220672 - Information and Communication Technology

Coordinating unit: 205 - ESEIAAT - Terrassa School of Industrial, Aerospace and Audiovisual Engineering
Teaching unit: 707 - ESAII - Department of Automatic Control
Academic year: 2019
Degree: MASTER'S DEGREE IN MANAGEMENT ENGINEERING (Syllabus 2012). (Teaching unit Optional)
MASTER'S DEGREE IN MANAGEMENT ENGINEERING (Syllabus 2012). (Teaching unit Optional)
ECTS credits: 3
Teaching languages: Catalan

Teaching staff

Coordinator: JAUME FIGUERAS JOVE

Teaching methodology

The course is divided into three parts:

Theory classes
Guided activities class
Self-study for doing exercises and activities.

In the theory classes, teachers will introduce the theoretical basis of the concepts, methods and results and illustrate them with examples appropriate to facilitate their understanding.

In the guided activity class (in the classroom), teachers guide students in applying theoretical concepts to solve problems, always using critical reasoning. We propose that students solve exercises in and outside the classroom, to promote contact and use the basic tools needed to solve problems.

Students, independently, need to work on the materials provided by teachers and the outcomes of the sessions of exercises/problems, in order to fix and assimilate the concepts.

The teachers provide the curriculum and monitoring of activities (by ATENEA).

Learning objectives of the subject

This course introduces the concepts, principles and basics of the different tools related to information technologies (IT) applying them to business and industry. This course will focus IT on industrial organization and decision making support.

Study load

<table>
<thead>
<tr>
<th>Total learning time: 75h</th>
<th>Hours large group: 8h</th>
<th>10.67%</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Hours medium group:</td>
<td>3h</td>
</tr>
<tr>
<td></td>
<td>Guided activities:</td>
<td>16h</td>
</tr>
<tr>
<td></td>
<td>Self study:</td>
<td>48h</td>
</tr>
</tbody>
</table>
## Content

<table>
<thead>
<tr>
<th>Introduction to IT technologies in use on Management Engineering</th>
<th>Learning time: 75h</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Theory classes: 8h</td>
</tr>
<tr>
<td></td>
<td>Practical classes: 3h</td>
</tr>
<tr>
<td></td>
<td>Guided activities: 16h</td>
</tr>
<tr>
<td></td>
<td>Self study: 48h</td>
</tr>
</tbody>
</table>

### Description:
The basis of the following ICT tools will be shown:
- Introduction to ICT tools
- WEB Technologies
- e-Commerce technologies
- Mobile technologies
- ERPs
- AI and Solvers

## Qualification system
The course mark depends on:

- **A project**: 50%
- **Problem resolution**: 50%

## Regulations for carrying out activities
There are no specific rules

## Bibliography