

60814 - Electric power systems

Syllabus Information

Academic Year: 2020/21

Subject: 60814 - Electric power systems

Faculty / School: 110 - Escuela de Ingeniería y Arquitectura

Degree: 532 - Master's in Industrial Engineering

ECTS: 6.0

Year: 1

Semester: First semester

Subject Type: Optional

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 methodology followed in this course is oriented towards achievement of the learning objectives. A wide range of teaching and learning tasks are implemented, such as lectures, problem-solving, and laboratory sessions.

4.2.Learning tasks

The course includes the following learning tasks:

- **Lectures.** 3 weekly hours. The main concepts are presented and combined with practical exercises, which help to better understand these concepts.
- **Laboratory sessions.** 5 sessions of three hours each. The practice sessions include laboratory experiments and practical computer exercises, where the analyzed situations are often more complex than those studied in lectures.
- Other evaluable activities can include written partial exams, problems to be solved, practical assignments and other activities.

4.3.Syllabus

The course will address the following topics:

- Section 1. Electric power lines. Electric parameters. Steady-state operation of power lines.
- Section 2. Electric power systems. Normal operating state of the power system. Power system transients.

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