820227 - IEEIA - Electronic Instrumentation

Coordinating unit: 295 - EEBE - Barcelona East School of Engineering
Teaching unit: 710 - EEL - Department of Electronic Engineering
Academic year: 2017
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

Study load

<table>
<thead>
<tr>
<th>Total learning time: 150h</th>
<th>Hours large group:</th>
<th>Hours medium group:</th>
<th>Hours small group:</th>
<th>Guided activities:</th>
<th>Self study:</th>
</tr>
</thead>
<tbody>
<tr>
<td>45h</td>
<td>0h</td>
<td>15h</td>
<td>0h</td>
<td>90h</td>
<td>60.00%</td>
</tr>
</tbody>
</table>
# Content

## 1. Introduction to the subject of electronic instrumentation.

<table>
<thead>
<tr>
<th>Description:</th>
<th>Learning time: 1h</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Theory classes: 1h</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Related activities:</th>
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<table>
<thead>
<tr>
<th>Specific objectives:</th>
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</table>

## 2. Measures and analysis of basic signals.

<table>
<thead>
<tr>
<th>Description:</th>
<th>Learning time: 9h</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Theory classes: 3h</td>
</tr>
<tr>
<td></td>
<td>Laboratory classes: 2h</td>
</tr>
<tr>
<td></td>
<td>Self study: 4h</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Related activities:</th>
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</table>

<table>
<thead>
<tr>
<th>Specific objectives:</th>
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</thead>
</table>
3. Basic instruments.  

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

**Description:**  
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**Related activities:**  
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**Specific objectives:**  
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4. Measurement systems.  

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

**Description:**  
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**Related activities:**  
.

**Specific objectives:**  
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### Bibliography

#### Basic:


#### Complementary:

