Course guide
320158 - SEL - Electronic Systems

Unit in charge: Terrassa School of Industrial, Aerospace and Audiovisual Engineering
Teaching unit: 710 - EEL - Department of Electronic Engineering.

Degree: BACHELOR’S DEGREE IN INDUSTRIAL DESIGN AND PRODUCT DEVELOPMENT ENGINEERING (Syllabus 2010). (Compulsory subject).

Academic year: 2023 ECTS Credits: 6.0 Languages: Catalan

LECTURER

Coordinating lecturer: Joan Salaet

Others:

DEGREE COMPETENCES TO WHICH THE SUBJECT CONTRIBUTES

Specific:
CED10-DIDP. Knowledge of principles of material science and technology for the selection of materials and their processes, and their impact on the design, redesign, and development of products. (Common module for the industrial branch).
CED16-DIDP. Knowledge of basic electronic components and their application to problem-solving in the field of engineering. (Common module for the industrial branch).
CED17-DIDP. Knowledge of the fundamentals of digital electronics and their application to problem-solving in the field of engineering. (Common module for the industrial branch).
CED18-DIDP. Knowledge of the characteristics of digital processors, their operation, and their application to problem-solving in the field of engineering. (Common module for the industrial branch).
CED19-DIDP. Knowledge of the characteristics and applications of sensors and signal conditioners. (Common module for the industrial branch).

TEACHING METHODOLOGY

LEARNING OBJECTIVES OF THE SUBJECT

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STUDY LOAD

<table>
<thead>
<tr>
<th>Type</th>
<th>Hours</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours medium group</td>
<td>15.0</td>
<td>10.00</td>
</tr>
<tr>
<td>Self study</td>
<td>90.0</td>
<td>60.00</td>
</tr>
<tr>
<td>Hours small group</td>
<td>15.0</td>
<td>10.00</td>
</tr>
<tr>
<td>Hours large group</td>
<td>30.0</td>
<td>20.00</td>
</tr>
</tbody>
</table>

Total learning time: 150 h
## CONTENTS

### TOPIC 0: INTRODUCTION TO THE SUBJECT

**Description:**

- **Related activities:**
  - AV0

- **Full-or-part-time:** 1h
  - Theory classes: 1h

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**Description:**

- **Full-or-part-time:** 25h
  - Theory classes: 5h
  - Practical classes: 3h
  - Laboratory classes: 2h
  - Self study: 15h

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**Description:**

- **Full-or-part-time:** 15h 10m
  - Theory classes: 4h
  - Practical classes: 2h
  - Self study: 9h 10m

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**Description:**

- **Specific objectives:**

- **Related activities:**

- **Full-or-part-time:** 27h 40m
  - Theory classes: 5h
  - Practical classes: 2h
  - Laboratory classes: 4h
  - Self study: 16h 40m

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**Description:**

- **Specific objectives:**

- **Related activities:**

- **Full-or-part-time:** 25h
  - Theory classes: 5h
  - Practical classes: 3h
  - Laboratory classes: 2h
  - Self study: 15h
Description:

**Specific objectives:**

**Related activities:**

**Full-or-part-time:** 25h  
Theory classes: 5h  
Practical classes: 2h  
Laboratory classes: 3h  
Self study : 15h

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Description:

**Specific objectives:**

**Related activities:**

**Full-or-part-time:** 31h 10m  
Theory classes: 5h  
Practical classes: 3h  
Laboratory classes: 4h  
Self study : 19h 10m

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**GRADING SYSTEM**

**BIBLIOGRAPHY**

**Basic:**

**Complementary:**