Course guides
330218 - TCO1 - Complementary Technologies I

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: 2021 ECTS Credits: 6.0 Languages: Catalan

LECTURER

Coordinating lecturer: M. ROSA GIRALT MAS

Others: Busquets Rubio, Pere
Martínez Domene, Juan
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 1. Showing enterprise, acquiring basic knowledge about organizations and becoming familiar with the tools and techniques for generating ideas and managing organizations that make it possible to solve known problems and create opportunities.
3. SUSTAINABILITY AND SOCIAL COMMITMENT - Level 1. Analyzing the world¿s situation critically and systemically, while taking an interdisciplinary approach to sustainability and adhering to the principles of sustainable human development. Recognizing the social and environmental implications of a particular professional activity.
4. EFFICIENT ORAL AND WRITTEN COMMUNICATION - Level 1. Planning oral communication, answering questions properly and writing straightforward texts that are spelt correctly and are grammatically coherent.
5. TEAMWORK - Level 1. Working in a team and making positive contributions once the aims and group and individual responsibilities have been defined. Reaching joint decisions on the strategy to be followed.
6. EFFECTIVE USE OF INFORMATION RESOURCES - Level 1. Identifying information needs. Using collections, premises and services that are available for designing and executing simple searches that are suited to the topic.

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>Self study</td>
<td>90,0</td>
<td>60.00</td>
</tr>
<tr>
<td>Hours large group</td>
<td>48,0</td>
<td>32.00</td>
</tr>
<tr>
<td>Hours small group</td>
<td>12,0</td>
<td>8.00</td>
</tr>
</tbody>
</table>

Total learning time: 150 h
Description:

Related activities:

**Full-or-part-time:** 20h
Theory classes: 2h
Laboratory classes: 6h
Self study: 12h

Description:

Related activities:

**Full-or-part-time:** 45h
Theory classes: 12h
Laboratory classes: 6h
Self study: 27h

Description:

Related activities:

**Full-or-part-time:** 40h
Theory classes: 16h
Self study: 24h

Description:

Related activities:

**Full-or-part-time:** 25h
Theory classes: 10h
Self study: 15h
Description:

Related activities:

Full-or-part-time: 20h
Theory classes: 8h
Self study: 12h

ACTIVITIES

Description:

Related competencies:

(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.
05 TEQ N1. TEAMWORK - Level 1. Working in a team and making positive contributions once the aims and group and individual responsibilities have been defined. Reaching joint decisions on the strategy to be followed.
04 COE N1. EFFICIENT ORAL AND WRITTEN COMMUNICATION - Level 1. Planning oral communication, answering questions properly and writing straightforward texts that are spelt correctly and are grammatically coherent.
06 URI N1. EFFECTIVE USE OF INFORMATION RESOURCES - Level 1. Identifying information needs. Using collections, premises and services that are available for designing and executing simple searches that are suited to the topic.
01 EIN N1. ENTREPRENEURSHIP AND INNOVATION - Level 1. Showing enterprise, acquiring basic knowledge about organizations and becoming familiar with the tools and techniques for generating ideas and managing organizations that make it possible to solve known problems and create opportunities.
02 SCS N1. SUSTAINABILITY AND SOCIAL COMMITMENT - Level 1. Analyzing the world's situation critically and systemically, while taking an interdisciplinary approach to sustainability and adhering to the principles of sustainable human development. Recognizing the social and environmental implications of a particular professional activity.

Full-or-part-time: 120h
Theory classes: 48h
Laboratory classes: 12h
Self study: 60h
Description:

Related competencies:
02 SCS N1. SUSTAINABILITY AND SOCIAL COMMITMENT - Level 1. Analyzing the world’s situation critically and systemically, while taking an interdisciplinary approach to sustainability and adhering to the principles of sustainable human development. Recognizing the social and environmental implications of a particular professional activity.
06 URI N1. EFFECTIVE USE OF INFORMATION RESOURCES - Level 1. Identifying information needs. Using collections, premises and services that are available for designing and executing simple searches that are suited to the topic.
05 TEQ N1. TEAMWORK - Level 1. Working in a team and making positive contributions once the aims and group and individual responsibilities have been defined. Reaching joint decisions on the strategy to be followed.
04 COE N1. EFFICIENT ORAL AND WRITTEN COMMUNICATION - Level 1. Planning oral communication, answering questions properly and writing straightforward texts that are spelt correctly and are grammatically coherent.
01 EIN N1. ENTREPRENEURSHIP AND INNOVATION - Level 1. Showing enterprise, acquiring basic knowledge about organizations and becoming familiar with the tools and techniques for generating ideas and managing organizations that make it possible to solve known problems and create opportunities.

Full-or-part-time: 30h
Self study: 30h

GRADING SYSTEM

BIBLIOGRAPHY

Basic:
- Apunts propis.

RESOURCES

Other resources:
Sustainability Portal: http://portalsostenibilidad.upc.edu/
UNESCO Chair in Sustainability: http://tecnologiaisostenibilidad.cus.upc.edu/