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:** 2017  
**Degree:** BACHELOR’S DEGREE IN INDUSTRIAL TECHNOLOGY ENGINEERING (Syllabus 2010). (Teaching unit Optional)  
BACHELOR’S DEGREE IN CHEMICAL ENGINEERING (Syllabus 2010). (Teaching unit Optional)  
BACHELOR’S DEGREE IN MATERIALS 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**

| Total learning time: 112h 30m | Hours large group: 0h 0.00% | Hours medium group: 45h 40.00% | Hours small group: 0h 0.00% | Guided activities: 0h 0.00% | Self study: 67h 30m 60.00% |
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Content

1- The QGIS package: Introduction and tutorial

<table>
<thead>
<tr>
<th>Description:</th>
<th>The QGIS Geographic Information System package</th>
</tr>
</thead>
<tbody>
<tr>
<td>Related activities:</td>
<td>Computer hands-on experience with the program.</td>
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<tr>
<td>Specific objectives:</td>
<td>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.</td>
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| Learning time: | 6h |
| Guided activities: | 6h |

Planning of activities

1. PYTHON

| Description: | A short refresher on the main points of Python syntax |
| Support materials: | Computer |
| Related activities: | Computer hands-on experience with the program. |
| 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:
