330214 - I - Informatics

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 ICT SYSTEMS ENGINEERING (Syllabus 2010). (Teaching unit Compulsory)
ECTS credits: 6
Teaching languages: Catalan

Teaching staff
Coordinator: MARTA ISABEL TARRÉS PUERTAS

Degree competences to which the subject contributes

Specific:
1. (ENG) Coneixements fonamentals sobre la utilització i la programació d'ordinadors.
2. Operating systems, databases and computer programs with applications in engineering.

Transversal:
3. 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.
4. 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.
5. 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.
6. SELF-DIRECTED LEARNING - Level 1. Completing set tasks within established deadlines. Working with recommended information sources according to the guidelines set by lecturers.

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>
</tr>
<tr>
<td></td>
<td>Hours small group: 30h</td>
<td>20.00%</td>
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<td></td>
<td>Guided activities: 0h</td>
<td>0.00%</td>
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<tr>
<td></td>
<td>Self study: 90h</td>
<td>60.00%</td>
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</table>
### Content

- **(ENG) TEMA 1: Introducció a la programació**
  - Degree competences to which the content contributes:

- **(ENG) TEMA 2: Condicionals i iteracions**
  - Degree competences to which the content contributes:

- **(ENG) TEMA 3: Documentació i test de programes**
  - Degree competences to which the content contributes:

- **(ENG) TEMA 4: Strings**
  - Degree competences to which the content contributes:

- **(ENG) TEMA 5: Llistes**
  - Degree competences to which the content contributes:

- **(ENG) TEMA 6: Esquemes de tractament seqüencial**
  - Degree competences to which the content contributes:

- **(ENG) TEMA 7: Mòduls i fitxers**
  - Degree competences to which the content contributes:

- **(ENG) TEMA 8: Tuples**
  - Degree competences to which the content contributes:

- **(ENG) TEMA 9: Diccionaris**
  - Degree competences to which the content contributes:
### Planning of activities

| (ENG) ACTIVITAT 1: CLASSE EXPOSITIVA | Hours: 12h  
<table>
<thead>
<tr>
<th></th>
<th>Theory classes: 12h</th>
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</table>
| (ENG) ACTIVITAT 2: CLASSE DE PROBLEMES | Hours: 12h  
|                                     | Theory classes: 12h |
| (ENG) ACTIVITAT 3: CLASSE DE LABORATORI | Hours: 41h  
|                                     | Laboratory classes: 26h  
|                                     | Self study: 15h |
| (ENG) ACTIVITAT 4: ESTUDI DE CONTINGUTS | Hours: 20h  
|                                     | Self study: 20h |
| (ENG) ACTIVITAT 5: REALITZACIÓ D'EXERCICIS | Hours: 25h  
|                                     | Self study: 25h |
| (ENG) ACTIVITAT 6: PROJECTE | Hours: 28h  
|                                     | Theory classes: 4h  
|                                     | Laboratory classes: 4h  
|                                     | Self study: 20h |
| (ENG) ACTIVITAT 7: EXAMEN | Hours: 12h  
|                                     | Theory classes: 2h  
|                                     | Self study: 10h |

### Bibliography

**Basic:**

