

High voltage switchgear and power lines

Academic Year: (2019 / 2020)

Review date: 05-04-2019

Department assigned to the subject: Electrical Engineering Department

Coordinating teacher: LEDESMA LARREA, PABLO

Type: Electives ECTS Credits : 6.0

Year : 4 Semester : 1

REQUIREMENTS (SUBJECTS THAT ARE ASSUMED TO BE KNOWN)

Electrical power engineering fundamentals

OBJECTIVES

1. Ability to complete a power line project, according to the Spanish regulations.
2. Basic knowledge of the switchgear used in electric substations.
3. Ability to use technical documents used in power systems such as regulations and standards.

DESCRIPTION OF CONTENTS: PROGRAMME

- 1.- Power lines electrical parameters.
- 2.- Overhead mechanical design.
- 3.- Electric insulation in overhead lines.
- 4.- Pylons and Safety distances.
- 5.- Grounding
- 6.- Design of power lines
- 7.- Breakers and measurement transformers
- 8 Configuration of substations.

LEARNING ACTIVITIES AND METHODOLOGY

- Lectures
- Practical classes .

ASSESSMENT SYSTEM

- * Laboratory test evaluation practices : 5%. Laboratory practices are mandatory to pass the subject .
- * parcial test 25%
- * line project 10%

The teacher can exempt any student from the final examination as long as they have made all intermediate exercises with a minimum grade of 3 points in every of them, and have an average partial test grade equal/greater than 5 points (not including the laboratory grade). The students accomplishing these conditions and wanting to improve their grades can do the final exam considering that the grade will be weighted with the continuous evaluation one.

60 % Final exam consisting of theory and problems of the whole subject .

It is required to obtain a minimum score of 3.5 in the final exam.

% end-of-term-examination:	60
% of continuous assessment (assignments, laboratory, practicals...):	40