820227 - IEEIA - Electronic Instrumentation

Coordinating unit: 295 - EEBE - Barcelona East School of Engineering
Teaching unit: 710 - EEL - Department of Electronic Engineering
Academic year: 2018
Degree: BACHELOR'S DEGREE IN INDUSTRIAL ELECTRONICS AND AUTOMATIC CONTROL ENGINEERING (Syllabus 2009). (Teaching unit Compulsory)
ECTS credits: 6
Teaching languages: Catalan, Spanish

Teaching staff
Coordinator: Casellas Beneyto, Francisco
Others: Roset Juan, Xavier

Degree competences to which the subject contributes

Specific:
1. Understand the applications of electronic instrumentation.

Transversal:
2. 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.

Learning objectives of the subject

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Study load

<table>
<thead>
<tr>
<th>Study load</th>
<th>Total learning time: 150h</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours large group:</td>
<td>45h</td>
</tr>
<tr>
<td>Hours medium group:</td>
<td>0h</td>
</tr>
<tr>
<td>Hours small group:</td>
<td>15h</td>
</tr>
<tr>
<td>Guided activities:</td>
<td>0h</td>
</tr>
<tr>
<td>Self study:</td>
<td>90h</td>
</tr>
</tbody>
</table>
## Content

<table>
<thead>
<tr>
<th>1. Introduction to the subject of electronic instrumentation.</th>
<th><strong>Learning time:</strong> 1h</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Description:</strong></td>
<td>Theory classes: 1h</td>
</tr>
<tr>
<td><strong>Related activities:</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Specific objectives:</strong></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>2. Measures and analysis of basic signals.</th>
<th><strong>Learning time:</strong> 9h</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Description:</strong></td>
<td>Theory classes: 3h</td>
</tr>
<tr>
<td><strong>Related activities:</strong></td>
<td>Laboratory classes: 2h</td>
</tr>
<tr>
<td><strong>Specific objectives:</strong></td>
<td>Self study: 4h</td>
</tr>
</tbody>
</table>
### 3. Basic instruments.

**Description:**

**Related activities:**

**Specific objectives:**

**Learning time:** 85h  
Theory classes: 21h  
Laboratory classes: 8h  
Self study: 56h

### 4. Measurement systems.

**Description:**

**Related activities:**

**Specific objectives:**

**Learning time:** 54h  
Theory classes: 20h  
Laboratory classes: 4h  
Self study: 30h
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Bibliography

**Basic:**


**Complementary:**