Course guide
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: 2022 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. Connections of basic aspects of complementary technologies in the ICT environment with the objective of acquiring a broad perspective of the technology applied to engineering.

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

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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)

Description:

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:
- Connections of basic aspects of complementary technologies in the ICT environment with the objective of acquiring a broad perspective of the technology applied to engineering.

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:
- Connections of basic aspects of complementary technologies in the ICT environment with the objective of acquiring a broad perspective of the technology applied to engineering.

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:
- Connections of basic aspects of complementary technologies in the ICT environment with the objective of acquiring a broad perspective of the technology applied to engineering.

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:

RESOURCES

Other resources:
Own notes
Presentations of the different topics accessible from Atenea and / or OpenCouseWare.