Course guide
340053 - EXG2-M5017 - Graphic Expression II

Unit in charge: Vilanova i la Geltrú School of Engineering
Teaching unit: 717 - DEGD - Department of Engineering Graphics and Design.
Degree: BACHELOR'S DEGREE IN ELECTRICAL ENGINEERING (Syllabus 2009). (Optional subject).
BACHELOR'S DEGREE IN INDUSTRIAL ELECTRONICS AND AUTOMATIC CONTROL ENGINEERING (Syllabus 2009). (Optional subject).
BACHELOR'S DEGREE IN MECHANICAL ENGINEERING (Syllabus 2009). (Compulsory subject).

Academic year: 2022 ECTS Credits: 6.0 Languages: Catalan, Spanish

LECTURER

Coordinating lecturer: 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, 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, devoting 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>Type</th>
<th>Hours</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self study</td>
<td>90,0</td>
<td>60.00</td>
</tr>
<tr>
<td>Hours small group</td>
<td>30,0</td>
<td>20.00</td>
</tr>
<tr>
<td>Hours large group</td>
<td>30,0</td>
<td>20.00</td>
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</tbody>
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Total learning time: 150 h

CONTENTS

- **Dimensional Tolerances**
  
  **Description:**
  Understand when dimensional tolerance is necessary.

  **Specific objectives:**
  Identify and assign the most appropriate dimensional tolerances.

  **Full-or-part-time:** 4h
  Theory classes: 4h

- **Geometric Tolerances**
  
  **Description:**
  No hi ha docència en anglès

  **Full-or-part-time:** 4h
  Theory classes: 4h

- **Surface Finishes**
  
  **Description:**
  content english

  **Full-or-part-time:** 4h
  Theory classes: 4h
- **Design of components f = (Manufacturing Process)**

**Description:**
No hi ha docència en Anglès

**Full-or-part-time:** 8h
Theory classes: 8h

**title english**

**Description:**
content english

**Full-or-part-time:** 28h
Laboratory classes: 28h

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**GRADING SYSTEM**

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

There is not reavaluació, makes weekly appraisal with feedback of the exercises of class of theory and of the follow-up of the practices of laboratory.

**EXAMINATION RULES.**

Be assessed individually each area of knowledge:
Representation (i Vistes Cortes) .... 30%
Dimension ........................................ 35%
Tolerances ...................................... 30%
Surface Finishes ............................... 5%

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

**BIBLIOGRAPHY**

**Basic:**

**RESOURCES**

**Computer material:**
- Unigrafix NX. Resource