Course guides
330112 - II - Industrial Informatics

Unit in charge: Manresa School of Engineering
Teaching unit: 750 - EMIT - Department of Mining, Industrial and ICT Engineering.
Degree: BACHELOR’S DEGREE IN INDUSTRIAL ELECTRONICS AND AUTOMATIC CONTROL ENGINEERING (Syllabus 2009). (Compulsory subject).
BACHELOR’S DEGREE IN AUTOMOTIVE ENGINEERING (Syllabus 2017). (Optional subject).

Academic year: 2021  ECTS Credits: 6.0  Languages: Catalan

LECTURER

Coordinating lecturer: ANTONI ESCOBET CANAL

Others:

DEGREE COMPETENCES TO WHICH THE SUBJECT CONTRIBUTES

Specific:
1. The ability to specify, analyze, design, evaluate, and document processor-based systems, as well as their implementation alternatives.
2. The ability to use the tools and programming languages of processors.
3. The knowledge and ability to use existing tools and instrumentation for the analysis, design, development and verification of electronic, computer and communications systems.

Transversal:
4. THIRD LANGUAGE. Learning a third language, preferably English, to a degree of oral and written fluency that fits in with the future needs of the graduates of each course.
5. EFFICIENT ORAL AND WRITTEN COMMUNICATION - Level 3. Communicating clearly and efficiently in oral and written presentations. Adapting to audiences and communication aims by using suitable strategies and means.
6. SELF-DIRECTED LEARNING - Level 3. Applying the knowledge gained in completing a task according to its relevance and importance. Deciding how to carry out a task, the amount of time to be devoted to it and the most suitable information sources.

TEACHING METHODOLOGY

LEARNING OBJECTIVES OF THE SUBJECT

STUDY LOAD

<table>
<thead>
<tr>
<th>Type</th>
<th>Hours</th>
<th>Percentage</th>
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</thead>
<tbody>
<tr>
<td>Hours large group</td>
<td>30,0</td>
<td>20.00</td>
</tr>
<tr>
<td>Self study</td>
<td>90,0</td>
<td>60.00</td>
</tr>
<tr>
<td>Hours small group</td>
<td>30,0</td>
<td>20.00</td>
</tr>
</tbody>
</table>

Total learning time: 150 h
## CONTENTS

### (ENG) 1. INTRODUCCIÓ

**Full-or-part-time:** 4h  
Theory classes: 2h  
Self study: 2h

### (ENG) 2. EL COMPUTADOR INDUSTRIAL

**Full-or-part-time:** 45h  
Theory classes: 9h  
Practical classes: 10h  
Self study: 26h

### (ENG) 3. SISTEMES D'ADQUISICIÓ I DISTRIBUCIÓ DE DADES

**Full-or-part-time:** 53h  
Theory classes: 9h  
Practical classes: 12h  
Self study: 32h

### (ENG) 4. BUSOS DE CAMP

**Full-or-part-time:** 48h  
Theory classes: 10h  
Practical classes: 8h  
Self study: 30h

## ACTIVITIES

### (ENG) 1. CLASSE EXPOSITIVA I DE PROBLEMES

**Full-or-part-time:** 28h  
Theory classes: 28h

### (ENG) 2. CLASSE DE LABORATORI

**Full-or-part-time:** 75h  
Practical classes: 45h  
Laboratory classes: 30h

### (ENG) 3. TREBALL PERSONAL INDIVIDUAL/EN GRUP

**Full-or-part-time:** 20h  
Self study: 20h
(ENG) 4. PROVES

Full-or-part-time: 27h
Theory classes: 2h
Self study: 25h

GRADING SYSTEM

BIBLIOGRAPHY

Basic:
- Notes d'aplicació dels fabricants.

Complementary: