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

| 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% |
## Content

### 1- The QGIS package: Introduction and tutorial

<table>
<thead>
<tr>
<th><strong>Learning time:</strong> 6h</th>
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<tr>
<td><strong>Guided activities:</strong> 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>
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<tr>
<th><strong>Hours:</strong> 2h</th>
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<td><strong>Laboratory classes:</strong> 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 305 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.
Bibliography

Basic:
