820227 - IEEIA - Electronic Instrumentation

Coordinating unit: 295 - EEBE - Barcelona East School of Engineering
Teaching unit: 710 - EEL - Department of Electronic Engineering
Academic year: 2019
Degree: BACHELOR'S DEGREE IN INDUSTRIAL ELECTRONICS AND AUTOMATIC CONTROL ENGINEERING (Syllabus 2009). (Teaching unit Compulsory)
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: 45h</th>
<th>30.00%</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Hours medium group: 0h</td>
<td>0.00%</td>
</tr>
<tr>
<td></td>
<td>Hours small group: 15h</td>
<td>10.00%</td>
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<tr>
<td></td>
<td>Guided activities: 0h</td>
<td>0.00%</td>
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<tr>
<td></td>
<td>Self study: 90h</td>
<td>60.00%</td>
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### 1. Introduction to the subject of electronic instrumentation.

**Description:**

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**Related activities:**

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**Specific objectives:**

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**Learning time:** 1h
  - Theory classes: 1h

### 2. Measures and analysis of basic signals.

**Description:**

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**Related activities:**

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**Specific objectives:**

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**Learning time:** 9h
  - Theory classes: 3h
  - Laboratory classes: 2h
  - Self study: 4h
### 3. Basic instruments.

<table>
<thead>
<tr>
<th>Description:</th>
<th>Learning time: 85h</th>
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<tbody>
<tr>
<td></td>
<td>Theory classes: 21h</td>
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<tr>
<td></td>
<td>Laboratory classes: 8h</td>
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<tr>
<td></td>
<td>Self study : 56h</td>
</tr>
</tbody>
</table>

| Related activities: | |
| Specific objectives: | |

### 4. Measurement systems.

<table>
<thead>
<tr>
<th>Description:</th>
<th>Learning time: 54h</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Theory classes: 20h</td>
</tr>
<tr>
<td></td>
<td>Laboratory classes: 4h</td>
</tr>
<tr>
<td></td>
<td>Self study : 30h</td>
</tr>
</tbody>
</table>

| Related activities: | |
| Specific objectives: | |
Bibliography

Basic:


Complementary: