320125 - PE - Engineering Project Design

Coordinating unit: 205 - ESEIAAT - Terrassa School of Industrial, Aerospace and Audiovisual Engineering
Teaching unit: 710 - EEL - Department of Electronic Engineering
Academic year: 2019
Degree: BACHELOR'S DEGREE IN AUDIOVISUAL SYSTEMS ENGINEERING (Syllabus 2009). (Teaching unit Compulsory)
ECTS credits: 6

Teaching languages: Catalan, Spanish

Coordinator: Raúl Fernández

Degree competences to which the subject contributes

Specific:
5. AUD_COMMON: Ability to get new knowledge and to learn new techniques appropriate to the conception, development and exploitation of telecommunication systems and services.
6. AUD_COMMON: Capacity to design, manage and organize Networks, systems, services and telecommunications infrastructures in residential (home, city communities and digital), corporate or institutional organizations, as well as inform of social and economic impacts. Knowledge of the regulations and the Regulation of Telecommunications in national, European and international ambits.
7. AUD_COMMON: Understand the national, European and international standards and legislation governing telecommunications.

Transversal:
1. EFFICIENT ORAL AND WRITTEN COMMUNICATION - Level 3. Communicating clearly and efficiently in oral and written presentations. Adapting to audiences and communication aims by using suitable strategies and means.
3. SUSTAINABILITY AND SOCIAL COMMITMENT - Level 3. Taking social, economic and environmental factors into account in the application of solutions. Undertaking projects that tie in with human development and sustainability.
4. TEAMWORK - Level 3. Managing and making work groups effective. Resolving possible conflicts, valuing working with others, assessing the effectiveness of a team and presenting the final results.

Learning objectives of the subject
### Study load

<table>
<thead>
<tr>
<th>Total learning time: 150h</th>
<th>Hours large group: 30h</th>
<th>20.00%</th>
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<tbody>
<tr>
<td></td>
<td>Hours medium group: 0h</td>
<td>0.00%</td>
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<td></td>
<td>Hours small group: 30h</td>
<td>20.00%</td>
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<td>Guided activities: 6h</td>
<td>4.00%</td>
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<tr>
<td></td>
<td>Self study: 84h</td>
<td>56.00%</td>
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### TEMA 1: Legislation, regulations and policy areas of Telecommunications

<table>
<thead>
<tr>
<th>Description:</th>
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</table>
| · Regulators on Telecommunications  
· Professional Associations  
· Professionals Attributions.  
· Social Responsibility  
· Individual Responsibility.  
· Code of ethics. |
| Related activities: |
| · Class theoretical explanation with exercises.  
· Activity 1.  
· Activity 2. |
| Specific objectives: |
| To know the main telecommunication regulatory and professional and social attributions. |

<table>
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<tr>
<th>Learning time: 25h</th>
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</table>
| Theory classes: 10h  
Self study : 15h |

### TEMA 2: Preparation and presentation of technical documentation.

<table>
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<tr>
<th>Description:</th>
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</table>
| · Technical documentation.  
· The Scientific article.  
· The technical project.  
· Oral presentations. |
| Related activities: |
| · Theoretical explanation with exercises.  
· Activity 1. |
| Specific objectives: |
| Writing technical documentation |

<table>
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<tr>
<th>Learning time: 25h</th>
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</table>
| Theory classes: 10h  
Self study : 15h |
### TEMA 3: Project Management for Telecommunications

**Description:**
- Introduction.
- Project definition.
- Budget and Schedule.
- Project implementation.
- Project control.
- Sustainability
- Innovation

**Related activities:**
- Class exercises with theoretical explanations.
- Activity 1.
- Activity 2.

**Specific objectives:**
Project Management for Telecommunications

**Learning time:** 25h
- Theory classes: 10h
- Self study: 15h

### TEMA 4: Common Telecommunications Infrastructure.

**Description:**
- Development of a Common Telecommunications Infrastructure project.
- Defining the scope of the project to make
- Editing documentation to be submitted

**Related activities:**
- Class exercises with theoretical explanations.
- Activity 1.
- Activity 2.

**Specific objectives:**
ICT Development Project

**Learning time:** 75h
- Laboratory classes: 30h
- Self study: 45h
Planning of activities

(ENG) ACTIVITAT 1: ELABORACIÓ D'UN PROJECTE DE TELECOMUNICACIONS

<table>
<thead>
<tr>
<th>Hours</th>
<th>75h</th>
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</thead>
<tbody>
<tr>
<td>Laboratory classes</td>
<td>30h</td>
</tr>
<tr>
<td>Self study</td>
<td>45h</td>
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</table>

(ENG) ACTIVITAT 2: PROVA FINAL

<table>
<thead>
<tr>
<th>Hours</th>
<th>35h</th>
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<tbody>
<tr>
<td>Theory classes</td>
<td>14h</td>
</tr>
<tr>
<td>Practical classes</td>
<td>21h</td>
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Qualification system

- Documentation of an engineering project, weight: 40%
- Oral defense of an engineering project, weight: 10%
- Teamwork, weight: 10%
- Final exam, weight: 40%

The results with average mark lower than 5 can redirect by additional work submitted 48 hours advance of the assessment date. The maximum mark of this recovery work is 5.

For those students who meet the requirements and submit to the reevaluation examination, the grade of the reevaluation exam will replace the grades of all the on-site written evaluation acts (tests, midterm and final exams) and the grades obtained during the course for lab practices, works, projects and presentations will be kept. If the final grade after reevaluation is lower than 5.0, it will replace the initial one only if it is higher. If the final grade after reevaluation is greater or equal to 5.0, the final grade of the subject will be pass 5.0.

Bibliography

Basic:


Others resources:

Laboratory classes: 30h
Self study: 45h
Theory classes: 14h
Practical classes: 21h

Total hours: 75h