Course guides
330223 - TCO2 - Complementary Technologies II

Unit in charge: Manresa School of Engineering
Teaching unit: 750 - EMIT - Department of Mining, Industrial and ICT Engineering.
Degree: BACHELOR'S DEGREE IN ICT SYSTEMS ENGINEERING (Syllabus 2010). (Compulsory subject).
Academic year: 2020  ECTS Credits: 6.0  Languages: Catalan

LECTURER

Coordinating lecturer: Vila Marta, Sebastian
Others: Bonet Dalmau, Jordi Pala Schonwalder, Pere Soler Conde, Marc Antoni Vila Marta, Sebastian

DEGREE COMPETENCES TO WHICH THE SUBJECT CONTRIBUTES

Specific:
1. (ENG) Coneixements d'aspectes bàsics de tecnologies complementaries en l'àmbit TIC amb l'objectiu d'adquirir una perspectiva àmplia de la tecnologia aplicada a l'enginyeria.

Transversal:
2. ENTREPRENEURSHIP AND INNOVATION - Level 2. Taking initiatives that give rise to opportunities and to new products and solutions, doing so with a vision of process implementation and market understanding, and involving others in projects that have to be carried out.
3. SUSTAINABILITY AND SOCIAL COMMITMENT - Level 2. Applying sustainability criteria and professional codes of conduct in the design and assessment of technological solutions.
4. EFFICIENT ORAL AND WRITTEN COMMUNICATION - Level 2. Using strategies for preparing and giving oral presentations. Writing texts and documents whose content is coherent, well structured and free of spelling and grammatical errors.
5. TEAMWORK - Level 2. Contributing to the consolidation of a team by planning targets and working efficiently to favor communication, task assignment and cohesion.
6. 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.
7. THIRD LANGUAGE. Learning a third language, preferably English, to a degree of oral and written fluency that fits in with the future needs of the graduates of each course.

TEACHING METHODOLOGY

LEARNING OBJECTIVES OF THE SUBJECT
**STUDY LOAD**

<table>
<thead>
<tr>
<th>Type</th>
<th>Hours</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours large group</td>
<td>36.0</td>
<td>24.00</td>
</tr>
<tr>
<td>Hours small group</td>
<td>26.0</td>
<td>17.33</td>
</tr>
<tr>
<td>Self study</td>
<td>88.0</td>
<td>58.67</td>
</tr>
</tbody>
</table>

**Total learning time:** 150 h

**CONTENTS**

(ENG) TEM

Description:

Full-or-part-time: 26h
- Theory classes: 2h
- Laboratory classes: 8h
- Self study: 16h

(ENG)

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Full-or-part-time: 26h
- Theory classes: 2h
- Laboratory classes: 8h
- Self study: 16h

(ENG) TEMA 5:

Description:

Full-or-part-time: 24h
- Theory classes: 12h
- Self study: 12h

(ENG) TEMA 7: Realització d'un mini projecte i la seva presentació en un workshop

Description:

Full-or-part-time: 74h
- Theory classes: 28h
- Self study: 46h
**ACTIVITIES**

(ENG) **ACTIVITAT 3: TALLER**

Related competencies:
04 COE N2. EFFICIENT ORAL AND WRITTEN COMMUNICATION - Level 2. Using strategies for preparing and giving oral presentations. Writing texts and documents whose content is coherent, well structured and free of spelling and grammatical errors.
06 URI N2. 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.
03 TLG. THIRD LANGUAGE. Learning a third language, preferably English, to a degree of oral and written fluency that fits in with the future needs of the graduates of each course.
05 TEQ N2. TEAMWORK - Level 2. Contributing to the consolidation of a team by planning targets and working efficiently to favor communication, task assignment and cohesion.

**Full-or-part-time:** 128h
Theory classes: 44h
Laboratory classes: 16h
Self study: 68h

(ENG) **ACTIVITAT 5: TREBALLS DIRIGITS**

Related competencies:
04 COE N2. EFFICIENT ORAL AND WRITTEN COMMUNICATION - Level 2. Using strategies for preparing and giving oral presentations. Writing texts and documents whose content is coherent, well structured and free of spelling and grammatical errors.

**Full-or-part-time:** 10h
Guided activities: 10h

name english

Related competencies:
03 TLG. THIRD LANGUAGE. Learning a third language, preferably English, to a degree of oral and written fluency that fits in with the future needs of the graduates of each course.
01 EIN N2. ENTREPRENEURSHIP AND INNOVATION - Level 2. Taking initiatives that give rise to opportunities and to new products and solutions, doing so with a vision of process implementation and market understanding, and involving others in projects that have to be carried out.
02 SCS N2. SUSTAINABILITY AND SOCIAL COMMITMENT - Level 2. Applying sustainability criteria and professional codes of conduct in the design and assessment of technological solutions.

**Full-or-part-time:** 12h
Self study: 12h

**GRADING SYSTEM**
BIBLIOGRAPHY

Basic: