340060 - DSAO-M6O17 - Computer-Assisted Design and Simulation

Coordinating unit: 340 - EPSEVG - Vilanova i la Geltrú School of Engineering
Teaching unit: 717 - EGE - Department of Engineering Presentation
Academic year: 2015
Degree: BACHELOR'S DEGREE IN MECHANICAL ENGINEERING (Syllabus 2009). (Teaching unit Compulsory)
ECTS credits: 6
Teaching languages: Catalan, Spanish

Teaching staff
Coordinator: Dolores López Membrilla
Others: Departament 712-EM: Maurici Sivatte, Joan Soler, Ingrid Magnusson.
Departament 717-EGE: Manel L. Membrilla, Dolors López, Alba Torras
Departament 737-RMEE: Marta Musté, Elsa Pérez.

Degree competences to which the subject contributes

Specific:
4. CE5. Visual spatial ability and knowledge of graphical techniques for traditional methods of descriptive geometry and metric geometry as well as for computer aided design applications.

Transversal:
1. SELF-DIRECTED LEARNING - Level 3. Applying the knowledge gained in completing a task according to its relevance and importance. Deciding how to carry out a task, the amount of time to be devoted to it and the most suitable information sources.
2. EFFICIENT ORAL AND WRITTEN COMMUNICATION - Level 3. Communicating clearly and efficiently in oral and written presentations. Adapting to audiences and communication aims by using suitable strategies and means.
3. TEAMWORK - Level 3. Managing and making work groups effective. Resolving possible conflicts, valuing working with others, assessing the effectiveness of a team and presenting the final results.
5. EFFECTIVE USE OF INFORMATION RESOURCES - Level 3. Planning and using the information necessary for an academic assignment (a final thesis, for example) based on a critical appraisal of the information resources used.

Learning objectives of the subject

Total learning time: 150h

<table>
<thead>
<tr>
<th>Activity</th>
<th>Large group</th>
<th>Medium group</th>
<th>Small group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Guided activities</td>
<td>30h</td>
<td>0h</td>
<td>30h</td>
</tr>
<tr>
<td>Self study</td>
<td>90h</td>
<td>0h</td>
<td>0h</td>
</tr>
</tbody>
</table>

Study load

- Total learning time: 150h
- Hours large group: 30h (20.00%)
- Hours medium group: 0h (0.00%)
- Hours small group: 30h (20.00%)
- Guided activities: 0h (0.00%)
- Self study: 90h (60.00%)
<table>
<thead>
<tr>
<th>Content</th>
<th>Learning time</th>
</tr>
</thead>
<tbody>
<tr>
<td>(ENG) 2. DIFERENTS MÓDULS DE MODELAT 3D EN DISSENY I FABRICACIÓ</td>
<td>10h</td>
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<tr>
<td>Theory classes: 10h</td>
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<tr>
<td>(ENG) 6. ACTIVITATS DE TREBALL PRÀCTIC</td>
<td>10h</td>
</tr>
<tr>
<td>Theory classes: 10h</td>
<td></td>
</tr>
<tr>
<td>(ENG) 7. PRÀCTIQUES DE LABORATORI</td>
<td>10h</td>
</tr>
<tr>
<td>Theory classes: 10h</td>
<td></td>
</tr>
<tr>
<td>(ENG) 8-ACTIVITAT NO PRESENCIAL</td>
<td>30h</td>
</tr>
<tr>
<td>Laboratory classes: 30h</td>
<td></td>
</tr>
<tr>
<td>(ENG) ACTIVITAT DE TREBALL PRÀCTIC EN GRUP</td>
<td>90h</td>
</tr>
<tr>
<td>Guided activities: 90h</td>
<td></td>
</tr>
</tbody>
</table>
### Planning of activities

| (ENG) ACTIVITATS DE TREBALL PRÀCTIC | Hours: 10h  
Laboratory classes: 10h |
|------------------------------------|-----------------|
| (ENG) BLOC2-SIMULACIÓ DE MOVIMENTS | Hours: 10h  
Laboratory classes: 10h |
| (ENG) BLOC3-ELEMENTS FINITS       | Hours: 10h  
Laboratory classes: 10h |
| (ENG) ACTIVITAT EN GRUP            | Hours: 90h  
Guided activities: 90h |

### Bibliography

**Basic:**

**Complementary:**

**Others resources:**
- Audiovisual material
- Apunts del professors