340053 - EXG2-M5017 - Graphic Expression II

Coordinating unit: 340 - EPSEVG - Vilanova i la Geltrú School of Engineering
Teaching unit: 717 - EGE - Department of Engineering Presentation
Academic year: 2018
Degree: BACHELOR'S DEGREE IN MECHANICAL ENGINEERING (Syllabus 2009). (Teaching unit Compulsory)
BACHELOR'S DEGREE IN INDUSTRIAL ELECTRONICS AND AUTOMATIC CONTROL ENGINEERING (Syllabus 2009). (Teaching unit Optional)
BACHELOR'S DEGREE IN ELECTRICAL ENGINEERING (Syllabus 2009). (Teaching unit Optional)
ECTS credits: 6
Teaching languages: Catalan, Spanish

Teaching staff

Coordinator: JOAN JOSEP ALIAU PONS
Others: - JOAN JOSEP ALIAU PONS
- GERARD SANZ COLLADO
- DANIEL ESPÍN AGÜERO

Prior skills

Knowing the rules of Industrial Design in the following contents:
- Views, Cortes i Sections.
- Dimensioning.
- Interpretation i representation of sets.
- Notions of Tolerancies and Surface Finishes.

Requirements

Is required to have taken and passed EXGR

Degree competences to which the subject contributes

Specific:
1. CE12. Knowledge of fundamental automatism and control methods.
2. CE13. Knowledge of theatrical basics of machines and mechanisms
3. CE15. Basic knowledge of production and fabrication systems.

Transversal:
4. SELF-DIRECTED LEARNING - Level 1. Completing set tasks within established deadlines. Working with recommended information sources according to the guidelines set by lecturers.
5. SELF-DIRECTED LEARNING - Level 2: Completing set tasks based on the guidelines set by lecturers. Devoting the time needed to complete each task, including personal contributions and expanding on the recommended information sources.
6. 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.
7. SELF-DIRECTED LEARNING. Detecting gaps in one's knowledge and overcoming them through critical self-appraisal. Choosing the best path for broadening one's knowledge.
Teaching methodology

Introduction of each area of knowledge.
Justification and examples of practical application.
Class exercises consolidation of content.
Exercise at home with CAD.

Learning objectives of the subject

Industrial components correctly represent to:
- To achieve the purpose for which it was designed.
- Manufacture and fit it correctly.

Study load

<table>
<thead>
<tr>
<th>Total learning time: 150h</th>
<th>Hours large group:</th>
<th>30h</th>
<th>20.00%</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Hours medium group:</td>
<td>0h</td>
<td>0.00%</td>
</tr>
<tr>
<td></td>
<td>Hours small group:</td>
<td>30h</td>
<td>20.00%</td>
</tr>
<tr>
<td></td>
<td>Guided activities:</td>
<td>0h</td>
<td>0.00%</td>
</tr>
<tr>
<td></td>
<td>Self study:</td>
<td>90h</td>
<td>60.00%</td>
</tr>
</tbody>
</table>
### Content

<table>
<thead>
<tr>
<th>- Dimensional Tolerances</th>
<th>Learning time: 2h 30m</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Theory classes: 1h</td>
</tr>
<tr>
<td></td>
<td>Laboratory classes: 1h</td>
</tr>
<tr>
<td></td>
<td>Self study: 0h 30m</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>- Geometric Tolerances</th>
</tr>
</thead>
<tbody>
<tr>
<td>Degree competences to which the content contributes:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>- Surface Finishes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Degree competences to which the content contributes:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>- Design of components f = (Manufacturing Process)</th>
<th>Learning time: 150h</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Theory classes: 15h</td>
</tr>
<tr>
<td></td>
<td>Practical classes: 15h</td>
</tr>
<tr>
<td></td>
<td>Laboratory classes: 30h</td>
</tr>
<tr>
<td></td>
<td>Self study: 90h</td>
</tr>
</tbody>
</table>

### Qualification system

Partial 1st Test ..................................... 20%
Final Exam .......................................... 40%
Individual practice ................................ 40%

### Regulations for carrying out activities

Be assessed individually each area of knowledge:
- Representation (i Vistes Cortes) ...... 40%
- Dimension ...................................... 25%
- Tolerances ..................................... 30%
- Surface Finishes .............................. 5%

These percentages may vary depending on the exercise to be solved.
Bibliography

**Basic:**


**Others resources:**

- Computer material
  - Unigrafix NX
  - Resource