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: 2019
Degree: BACHELOR’S DEGREE IN CHEMICAL ENGINEERING (Syllabus 2010). (Teaching unit Optional)
BACHELOR’S DEGREE IN MATERIALS ENGINEERING (Syllabus 2010). (Teaching unit Optional)
BACHELOR’S DEGREE IN INDUSTRIAL TECHNOLOGY 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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</thead>
<tbody>
<tr>
<td>Hours medium group:</td>
<td>45h</td>
<td>40.00%</td>
</tr>
<tr>
<td>Hours small group:</td>
<td>0h</td>
<td>0.00%</td>
</tr>
<tr>
<td>Guided activities:</td>
<td>0h</td>
<td>0.00%</td>
</tr>
<tr>
<td>Self study:</td>
<td>67h 30m</td>
<td>60.00%</td>
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</tbody>
</table>
Content

1- The QGIS package: Introduction and tutorial

Learning time: 6h
Guided activities: 6h

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 data, store and process it. And draw results.

Planning of activities

1. PYTHON

Hours: 2h
Laboratory classes: 2h

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.
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Bibliography

Basic:
