240621 - Logistics, Fleet Control and Sig

**Coordinating unit:** 240 - ETSEIB - Barcelona School of Industrial Engineering

**Teaching unit:** 723 - CS - Department of Computer Science

**Academic year:** 2018

**Degree:**
- BACHELOR'S DEGREE IN INDUSTRIAL TECHNOLOGY ENGINEERING (Syllabus 2010). (Teaching unit Optional)
- BACHELOR'S DEGREE IN MATERIALS ENGINEERING (Syllabus 2010). (Teaching unit Optional)
- BACHELOR’S DEGREE IN CHEMICAL ENGINEERING (Syllabus 2010). (Teaching unit Optional)

**ECTS credits:** 4.5

**Teaching languages:** English

**Teaching staff**

**Coordinator:** Lluís Pérez Vidal

**Prior skills**

Computer programming at an intermediate level (1 semester).

**Degree competences to which the subject contributes**

**Transversal:**

1. EFFECTIVE USE OF INFORMATION RESOURCES. Managing the acquisition, structure, analysis and display of information from the own field of specialization. Taking a critical stance with regard to the results obtained.

**Teaching methodology**

Participating classes. Problem based learning.

**Learning objectives of the subject**

The student will be able to manage and operate (at the user level) a GIS (Geographic Information System) package.

**Study load**

<table>
<thead>
<tr>
<th>Total learning time: 112h 30m</th>
<th>Hours large group: 0h</th>
<th>0.00%</th>
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<tbody>
<tr>
<td></td>
<td>Hours medium group:</td>
<td>45h</td>
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<tr>
<td></td>
<td>Hours small group:</td>
<td>0h</td>
</tr>
<tr>
<td></td>
<td>Guided activities:</td>
<td>0h</td>
</tr>
<tr>
<td></td>
<td>Self study:</td>
<td>67h 30m</td>
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</tbody>
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Content

1- The QGIS package: Introduction and tutorial

<table>
<thead>
<tr>
<th>Learning time: 6h</th>
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<tbody>
<tr>
<td>Guided activities: 6h</td>
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Description:
The QGIS Geographic Information System package

Related activities:
Computer hands-on experience with the program.

Specific objectives:
The student will be able to install the package on a computer. Then she will be able to capture date, store and process it. And draw results.

Planning of activities

1. PYTHON

<table>
<thead>
<tr>
<th>Hours: 2h</th>
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<tr>
<td>Laboratory classes: 2h</td>
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Description:
A short refresher on the main points of Python syntax

Support materials:
Computer

Descriptions of the assignments due and their relation to the assessment:
Search on a list.

Specific objectives:
After this chapter the student will be able to write short scripts in Python

Qualification system

Each student will be required to make a 30-minute presentation on a subject of her/his choice, but related to the course (This will account for 30% of the final grade). Then a written report (around 30 pages) on the same subject (20% of the final grade). And there will be an intermediate (20%) and a final (30%) examination.

Regulations for carrying out activities

The examinations will be done on a computer at the lab room.
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Bibliography

Basic:
