220576 - Electrical Technology

Coordinating unit: 205 - ESEIAAT - Terrassa School of Industrial, Aerospace and Audiovisual Engineering
Teaching unit: 709 - EE - Department of Electrical Engineering
Academic year: 2019
Degree: MASTER'S DEGREE IN MANAGEMENT ENGINEERING (Syllabus 2012). (Teaching unit Optional)
ECTS credits: 3
Teaching languages: Catalan, Spanish

Coordinator:
RAMON MARIA MUJAL ROSAS

Degree competences to which the subject contributes

Generical:
1. Ability to apply knowledge to solve problems in new environments or unfamiliar environments within broader contexts (or multidisciplinary) related to engineering.
2. Self-learning capacity to independent continuous training.
3. Ability to effectively communicate their findings, knowledge and concluding reasons to skilled and unskilled audiences, clearly and unambiguously.
4. Ability to integrate knowledge and formulate judgments with the aim of making decisions based on information that, with incomplete or limited include reflecting on social and ethical responsibilities linked to the application of their knowledge and judgments.
5. Ability to understand the impact of engineering solutions in a global and social context.
6. Ability to operate and lead multidisciplinary and multicultural groups, with negotiation skills, group work, relationships in an international setting, and conflict resolution.

Teaching methodology

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Learning objectives of the subject

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Study load

<table>
<thead>
<tr>
<th>Total learning time: 75h</th>
<th>Hours large group: 8h</th>
<th>10.67%</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Hours medium group: 3h</td>
<td>4.00%</td>
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<tr>
<td></td>
<td>Guided activities: 16h</td>
<td>21.33%</td>
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<tr>
<td></td>
<td>Self study: 48h</td>
<td>64.00%</td>
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# Content

<table>
<thead>
<tr>
<th>(ENG) Mòdul 1: Intro</th>
<th>Learning time: 7h</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Theory classes: 2h</td>
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<tr>
<td></td>
<td>Self study: 5h</td>
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<tr>
<th>(ENG) Mòdul 2: Fi</th>
<th>Learning time: 15h</th>
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<tbody>
<tr>
<td></td>
<td>Theory classes: 6h</td>
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<tr>
<td></td>
<td>Self study: 9h</td>
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<thead>
<tr>
<th>(ENG) Mòdul 4: Funcionament Econòmic dels Sistemes Elèctrics</th>
<th>Learning time: 17h</th>
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<tbody>
<tr>
<td></td>
<td>Theory classes: 5h</td>
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<tr>
<td></td>
<td>Guided activities: 2h</td>
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<tr>
<td></td>
<td>Self study: 10h</td>
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<thead>
<tr>
<th>(ENG) Mòdul 5: El Mercat Elèctric</th>
<th>Learning time: 18h</th>
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<tbody>
<tr>
<td></td>
<td>Theory classes: 5h</td>
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<tr>
<td></td>
<td>Guided activities: 1h</td>
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<tr>
<td></td>
<td>Self study: 12h</td>
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## Planning of activities

| (ENG) PREPARACIÓ PRÈVIA I POSTERIOR DE LES SESSIONS DE TEORIA I ASSISTÈNCIA A AQUESTES. | Hours: 36h  
Theory classes: 21h  
Self study: 15h |
|---|---|
| (ENG) SESSIONS D'ACTIVITAT DIRIGIDES | Hours: 13h  
Guided activities: 3h  
Self study: 10h |
| (ENG) ACTIVITAT 3: EXAMEN PARCIAL | Hours: 11h  
Theory classes: 1h  
Self study: 10h |
| (ENG) ACTIVITAT 4: EXERCICI DEL FUNCIONAMENT ECONÒMIC DE SISTEMES ELÈCTRICS | Hours: 2h  
Self study: 2h |
| (ENG) ACTIVITAT 5: EXERCICI DEL MERCAT ELÈCTRIC | Hours: 1h  
Self study: 1h |
| (ENG) ACTIVITAT 6: EXAMEN FINAL | Hours: 12h  
Theory classes: 2h  
Self study: 10h |

### EXTRAORDINARY COURSE EXAMINATION

**Hours:** 1h  
**Theory classes:** 1h

### Description:

There will be a test of 1h of duration in which the student must demonstrate that he has reached the level required to recover this subject. For this will be a written test that will be of shorter duration than the examination to which it recovers and of much more basic contents. This basic test will only allow to pass the subject, that is to say, the maximum grade will be of 5. Only students who do not have the subject approved can be presented to this test.

### Support materials:

The material used will be the typical of a written test. Writing material, paper, form and calculator

### Descriptions of the assignments due and their relation to the assessment:

The written test will be delivered on the same day and at the time of the test, corrected as soon as possible to have a reference note.
**Specific objectives:**

With this test the student is given the last opportunity to reach the minimum requirements to pass the subject, which would be more basic than in the normal exam, but the maximum grade will also be simply passed (5) or suspended. It is not possible to obtain more note by means of this test than it has been indicated is of minimum contained.

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**Qualification system**

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**Regulations for carrying out activities**

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**Bibliography**

**Basic:**


**Complementary:**


**Others resources:**

- Audiovisual material
  - Apunts diversos