330067 - SEL - Electronic Systems

Coordinating unit: 330 - EPSEM - Manresa School of Engineering
Teaching unit: 750 - EMIT - Department of Mining, Industrial and ICT Engineering
Academic year: 2019
Degree: BACHELOR’S DEGREE IN CHEMICAL ENGINEERING (Syllabus 2009). (Teaching unit Compulsory)
BACHELOR’S DEGREE IN MECHANICAL ENGINEERING (Syllabus 2009). (Teaching unit Compulsory)
BACHELOR’S DEGREE IN INDUSTRIAL ELECTRONICS AND AUTOMATIC CONTROL ENGINEERING (Syllabus 2009). (Teaching unit Compulsory)
BACHELOR’S DEGREE IN ELECTRICAL ENGINEERING (Syllabus 2009). (Teaching unit Compulsory)
BACHELOR’S DEGREE IN CHEMICAL ENGINEERING (Syllabus 2016). (Teaching unit Compulsory)
BACHELOR’S DEGREE IN MECHANICAL ENGINEERING (Syllabus 2016). (Teaching unit Compulsory)
BACHELOR’S DEGREE IN INDUSTRIAL ELECTRONICS AND AUTOMATIC CONTROL ENGINEERING (Syllabus 2016). (Teaching unit Compulsory)
ECTS credits: 6
Teaching languages: Catalan

Teaching staff
Coordinator: VICTOR BARCONS XIXONS

Degree competences to which the subject contributes

Specific:
1. (ENG) Coneixement i utilització de la teoria de circuits.
2. (ENG) Coneixement dels fonaments de l'electrònica.

Transversal:
3. TEAMWORK - Level 2. Contributing to the consolidation of a team by planning targets and working efficiently to favor communication, task assignment and cohesion.
4. EFFECTIVE USE OF INFORMATION RESOURCES - Level 2. Designing and executing a good strategy for advanced searches using specialized information resources, once the various parts of an academic document have been identified and bibliographical references provided. Choosing suitable information based on its relevance and quality.
5. SELF-DIRECTED LEARNING - Level 2: Completing set tasks based on the guidelines set by lecturers. Devoting the time needed to complete each task, including personal contributions and expanding on the recommended 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>
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<tr>
<td></td>
<td>Hours medium group: 0h</td>
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<td></td>
<td>Hours small group: 15h</td>
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<td></td>
<td>Guided activities: 0h</td>
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<tr>
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<td>Self study: 90h</td>
<td>60.00%</td>
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## Content

### (ENG) 1. INTRODUCCIÓ ALS COMPONENTS ELECTRÒNICS

- **Learning time**: 26h
  - Theory classes: 8h
  - Laboratory classes: 2h
  - Self study: 16h

### (ENG) 2. CONCEPTES BÀSICS D'ELECTRÒNICA ANALÒGICA

- **Learning time**: 34h
  - Theory classes: 10h
  - Laboratory classes: 4h
  - Self study: 20h

### (ENG) 3. CONCEPTES BÀSICS D'ELECTRÒNICA DIGITAL

- **Learning time**: 51h
  - Theory classes: 15h
  - Laboratory classes: 6h
  - Self study: 30h

### (ENG) 4. CONVERTIDORS A/ D I D/ A

- **Learning time**: 39h
  - Theory classes: 12h
  - Laboratory classes: 3h
  - Self study: 24h
### Planning of activities

<table>
<thead>
<tr>
<th>(ENG) 1. INTRODUCCIÓ AL LABORATORI D'ELECTRÒNICA</th>
<th>Hours: 45h</th>
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<tbody>
<tr>
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<td>Laboratory classes: 15h</td>
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<td>Self study: 30h</td>
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<table>
<thead>
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<th>(ENG) 2. PRÀCTIQUES DE LABORATORI DE SISTEMES ELECTRÒNICS</th>
<th>Hours: 27h</th>
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<td>Self study: 25h</td>
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<tr>
<th>(ENG) 3. PROVA ESCRITA</th>
<th>Hours: 18h</th>
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<td>Theory classes: 1h</td>
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<td>Self study: 17h</td>
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<tr>
<th>(ENG) 4. PROVA ESCRITA</th>
<th>Hours: 15h</th>
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<td>Theory classes: 1h</td>
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<td></td>
<td>Guided activities: 14h</td>
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### Bibliography

**Basic:**

- Apunts realitzats pels professors.

**Complementary:**


**Others resources:**