820058 - ACAD - Advanced Computer-Aided Design

Coordinating unit: 295 - EEBE - Barcelona East School of Engineering
Teaching unit: 717 - EGE - Department of Engineering Presentation
Academic year: 2019
Degree: BACHELOR'S DEGREE IN ELECTRICAL ENGINEERING (Syllabus 2009). (Teaching unit Optional) BACHELOR'S DEGREE IN MECHANICAL ENGINEERING (Syllabus 2009). (Teaching unit Optional) BACHELOR'S DEGREE IN CHEMICAL ENGINEERING (Syllabus 2009). (Teaching unit Optional) BACHELOR'S DEGREE IN ENERGY ENGINEERING (Syllabus 2009). (Teaching unit Optional) BACHELOR'S DEGREE IN ELECTRICAL ENGINEERING (Syllabus 2009). (Teaching unit Optional) BACHELOR'S DEGREE IN INDUSTRIAL ELECTRONICS AND AUTOMATIC CONTROL ENGINEERING (Syllabus 2009). (Teaching unit Optional) BACHELOR'S DEGREE IN BIOMEDICAL ENGINEERING (Syllabus 2009). (Teaching unit Optional) BACHELOR'S DEGREE IN MECHANICAL ENGINEERING (Syllabus 2009). (Teaching unit Optional) BACHELOR'S DEGREE IN INDUSTRIAL ELECTRONICS AND AUTOMATIC CONTROL ENGINEERING (Syllabus 2009). (Teaching unit Optional) BACHELOR'S DEGREE IN MATERIALS ENGINEERING (Syllabus 2010). (Teaching unit Optional)
ECTS credits: 6
Teaching languages: English

Teaching staff
Coordinator: JORDI TORNER RIBÉ
Others: Primer quadrimestre: JORDI TORNER RIBE - M11

Opening hours
Timetable: 1D07 (1er pis)
Tuesdays 11-14h
Thursdays 11-14h

Prior skills
Must have completed successfully EGDAO (Graphic Expression and CAD)

Requirements
GRAPHIC EXPRESSION AND CAD

Degree competences to which the subject contributes

Transversal:
1. 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.

Teaching methodology
This course uses narrative method by 50%, individual work 25% and project-based learning by 50%. No reassessment test is performed.
820058 - ACAD - Advanced Computer-Aided Design

Learning objectives of the subject

Acquire fundamentals and knowledge in order to use different CAD Systems according to the drawing, design or project to produce.

Study load

<table>
<thead>
<tr>
<th>Total learning time: 150h</th>
<th>Hours large group: 0h 0.00%</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Hours medium group: 0h 0.00%</td>
</tr>
<tr>
<td></td>
<td>Hours small group: 45h 30.00%</td>
</tr>
<tr>
<td></td>
<td>Guided activities: 15h 10.00%</td>
</tr>
<tr>
<td></td>
<td>Self study: 90h 60.00%</td>
</tr>
</tbody>
</table>
**Content**

| (ENG) Giving a general knowledge of features and characteristics in CAD systems. | Learning time: 30h  
Practical classes: 7h 12m  
Guided activities: 3h  
Self study: 19h 48m |
|---|---|
| **Description:**  
CAD software  
Project management |

| (ENG) Getting knowledge on how to use 2D layer CAD systems | Learning time: 30h  
Practical classes: 7h 12m  
Guided activities: 3h  
Self study: 19h 48m |
|---|---|
| **Description:**  
Introduction  
2D plots  
Modification and Editing  
Blocks, dimensioning and layers  
2D to 3D  
Layouts  
Solids |

Practical classes: 7h 12m  
Guided activities: 3h  
Self study: 19h 48m |
|---|---|
| **Description:**  
Drawings  
Animation  
Simulation  
Analysis  
Assembly Visualization  
Configurations  
Exploded assemblies |
## Qualification system

<table>
<thead>
<tr>
<th>Component</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exam 1</td>
<td>20%</td>
</tr>
<tr>
<td>Exam 2</td>
<td>20%</td>
</tr>
<tr>
<td>Final Project</td>
<td>55%</td>
</tr>
<tr>
<td>Competence</td>
<td>5%</td>
</tr>
</tbody>
</table>

## Bibliography

### Basic: