

Course guide

205259 - EPLAN - Electrical Project Design with Eplan

Last modified: 02/04/2024

Unit in charge: Terrassa School of Industrial, Aerospace and Audiovisual Engineering
Teaching unit: 709 - DEE - Department of Electrical Engineering.

Degree: BACHELOR'S DEGREE IN AUDIOVISUAL SYSTEMS ENGINEERING (Syllabus 2009). (Optional subject).
BACHELOR'S DEGREE IN CHEMICAL ENGINEERING (Syllabus 2009). (Optional subject).
BACHELOR'S DEGREE IN ELECTRICAL ENGINEERING (Syllabus 2009). (Optional subject).
BACHELOR'S DEGREE IN INDUSTRIAL ELECTRONICS AND AUTOMATIC CONTROL ENGINEERING (Syllabus 2009). (Optional subject).
BACHELOR'S DEGREE IN MECHANICAL ENGINEERING (Syllabus 2009). (Optional subject).
BACHELOR'S DEGREE IN TEXTILE TECHNOLOGY AND DESIGN ENGINEERING (Syllabus 2009). (Optional subject).
BACHELOR'S DEGREE IN AEROSPACE TECHNOLOGY ENGINEERING (Syllabus 2010). (Optional subject).
BACHELOR'S DEGREE IN AEROSPACE VEHICLE ENGINEERING (Syllabus 2010). (Optional subject).
BACHELOR'S DEGREE IN INDUSTRIAL DESIGN AND PRODUCT DEVELOPMENT ENGINEERING (Syllabus 2010). (Optional subject).
BACHELOR'S DEGREE IN INDUSTRIAL TECHNOLOGY ENGINEERING (Syllabus 2010). (Optional subject).

Academic year: 2024 **ECTS Credits:** 3.0 **Languages:** Spanish

LECTURER

Coordinating lecturer: Romero Durán, David

Others:

PRIOR SKILLS

In order to develop an electrical project with this type of tools/software, it is essential to have knowledge of low voltage electrical installations, automation and electrical switchgear. This knowledge will allow the selection of the appropriate elements for each stage of the project development.

TEACHING METHODOLOGY

- Face-to-face sessions. Exposure sessions of the contents and computer sessions.
- In the exposition sessions of the contents, the professor will introduce the theoretical bases of the subject, concepts, methods and results, illustrating them with convenient examples to facilitate their understanding. The computer sessions will be used to see the application of the theoretical concepts. In them, the students, under the professor's supervision, will have to carry out a project applying all the concepts worked on. The students, in an autonomous way, will have to assimilate the concepts and solve the proposed aspects.
- The evaluation will be based on the class activities (continuous evaluation), the practices presented and the final work.
- The contents can be taught both in Spanish and Catalan, depending on the needs of the group.
- All the work will be done with a computer.
- Autonomous work and realization of activities.
- Preparation and realization of practice reports.
- Although the language used in the course will be Spanish, those students who wish may use Catalan.

LEARNING OBJECTIVES OF THE SUBJECT

In today's industry, any project must be accompanied by an appropriate technical document detailing everything necessary for its development, implementation, commissioning, maintenance and subsequent dismantling. In the particular case of projects with an electrical part, electrical diagrams detailing the connections, the elements on it, where they are located within the electrical panel, etc., are essential. There are different tools on the market that allow this work to be carried out in an appropriate manner and in accordance with current standards. Among all the existing tools, EPLAN is nowadays, one of the most used and that appears within the knowledge demanded in many job offers in the field of electrical engineering. For this reason, this course aims to introduce students of electrical engineering to this field, giving an overview of this tool, as well as its main features.

Therefore, the main objective of this course is to introduce students to the development of electrical projects using current tools, providing technical knowledge about the elements that are part of these projects, as well as the choice of each of them.

STUDY LOAD

Type	Hours	Percentage
Self study	45,0	60.00
Hours small group	15,0	20.00
Hours large group	15,0	20.00

Total learning time: 75 h

CONTENTS

1. Introduction to the Eplan Platform and General Design functions

Description:

- Presentation of the software available in the market to do projects and electrical diagrams.
- Introduction to EPLAN, working environment and features.

Full-or-part-time: 8h

Theory classes: 1h

Laboratory classes: 1h

Self study : 6h

2. Creation of projects and page structures

Description:

- Project regulations.
- Types of documents.
- Structure of a project.

Full-or-part-time: 11h

Theory classes: 2h

Laboratory classes: 2h

Self study : 7h

3. Device Concept. Eplan Cloud: Data Portal

Description:

- Device definition.
- Access to manufacturers' databases.
- Use of commercial devices.

Full-or-part-time: 14h

Theory classes: 3h

Laboratory classes: 3h

Self study : 8h

4. Working with terminals, connectors and cables

Description:

- Working with terminals, connectors and cables

Full-or-part-time: 17h

Theory classes: 4h

Laboratory classes: 4h

Self study : 9h

5. Working with copy of pages and evaluation templates

Description:

- Working with page copies
- Use of evaluation templates

Full-or-part-time: 14h

Theory classes: 3h

Laboratory classes: 3h

Self study : 8h

6. PDF export and project data backups

Description:

- Export projects to pdf
- Do project data backups

Full-or-part-time: 11h

Theory classes: 2h

Laboratory classes: 2h

Self study : 7h

GRADING SYSTEM

- Continuous Evaluation: 20%
- Practices: 30%
- Final work: 50%



BIBLIOGRAPHY

Basic:

- Gischel, Bernd. EPLAN electric P8: reference handbook. 4th ed. Munich: Hanser Publications, 2016. ISBN 9781569904985.
- EPLAN. EPLAN electric P8 tutorial [on line]. [Consultation: 23/04/2024]. Available on: <https://www.eplan.help/es-es/Infoportal/Content/tutorials/electricp8/index.html>.
- EPLAN. EPLAN eLearning tutorials [on line]. [Consultation: 23/04/2024]. Available on: <https://etraining.eplan.com/e-learning/tutorials/home>.