomous work (about 24 hours)
- Study (about 60 hours)
- Evaluation tests (about 6 hours)

4.3. Syllabus

The contents developed in the classroom are as follows:

- ? Introduction to power supplies.
- ? Linear power supplies.
- ? Switching Power supplies: generalities.
- ? Non-isolated switching power supplies.

- ? Isolated switching power supplies.
- ? Active components.
- ? Passive components: capacitors.
- ? Passive components: magnetic components.

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

<http://psfunizar10.unizar.es/br13/egAsignaturas.php?codigo=31008>